



**DEPARTMENT OF THE AIR FORCE**  
**AIR FORCE CIVIL ENGINEER CENTER**  
**JOINT BASE SAN ANTONIO LACKLAND TEXAS**

28 November 2022

MEMORANDUM FOR:  
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Project Manager  
Remedial Bureau A, Section C  
New York Department of Environmental Conservation

FROM: AFCEC/CZOM  
Building 12  
1981 Monahan Way  
Wright-Patterson AFB OH 45433

SUBJECT: Submittal of *Final 2022 Annual Long-Term Monitoring Report, Site SS005, Air Force Plant 59, Johnson City, New York*

Attached is a copy of the *Final 2022 Annual Long-Term Monitoring Report, Site SS005, Air Force Plant 59, Johnson City, New York* for your records.

If you have any questions, please contact me at 937-257-6519.

David J. Iacovone, RPM  
Environmental Restoration

Attachment:  
*Final 2022 Annual Long-Term Monitoring Report, Site SS005, Air Force Plant 59, Johnson City, New York*

cc: G. Walters, AFCEC  
C. Schroer, EA  
B. O'Ferrall, EA  
F. DeSantis, EA

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# **2022 Annual Long-Term Monitoring Report Site SS005, Air Force Plant 59 Johnson City, New York**

**Contract No. FA8903-18-C-0024**

*Prepared for*



Air Force Civil Engineer Center Building 171  
2261 Hughes Avenue, Suite 163  
Joint Base San Antonio Lackland, Texas

*Prepared by*

EA Engineering, P.C. and Its Affiliate EA Science and Technology  
269 W. Jefferson Street  
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November 2022  
Version: FINAL  
EA Project No. 63376.01

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A handwritten signature in blue ink, appearing to read "Frank DeSantis Jr.".

11 November 2022

Frank DeSantis Jr.

Date

Project Manager, EA Engineering, P.C. and Its Affiliate EA Science and Technology

A handwritten signature in blue ink, appearing to read "C. Brian O'Ferrall".

11 November 2022

C. Brian O'Ferrall

Date

Program Manager, EA Engineering, Science, and Technology, Inc., PBC

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## LIST OF ACRONYMS AND ABBREVIATIONS

|        |                                                                  |
|--------|------------------------------------------------------------------|
| µg/L   | Microgram(s) per liter                                           |
| AECOM  | AECOM Technical Services, Inc.                                   |
| AFP    | Air Force Plant                                                  |
| DCE    | Dichloroethene                                                   |
| EA     | EA Engineering, P.C. and its affiliate EA Science and Technology |
| EPA    | U.S. Environmental Protection Agency                             |
| GWQS   | Groundwater Quality Standards for Class GA Groundwater           |
| LTM    | Long-term monitoring                                             |
| MCL    | Maximum contaminant level                                        |
| No.    | Number                                                           |
| NYSDEC | New York State Department of Environmental Conservation          |
| NYSDOH | New York State Department of Health                              |
| SIM    | Select ion monitoring                                            |
| TCA    | Trichloroethane                                                  |
| TCE    | Trichloroethene                                                  |
| VOC    | Volatile organic compound                                        |

## 1. INTRODUCTION

EA Engineering, P.C. and its affiliate EA Science and Technology (EA)<sup>1</sup> has prepared this 2022 Annual Long-Term Monitoring (LTM) Report to meet the requirements set forth in the U.S. Air Force Civil Engineer Center Contract Number (No.) FA8903-18-C-0024. This LTM report documents the activities completed from September 2021 through August 2022 at Site SS005 at the former Air Force Plant (AFP) 59 in Johnson City, New York (**Figure 1**).

The AFP 59 site is located within a combined residential and commercial area (**Figure 2**). It is adjoined to the north by Route 17C, across which are residential and commercial properties; to the east by the ramp to Route 201 and Little Choconut Creek, which is a tributary of the Susquehanna River; to the south by Little Choconut Creek, across, which is a coal-fired power generation plant; and to the west by residential properties and the Camden Street well field, which is a municipal water supply well field for Johnson City approximately two blocks away from the AFP 59 site.

The AFP 59 site is listed on the New York State Department of Environmental Conservation (NYSDEC) List of Inactive Hazardous Waste Sites and has been designated Site 704020. Based on NYSDEC's recommendation, the groundwater at the site is currently undergoing long-term groundwater monitoring, which was initiated in November 2004 (AECOM Technical Services, Inc., [AECOM] 2009). The site is not undergoing active remediation at present; however, in 1999 the Air Force funded the installation of an air stripper for the Village of Johnson City Water Department.

### 1.1 SITE BACKGROUND

Site SS005 is located within the approximately 30-acre AFP 59 facility in Johnson City, New York. AFP 59 was occupied by a building that was used by the federal government during World War II to produce propeller blades for fighters, bombers, and air transports. After the war, the government leased the facility for manufacturing and warehousing. General Electric moved into the plant during the Korean conflict to produce armament systems and engine controls and operated the facility into the 1980s to produce flight controls, weapon controls, and inertial navigation and guidance systems for military and commercial aircraft. The business was bought by Martin Marietta in the early 1990s, and Lockheed Martin was formed by the merger of Lockheed Corporation with Martin Marietta in 1995. The building was then taken over by BAE Systems in 2000. A flood inundated the site in September 2011, and BAE Systems announced in November 2011 it would not resume operations there.

The Broome County Industrial Development Agency has functioned as the site's landlord under a deed agreement in effect since 1997. Since BAE Systems left, the Industrial Development Agency has been responsible for property maintenance. In 2017, the damaged and vacant building was demolished, and the site remains unoccupied. Monitoring wells SW-4 and SW-7, which were

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<sup>1</sup> EA Engineering, P.C. is affiliated with EA Engineering, Science, and Technology, Inc., PBC who does business as EA Science and Technology in the State of New York.

abandoned in advance of building demolition activities, were replaced with SW-4RE and SW-7RE and one unidentified monitoring well was abandoned (FPM Remediations, Inc. 2017).

The Air Force initiated groundwater investigations at the site in the 1990s, which revealed several chlorinated volatile organic compounds (VOCs) in groundwater at concentrations greater than the NYSDEC Ambient Water Quality Standards (United States Department of Energy 1995). Additionally, several samples collected by the Johnson City Water Department from potable supply wells located approximately two blocks west of the site revealed elevated concentrations of chlorinated VOCs in their supply wells. Since then, subsequent groundwater monitoring results have identified VOCs and 1,4-dioxane in several of the groundwater monitoring wells associated with the site. The general groundwater flow direction of the shallow and deep aquifer below AFP 59 is westerly to southwesterly toward the Camden Street well field (Earth Tech 1996).

The Air Force is currently conducting long-term groundwater monitoring at AFP 59. The existing monitoring well network consists of eight monitoring wells located on-site and five monitoring wells located off-site. A subset of these wells are currently monitored and the 2022 monitoring activities included collecting samples from five of the on-site monitoring wells, three of the off-site monitoring wells, raw (i.e., pre-treatment) water samples from two off-site water supply wells, and a finished (i.e., post-treatment) water sample located at the Johnson City Water Department (**Figure 2**). All work was performed in accordance with the *Long-Term Monitoring at Site SS005 Air Force Plant 59 Work Plan, Johnson City, New York* (EA 2018), which included the Site-Specific Health and Safety Plan, and the Field Sampling Plan submitted by EA and approved by the Air Force and NYSDEC. Based on analyte concentrations and historical trends, the sampling frequency was reduced to annual and the number of sample locations was reduced as recommended in the 2020 Annual Report and approved by NYSDEC (EA 2021).



## **2. LONG-TERM MONITORING ACTIVITIES**

### **2.1 PURPOSE OF THE LONG-TERM MONITORING ACTIVITIES**

Based on the conclusions presented in the Final Remedial Investigation Report (Earth Tech 1996) and recommendations made by the NYSDEC, VOCs and 1,4-dioxane were determined to be the only chemicals of potential concern in AFP 59 groundwater. The LTM objectives for the project were to sample and evaluate VOC and 1,4-dioxane concentrations in groundwater. The sampling frequency was reduced to annual and the number of sample locations was reduced as recommended in the 2020 Annual Report and approved by the NYSDEC (EA 2021).

### **2.2 WATER SAMPLING EVENTS**

Groundwater monitoring at the site consists of sampling five on-site groundwater monitoring wells, three off-site groundwater monitoring wells, raw water samples from two off-site water supply wells, and a finished water sample from a supply system operated by the Johnson City Water Department.

The annual groundwater sampling event was completed on 19 July 2022 and samples were collected from the following locations:

- URS-2D and URS-3D (off-site deep wells)
- DW-3 and DW-9 (on-site deep wells)
- URS-2S (off-site shallow well)
- SW-9, SW-4RE and SW-7RE (on-site shallow wells)
- Johnson City potable water supply wells (JC-2 and JC-3, raw water/pre-treatment)
- Finished water (post-treatment)

The sample collection methods are described in Sections 2.2.1 and 2.2.2.

#### **2.2.1 Monitoring Well Sampling**

Prior to groundwater sampling, the water level was measured in each monitoring well sampled, and at monitoring wells SW-1, DW-1, BM-121, SW-3, URS-5S, using a water-level indicator. Groundwater monitoring wells were purged and sampled via the low-flow method as described in the Work Plan (EA 2018). During purging, field parameters including pH, dissolved oxygen, specific conductivity, oxidation-reduction potential, temperature, and turbidity were monitored for stabilization using multi-parameter water quality meter. The depth to water was also monitored and recorded throughout the purging. Once water quality parameter readings were stabilized, the groundwater samples were collected directly from the tubing exiting the pump into laboratory

provided bottles. The water quality parameter readings were recorded on Groundwater Sampling Purge Forms (**Appendix A**).

### **2.2.2 Municipal Potable Water Sampling**

Three water samples were collected from the Johnson City municipal water supply system during each sampling event. The Johnson City municipal water supply is currently operating an air stripper designed to remove VOCs from entering groundwater that is fed into the municipal supply. The samples collected included two raw (i.e., pre-treatment) samples from supply wells JC-2 and JC-3; and one finished (i.e., post-treatment) water sample taken from the distribution system.

The three municipal water supply well samples were collected by opening a spigot connected to each well's pump (pre-treatment), or the post-treatment piping. Water was allowed to flow from the spigot for approximately 5 minutes to purge the piping before collecting the sample directly from the spigot into laboratory provided bottles.

### **2.2.3 Laboratory Analysis**

Groundwater samples were analyzed for VOCs by U.S. Environmental Protection Agency (EPA) Method 8260C and 1,4-dioxane by EPA Method 8270D- select ion monitoring (SIM) at ALS Environmental Laboratory of Rochester, New York. Water samples from the Johnson City municipal water supply system were analyzed for VOCs via Method 524.2 in July 2022 and 1,4-dioxane by EPA Method 522 SIM at ALS Environmental Laboratory of Rochester, New York. All analytical results were validated by an independent third-party data validator, Environmental Data Services, Ltd., of Pittsburgh, Pennsylvania.

Laboratory results and data usability reports are provided in **Appendixes B and C**, respectively. The NYSDEC EQUIS<sup>®</sup> electronic data deliverable is provided in **Appendix D**.

### 3. ANALYTICAL RESULTS FROM LONG-TERM MONITORING

The analytical results for 2022 LTM sampling activities are summarized in **Tables 1 through 3**. Groundwater analytical results from the July 2022 annual sampling event are presented in **Table 1**. The quarterly analytical results for all samples collected from the Johnson City Water Department are provided on **Table 2**. Additionally, the annual groundwater analytical results from July 2022 are shown **Figure 3**. Groundwater elevation contours and interpreted flow direction, based on observations from July 2022, is presented as **Figure 4**.

Analytical results for VOCs in samples collected from groundwater monitoring wells were compared to NYSDEC Class GA Groundwater Quality Standards (GWQS) and guidance values. Analytical results for VOCs from drinking water samples were compared to the New York State Department of Health (NYSDOH) Part 5, Subpart 5-1 Public Water Systems maximum contaminant level (MCL).

In July 2020, after a public comment period and approval by the Public Health and Health Planning Council, New York adopted a MCL for 1,4-dioxane of 1 microgram per liter ( $\mu\text{g/L}$ ) in drinking water effective 26 August 2020. NYSDEC is in the process of establishing a Class GA value for 1,4-dioxane, which will likely match the NYSDOH Part 5 MCL. This MCL is used for comparison in the tables and analytical results discussion of groundwater and drinking water samples in place of the EPA Guidance value.

#### 3.1 ANNUAL GROUNDWATER SAMPLING EVENT – JULY 2022

Samples were collected from four deep groundwater monitoring wells and four shallow groundwater monitoring wells. Analytical results are presented in **Table 1** where shaded cells correspond to on and off-site sampling locations.

##### 3.1.1 Shallow Zone Monitoring Well Analytical Results

In groundwater monitoring well SW-7RE, *cis*-1,2-dichloroethene (DCE) was detected at a concentration of 34  $\mu\text{g/L}$ , which exceeds the NYSDEC GWQS of 5  $\mu\text{g/L}$ . The analyte 1,1,1-trichloroethane (TCA) was detected at estimated concentrations less than the GWQS in all shallow zone groundwater monitoring wells sampled (SW-4RE, SW-7RE, and URS-2S), except SW-9 which was non-detect. Trichloroethene (TCE) was detected at estimated concentrations less than the GWQS in all four shallow wells. Other chlorinated VOCs were detected at concentrations less than GWQS in on-site shallow zone monitoring wells sampled (SW-9, SW-4RE, and SW-7RE), and in samples from one off-site well (URS-2S).

Groundwater sample results show that 1,4-dioxane was detected in all on-site and off-site shallow zone monitoring wells sampled. Concentrations of 1,4-dioxane ranged from 0.98 (SW-9) to 3.2  $\mu\text{g/L}$  (URS-2S) in the shallow zone aquifer wells. Concentrations of 1,4-dioxane in three samples (SW-7RE, SW-4RE, and URS-2S), were greater than the NYSDEC MCL of 1  $\mu\text{g/L}$ .

### 3.1.2 Deep Zone Aquifer Analytical Results

In off-site groundwater monitoring well URS-2D and on-site well DW-3, *cis*-1,2-DCE was detected at 65 µg/L and 48 µg/L respectively, which exceeds the GWQS of 5 µg/L. Additionally, 1,1-dichloroethane was detected in URS-2D and DW-3, but at a concentration less than the GWQS. Concentrations of TCA, *cis*-1,2-DCE, and TCE were detected in URS-3D, but at concentrations less than their respective GWQS.

The analytical results show that 1,4-dioxane was detected in on-site and off-site deep zone monitoring wells sampled. Concentrations of 1,4-dioxane ranged from 6.1 µg/L (URS-3D) to 21 µg/L (URS-2D), which exceed the NYSDEC MCL.

## 3.2 MUNICIPAL POTABLE WATER SUPPLY QUARTERLY ANALYTICAL RESULTS

Groundwater samples were collected quarterly from two pre-treatment Johnson City Water Department supply wells, JC-2 and JC-3, as well as a sample of the post-treatment finished water supply. Following the 2020 Annual Report, the sampling frequency was reduced to annual (EA 2021). September 2020 and December 2020 were the last two quarterly sampling events. Analytical results are presented in **Table 2** and discussed below. Analytical results for VOCs from drinking water samples were compared to the NYSDOH Part 5, Subpart 5-1 Public Water Systems MCL. Results for the analyte 1,4-dioxane were compared to the NYSDOH Subpart 5-1 MCL of 1 µg/L, which became effective 26 August 2020.

Brominated compounds and chloroform are routinely detected in the post-treatment finished water supply samples. These are common chlorine disinfection byproducts and have not been detected in the site groundwater samples; therefore, it is concluded these compounds are not associated with Site SS005.

### 3.2.1 July 2022 Municipal Potable Water Supply Annual Analytical Results

No exceedances of VOCs were noted of the NYSDOH MCL for the post-treatment finished water supply sample. Additionally, there were detections of chlorinated VOCs, TCE, TCA, and *cis*-1,2-DCE in JC-2; and TCA and TCE in JC-3, but there were no exceedances. Concentrations of 1,4-dioxane were detected in JC-2; JC-3 and the post-treatment raw water samples and were that were less than the NYSDOH Part 5 MCL (1 µg/L). The detected concentrations are similar to previous sampling events.

#### 4. DATA TREND ANALYSIS

Historical concentrations of the most commonly detected VOCs in groundwater at both the on-site and off-site monitoring and municipal supply wells are summarized in **Table 3**.

VOC exceedances were observed at monitoring wells DW-3, URS-2D, and SW-7RE during the July 2022 sampling event. In the past, exceedances were also observed at monitoring well SW-4 and the replacement monitoring well SW-4RE. Time versus VOC concentrations plots were constructed for these wells and are summarized in the follow paragraphs.

**Figure 5** presents a graph of *cis*-1,2-DCE concentrations at well DW-3 over time, with the associated NYSDEC Class GA GWQS (5 µg/L) for reference. Concentrations of *cis*-1,2-DCE have fluctuated over the historical sampling record (1994 through 2022) at well DW-3. The greatest historical concentration of 73.1 µg/L was reported in June 2008 and the lowest was less than 1.18 µg/L reported in November 2003. Following the demolition of AFP 59 in Spring 2017, concentrations of *cis*-1,2-DCE decreased from 51 µg/L in December 2016 to 32 µg/L in December 2017. Concentrations from July 2022 are similar to pre-demolition concentrations (48 µg/L).

**Figure 6** presents *cis*-1,2-DCE concentrations at off-site well URS-2D over time with the associated NYSDEC Class GA GWQS (5 µg/L) for reference. Concentrations have historically exceeded the NYSDEC Class GA GWQS and are relatively stable.

**Figure 7** presents *cis*-1,2-DCE and TCE concentrations at on-site well SW-4/SW-4RE over time, with the associated NYSDEC Class GA GWQS for both compounds (5 µg/L) for reference. Groundwater monitoring well SW-4RE is installed within 5 feet of and screened to the same depth as SW-4, which was decommissioned during the demolition of AFP 59 in 2017. Concentrations of both TCE and *cis*-1,2-DCE increased greatly immediately following demolition of AFP 59 in Spring 2017 and have since decreased to concentrations similar to previously detected concentrations at the former groundwater monitoring well SW-4.

**Figure 8** presents *cis*-1,2-DCE and TCE concentrations at on-site well SW-7/SW-7RE over time, with the associated NYSDEC Class GA GWQS for both compounds (5 µg/L) for reference. Groundwater monitoring well SW-7RE is installed within 5 feet of and screened to the same depth as SW-7, which was decommissioned during the demolition of AFP 59 in 2017. Concentrations of both TCE and *cis*-1,2-DCE increased greatly immediately following demolition of AFP 59 in Spring 2017, similar to those observed at SW-4RE. Based on July 2022 observations, concentrations have remained the same as previously detected levels at the former groundwater monitoring well SW-7. Concentrations of *cis*-1,2-DCE have shown a slightly increasing trend since June 2008.

The following is a summary of concentration trends in monitoring wells with no VOC exceedances.

***Shallow Zone:***

- SW-9 results from the July 2022 sampling event indicate minor detections of VOCs that do not exceed their respective NYSDEC Class GA GWQS.
- Detected concentrations of VOCs at off-site monitoring well URS-2S and on-site monitoring well SW-4RE were less than guidance values and have remained stable over time.

***Deep Zone:***

- DW-9 results from the July 2022 sampling event indicate minor detections of xylene and toluene that do not exceed their respective NYSDEC Class GA GWQS.
- Chlorinated VOCs 1,1,1-TCA and *cis*-1,2-DCE were detected in the off-site monitoring well URS-3D at concentrations less than their respective guidance values. Concentrations were similar to previous sampling results.

***Municipal Supply Wells:***

- Detected VOC concentrations for 1,1,1-TCA, TCE, and *cis*-1,2-DCE have been consistently less than 1 µg/L, which is well below the NYSDEC GWQS.
- Analytical results from the post-treatment finished water supply sample show no detections of VOCs and the detected concentration of 1,4-dioxane has remained consistently less than the MCL over the past sampling events. The NYSDOH established a drinking water MCL of 1 µg/L for this compound effective 26 August 2020.

## 5. CONCLUSIONS AND RECOMMENDATIONS

The results of the LTM activities indicate concentrations of site-related compounds exceeding the NYSDEC GWQS in groundwater remains in deep groundwater monitoring wells located on-site and off-site AFP 59 property. However, this is primarily limited to *cis*-1,2-DCE, a product of reductive dechlorination. Analytical results from the July 2022 groundwater sampling event show that concentrations of *cis*-1,2-DCE in shallow on-site monitoring well SW-7RE, deep off-site groundwater monitoring well URS-2D, and deep on-site groundwater monitoring well DW-3 exceed the NYSDEC GWQS of 5 µg/L. There have been historical exceedances at all three locations. No other VOC analytes were detected in groundwater at concentrations greater than NYSDEC GWQS. However, concentrations of 1,4-dioxane in monitoring wells on the southern portion of the site and to the southwest of the site remain elevated at both shallow and deep depths.

Historically, since November 2015, TCE has not been detected in groundwater at concentrations greater than the NYSDEC GWQS in any sample, except for two samples in 2017 from newly installed monitoring wells SW-7RE (6 µg/L compared to the NYSDEC GWQS of 5 µg/L) and SW-4RE (140 µg/L). The concentration of 140 µg/L is particularly anomalous when compared to historical detections at this location as well as concentrations observed in 2020, 2021, and 2022. The flooding in the area during 2006 and 2011, as well as the demolition of the main building in Spring of 2017, may have mobilized residual contamination at the groundwater interface resulting in a temporary increase in concentrations of VOCs.

EA recommends continuing the current sampling plan due to exceedances of *cis*-1,2-DCE and 1,4-dioxane and consistent low concentration detections of PCE and TCE in the majority of the designated monitoring wells. The current sampling plan is to sample the following on-site and off-site monitoring wells annually: SW-4RE, SW-7RE, SW-9, DW-9, DW-3, URS-2S, URS-2D, and URS-3D.

Analytical results from water samples collected from the municipal water wells JC-2 and JC-3 during all three sampling events revealed detected VOCs to be less than their respective NYSDOH Subpart 5 MCL. No site-related VOCs were detected in the post-treatment water samples. Concentrations of 1,4-dioxane at wells JC-2; JC-3 and from the post-treatment sample remain stable and less than the NYSDOH MCL of 1 µg/L. Detected concentrations of 1,4-dioxane also remain stable at the post-treatment finished water supply samples and less than the NYSDOH MCL of 1 µg/L. Due to the continued detections of low concentrations of *cis*-1,2-DCE and TCE, as well as low concentrations of 1,4-dioxane, it is recommended that annual sampling of JC-2, JC-3, and the post treatment finished water continue.

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## 6. REFERENCES

- AECOM Technical Services, Inc. (AECOM). 2009. *Memorandum: Long-Term Monitoring Activities and Soil-Gas Investigation at Air Force Plant 59, Johnson City New York*. March.
- EA Engineering, Science, and Technology, Inc., PBC (EA). 2018. *Long-Term Monitoring at Site SS005 Air Force Plant 59 Work Plan, Johnson, City, New York*. December.
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## Tables

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Table 1. Summary of Detected Compounds in Groundwater July 2022

| Parameter List                                                   | Location Identificati | URS-2S          | SW-4RE          | SW-4RE          | SW-7RE          | SW-9          | URS-2D          | URS-3D          | DW-3          | DW-9          | Guidance Values NYSDEC Class GA<br>GWQS <sup>1</sup> |
|------------------------------------------------------------------|-----------------------|-----------------|-----------------|-----------------|-----------------|---------------|-----------------|-----------------|---------------|---------------|------------------------------------------------------|
|                                                                  | Sample Name           | URS-2S-07192022 | SW-4RE-07192022 | DUP-01-07192022 | SW-7RE-07192022 | SW-9-07192022 | URS-2D-07192022 | URS-3D-07192022 | DW-3-07192022 | DW-9-07192022 |                                                      |
|                                                                  | Sample Date           | 7/19/2022       | 7/19/2022       | 7/19/2022       | 7/19/2022       | 7/19/2022     | 7/19/2022       | 7/19/2022       | 7/19/2022     | 7/19/2022     |                                                      |
|                                                                  | Parent Sample         |                 |                 | SW-4RE-07192022 |                 |               |                 |                 |               |               |                                                      |
|                                                                  | Sample Type           |                 |                 | Field Duplicate |                 |               |                 |                 |               |               |                                                      |
| Volatile Organic Compounds via EPA Method 8260C                  |                       |                 |                 |                 |                 |               |                 |                 |               |               |                                                      |
| 1,1,1-Trichloroethane (TCA)                                      | µg/L                  | 1.5 J           | 1.6 J           | 1.5 J           | 1.5 J           | < 1 U         | < 1 U           | 0.82 J          | < 1 U         | < 1 U         | 5                                                    |
| 1,1-Dichloroethane                                               | µg/L                  | 0.99 J          | 0.71 J          | 0.73 J          | 2.5 J           | 1 J           | 0.26 J          | < 1 U           | 0.37 J        | < 1 U         | 5                                                    |
| 1,1-Dichloroethene                                               | µg/L                  | < 1 U           | 0.32 J          | 0.31 J          | 0.46 J          | < 1 U         | < 1 U           | < 1 U           | < 1 U         | < 1 U         | 5                                                    |
| 2-Hexanone                                                       | µg/L                  | < 1 U           | < 1 U           | < 1 U           | < 1 U           | 0.35 J        | < 1 U           | < 1 U           | < 1 U         | < 1 U         | 50                                                   |
| cis -1,2-Dichloroethylene                                        | µg/L                  | 2 J             | 0.98 J          | 1 J             | 34              | 1.3 J         | 65              | 0.69 J          | 48            | < 1 U         | 5                                                    |
| m,p-Xylene                                                       | µg/L                  | 0.27 J          | < 2 U           | < 2 U           | < 2 U           | 0.36 J        | 0.42 J          | 0.52 J          | 0.5 J         | 0.43 J        | ---                                                  |
| Methyl Ethyl Ketone (2-Butanone)                                 | µg/L                  | < 1 U           | < 1 U           | < 1 U           | < 1 U           | 4.9 J         | < 1 U           | < 1 U           | < 1 U         | < 1 U         | 50                                                   |
| Methyl Isobutyl Ketone (4-Methyl-2-Penta                         | µg/L                  | < 1 U           | < 1 U           | < 1 U           | < 1 U           | 0.56 J        | < 1 U           | < 1 U           | < 1 U         | < 1 U         | ---                                                  |
| Methylene Chloride                                               | µg/L                  | < 1 U           | < 1 U           | < 1 U           | < 1 U           | 0.73 J        | < 1 U           | < 1 U           | < 1 U         | < 1 U         | 5                                                    |
| O-Xylene (1,2-Dimethylbenzene)                                   | µg/L                  | < 1 U           | < 1 U           | < 1 U           | < 1 U           | < 1 U         | < 1 U           | 0.21 J          | 0.2 J         | < 1 U         | 5                                                    |
| Tetrachloroethylene (PCE)                                        | µg/L                  | < 1 U           | 0.3 J           | 0.26 J          | < 1 U           | < 1 U         | < 1 U           | < 1 U           | < 1 U         | < 1 U         | 5                                                    |
| Toluene                                                          | µg/L                  | 0.35 J          | < 1 U           | < 1 U           | < 1 U           | 0.58 J        | 0.64 J          | 0.51 J          | 0.59 J        | 0.42 J        | 5                                                    |
| Trans-1,2-Dichloroethene                                         | µg/L                  | < 1 U           | < 1 U           | < 1 U           | 0.21 J          | < 1 U         | < 1 U           | < 1 U           | < 1 U         | < 1 U         | 5                                                    |
| Trichloroethylene (TCE)                                          | µg/L                  | 2.3 J           | 3.4 J           | 3.4 J           | 4.5 J           | 3.2 J         | < 1 U           | 1.6 J           | < 1 U         | < 1 U         | 5                                                    |
| Vinyl Chloride                                                   | µg/L                  | < 1 U           | < 1 U           | < 1 U           | 0.45 J          | 0.65 J        | < 1 U           | < 1 U           | < 1 U         | < 1 U         | 2                                                    |
| Xylenes, Total                                                   | µg/L                  | 0.27 J          | < 3 U           | < 3 U           | < 3 U           | 0.36 J        | 0.42 J          | 0.73 J          | 0.7 J         | 0.43 J        | 5                                                    |
| 1,4-Dioxane via EPA Method 8270D Selective Ion Measurement (SIM) |                       |                 |                 |                 |                 |               |                 |                 |               |               |                                                      |
| 1,4-Dioxane (P-Dioxane)                                          | µg/L                  | 3.2             | 2               | 2               | 2.9             | 0.98          | 21              | 6.1             | 6.5           | 8.7           | 1 <sup>2</sup>                                       |

Notes:

<sup>1</sup> New York State Department of Environmental Conservation (NYSDEC) Class GA (groundwater for drinking water use) standards and guidance values, Technical and Operational Guidance Series 1.1.1, as amended for volatile organic compounds only.

<sup>2</sup> Table 3, Subpart 5-1 of Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York, 1,4-Dioxane Drinking Water Maximum Contaminant Level (MCL).

µg/L = Microgram(s) per liter  
EPA = U.S. Environmental Protection Agency  
GWQS = Groundwater quality standards.  
--- = No guidance value.  
U = Analyte was analyzed for but not detected.The sample quantitation limit has beencorrected for dilution and for percentmoisture, unless otherwise noted in the casenarrative.  
J = Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit orindicates that the analyte recovery in the MS or MSD is outside of specified acceptance criteria.  
B = Target analyte was detected in the sample as well as the associated blank.  
NA = Not Analyzed.

Detections are in bold.

VOC concentrations in bold and shaded exceed the Guidance Values NYSDEC Class GA GWQS.

Cells exceeding the New York State Department of Health (NYSDOH) Table 3, Subpart Part 5 criteria MCL for 1,4-Dioxane are shaded gray.

Table 2. Summary of Detected Compounds in Raw and Treated Municipal Water

| Parameter List                                                 | Location Identification | JC-2        | JC-2            | JC-3            | POST TREATMENT        | JC-2          | JC-2            | JC-3          | POST TREATMENT          | NYSDOH Part 5<br>MCL for Drinking Water <sup>1</sup> |
|----------------------------------------------------------------|-------------------------|-------------|-----------------|-----------------|-----------------------|---------------|-----------------|---------------|-------------------------|------------------------------------------------------|
|                                                                | Sample Name             | JC-2        | DUP-09282020    | JC-3            | Post Treatment        | JC-2          | DUP-1-12182020  | JC-3          | Post Treatment          |                                                      |
|                                                                | Sample Date             | 9/28/2020   | 9/28/2020       | 9/28/2020       | 9/28/2020             | 12/18/2020    | 12/18/2020      | 12/18/2020    | 12/18/2020              |                                                      |
|                                                                | Parent Sample           |             | JC-2-092820     |                 |                       |               | JC-2 12182020   |               |                         |                                                      |
|                                                                | Sample Type             |             | Field Duplicate |                 |                       |               | Field Duplicate |               |                         |                                                      |
| Volatile Organic Compounds via EPA Method 8260C                |                         |             |                 |                 |                       |               |                 |               |                         |                                                      |
| 1,1,1-Trichloroethane                                          | µg/L                    | < 1 U       | 0.38 J          | < 1 U           | < 1 U                 | 0.3 J         | 0.25 J          | 0.58 J        | < 1 U                   | 5                                                    |
| Bromodichloromethane                                           | µg/L                    | < 1 U       | < 1 U           | < 1 U           | 1.3 J                 | < 1 U         | < 1 U           | < 1 U         | 1.3 J                   | 50                                                   |
| Bromoform                                                      | µg/L                    | < 1 U       | < 1 U           | < 1 U           | 2.5 J                 | < 1 U         | < 1 U           | < 1 U         | 2.1 J                   | 50                                                   |
| Chloroform                                                     | µg/L                    | < 1 U       | < 1 U           | < 1 U           | < 1 U                 | < 1 U         | < 1 U           | < 1 U         | 0.43 J                  | 50                                                   |
| Chloromethane                                                  | µg/L                    | < 1 U       | < 1 U           | < 1 U           | < 1 U                 | < 1 U         | < 1 U           | < 1 U         | < 1 U                   | 50                                                   |
| cis -1,2-Dichloroethene                                        | µg/L                    | 0.72 J      | 0.78 J          | < 1 U           | < 1 U                 | 0.31 J        | 0.26 J          | < 1 U         | < 1 U                   | 5                                                    |
| Dibromochloromethane                                           | µg/L                    | < 1 U       | < 1 U           | < 1 U           | 2.5 J                 | < 1 U         | < 1 U           | < 1 U         | 2.5 J                   | 50                                                   |
| Trichloroethene                                                | µg/L                    | 0.41 J      | 0.4 J           | 0.38 J          | < 1 U                 | 0.3 J         | 0.36 J          | 0.48 J        | < 1 U                   | 5                                                    |
| 1,4-Dioxane via EPA Method 522 Selective Ion Measurement (SIM) |                         |             |                 |                 |                       |               |                 |               |                         |                                                      |
| 1,4-Dioxane (P-Dioxane)                                        | µg/L                    | 0.696       | 0.813           | 0.618           | 0.675 J               | 0.999         | 0.718           | 0.615         | 0.729                   | 1 <sup>2</sup>                                       |
| Parameter List                                                 | Location Identification | JC-2        | JC-3            | JC-3            | POST TREATMENT        | JC-2          | JC-2            | JC-3          | POST TREATMENT          | NYSDOH Part 5<br>MCL for Drinking Water <sup>1</sup> |
|                                                                | Sample Name             | JC-2-060721 | JC-3-060721     | FD-060721       | Post Treatment-060721 | JC-2-07192022 | DUP-02-07192022 | JC-3-07192022 | Post Treatment-07192022 |                                                      |
|                                                                | Sample Date             | 6/7/2021    | 6/7/2021        | 6/7/2021        | 6/7/2021              | 7/19/2022     | 7/19/2022       | 7/19/2022     | 7/19/2022               |                                                      |
|                                                                | Parent Sample           |             |                 | JC-3-060721     |                       |               | JC-2-07192022   |               |                         |                                                      |
|                                                                | Sample Type             |             |                 | Field Duplicate |                       |               | Field Duplicate |               |                         |                                                      |
| Volatile Organic Compounds via EPA Method 524.2                |                         |             |                 |                 |                       |               |                 |               |                         |                                                      |
| 1,1,1-Trichloroethane                                          | µg/L                    | 0.320 J     | 0.500 J         | 0.610 J         | < 0.500 UJ            | 0.24 J        | 0.24 J          | 0.43 J        | < 0.5 U                 | 5                                                    |
| Bromodichloromethane                                           | µg/L                    | < 0.500 UJ  | < 0.500 UJ      | < 0.500 UJ      | 1.14 J                | –             | –               | –             | –                       | 50                                                   |
| Bromoform                                                      | µg/L                    | < 0.500 UJ  | < 0.500 UJ      | < 0.500 UJ      | 4.27 J+               | –             | –               | –             | –                       | 50                                                   |
| Chloroform                                                     | µg/L                    | < 0.500 UJ  | < 0.500 UJ      | < 0.500 UJ      | 0.350 J               | –             | –               | –             | –                       | 50                                                   |
| Chloromethane                                                  | µg/L                    | < 0.500 UJ  | < 0.500 UJ      | 1.10 J          | < 0.500 UJ            | < 0.5 U       | < 0.5 U         | < 0.5 U       | < 0.5 U                 | 50                                                   |
| cis -1,2-Dichloroethene                                        | µg/L                    | 0.410 J     | < 0.500 UJ      | < 0.500 UJ      | < 0.500 UJ            | 0.42 J        | 0.42 J          | < 0.5 U       | < 0.5 U                 | 5                                                    |
| Dibromochloromethane                                           | µg/L                    | < 0.500 UJ  | < 0.500 UJ      | < 0.500 UJ      | 2.77 J                | –             | –               | –             | –                       | 50                                                   |
| Trichloroethene                                                | µg/L                    | 0.470 J     | 0.490 J         | 0.410 J         | < 0.500 UJ            | 0.33 J        | 0.33 J          | 0.43 J        | < 0.5 U                 | 5                                                    |
| 1,4-Dioxane via EPA Method 522 Selective Ion Measurement (SIM) |                         |             |                 |                 |                       |               |                 |               |                         |                                                      |
| 1,4-Dioxane (P-Dioxane)                                        | µg/L                    | 0.445 J     | 0.568 J         | 0.566 J         | 0.574 J               | 0.533         | 0.502           | 0.609         | 0.589                   | 1 <sup>2</sup>                                       |

Notes:

<sup>1</sup> Subpart 5-1 of Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York, Drinking Water Maximum Contaminant Level (MCL).

<sup>2</sup> Table 3, Subpart 5-1 of Title 10 (Health) of the Official Compilation of Codes, Rules and Regulations of the State of New York, 1,4-Dioxane Drinking Water MCL, effective 26 August 2020.

µg/L = Microgram(s) per liter

EPA = U.S. Environmental Protection Agency

GWQS = Groundwater quality standards

– = Not Analyzed.

+/- = Indicates an estimated value which may be biased high (+) or low (-).

J = Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit or indicates that the analyte recovery in the matrix spike or matrix spike duplicate is outside of specified acceptance criteria.

U = Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

Detections are in bold.

Cells exceeding the New York State Department of Health (NYSDOH) Table 3, Subpart Part 5 criteria MCL for 1,4-Dioxane are shaded gray.

**Table 3. Summary of Historical Concentrations for Select Volatile Organic Compounds in Groundwater**

| Well Identification | Sample Date | Compounds and Detected Concentrations (µg/L) |                       |                               |                          |                                |                          |                              |             |
|---------------------|-------------|----------------------------------------------|-----------------------|-------------------------------|--------------------------|--------------------------------|--------------------------|------------------------------|-------------|
|                     |             | 1,1,1-Trichloroethane (TCA)                  | Trichloroethene (TCE) | Chloroethene (Vinyl chloride) | 1,1-Dichloroethene (DCE) | trans-1,2-Dichloroethene (DCE) | 1,1-Dichloroethane (DCA) | cis-1,2-Dichloroethene (DCE) | 1,4-Dioxane |
| SW-1                | 92-Jan      | 0.5                                          | —                     | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 01-Nov      | 0.11 J                                       | —                     | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 10-Nov      | 0.11                                         | —                     | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 16-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.047       |
| DW-1                | 92-Jan      | 0.6                                          | —                     | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 94-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | 1.8                          | NA          |
|                     | 10-Nov      | 0.18                                         | —                     | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 14-Nov      | 0.19 F                                       | —                     | —                             | —                        | —                              | —                        | —                            | —           |
| SW-3                | 86-Sep      | —                                            | 6                     | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 92-Jan      | 12                                           | 9                     | —                             | —                        | —                              | 5                        | —                            | NA          |
|                     | 94-Dec      | 0.5                                          | 1.8                   | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 95-Dec      | 0.86                                         | 2.8                   | —                             | —                        | —                              | —                        | 0.44                         | NA          |
|                     | 97-Jun      | —                                            | 1                     | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 98-Nov      | 0.22                                         | 0.81                  | —                             | —                        | —                              | —                        | 0.1                          | NA          |
|                     | 99-Apr      | 0.51                                         | 0.71                  | —                             | —                        | —                              | —                        | 0.17                         | NA          |
|                     | 99-Nov      | 0.29                                         | 0.9                   | —                             | —                        | —                              | —                        | 0.39                         | NA          |
|                     | 00-May      | 0.69                                         | 1                     | —                             | —                        | —                              | 0.55                     | 1.29                         | NA          |
|                     | 00-Nov      | 0.43                                         | 0.9                   | —                             | —                        | —                              | —                        | 0.22                         | NA          |
|                     | 01-May      | 0.46                                         | 0.8                   | —                             | —                        | —                              | 0.32                     | 1.29                         | NA          |
|                     | 01-Nov      | 0.32 J                                       | 0.5 J                 | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 02-May      | 0.42 J                                       | 0.8 J                 | —                             | —                        | —                              | 0.46 J                   | —                            | NA          |
|                     | 03-May      | 0.584 J                                      | 0.893 J               | —                             | —                        | —                              | 0.302 J                  | 1.37 J                       | NA          |
|                     | 03-Nov      | 0.398 J                                      | 0.856 J               | —                             | —                        | —                              | —                        | 0.511 J                      | NA          |
|                     | 04-Jun      | 0.9 J                                        | 0.94 J                | —                             | —                        | —                              | 0.95 J                   | 3.7                          | NA          |
|                     | 04-Nov      | 0.52 J                                       | 1                     | 0.26 J                        | —                        | —                              | 0.38 J                   | 1.5                          | NA          |
|                     | 05-Oct      | 0.47 J                                       | 0.86 J                | —                             | —                        | —                              | —                        | 0.55 J                       | NA          |
|                     | 08-Jun      | 0.661 J                                      | 1.31                  | —                             | —                        | —                              | 0.403 J                  | 1.45                         | —           |
|                     | 08-Nov      | 0.345 J                                      | 0.759 J               | —                             | —                        | —                              | —                        | —                            | NA          |
|                     | 09-Nov      | 0.367 J                                      | 0.62 J                | —                             | —                        | —                              | —                        | 0.539 J                      | NA          |
|                     | 43414       | 0.41                                         | 0.59                  | —                             | —                        | —                              | —                        | 0.17                         | NA          |
|                     | 2011        | NA                                           | NA                    | NA                            | NA                       | NA                             | NA                       | NA                           | NA          |
|                     | 12-Aug      | —                                            | 0.51                  | —                             | —                        | —                              | —                        | 0.28 F                       | NA          |
|                     | 13-Oct      | —                                            | 0.70 F                | —                             | —                        | —                              | —                        | 1                            | —           |
|                     | 14-Nov      | 0.26 F                                       | 0.51 F                | —                             | —                        | —                              | —                        | 0.31 F                       | —           |
|                     | 15-Nov      | 0.24 F                                       | 0.42 F                | —                             | —                        | —                              | —                        | 0.27 F                       | —           |
|                     | 16-Dec      | —                                            | 0.49 J                | —                             | —                        | —                              | —                        | 0.39 J                       | 0.14        |
|                     | 17-Dec      | —                                            | 0.61 J                | —                             | —                        | —                              | —                        | —                            | 0.075       |
|                     | 19-Jun      | 0.37 J                                       | 0.59 J                | —                             | —                        | —                              | —                        | 1.2 J                        | 0.37 B      |
|                     | 20-Jun      | —                                            | 0.36 J                | —                             | —                        | —                              | —                        | 0.98 J                       | 0.190       |

**Table 3. Summary of Historical Concentrations for Select Volatile Organic Compounds in Groundwater**

| Well Identification | Sample Date | Compounds and Detected Concentrations (µg/L) |                       |                               |                          |                                |                          |                              |             |
|---------------------|-------------|----------------------------------------------|-----------------------|-------------------------------|--------------------------|--------------------------------|--------------------------|------------------------------|-------------|
|                     |             | 1,1,1-Trichloroethane (TCA)                  | Trichloroethene (TCE) | Chloroethene (Vinyl chloride) | 1,1-Dichloroethene (DCE) | trans-1,2-Dichloroethene (DCE) | 1,1-Dichloroethane (DCA) | cis-1,2-Dichloroethene (DCE) | 1,4-Dioxane |
| DW-3                | 92-Jan      | —                                            | —                     | —                             | —                        | —                              | 0.3                      | —                            | NA          |
|                     | 94-Dec      | —                                            | —                     | 0.28                          | —                        | —                              | 0.26                     | 36                           | NA          |
|                     | 95-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | 5.2                          | NA          |
|                     | 97-Apr      | —                                            | —                     | —                             | —                        | —                              | —                        | 41                           | NA          |
|                     | 97-Jul      | —                                            | —                     | —                             | —                        | —                              | —                        | 49                           | NA          |
|                     | 98-Nov      | —                                            | —                     | —                             | —                        | —                              | 0.34                     | 66                           | NA          |
|                     | 99-Apr      | —                                            | —                     | 0.28                          | 0.11                     | —                              | 0.35                     | 67                           | NA          |
|                     | 00-May      | —                                            | —                     | —                             | —                        | 0.25                           | 0.16                     | 24.98                        | NA          |
|                     | 00-Nov      | —                                            | —                     | —                             | —                        | 0.25                           | 0.16                     | 16.85                        | NA          |
|                     | 01-May      | —                                            | —                     | —                             | —                        | —                              | —                        | 13.29                        | NA          |
|                     | 01-Nov      | —                                            | —                     | —                             | —                        | —                              | —                        | 13.58                        | NA          |
|                     | 02-May      | —                                            | —                     | —                             | —                        | —                              | 0.1 J                    | 21.08                        | NA          |
|                     | 03-Nov      | —                                            | —                     | —                             | —                        | —                              | —                        | 1.18 J                       | NA          |
|                     | 04-Jun      | —                                            | —                     | —                             | —                        | —                              | —                        | 1.3                          | NA          |
|                     | 04-Nov      | —                                            | —                     | —                             | —                        | —                              | —                        | 2.1                          | NA          |
|                     | 05-Oct      | —                                            | —                     | —                             | —                        | —                              | —                        | 3                            | NA          |
|                     | 08-Jun      | —                                            | —                     | —                             | —                        | —                              | —                        | 73.1                         | 14.3        |
|                     | 08-Nov      | —                                            | —                     | —                             | —                        | —                              | 0.41 J                   | 67.3                         | NA          |
|                     | 09-Nov      | —                                            | —                     | —                             | —                        | —                              | 0.369 J                  | 64.3                         | NA          |
|                     | 10-Nov      | —                                            | —                     | —                             | —                        | —                              | —                        | 8.4                          | NA          |
|                     | 12-Aug      | —                                            | —                     | —                             | —                        | —                              | 0.32 F                   | 56                           | NA          |
|                     | 13-Oct      | —                                            | —                     | 0.18 F                        | 0.32 F                   | —                              | —                        | 57                           | 2.7         |
|                     | 14-Nov      | —                                            | —                     | —                             | —                        | —                              | 0.32 F                   | 49                           | 11 M        |
|                     | 15-Nov      | —                                            | —                     | —                             | —                        | —                              | 0.31 F                   | 50                           | 6.7         |
|                     | 16-Dec      | —                                            | —                     | —                             | —                        | —                              | 0.35 J                   | 51                           | 7.9         |
|                     | 17-Dec      | —                                            | —                     | —                             | —                        | —                              | 0.21 J                   | 32                           | 5.2         |
|                     | 19-Jun      | —                                            | —                     | —                             | —                        | —                              | 0.28 J                   | 41                           | 7.4         |
|                     | 20-Jun      | —                                            | —                     | —                             | —                        | —                              | 0.33 J                   | 48                           | 8.0         |
|                     | 21-Jun      | —                                            | —                     | —                             | —                        | 0.41 J                         | 0.42 J                   | 57                           | 8.0         |
|                     | 22-Jul      | —                                            | —                     | —                             | —                        | —                              | 0.37 J                   | 48                           | 6.5         |



**Table 3. Summary of Historical Concentrations for Select Volatile Organic Compounds in Groundwater**

| Well Identification | Sample Date | Compounds and Detected Concentrations (µg/L) |                       |                               |                          |                                |                          |                              |             |
|---------------------|-------------|----------------------------------------------|-----------------------|-------------------------------|--------------------------|--------------------------------|--------------------------|------------------------------|-------------|
|                     |             | 1,1,1-Trichloroethane (TCA)                  | Trichloroethene (TCE) | Chloroethene (Vinyl chloride) | 1,1-Dichloroethene (DCE) | trans-1,2-Dichloroethene (DCE) | 1,1-Dichloroethane (DCA) | cis-1,2-Dichloroethene (DCE) | 1,4-Dioxane |
| SW-4                | 92-Jan      | 2                                            | 97                    | —                             | 0.3                      | —                              | 0.6                      | —                            | NA          |
|                     | 94-Dec      | 20                                           | 370                   | —                             | 2.1                      | —                              | 8.5                      | 19                           | NA          |
|                     | 95-Dec      | 34                                           | 1200                  | —                             | 4.9                      | 2.1                            | 6.9                      | 34                           | NA          |
|                     | 97-Apr      | —                                            | —                     | —                             | —                        | —                              | 7.1                      | 71                           | NA          |
|                     | 97-Jul      | 23                                           | 290                   | —                             | —                        | —                              | —                        | 15                           | NA          |
|                     | 98-Nov      | 8                                            | 46                    | 0.42                          | 0.82                     | —                              | 9                        | 10                           | NA          |
|                     | 99-Apr      | 1.9                                          | 9.53                  | —                             | —                        | —                              | 0.87                     | 1.85                         | NA          |
|                     | 99-Nov      | 2.13                                         | 9.5                   | —                             | 0.18                     | —                              | 7.7                      | 7.15                         | NA          |
|                     | 00-May      | 2.88                                         | 8                     | 0.11                          | 0.21                     | 0.49                           | 1.67                     | 4.3                          | NA          |
|                     | 00-Nov      | 1.14                                         | 15.2                  | 1.49                          | 0.29                     | —                              | 15.25                    | 11.18                        | NA          |
|                     | 01-May      | 3.35                                         | 34                    | —                             | 0.36                     | 0.38                           | 1.3                      | 3.19                         | NA          |
|                     | 01-Nov      | 0.88                                         | 5.7                   | 0.43 J                        | 0.12 J                   | —                              | 7.18                     | 5.27                         | NA          |
|                     | 02-May      | 2.54                                         | 21.63                 | —                             | 0.34 J                   | —                              | 0.79 J                   | 2.07                         | NA          |
|                     | 03-May      | 3.05 J                                       | 9.09 J                | —                             | —                        | —                              | 1.44 J                   | 3.36 J                       | NA          |
|                     | 03-Nov      | 2.03                                         | 4.63                  | —                             | —                        | —                              | 0.93                     | 1.93                         | NA          |
|                     | 04-Jun      | 2.8                                          | 41                    | —                             | 0.57 J                   | 0.11                           | 1.3                      | 3.3                          | NA          |
|                     | 04-Nov      | 3.1                                          | 56                    | —                             | 0.88 J                   | 0.19 J                         | 1.4                      | 4.1                          | NA          |
|                     | 05-Oct      | 2.2                                          | 43                    | —                             | 1                        | —                              | 1.7                      | 6.3                          | NA          |
|                     | 08-Jun      | 2.98                                         | 17.8                  | —                             | 0.751 J                  | 0.364 J                        | 1.51                     | 4.35                         | 8.18        |
|                     | 08-Nov      | 0.513 J                                      | 12.7                  | —                             | —                        | —                              | 0.825 J                  | 3.38                         | NA          |
|                     | 09-Nov      | 1.38                                         | 11.1                  | —                             | —                        | —                              | 0.536 J                  | 1.85                         | NA          |
|                     | 10-Nov      | 1.6                                          | 48                    | —                             | 0.64                     | —                              | 1.1                      | 3.2                          | NA          |
|                     | 12-Aug      | 0.66                                         | 11                    | —                             | —                        | —                              | 0.64 F                   | 2.3                          | NA          |
|                     | 13-Oct      | 1.8                                          | 6.6                   | —                             | 0.26 F                   | —                              | —                        | 2.6                          | 0.81 M      |
|                     | 14-Nov      | 0.75 F                                       | 3.4                   | —                             | 0.46 F                   | —                              | —                        | 1.7                          | 2.5 M       |
|                     | 15-Nov      | 0.64 F                                       | 4.9                   | —                             | —                        | —                              | 0.58 F                   | 2.7                          | 1.6         |
| SW-4RE <sup>1</sup> | 17-Dec      | 0.82 J                                       | 140                   | —                             | 1.2 J                    | 0.68 J                         | —                        | 11                           | 6.7         |
|                     | 19-Jun      | 1.6 J                                        | 3.9                   | —                             | 0.36 J                   | —                              | 0.93 J                   | 2.1 J                        | 4.1         |
|                     | 20-Jun      | 2.1 J                                        | 3.9 J                 | —                             | 0.43 J                   | —                              | 1.1 J                    | 2.1 J                        | 4.9         |
|                     | 21-Jun      | 1.6 J                                        | 4.6 J                 | —                             | 0.38 J                   | 0.25 J                         | 0.99 J                   | 1.4 J                        | 3.2         |
|                     | 22-Jul      | 1.6 J                                        | 3.4 J                 | —                             | 0.32 J                   | —                              | 0.73 J                   | 1 J                          | 2           |

**Table 3. Summary of Historical Concentrations for Select Volatile Organic Compounds in Groundwater**

| Well Identification | Sample Date | Compounds and Detected Concentrations (µg/L) |                       |                               |                          |                                |                          |                              |             |
|---------------------|-------------|----------------------------------------------|-----------------------|-------------------------------|--------------------------|--------------------------------|--------------------------|------------------------------|-------------|
|                     |             | 1,1,1-Trichloroethane (TCA)                  | Trichloroethene (TCE) | Chloroethene (Vinyl chloride) | 1,1-Dichloroethene (DCE) | trans-1,2-Dichloroethene (DCE) | 1,1-Dichloroethane (DCA) | cis-1,2-Dichloroethene (DCE) | 1,4-Dioxane |
| SW-7                | 94-Dec      | 4.6                                          | 56                    | 6.2                           | 1                        | 0.3                            | 33                       | 150                          | NA          |
|                     | 95-Dec      | 2.2                                          | 43                    | 6.8                           | 0.8                      |                                | 20                       | 130                          | NA          |
|                     | 97-Jul      | –                                            | 17.8                  | –                             | –                        | –                              | –                        | 2                            | NA          |
|                     | 98-Nov      | 2.5                                          | 12.7                  | 3.4                           | 0.65                     | 0.28                           | 12                       | 82                           | NA          |
|                     | 99-Apr      | 1.23                                         | 15                    | –                             | –                        | –                              | 1.46                     | 5.25                         | NA          |
|                     | 99-Nov      | 1.01                                         | 7.9                   | –                             | 0.19                     | –                              | 3.38                     | 18.8                         | NA          |
|                     | 00-May      | 0.67                                         | 4                     | –                             | –                        | 0.12                           | 0.71                     | 2.43                         | NA          |
|                     | 00-Nov      | 0.91                                         | 11                    | 0.52                          | 0.15                     | –                              | 3.48                     | 16.06                        | NA          |
|                     | 01-May      | 1.18                                         | 3.95                  | –                             | –                        | –                              | 0.47                     | 1.46                         | NA          |
|                     | 01-Nov      | 0.8 J                                        | 5.7                   | 0.85 J                        | 0.19 J                   | 0.13 J                         | 3.02                     | 25.89                        | NA          |
|                     | 02-May      | 0.87 J                                       | 1.5                   | –                             | –                        | –                              | 0.47 J                   | 2.79                         | NA          |
|                     | 03-May      | 1.5 J                                        | 3.8                   | –                             | –                        | –                              | 0.409 J                  | 1.43 J                       | NA          |
|                     | 03-Nov      | 0.674 J                                      | 1.9                   | –                             | –                        | –                              | 0.509                    | 2.76                         | NA          |
|                     | 04-Jun      | 1                                            | 1                     | –                             | –                        | –                              | 0.3 J                    | 1.1                          | NA          |
|                     | 04-Nov      | 1.5                                          | 2.1                   | 0.47 J                        | 0.25 J                   | –                              | 1.5 J                    | 10 J                         | NA          |
|                     | 05-Oct      | 0.73 J                                       | 3.1                   | –                             | –                        | –                              | 1.4                      | 12                           | NA          |
|                     | 08-Jun      | 2.5                                          | 2.94                  | –                             | –                        | –                              | 1.59                     | 6.34                         | 4.66        |
|                     | 08-Nov      | 1.88                                         | 8.15                  | 1.21 M                        | –                        | 0.302 J                        | 5.04                     | 35.3 M                       | NA          |
|                     | 09-Nov      | 1.24                                         | 2.42                  | –                             | –                        | –                              | 0.905 J                  | 5.21                         | NA          |
|                     | 10-Nov      | 1                                            | 2.4                   | 1                             | 0.21                     | 0.096                          | 0.58                     | 4.3                          | NA          |
|                     | 12-Aug      | 2                                            | 9.9                   | 1.2                           | 0.65                     | 0.21 F                         | 6.5                      | 44                           | NA          |
|                     | 13-Oct      | –                                            | 2.5                   | –                             | 0.93 F                   | –                              | –                        | 7                            | 0.43 F      |
|                     | 14-Nov      | 1.9                                          | 7.8                   | 0.78 F                        | 0.67 F                   | 0.2 F                          | 4.6                      | 33                           | 4.4 M       |
|                     | 15-Nov      | 1.8                                          | 9.5                   | 1.2 F                         | 0.52 F                   | 0.16 F                         | 5.1                      | 40                           | 6           |
| SW-7RE <sup>1</sup> | 17-Dec      | 1.5 J                                        | 6                     | 1.9 J                         | –                        | –                              | 4.4 J                    | 92                           | 3.1         |
|                     | 19-Jun      | 1.6 J                                        | 3.8 J                 | 1.1 J                         | 0.44 J                   | 0.45 J                         | 2.4 J                    | 45                           | 3.6         |
|                     | 20-Jun      | 1.7 J                                        | 3.8 J                 | 0.75 J                        | 0.43 J                   | 1.1 J                          | 3.3 J                    | 61                           | 3.3         |
|                     | 21-Jun      | 1.6 J                                        | 3.8 J                 | 0.89 J                        | 0.61 J                   | 0.49 J                         | 3.8 J                    | 72                           | 3.0         |
|                     | 22-Jul      | 1.5 J                                        | 4.5 J                 | 0.45 J                        | 0.46 J                   | 0.21 J                         | 2.5 J                    | 34                           | 2.9         |
| DW-9                | 16-Dec      | –                                            | –                     | –                             | –                        | –                              | –                        | –                            | 3.1         |
|                     | 17-Dec      | –                                            | 0.8 J                 | –                             | –                        | –                              | –                        | –                            | 8           |
|                     | 19-Jun      | –                                            | –                     | –                             | –                        | –                              | –                        | –                            | 9.5         |
|                     | 20-Jun      | –                                            | –                     | –                             | –                        | –                              | –                        | –                            | 10.0        |
|                     | 21-Jun      | –                                            | –                     | –                             | –                        | –                              | –                        | –                            | 11.0        |
|                     | 22-Jul      | –                                            | –                     | –                             | –                        | –                              | –                        | –                            | 8.7         |
| SW-9                | 17-Dec      | 1.3 J                                        | 0.8 J                 | –                             | –                        | –                              | 0.59 J                   | 0.54 J                       | 0.054       |
|                     | 21-Jun      | –                                            | 3.4 J                 | 0.71 J                        | –                        | –                              | 1.2 J                    | 1.7 J                        | 1.0         |
|                     | 22-Jul      | –                                            | 3.2 J                 | 0.65 J                        | –                        | –                              | 1 J                      | 1.3 J                        | 0.98        |

**Table 3. Summary of Historical Concentrations for Select Volatile Organic Compounds in Groundwater**

| Well Identification | Sample Date | Compounds and Detected Concentrations (µg/L) |                       |                               |                          |                                |                          |                              |             |
|---------------------|-------------|----------------------------------------------|-----------------------|-------------------------------|--------------------------|--------------------------------|--------------------------|------------------------------|-------------|
|                     |             | 1,1,1-Trichloroethane (TCA)                  | Trichloroethene (TCE) | Chloroethene (Vinyl chloride) | 1,1-Dichloroethene (DCE) | trans-1,2-Dichloroethene (DCE) | 1,1-Dichloroethane (DCA) | cis-1,2-Dichloroethene (DCE) | 1,4-Dioxane |
| BM-121              | 15-Nov      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.4 F       |
|                     | 16-Dec      | —                                            | 0.28 J                | —                             | —                        | —                              | —                        | —                            | 0.25        |
|                     | 17-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.11        |
|                     | 19-Jun      | 0.22 J                                       | —                     | —                             | —                        | —                              | —                        | —                            | 0.22 B      |
|                     | 20-Jun      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.22        |
| URS-2S              | 08-Jun      | 2.2                                          | 2.19                  | —                             | —                        | —                              | 0.569 J                  | 0.996 J                      | NA          |
|                     | 08-Nov      | 2.99                                         | 2.79                  | —                             | —                        | —                              | 1.07                     | 1.46                         | NA          |
|                     | 10-Nov      | 2.2                                          | 2.6                   | —                             | 0.37 J                   | —                              | 1.1                      | 1.3                          | NA          |
|                     | 12-Jul      | 3.3                                          | 4.4                   | —                             | —                        | —                              | 1.6                      | 1.9                          | NA          |
|                     | 13-Oct      | 1.6                                          | 2.3                   | —                             | —                        | —                              | 1.1                      | 1.2                          | 1.8 F       |
|                     | 14-Nov      | 4.1                                          | 3.7                   | —                             | 0.32 F                   | —                              | 2.1                      | 1.2                          | 20 M        |
|                     | 15-Nov      | 2.4                                          | 2.8                   | —                             | —                        | —                              | 1.3                      | 1.8                          | 12          |
|                     | 16-Dec      | 2.3 J                                        | 3.3 J                 | —                             | —                        | —                              | 1.8 J                    | 2.5 J                        | 14          |
|                     | 17-Dec      | 2.8 J                                        | 3.6 J                 | —                             | —                        | —                              | 1.7 J                    | 1.4 J                        | 27 J        |
|                     | 19-Jun      | 1.1 J                                        | 2.9 J                 | —                             | —                        | —                              | 2.0 J                    | 1.2 J                        | 9.5         |
|                     | 20-Jun      | 1.7 J                                        | 2.5 J                 | —                             | —                        | —                              | 1.3 J                    | 2.3 J                        | 7.7         |
|                     | 21-Jun      | 1.6 J                                        | 2.7 J                 | —                             | 0.23 J                   | —                              | 1.0 J                    | 3.3 J                        | 4.9         |
| URS-2D <sup>2</sup> | 22-Jul      | 1.5 J                                        | 2.3 J                 | —                             | —                        | —                              | 0.99 J                   | 2 J                          | 3.2         |
|                     | 08-Jun      | —                                            | —                     | 0.354 J                       | —                        | —                              | 0.339 J                  | 71.9                         | NA          |
|                     | 08-Nov      | —                                            | —                     | 0.364 J                       | —                        | —                              | 0.244 J                  | 72.7                         | NA          |
|                     | 10-Nov      | —                                            | —                     | 0.22 J                        | —                        | 0.11 J                         | 0.23 J                   | 69                           | NA          |
|                     | 12-Jul      | —                                            | —                     | 0.22 J                        | —                        | —                              | 0.27 J                   | 71                           | NA          |
|                     | 13-Oct      | —                                            | —                     | —                             | —                        | 0.17 F                         | 0.21 F                   | 62                           | 7.4         |
|                     | 14-Nov      | —                                            | —                     | —                             | —                        | —                              | 0.27 F                   | 67                           | 28 M        |
|                     | 15-Nov      | —                                            | —                     | —                             | —                        | —                              | 0.2 F                    | 61                           | 21          |
|                     | 16-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | 67                           | 25          |
|                     | 17-Dec      | —                                            | —                     | —                             | —                        | —                              | 0.3 J                    | 66                           | 21 J        |
|                     | 18-Dec      | —                                            | —                     | —                             | —                        | —                              | 0.26 J                   | 60                           | 23          |
|                     | 19-Jun      | —                                            | —                     | —                             | —                        | —                              | 0.26 J                   | 56                           | 23          |
|                     | 19-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | 57                           | 22          |
|                     | 20-Jun      | —                                            | —                     | —                             | —                        | —                              | 0.22J                    | 63                           | 25          |
|                     | 21-Jun      | —                                            | —                     | 0.20 J                        | —                        | —                              | 0.28 J                   | 78                           | 25          |
|                     | 22-Jul      | —                                            | —                     | —                             | —                        | —                              | 0.26 J                   | 65                           | 21          |

**Table 3. Summary of Historical Concentrations for Select Volatile Organic Compounds in Groundwater**

| Well Identification | Sample Date | Compounds and Detected Concentrations (µg/L) |                       |                               |                          |                                |                          |                              |             |
|---------------------|-------------|----------------------------------------------|-----------------------|-------------------------------|--------------------------|--------------------------------|--------------------------|------------------------------|-------------|
|                     |             | 1,1,1-Trichloroethane (TCA)                  | Trichloroethene (TCE) | Chloroethene (Vinyl chloride) | 1,1-Dichloroethene (DCE) | trans-1,2-Dichloroethene (DCE) | 1,1-Dichloroethane (DCA) | cis-1,2-Dichloroethene (DCE) | 1,4-Dioxane |
| URS-3D              | 13-Oct      | 0.99 F                                       | 1.7                   | —                             | —                        | —                              | —                        | 0.9 F                        | 1.8 F       |
|                     | 14-Nov      | 1.3                                          | 1.9                   | —                             | —                        | —                              | —                        | 0.95 F                       | 4.7 M       |
|                     | 15-Nov      | 1                                            | 1.6                   | —                             | —                        | —                              | —                        | 0.9 F                        | 5.8         |
|                     | 16-Dec      | 1.3 J                                        | 1.8 J                 | —                             | —                        | —                              | —                        | 0.74 J                       | 6.9         |
|                     | 17-Dec      | 1.1 J                                        | 1.6 J                 | —                             | —                        | —                              | —                        | 0.77 J                       | 6.2         |
|                     | 18-Dec      | 0.71 J                                       | 1.6 J                 | —                             | —                        | —                              | —                        | 0.87 J                       | —           |
|                     | 19-Jun      | 0.98 J                                       | —                     | —                             | —                        | —                              | —                        | 0.80 J                       | 4.4         |
|                     | 19-Dec      | 0.92 J                                       | 1.4 J                 | —                             | —                        | —                              | —                        | 0.83 J                       | 3.9         |
|                     | 20-Jun      | 0.94 J                                       | 1.5 J                 | —                             | —                        | —                              | —                        | 0.67 J                       | 5.7         |
|                     | 20-Dec      | 1.1 J                                        | 1.7 J                 | —                             | —                        | —                              | —                        | 0.72 J                       | 6.3         |
|                     | 21-Jun      | 1.1 J                                        | 1.8 J                 | —                             | —                        | —                              | —                        | 0.82 J                       | 8.7         |
| URS-5S              | 22-Jul      | 0.82 J                                       | 1.6 J                 | —                             | —                        | —                              | —                        | 0.69 J                       | 6.1         |
|                     | 13-Oct      | 0.5 F                                        | 0.63 F                | —                             | —                        | —                              | —                        | —                            | —           |
|                     | 14-Nov      | 0.68 F                                       | 0.65 F                | —                             | —                        | —                              | —                        | —                            | —           |
|                     | 15-Nov      | 0.52 F                                       | 0.56 F                | —                             | —                        | —                              | —                        | —                            | 0.4 F       |
|                     | 16-Dec      | 0.48 J                                       | 0.48 J                | —                             | —                        | —                              | —                        | —                            | 0.26        |
|                     | 17-Dec      | —                                            | 0.53 J                | —                             | —                        | —                              | —                        | —                            | 0.11 J      |
| JC-2 <sup>3</sup>   | 19-Jun      | 0.28 J                                       | 0.38 J                | —                             | —                        | —                              | —                        | —                            | 0.19 B      |
|                     | 20-Jun      | 0.3 J                                        | 0.28 J                | —                             | —                        | —                              | —                        | —                            | 0.21        |
|                     | 13-Oct      | 0.36 F                                       | 0.48 F                | —                             | —                        | —                              | —                        | 0.29 F                       | —           |
|                     | 14-Nov      | 0.24 F                                       | 0.33 F                | —                             | —                        | —                              | —                        | 0.23 F                       | 0.739 F     |
|                     | 15-Nov      | 0.33 F                                       | 0.39 F                | —                             | —                        | —                              | —                        | 0.24 F                       | 0.896 F     |
|                     | 16-Dec      | —                                            | 0.47 J                | —                             | —                        | —                              | —                        | 0.78 J                       | 0.715       |
|                     | 17-Dec      | —                                            | 0.54 J                | —                             | —                        | —                              | —                        | 0.69 J                       | 0.594       |
|                     | 18-Dec      | 0.26 J                                       | 0.36 J                | —                             | —                        | —                              | —                        | 0.27 J                       | 0.536 B     |
|                     | 19-Feb      | —                                            | 0.43 J                | —                             | —                        | —                              | —                        | —                            | 0.591       |
|                     | 19-Jun      | 0.25 J                                       | 0.28 J                | —                             | —                        | —                              | —                        | 0.32 J                       | 0.606 B     |
|                     | 19-Sep      | —                                            | 0.28 J                | —                             | —                        | —                              | —                        | 0.4 J                        | 0.726       |
|                     | 19-Dec      | 0.23 J                                       | 0.36 J                | —                             | —                        | —                              | —                        | 0.47 J                       | 0.512       |
|                     | 20-Mar      | —                                            | 0.38 J                | —                             | —                        | —                              | —                        | —                            | 0.649       |
|                     | 20-Jun      | 0.36 J                                       | 0.44 J                | —                             | —                        | —                              | 0.21 J                   | 0.79 J                       | 0.964       |
|                     | 20-Sep      | —                                            | 0.41 J                | —                             | —                        | —                              | —                        | 0.72 J                       | 0.696       |
|                     | 20-Dec      | 0.30 J                                       | 0.030 J               | —                             | —                        | —                              | —                        | 0.31 J                       | 0.999       |
|                     | 21-Jun      | 0.32 J                                       | 0.47 J                | —                             | —                        | —                              | —                        | 0.41 J                       | 0.445 J     |
|                     | 22-Jul      | 0.24 J                                       | 0.33 J                | —                             | —                        | —                              | —                        | 0.42 J                       | 0.533       |

**Table 3. Summary of Historical Concentrations for Select Volatile Organic Compounds in Groundwater**

| Well Identification         | Sample Date | Compounds and Detected Concentrations (µg/L) |                       |                               |                          |                                |                          |                              |             |
|-----------------------------|-------------|----------------------------------------------|-----------------------|-------------------------------|--------------------------|--------------------------------|--------------------------|------------------------------|-------------|
|                             |             | 1,1,1-Trichloroethane (TCA)                  | Trichloroethene (TCE) | Chloroethene (Vinyl chloride) | 1,1-Dichloroethene (DCE) | trans-1,2-Dichloroethene (DCE) | 1,1-Dichloroethane (DCA) | cis-1,2-Dichloroethene (DCE) | 1,4-Dioxane |
| JC-3 <sup>3</sup>           | 12-Aug      | 0.56                                         | 0.92                  | —                             | —                        | —                              | —                        | 0.26 J                       | NA          |
|                             | 16-Dec      | 0.59 J                                       | 0.62 J                | —                             | —                        | —                              | —                        | —                            | 0.604       |
|                             | 17-Dec      | 0.41 J                                       | 0.52 J                | —                             | —                        | —                              | —                        | —                            | 0.492       |
|                             | 18-Dec      | 0.51 J                                       | 0.46 J                | —                             | —                        | —                              | —                        | —                            | 0.464 B     |
|                             | 19-Feb      | 0.59 J                                       | 0.49 J                | —                             | —                        | —                              | —                        | —                            | 0.464       |
|                             | 19-Jun      | 0.45 J                                       | 0.46 J                | —                             | —                        | —                              | —                        | —                            | 0.755 B     |
|                             | 19-Sep      | 0.41 J                                       | 0.46 J                | —                             | —                        | —                              | —                        | —                            | 0.928       |
|                             | 19-Dec      | 0.5 J                                        | 0.46 J                | —                             | —                        | —                              | —                        | —                            | 0.486       |
|                             | 20-Mar      | 0.6 J                                        | 0.63 J                | —                             | —                        | —                              | —                        | —                            | 0.576       |
|                             | 20-Jun      | 0.46 J                                       | 0.42 J                | —                             | —                        | —                              | —                        | —                            | 0.561       |
|                             | 20-Sep      | —                                            | 0.38 J                | —                             | —                        | —                              | —                        | —                            | 0.618       |
|                             | 20-Dec      | 0.58 J                                       | 0.48 J                | —                             | —                        | —                              | —                        | —                            | 0.615       |
|                             | 21-Jun      | 0.5 J                                        | 0.49 J                | —                             | —                        | —                              | —                        | —                            | 0.568 J     |
|                             | 22-Jul      | 0.43 J                                       | 0.43 J                | —                             | —                        | —                              | —                        | —                            | 0.609       |
| Post-Treatment <sup>3</sup> | 16-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.600       |
|                             | 17-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.536       |
|                             | 18-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.556 BJ    |
|                             | 19-Feb      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.964       |
|                             | 19-Jun      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.735 B     |
|                             | 19-Sep      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.764       |
|                             | 19-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.579       |
|                             | 20-Mar      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.554       |
|                             | 20-Jun      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.512       |
|                             | 20-Sep      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.675 J     |
|                             | 20-Dec      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.729       |
|                             | 21-Jun      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.574 J     |
|                             | 22-Jul      | —                                            | —                     | —                             | —                        | —                              | —                        | —                            | 0.589       |

Notes:

<sup>1</sup> Indicates monitoring wells SW-4RE and SW-7RE are replacements for abandoned wells SW4 and SW7, respectively.

<sup>2</sup> The 1,4-Dioxane reading for URS-2D was reported using method 8260C. This value was higher than the reported value for method 8270D.

<sup>3</sup> In accordance with the USAF 2020 Site Management Plan, samples collected from the municipal water system are to be analyzed via EPA method 524.2, which started during the June 2021 sampling event.

µg/L = Microgram(s) per liter

— = Analyte not detected above laboratory method detection limits.

B = Target analyte was detected in the sample as well as the associated blank.

F = Added by HydroGeologic, the analyte was positively identified but the associated numerical value is below the RL.

J = Result is an estimated value, analyte was positively detected in sample above method detection limit (MDL), but below reporting limit (RL).

M = Matrix effect. The analyte concentration was estimated due to matrix effect and therefore estimated.

NA = Not available

1,4-Dioxane concentrations were measured using U.S. Environmental Protection Agency (EPA) Methods 8260C and 8270D except for the public water supply wells, which used EPA Method 522SIM.

The highest concentrations was used for reporting.

**Bolded concentrations are exceedance of the New York State Department of Environmental Conservation's groundwater quality standards for class GA Groundwater.**

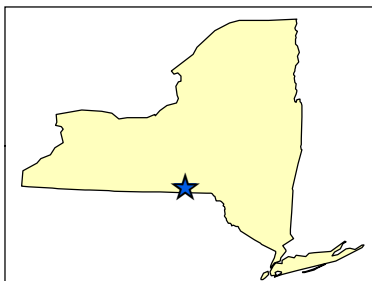
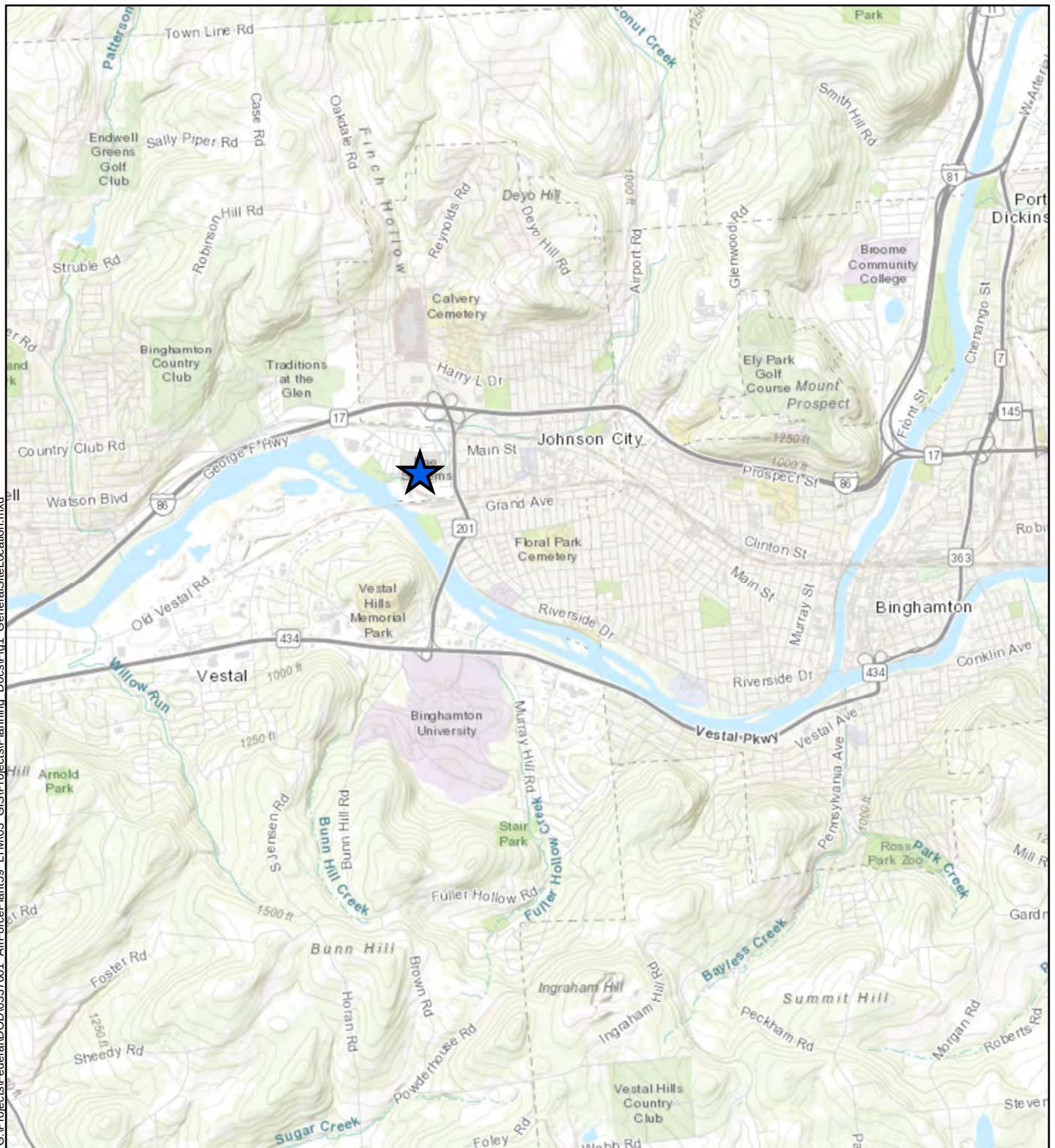
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## Figures

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G:\Projects\Federal\DDO\6337601\_AirForcePlant59\_LTM03\_GIS\Projects\Planning\_Docs\Fig1\_GeneralSiteLocation.mxd



#### Legend

- ★ Air Force Plant 59 (Site SS005)

Figure 1  
GENERAL SITE LOCATION  
Air Force Plant 59 (SS005)  
Johnson City, Broome County, NY

1 inch = 1 miles

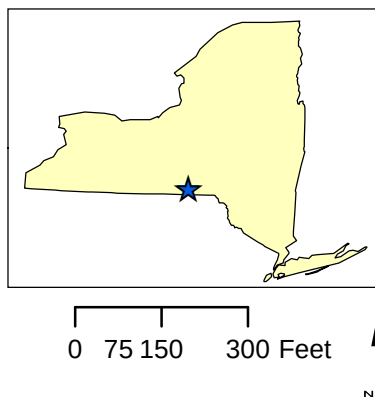
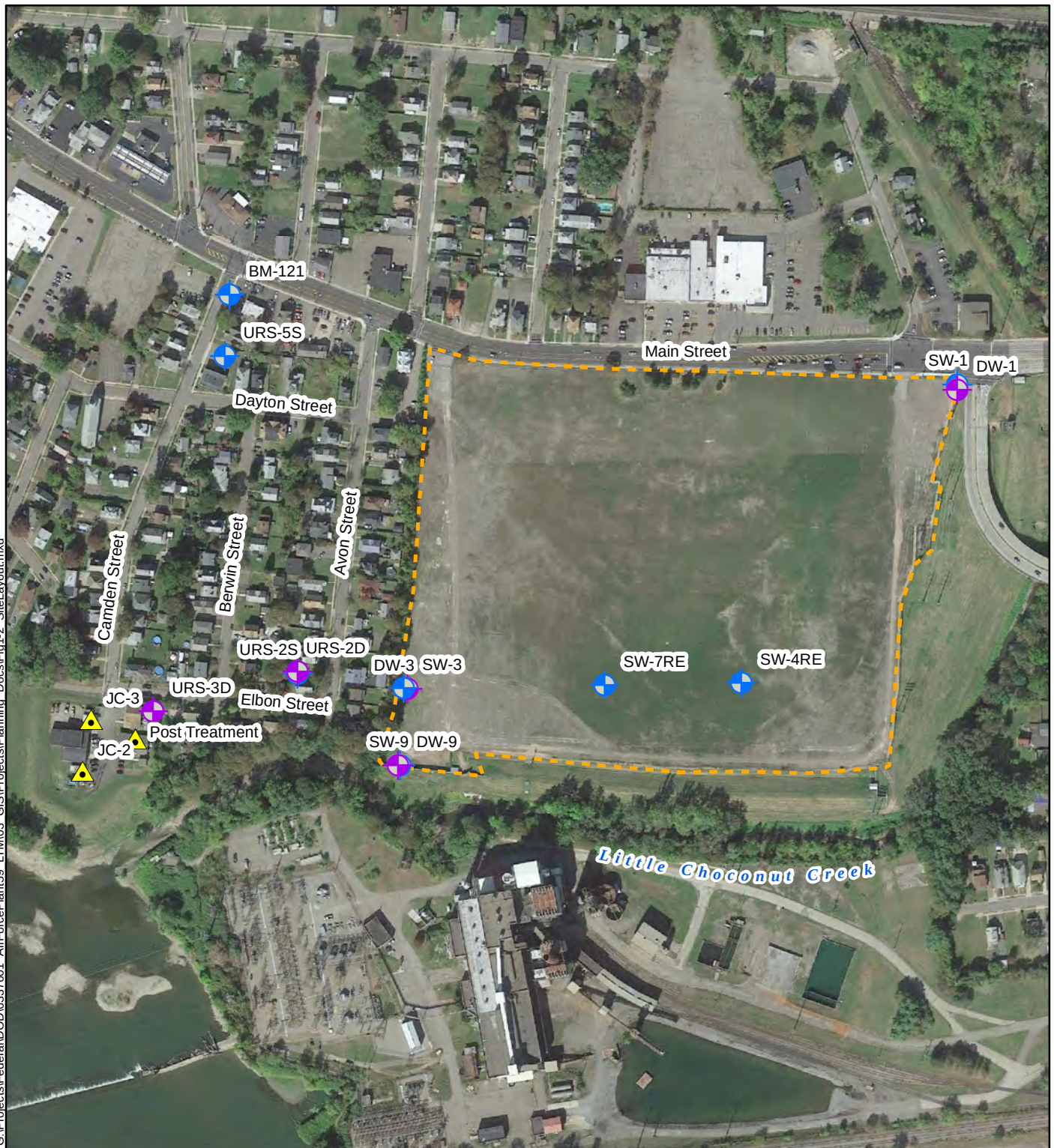


Map Date: 8/28/2021  
Projection: NAD 1983 State Plane New York  
East FIPS 3101 Feet





G:\Projects\Federal\ID06337601\_AirForcePlant59\_LTM03\_GIS\Projects\Planning\_Docs\Fig1-2\_SiteLayout.mxd



#### Legend

- ★ Air Force Plant 59 (Site SS005)
- Approximate Site Boundary
- ▲ Municipal Production Well
- ⊕ Shallow Groundwater Monitoring Well
- ⊕ Deep Groundwater Monitoring Well

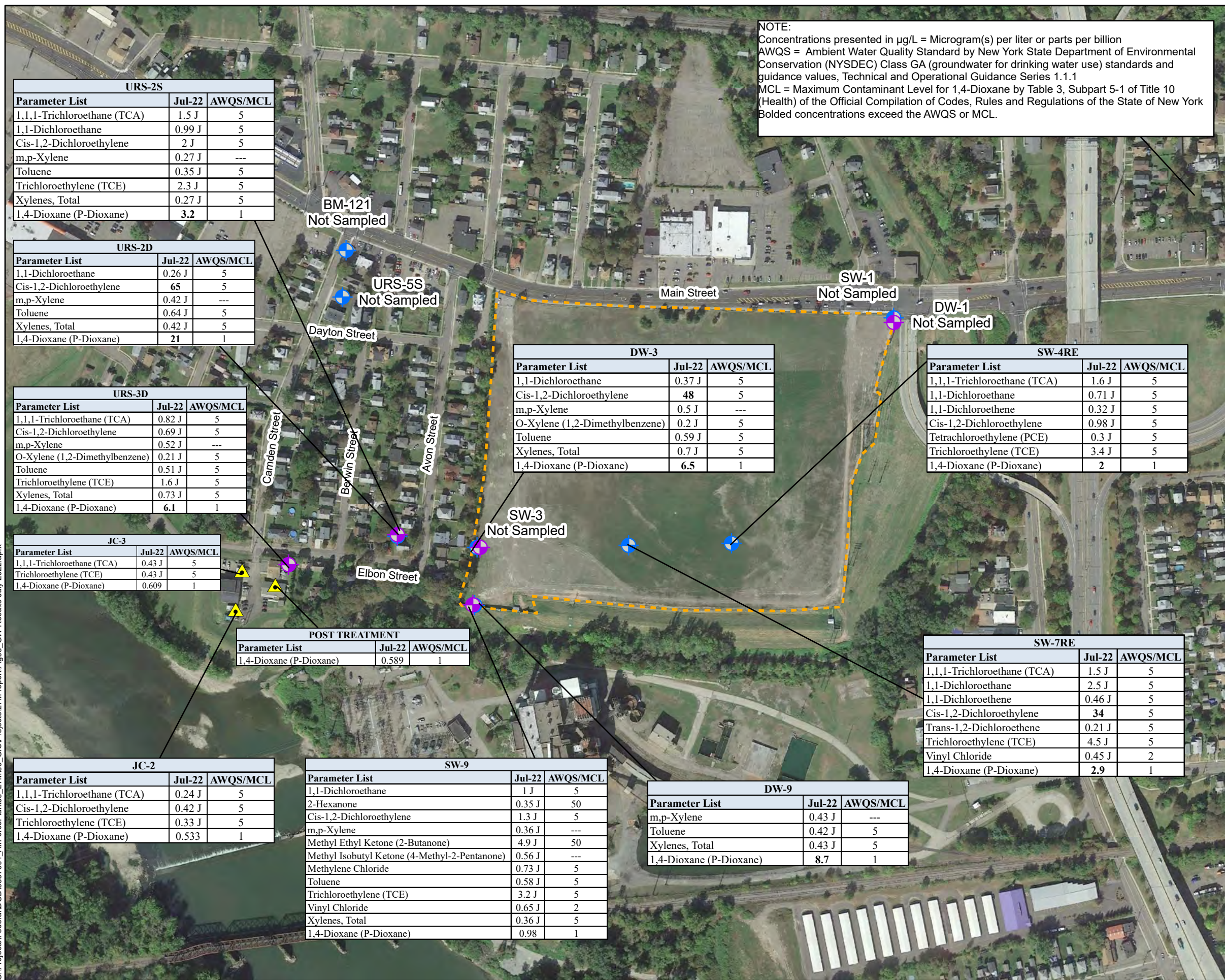
Figure 2  
SITE FEATURES AND  
GROUNDWATER MONITORING PROGRAM  
Air Force Plant 59 (SS005)  
Johnson City, Broome County, NY

Map Date: 8/28/2021  
Projection: NAD 1983 State Plane New York  
East FIPS 3101 Feet





G:\Projects\Federal\DO633760\_1\_AirForcePlant59\_LTM03\_GIS\Projects\LT report\Fig03\_GW-Results-July 2022.aprx



- Legend**
- ★ Air Force Plant 59 (Site SS005)
  - Approximate Site Boundary
  - ▲ Municipal Production Well
  - Shallow Groundwater Monitoring Well
  - Deep Groundwater Monitoring Well

Map Date: 10/13/2022  
Source: ESRI, 2011  
Projection: NAD 1983 State Plane New York East

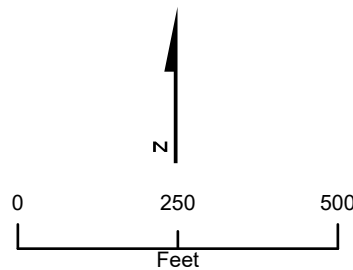


**Figure 3**  
**Detected Concentrations of VOCs**  
**and 1,4-Dioxane**  
**(July 2022)**  
Air Force Plant 59 (SS005)  
Johnson City, Broome County, NY



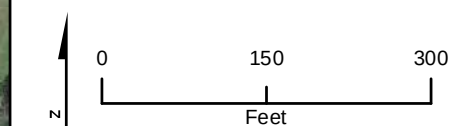
G:\Projects\Federal\DD1633760\_1\_Air Force Plant 59\_LTM03\_GIS\Projects\LTM report\Fig4\_GW\_elevation\_2022.mxd



#### Legend

- Municipal Production Well
- Shallow Groundwater Monitoring Well
- Deep Groundwater Monitoring Well
- Approximate Groundwater Flow Direction
- Approximate Groundwater Elevation (ft. AMSL)
- Approximate Site Boundary
- Air Force Plant 59 (Site SS005)

Note:  
Groundwater elevations are measured in feet above mean sea level (ft. AMSL)



Map Date: 10/14/2022  
Source: ESRI, 2011  
Projection: NAD 1983 State Plane New York East



Figure 4  
Groundwater Elevation and  
Approximate Flow Direction  
(July 2022)  
Air Force Plant 59 (SS005)  
Johnson City, Broome County, NY



**Figure 5. DW-3 Concentration Over Time – *cis*-1,2-DCE**  
**Air Force Plant 59**  
**Johnson City, New York**

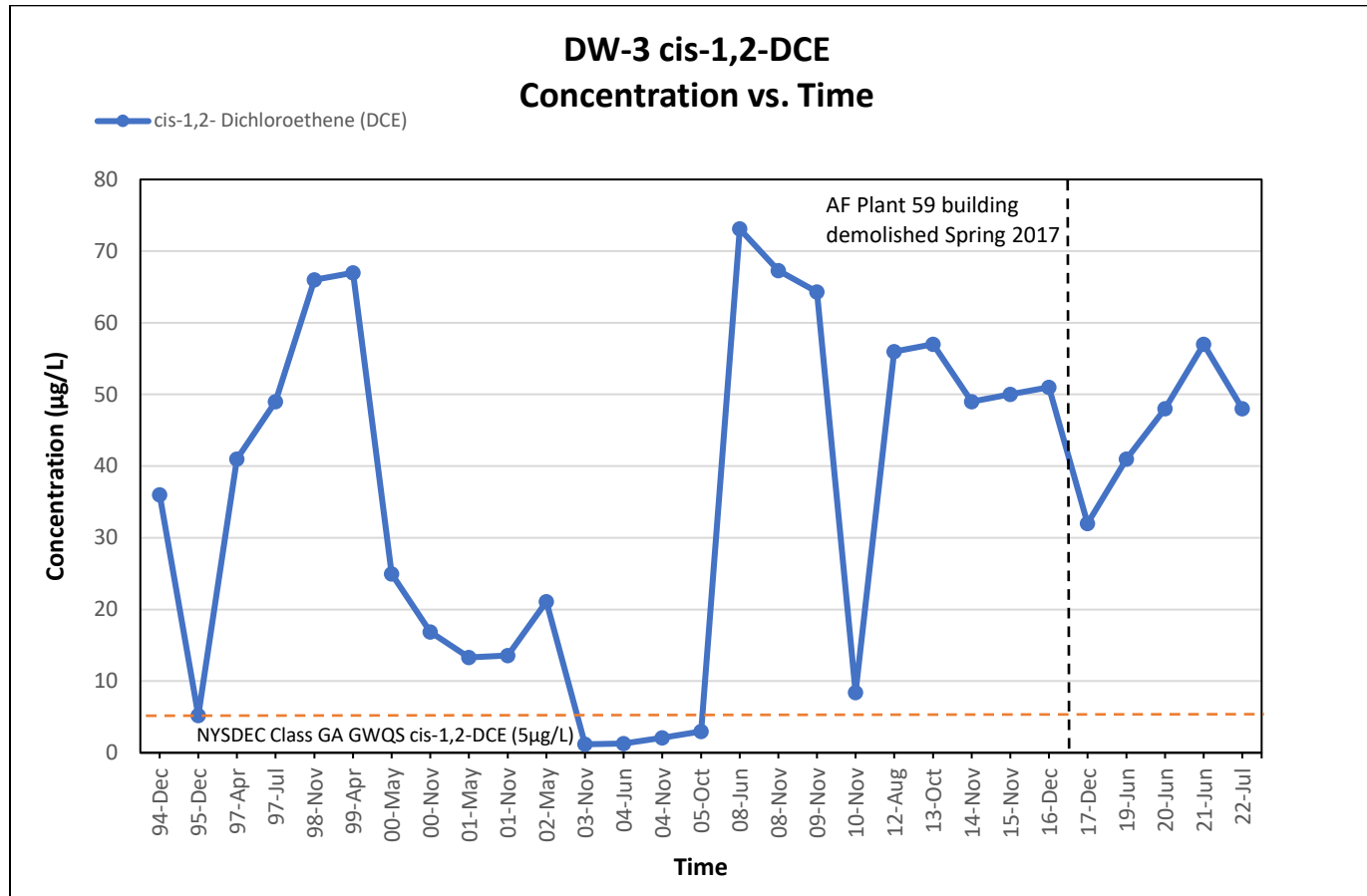


**Figure 6. URS-2D Concentration Over Time – *cis*-1,2-DCE**  
**Air Force Plant 59**  
**Johnson City, New York**

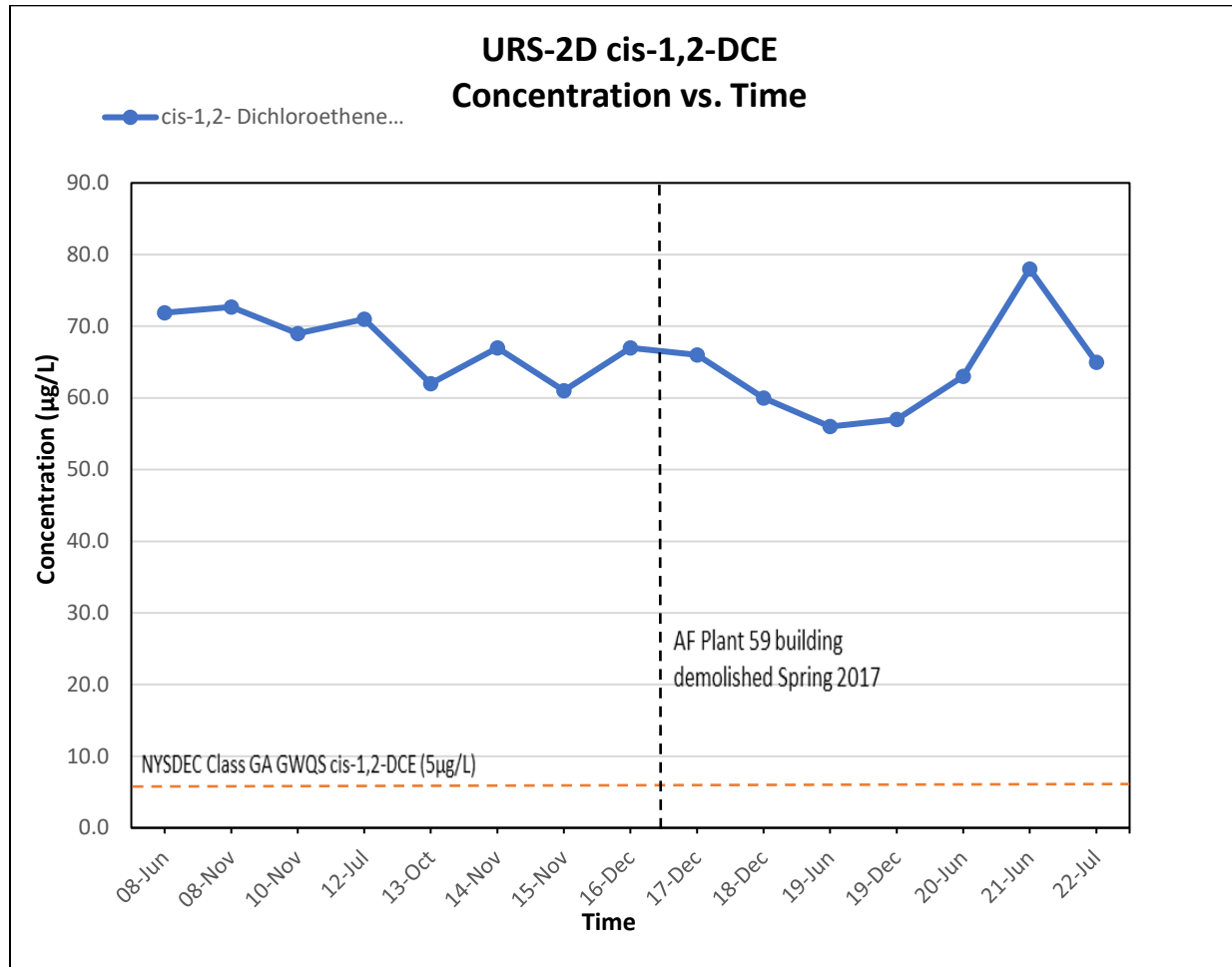


**Figure 7. SW-4/SW-4RE Concentration Over Time – TCE and *cis*-1,2-DCE**  
**Air Force Plant 59**  
**Johnson City, New York**

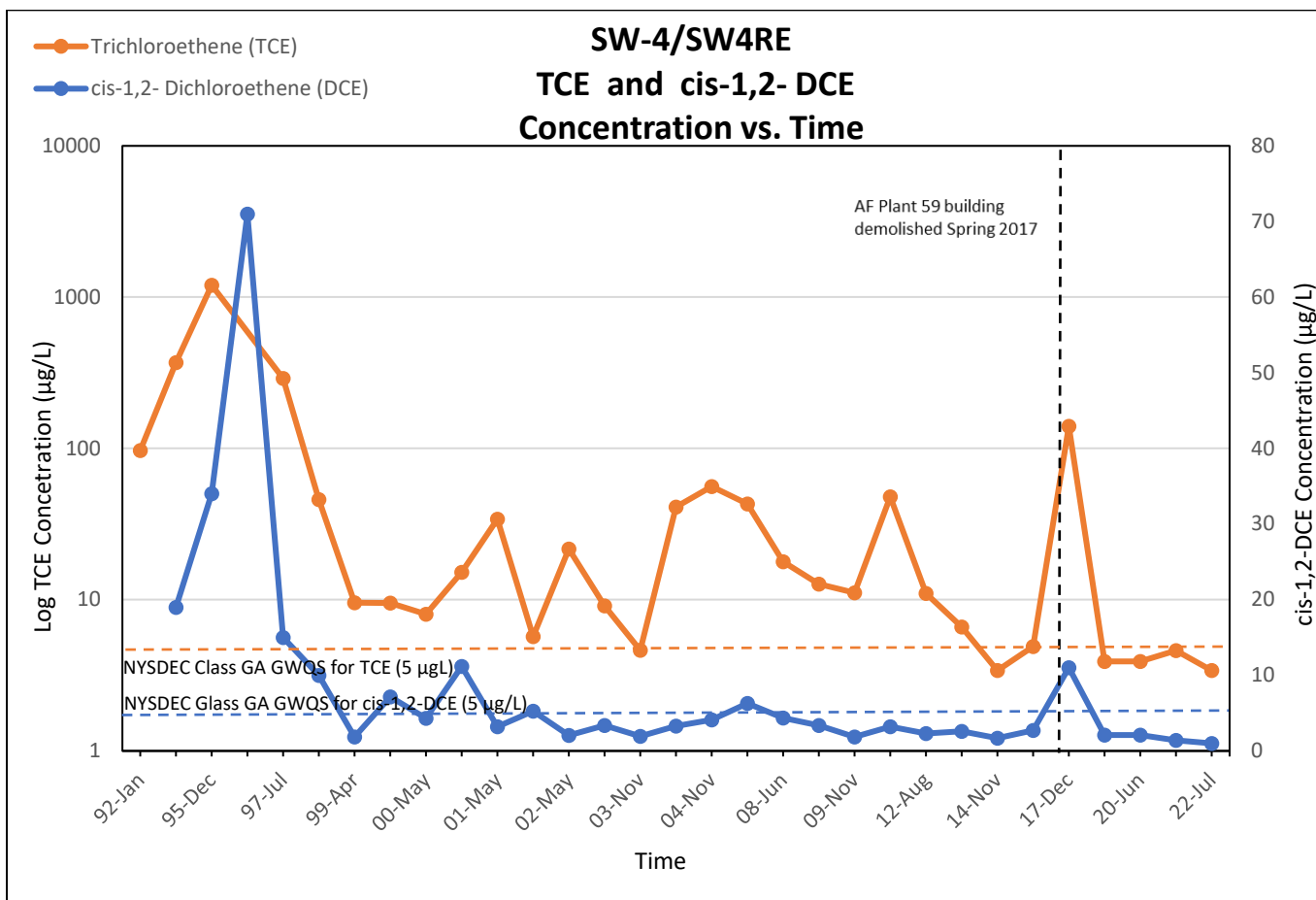
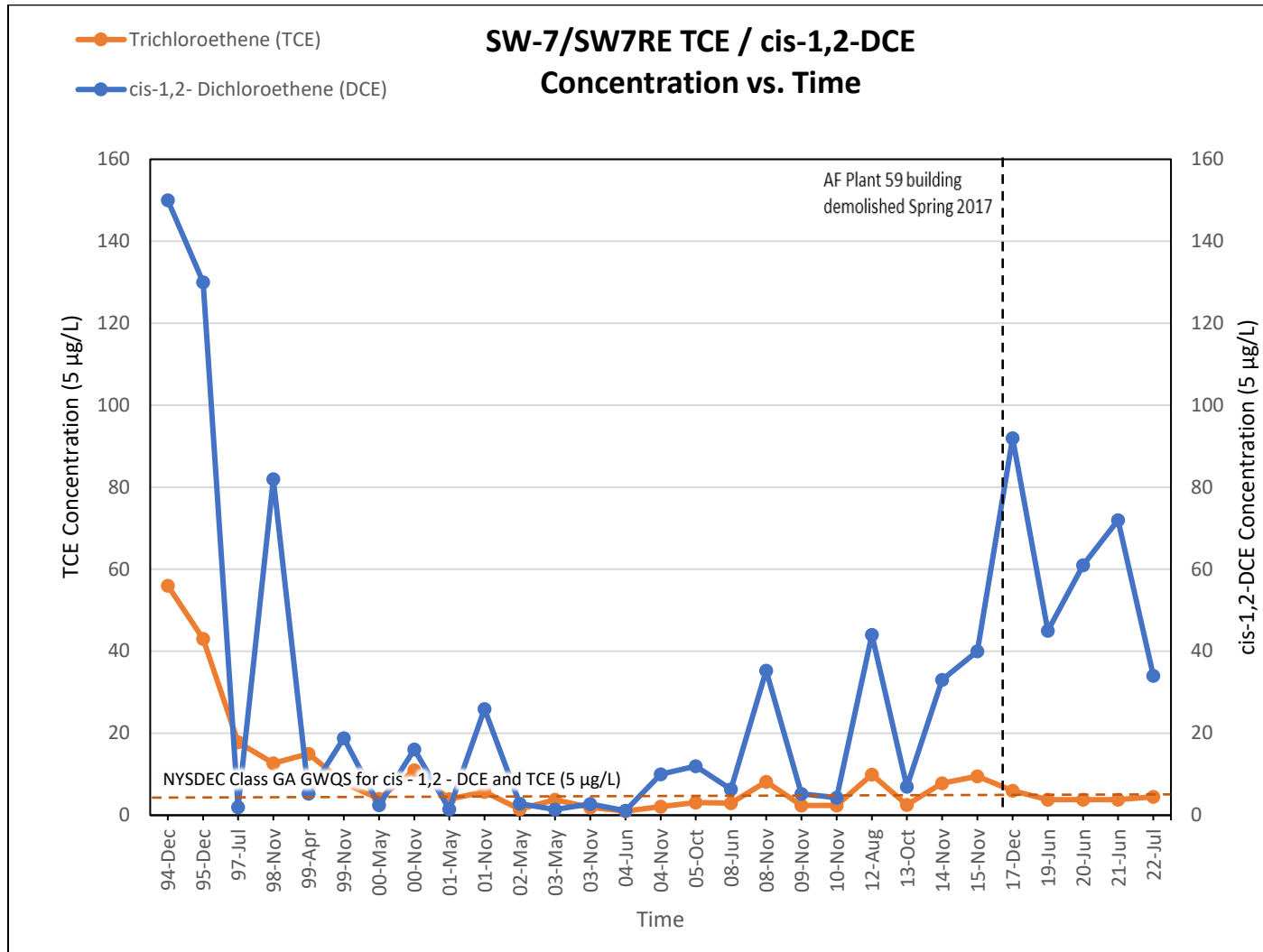


**Figure 8. SW-7/SW-7RE Concentration Over Time– TCE and *cis*-1,2-DCE**  
**Air Force Plant 59**  
**Johnson City, New York**





## **Appendix A**

### **Field Forms**

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**FIELD CALIBRATION FORM**  
**Horiba U-52**  
**pH, CONDUCTIVITY, AND TURBIDITY**

| CALIBRATION    |
|----------------|
| DATE: 07/19/22 |
| TIME: 0721     |
| METER ID:      |

**pH CALIBRATION**

| pH STANDARD | INITIAL<br>READING | FINAL<br>READING |
|-------------|--------------------|------------------|
| 4.0         | 5.55               | 3.99             |

**CONDUCTIVITY CALIBRATION**

| CONDUCTIVITY<br>STANDARD | STANDARD<br>READING | FINAL READING |
|--------------------------|---------------------|---------------|
| 4.49                     | 5.11                | 4.48          |

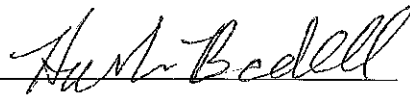
**TURBIDITY CALIBRATION**

| STANDARD | INITIAL READING | FINAL READING |
|----------|-----------------|---------------|
| 0 NTU    | 6.3             | 0.0           |

**COMMENTS**

|  |
|--|
|  |
|  |
|  |
|  |
|  |
|  |
|  |

**SIGNATURE**



**FIELD CALIBRATION FORM**  
**Horiba U-52**  
**pH, CONDUCTIVITY, AND TURBIDITY**

| CALIBRATION      |
|------------------|
| DATE: 07/19/22   |
| TIME: 0720       |
| METER ID: 047335 |

**pH CALIBRATION**

| pH STANDARD | INITIAL READING | FINAL READING |
|-------------|-----------------|---------------|
| 4.0         | 5.73            | 3.93          |

**CONDUCTIVITY CALIBRATION**

| CONDUCTIVITY STANDARD | STANDARD READING | FINAL READING |
|-----------------------|------------------|---------------|
| 4.49                  | 4.84             | 4.45          |

**TURBIDITY CALIBRATION**

| STANDARD | INITIAL READING | FINAL READING |
|----------|-----------------|---------------|
| 0 NTU    | 0.9             | 0.0           |

**COMMENTS**

---

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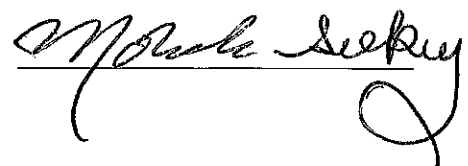
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---

**SIGNATURE**



## FIELD CALIBRATION FORM

Site Name:

|                                            |                                 |
|--------------------------------------------|---------------------------------|
| INSTRUMENT: <i>RAE 3000</i>                | INSTRUMENT ID No: <i>022786</i> |
| OPERATOR: <i>LBL</i>                       | WEATHER: <i>68 F, sun</i>       |
| SPAN GAS TYPE: <i>Isobutylene 10.0 ppm</i> | DATE: <i>07/19/22 0730</i>      |
| CALIBRATION NOTES:                         |                                 |
| <i>zero cal: 1 ppb</i>                     |                                 |
| <i>span cal: 10.0 ppm</i>                  |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
| COMMENTS:                                  |                                 |
| <i>pressure: 29.82 inHg</i>                |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
|                                            |                                 |
| SIGNATURE: <i>John B. [Signature]</i>      | DATE: <i>07/19/22</i>           |

Site Name: Air Force Plant 59

Date/Time: 7/19/2022

[illegible]

## GROUNDWATER SAMPLING PURGE FORM

|                                   |                                                                   |                                         |
|-----------------------------------|-------------------------------------------------------------------|-----------------------------------------|
| Well I.D.: JC-2                   | EA Field Personnel: Moriah Gilkey, Hannah Bedell, Lincoln Backman | Client: Air Force Civil Engineer Center |
| Location: Johnson City, NY        | Measurement Reference: TOC                                        | Weather: 75°F Sunny                     |
| Well Condition: J-Plug: Y N (N/A) | Bolts: ____ of ____   Lock: Y N (N/A)                             | Well Diameter (in):                     |
| Stick Up / Flush Mount            | Comments: Spicket in Treatment building                           | N/A                                     |
| Sounding Method: N/A              | Gauge Date/Time: N/A                                              | Purge Date/Time: 07/19/22               |

### Well Volume

|                             |                                   |                                     |
|-----------------------------|-----------------------------------|-------------------------------------|
| A. Well Depth (ft):         | D. Well Volume (ft):              | Depth/Height of Top of PVC:         |
| B. Depth to Water (ft):     | E. Well Volume (gal) (C*D):       | Purge Method/Pump Type:<br>Grundfos |
| C. Liquid Depth (ft) (A-B): | F. Three Well Volumes (gal) (E3): | Pump Intake Depth:                  |

### Water Quality Parameters

[illegible]

Water Quality Meter: Horiba U-52

Samplers: M. Gilkey, L. Backman-Lowe, H. Bedell

Sampling Time/Date: 0745 07/19/22

Analyses: EPA Method 522 § 524

Sample ID: JC-2-07/192022

Quantity of Water Removed (L):                     

Sample Type: Grab

Split Sample With: ☒ Dup MS/MSD None

## COMMENTS AND OBSERVATIONS:

Water Quality: Sheen Observed? Y ☒ N ☐ Odor Observed? Y ☒ N ☐ Appearance (color, turbidity, etc.): Clear

Tubing left down well? Y ☐ N ☒ 11/18



## GROUNDWATER SAMPLING PURGE FORM

[illegible]

## GROUNDWATER SAMPLING PURGE FORM

[illegible]

## GROUNDWATER SAMPLING PURGE FORM

[illegible]



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### GROUNDWATER SAMPLING PURGE FORM

|                                                                                                                                               |                                                                                                      |                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--------------------------------------------|
| Well I.D.: <b>DW-9</b>                                                                                                                        | EA Field Personnel:<br>Moriah Gilkey, Hannah Bedell, Lincoln Backman                                 | Client:<br>Air Force Civil Engineer Center |
| Location:<br>Johnson City, NY                                                                                                                 | Measurement Reference:<br>TOC                                                                        | Weather:<br><b>79°F, Sun</b>               |
| Well Condition: J-Plug: <input checked="" type="radio"/> N <input type="radio"/> N/A<br>Stick Up/ Flush Mount <input type="radio"/> Comments: | Bolts: <b>N/A</b> of <b>N/A</b>   Lock: <input checked="" type="radio"/> N <input type="radio"/> N/A | Well Diameter (in):<br><b>4</b>            |

|                                        |                                     |                                     |
|----------------------------------------|-------------------------------------|-------------------------------------|
| Sounding Method:<br><b>Solinst WLM</b> | Gauge Date/Time:<br><b>07/19/22</b> | Purge Date/Time:<br><b>07/19/22</b> |
|----------------------------------------|-------------------------------------|-------------------------------------|

#### Well Volume

|                                          |                                                 |                                                  |
|------------------------------------------|-------------------------------------------------|--------------------------------------------------|
| A. Well Depth (ft): <b>90.10</b>         | D. Well Volume (ft): <b>0.163 gal/ft</b>        | Depth/Height of Top of PVC:                      |
| B. Depth to Water (ft): <b>21.58</b>     | E. Well Volume (gal) C*D): <b>44.73</b>         | Purge Method/Pump Type: <b>Low Flow Grundfos</b> |
| C. Liquid Depth (ft) (A-B): <b>68.52</b> | F. Three Well Volumes (gal) (E3): <b>134.19</b> | Pump Intake Depth:<br><b>5' from bottom</b>      |

#### Water Quality Parameters

| Time (hrs) | Temperature (oC) | pH (pH units) | ORP (mV) | Conductivity (S/m) | Turbidity (ntu) | DO (mg/L) | DTW (ft btoc) | Rate (Lpm) | Volume (liters) |
|------------|------------------|---------------|----------|--------------------|-----------------|-----------|---------------|------------|-----------------|
| 1105       | 17.21            | 10.32         | -55      | 0.971              | 2.7             | 9.12      | 20.48         | 0.4        | —               |
| 1110       | 12.11            | 7.95          | -132     | 1.41               | 136             | 1.49      | 20.48         | 0.4        | 2.0             |
| 1115       | 12.01            | 7.51          | -136     | 1.45               | 135             | 0.60      | 20.48         | 0.4        | 4.0             |
| 1120       | 12.00            | 7.33          | -139     | 1.47               | 113             | 0.51      | 20.48         | 0.4        | 6.0             |
| 1125       | 12.04            | 7.25          | -142     | 1.47               | 80.5            | 0.46      | 20.48         | 0.4        | 8.0             |
| 1130       | 11.97            | 7.19          | -144     | 1.48               | 68.1            | 0.44      | 20.48         | 0.4        | 10.0            |
| 1135       | 11.91            | 7.17          | -146     | 1.48               | 58.3            | 0.41      | 20.48         | 0.4        | 12.0            |
| 1140       | 11.99            | 7.16          | -149     | 1.49               | 40.2            | 0.42      | 20.48         | 0.4        | 14.0            |
| 1145       | 11.94            | 7.15          | -151     | 1.49               | 27.1            | 0.41      | 20.48         | 0.4        | 16.0            |
| 1150       | 11.96            | 7.15          | -153     | 1.49               | 20.7            | 0.39      | 20.48         | 0.4        | 18.0            |
| 1155       | 11.91            | 7.14          | -155     | 1.49               | 16.7            | 0.38      | 20.48         | 0.4        | 20.0            |
| 1200       | 11.98            | 7.13          | -156     | 1.49               | 13.3            | 0.37      | 20.48         | 0.4        | 22.0            |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |

|                                                        |                                            |
|--------------------------------------------------------|--------------------------------------------|
| Water Quality Meter: <b>Horiba U-52</b>                | Quantity of Water Removed (L): <b>22.0</b> |
| Samplers: <b>M. Gilkey, L. Backman-Lowe, H. Bedell</b> | Sample Type: <b>Grab</b>                   |
| Sampling Time/Date: <b>1200 07/19/22</b>               | Split Sample With: <b>Dup. MS/MSD None</b> |
| Analyses: <b>VOCs, 14-Dioxane (8260C/8270PSIM)</b>     |                                            |
| Sample ID: <b>DW-9-07192022</b>                        |                                            |

COMMENTS AND OBSERVATIONS:

Water Quality: Sheen Observed? Y ☒ Odor Observed? Y ☒ Appearance (color, turbidity, etc.): **clear, colorless**

Tubing left down well? Y ☒



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1st Page 1042 GROUNDWATER SAMPLING PURGE FORM

|                                                                                                                                                                   |                                                                      |                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------|
| Well I.D.:<br><u>SW-7RE</u>                                                                                                                                       | EA Field Personnel:<br>Moriah Gilkey, Hannah Bedell, Lincoln Backman | Client:<br>Air Force Civil Engineer Center |
| Location:<br>Johnson City, NY                                                                                                                                     | Measurement Reference:<br>TOC                                        | Weather:<br><u>Sunny, 75°</u>              |
| Well Condition: J-Plug: <input checked="" type="radio"/> N <input type="radio"/> N/A   Bolts: <u>2</u> of <u>2</u>   Lock: Y <input checked="" type="radio"/> N/A | Well Diameter (in):<br><u>2</u>                                      |                                            |
| Stick Up / <u>Rush Mount</u> Comments:                                                                                                                            |                                                                      |                                            |

|                                         |                                           |                                           |
|-----------------------------------------|-------------------------------------------|-------------------------------------------|
| Sounding Method:<br><u>Solomist WLI</u> | Gauge Date/Time:<br><u>7/19/2022 0950</u> | Purge Date/Time:<br><u>7/19/2022 1035</u> |
|-----------------------------------------|-------------------------------------------|-------------------------------------------|

Well Volume

|                                            |                                                  |                                                 |
|--------------------------------------------|--------------------------------------------------|-------------------------------------------------|
| A. Well Depth (ft):<br><u>27.44</u>        | D. Well Volume (ft):<br><u>0.188</u>             | Depth/Height of Top of PVC:                     |
| B. Depth to Water (ft):<br><u>18.79</u>    | E. Well Volume (gal) C*D):<br><u>1.44</u>        | Purge Method/Pump Type:<br><u>Geosub 2 Pump</u> |
| C. Liquid Depth (ft) (A-B):<br><u>8.65</u> | F. Three Well Volumes (gal) (E3):<br><u>4.32</u> | Pump Intake Depth:<br><u>5' above bottom</u>    |

Water Quality Parameters

| Time (hrs) | Temperature (°C) <sup>30</sup> / <sub>10</sub> | pH ± .1 (pH units) | ORP ± (mV) <sup>10</sup> / <sub>10</sub> | Conductivity <sup>30</sup> / <sub>10</sub> (µm) (ns/cm) | Turbidity (ntu) <sup>10</sup> / <sub>10</sub> | DO ± .1 (mg/L) <sup>10</sup> / <sub>10</sub> | DTW (ft btoc) | Rate (Lpm) | Volume (liters) |
|------------|------------------------------------------------|--------------------|------------------------------------------|---------------------------------------------------------|-----------------------------------------------|----------------------------------------------|---------------|------------|-----------------|
| 1037       | 19.23                                          | 7.05               | 73                                       | 1.17                                                    | 0.0                                           | 2.08                                         |               | 0.5        | 0               |
| 1042       | 13.98                                          | 7.05               | 78                                       | 1.22                                                    | 0.0                                           | 0.65                                         | 18.41         | 0.5        | 8.5             |
| 1047       | 13.01                                          | 7.03               | 81                                       | 1.29                                                    | 0.0                                           | 0.83                                         | 18.88         | 0.5        | 5.0             |
| 1052       | 14.17                                          | 7.01               | 83                                       | 1.31                                                    | 861                                           | 0.84                                         | 18.88         | 0.5        | 7.5             |
| 1057       | 14.59                                          | 7.02               | 80                                       | 1.32                                                    | 1000                                          | 0.78                                         | 18.88         | 0.5        | 10.0            |
| 1102       | 11.62                                          | 6.90               | 87                                       | 1.36                                                    | 1000                                          | 1.08                                         | 18.88         | 0.5        | 12.5            |
| 1107       | 11.32                                          | 7.09               | 78                                       | 1.41                                                    | 845                                           | 1.33                                         | 18.90         | 0.5        | 15.0            |
| 1112       | 11.57                                          | 7.10               | 78                                       | 1.41                                                    | 650                                           | 1.35                                         | 18.91         | 0.5        | 17.5            |
| 1117       | 11.44                                          | 7.09               | 78                                       | 1.43                                                    | 436                                           | 1.43                                         | 18.92         | 0.5        | 20.0            |
| 1122       | 11.46                                          | 7.03               | 77                                       | 1.44                                                    | 244                                           | 1.48                                         | 18.93         | 0.5        | 22.5            |
| 1127       | 11.45                                          | 7.08               | 76                                       | 1.45                                                    | 129                                           | 1.54                                         | 18.93         | 0.5        | 25.0            |
| 1132       | 11.49                                          | 7.12               | 73                                       | 1.45                                                    | 68.2                                          | 1.57                                         | 18.93         | 0.5        | 27.5            |
| 1137       | 11.49                                          | 7.13               | 72                                       | 1.46                                                    | 54.3                                          | 1.61                                         | 18.93         | 0.5        | 30.0            |
| 1142       | 11.45                                          | 7.14               | 71                                       | 1.47                                                    | 59.4                                          | 1.7                                          | 18.93         | 0.5        | 32.5            |
| 1147       | 11.45                                          | 7.16               | 70                                       | 1.47                                                    | 77.8                                          | 1.75                                         | 18.93         | 0.5        | 35.0            |
| 1152       | 11.42                                          | 7.16               | 70                                       | 1.48                                                    | 99.4                                          | 1.73                                         | 18.93         | 0.5        | 37.5            |
| 1157       | 11.48                                          | 7.18               | 69                                       | 1.48                                                    | 102                                           | 1.76                                         | 18.93         | 0.5        | 40.0            |

|                                         |                                            |
|-----------------------------------------|--------------------------------------------|
| Water Quality Meter: <u>Horiba U-52</u> | Quantity of Water Removed (L): <u>70.0</u> |
|-----------------------------------------|--------------------------------------------|

|                                                        |                          |
|--------------------------------------------------------|--------------------------|
| Samplers: <u>M. Gilkey, L. Backman-Lowe, H. Bedell</u> | Sample Type: <u>Grab</u> |
|--------------------------------------------------------|--------------------------|

|                                           |                                            |
|-------------------------------------------|--------------------------------------------|
| Sampling Time/Date: <u>1257 7/19/2022</u> | Split Sample With: <u>Dup. MS/MSD None</u> |
|-------------------------------------------|--------------------------------------------|

|                                   |
|-----------------------------------|
| Analyses: <u>VOC, 1,4-Dioxane</u> |
|-----------------------------------|

|                                   |
|-----------------------------------|
| Sample ID: <u>SW-7RE-07192022</u> |
|-----------------------------------|

COMMENTS AND OBSERVATIONS: lowest flow rate that will continue to purge.

Turbidity is above maximum reading capacity of the Horiba where recorded 0.0 to 1000

Got permission from PM to sample w/ high unstable turbidity

Water Quality: Sheen Observed? Y ☒ Odor Observed? Y ☒ Appearance (color, turbidity, etc.): Turbid

|                                                             |
|-------------------------------------------------------------|
| Tubing left down well? Y <input checked="" type="radio"/> N |
|-------------------------------------------------------------|



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2nd Page 2 of 2 GROUNDWATER SAMPLING PURGE FORM

|                               |                                                                      |                                            |
|-------------------------------|----------------------------------------------------------------------|--------------------------------------------|
| Well I.D.:<br><u>SW-7RE</u>   | EA Field Personnel:<br>Moriah Gilkey, Hannah Bedell, Lincoln Backman | Client:<br>Air Force Civil Engineer Center |
| Location:<br>Johnson City, NY | Measurement Reference:<br>TOC                                        | Weather:                                   |

|                                                                       |                     |
|-----------------------------------------------------------------------|---------------------|
| Well Condition: J-Plug: Y N N/A   Bolts: ____ of ____   Lock: Y N N/A | Well Diameter (in): |
| Stick Up / Flush Mount                                                | Comments:           |

|                  |                  |                  |
|------------------|------------------|------------------|
| Sounding Method: | Gauge Date/Time: | Purge Date/Time: |
|------------------|------------------|------------------|

Well Volume

|                             |                                   |                                     |
|-----------------------------|-----------------------------------|-------------------------------------|
| A. Well Depth (ft):         | D. Well Volume (ft):              | Depth/Height of Top of PVC:         |
| B. Depth to Water (ft):     | E. Well Volume (gal) C*D):        | Purge Method/Pump Type:<br>Grundfos |
| C. Liquid Depth (ft) (A-B): | F. Three Well Volumes (gal) (E3): | Pump Intake Depth:                  |

Water Quality Parameters

| Time (hrs) | Temperature (oC) | pH (pH units) | ORP (mV) | Conductivity (S/m) | Turbidity (ntu) | DO (mg/L) | DTW (ft btoc) | Rate (Lpm) | Volume (liters) |
|------------|------------------|---------------|----------|--------------------|-----------------|-----------|---------------|------------|-----------------|
| 1202       | 11.47            | 7.20          | 68       | 1.48               | 101             | 1.76      | 18.93         | 0.5        | 42.5            |
| 1207       | 12.55            | 7.10          | 72       | 1.48               | 101             | 1.67      |               |            | 45.0            |
| 1212       | 12.24            | 7.06          | 66       | 1.47               | 96.9            | 1.65      |               |            | 47.5            |
| 1217       | 11.83            | 7.04          | 69       | 1.48               | 88.9            | 1.69      |               |            | 50.0            |
| 1222       | 11.32            | 7.12          | 66       | 1.49               | 67.2            | 1.80      |               |            | 52.5            |
| 1227       | 11.08            | 7.13          | 68       | 1.50               | 52.2            | 1.93      |               |            | 55.0            |
| 1232       | 10.97            | 7.14          | 71       | 1.51               | 40.5            | 2.02      |               |            | 57.5            |
| 1237       | 11.05            | 7.17          | 73       | 1.52               | 55.8            | 2.10      |               |            | 60.0            |
| 1242       | 11.33            | 7.00          | 73       | 1.52               | 108             | 2.07      | 18.98         |            | 62.5            |
| 1247       | 11.65            | 7.00          | 81       | 1.52               | 140             | 2.05      |               |            | 65.0            |
| 1252       | 11.62            | 7.02          | 80       | 1.36               | 175             | 2.02      |               |            | 67.5            |
| 1257       | 11.63            | 7.03          | 79       | 1.36               | 221             | 2.03      |               |            | 70.0            |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |

|                                                        |                                            |
|--------------------------------------------------------|--------------------------------------------|
| Water Quality Meter: <u>Horiba U-52</u>                | Quantity of Water Removed (L): <u>70.0</u> |
| Samplers: <u>M. Gilkey, L. Backman-Lowe, H. Bedell</u> | Sample Type: <u>Grab</u>                   |
| Sampling Time/Date: _____                              | Split Sample With: <u>Dup. MS/MSD None</u> |

|                  |
|------------------|
| Analyses: _____  |
| Sample ID: _____ |

|                                  |
|----------------------------------|
| COMMENTS AND OBSERVATIONS: _____ |
|----------------------------------|

|                                                                                                        |
|--------------------------------------------------------------------------------------------------------|
| Water Quality: Sheen Observed? Y N    Odor Observed? Y N    Appearance (color, turbidity, etc.): _____ |
|--------------------------------------------------------------------------------------------------------|

|                            |
|----------------------------|
| Tubing left down well? Y N |
|----------------------------|

## GROUNDWATER SAMPLING PURGE FORM

[illegible]

## GROUNDWATER SAMPLING PURGE FORM

[illegible]



## GROUNDWATER SAMPLING PURGE FORM

|                                   |                                                                      |                                            |
|-----------------------------------|----------------------------------------------------------------------|--------------------------------------------|
| Well I.D.:<br>URS-2D              | EA Field Personnel:<br>Moriah Gilkey, Hannah Bedell, Lincoln Backman | Client:<br>Air Force Civil Engineer Center |
| Location:<br>Johnson City, NY     | Measurement Reference:<br>TOC                                        | Weather:<br>Sunny 90°                      |
| Well Condition: J-Plug: (Y) N N/A | Bolts: 4 of 4   Lock: Y (N) N/A                                      | Well Diameter (in):<br>3                   |
| Stick Up / Flush Mount            | Comments:                                                            |                                            |

|                                  |                                    |                                    |
|----------------------------------|------------------------------------|------------------------------------|
| Sounding Method:<br>Solonist WLI | Gauge Date/Time:<br>7/19/2022 0807 | Purge Date/Time:<br>7/19/2022 1452 |
|----------------------------------|------------------------------------|------------------------------------|

## Well Volume

|                                      |                                              |                                                  |
|--------------------------------------|----------------------------------------------|--------------------------------------------------|
| A. Well Depth (ft):<br>90.41         | D. Well Volume (ft):<br>1.25 ft <sup>3</sup> | Depth/Height of Top of PVC:                      |
| B. Depth to Water (ft):<br>32.94     | E. Well Volume (gal) C*D):<br>9.38           | Purge Method/Pump Type:<br>Grindos GeoSub 2 pump |
| C. Liquid Depth (ft) (A-B):<br>57.47 | F. Three Well Volumes (gal) (E3):<br>28.13   | Pump Intake Depth:<br>5' above bottom            |

## Water Quality Parameters

[illegible]

|                      |                                       |                                |                  |
|----------------------|---------------------------------------|--------------------------------|------------------|
| Water Quality Meter: | Horiba U-52                           | Quantity of Water Removed (L): | 13.5             |
| Samplers:            | M. Gilkey, L. Backman-Lowe, H. Bedell | Sample Type:                   | Grab             |
| Sampling Time/Date:  | 7/19/2022 1537                        | Split Sample With:             | Dup. MS/MSD None |
| Analyses:            | VOC, 1,4-Dioxane                      |                                |                  |
| Sample ID:           | URS-2D-0719/2022                      |                                |                  |

**COMMENTS AND OBSERVATIONS:**

Water Quality: Sheen Observed? Y ☒ N ☐ Odor Observed? Y ☒ N ☐ Appearance (color, turbidity, etc.): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Tubing left down well? Y ☐ N ☐



EA Engineering, P.C.  
EA Science and Technology

GROUNDWATER SAMPLING PURGE FORM

|                                                                                                                                                                                               |                                                                             |                                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------|
| Well ID: <u>URS-25</u>                                                                                                                                                                        | EA Field Personnel:<br><u>Moriah Gilkey, Hannah Bedell, Lincoln Backman</u> | Client:<br><u>Air Force Civil Engineer Center</u> |
| Location:<br><u>Johnson City, NY</u>                                                                                                                                                          | Measurement Reference:<br><u>TOC</u>                                        | Weather: <u>90 F, clouds</u>                      |
| Well Condition: I-Plug: <input checked="" type="radio"/> N <input type="radio"/> N/A   Bolts: <u>N/A</u> of <u>N/A</u>   Lock: Y <input type="radio"/> N <input checked="" type="radio"/> N/A | Well Diameter (in):<br><u>2</u>                                             |                                                   |
| Stick Up <input checked="" type="radio"/> Flush Mount <input type="radio"/> Comments:                                                                                                         |                                                                             |                                                   |
| Sounding Method:<br><u>Solinst WLM</u>                                                                                                                                                        | Gauge Date/Time: <u>0813 07/19/22</u>                                       | Purge Date/Time:<br><u>1500 07/19/22</u>          |

Well Volume

|                                          |                                                |                                                  |
|------------------------------------------|------------------------------------------------|--------------------------------------------------|
| A. Well Depth (ft): <u>58.19</u>         | D. Well Volume (ft): <u>0.163 gal</u>          | Depth/Height of Top of PVC:                      |
| B. Depth to Water (ft): <u>33.13</u>     | E. Well Volume (gal) C*D): <u>4.08</u>         | Purge Method/Pump Type: <u>Low Flow Grundfos</u> |
| C. Liquid Depth (ft) (A-B): <u>25.06</u> | F. Three Well Volumes (gal) (E3): <u>12.25</u> | Pump Intake Depth:<br><u>5' from bottom</u>      |

Water Quality Parameters

| Time (hrs) | Temperature (oC) | pH (pH units) | ORP (mV) | Conductivity (S/m) | Turbidity (ntu) | DO (mg/L) | DTW (ft btoc) | Rate (Lpm) | Volume (liters) |
|------------|------------------|---------------|----------|--------------------|-----------------|-----------|---------------|------------|-----------------|
| 1500       | 21.05            | 6.96          | -141     | 0.692              | 71.0            | 2.58      | 33.31         | 0.4        | —               |
| 1505       | 12.58            | 6.44          | -117     | 0.809              | 18.1            | 0.48      | 33.51         | 0.4        | 2.0             |
| 1510       | 12.38            | 6.31          | -113     | 0.799              | 7.6             | 0.41      | 33.51         | 0.4        | 4.0             |
| 1515       | 12.26            | 6.29          | -113     | 0.828              | 4.6             | 0.42      | 33.51         | 0.4        | 6.0             |
| 1520       | 12.10            | 6.32          | -113     | 0.921              | 5.7             | 0.52      | 33.51         | 0.4        | 8.0             |
| 1525       | 12.02            | 6.34          | -111     | 1.01               | 6.0             | 0.65      | 33.51         | 0.4        | 10.0            |
| 1530       | 11.92            | 6.38          | -110     | 1.10               | 4.9             | 0.80      | 33.51         | 0.4        | 12.0            |
| 1535       | 11.81            | 6.44          | -108     | 1.18               | 7.2             | 0.94      | 33.51         | 0.4        | 14.0            |
| 1540       | 11.82            | 6.49          | -107     | 1.23               | 5.4             | 1.05      | 33.51         | 0.4        | 16.0            |
| 1545       | 11.71            | 6.55          | -105     | 1.28               | 3.6             | 1.16      | 33.51         | 0.4        | 18.0            |
| 1550       | 11.77            | 6.61          | -102     | 1.32               | 2.5             | 1.28      | 33.51         | 0.4        | 20.0            |
| 1555       | 11.74            | 6.63          | -100     | 1.34               | 2.0             | 1.34      | 33.51         | 0.4        | 22.0            |
| 1600       | 11.78            | 6.66          | -99      | 1.36               | 2.4             | 1.39      | 33.51         | 0.4        | 24.0            |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |
|            |                  |               |          |                    |                 |           |               |            |                 |

|                                                        |                                            |
|--------------------------------------------------------|--------------------------------------------|
| Water Quality Meter: <u>Horiba U-52</u>                | Quantity of Water Removed (L): <u>24.0</u> |
| Samplers: <u>M. Gilkey, L. Backman-Lowe, H. Bedell</u> | Sample Type: <u>Grab</u>                   |
| Sampling Time/Date: <u>1600 07/19/22</u>               | Split Sample With: <u>Dup. MS/MSD None</u> |
| Analyses: <u>VOCs, 1,4-Dioxane</u>                     |                                            |
| Sample ID:                                             |                                            |

COMMENTS AND OBSERVATIONS:

Water Quality: Sheen Observed? Y ☒ N ☐ Odor Observed? Y ☒ N ☐ Appearance (color, turbidity, etc.): clear, colorless

Tubing left down well? Y ☒ N ☐

## GROUNDWATER SAMPLING PURGE FORM

[illegible]

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: DW-1  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: None

Elevation (top of inner casing): \_\_\_\_\_

Surface casing material: Steel

Well casing material: PVC

Surface Casing diameter: 6 inches

Well Diameter: 4 inches

Well Depth (as installed): \_\_\_\_\_ ftbgs

Well Depth (as measured): 62.61 (soft bottom) ftboc

Screened interval: \_\_\_\_\_ ft

Open hole interval: \_\_\_\_\_ ft

Depth to water: 17.91 ftboc

Date: 7/19/2022 Time: 0923

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

## Well Condition

|                                               |                                         |                                        |
|-----------------------------------------------|-----------------------------------------|----------------------------------------|
| Is the concrete pad in good condition?        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Is the well surface casing in good condition? | Yes <input type="checkbox"/>            | No <input type="checkbox"/>            |
| Is the surface casing vertical?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is there an internal well seal?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Has there been physical damage to the well?   | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Does sounding depth match completed depth?    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is measuring point marked?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is the well clearly labeled?                  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Flush mount - Is it secure from runoff?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

Other Comments \_\_\_\_\_

## Recommendations

|                                      |                                         |                                        |
|--------------------------------------|-----------------------------------------|----------------------------------------|
| Well needs to be redeveloped         | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be re-surveyed.        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be repaired.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be replaced.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be properly abandoned. | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| No action necessary.                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

## Comments

No well cover

Inspected by: MB  
Date of Inspection: 7/19/2022  
Reviewed by: [Signature] (Print)  
(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: SL-1  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## Well Construction Details

Type of well (Circle one) Flush Mount Stick up Multilevel Well\*

Well lock/security type: None

Elevation (top of inner casing): \_\_\_\_\_

Surface casing material: Steel

Well casing material: PVC

Surface Casing diameter: 4 inches

Well Diameter: 2 inches

Well Depth (as installed): \_\_\_\_\_ ftbgs

Well Depth (as measured): 28.44 ftboc

Screened interval: \_\_\_\_\_ ft

Open hole interval: \_\_\_\_\_ ft

Depth to water: 17.79 ftboc

Date: 7/19/2022 Time: 0924

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

## Well Condition

|                                               |                                         |                                        |
|-----------------------------------------------|-----------------------------------------|----------------------------------------|
| Is the concrete pad in good condition?        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Is the well surface casing in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is the surface casing vertical?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is there an internal well seal?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Has there been physical damage to the well?   | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Does sounding depth match completed depth?    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is measuring point marked?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is the well clearly labeled?                  | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Flush mount - Is it secure from runoff?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

Other Comments \_\_\_\_\_

## Recommendations

|                                      |                                         |                                        |
|--------------------------------------|-----------------------------------------|----------------------------------------|
| Well needs to be redeveloped         | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be re-surveyed.        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be repaired.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be replaced.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be properly abandoned. | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| No action necessary.                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

## Comments

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Inspected by: MB MG  
Date of Inspection: 7/19/2022  
Reviewed by: [Signature] (Print)  
(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: SW-9  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: Pad lock

Elevation (top of inner casing): \_\_\_\_\_

Surface casing material: Steel

Well casing material: PVC

Surface Casing diameter: 4 inches

Well Diameter: 2 inches

Well Depth (as installed): \_\_\_\_\_ ftbgs

Well Depth (as measured): 39.46 ftboc

Screened interval: \_\_\_\_\_ ft

Open hole interval: \_\_\_\_\_ ft

Depth to water: 17.91 ftboc

Date: 7/19/2022 Time: 0855

\* If multilevel well please see attached worksheet.



# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 71 ppm bph

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

## Well Condition

|                                               |                                      |    |
|-----------------------------------------------|--------------------------------------|----|
| Is the concrete pad in good condition?        | <input checked="" type="radio"/> Yes | No |
| Is the well surface casing in good condition? | <input checked="" type="radio"/> Yes | No |
| Is the surface casing vertical?               | <input checked="" type="radio"/> Yes | No |
| Is there an internal well seal?               | <input checked="" type="radio"/> Yes | No |
| Has there been physical damage to the well?   | <input checked="" type="radio"/> Yes | No |
| Does sounding depth match completed depth?    | <input checked="" type="radio"/> Yes | No |
| Is measuring point marked?                    | <input checked="" type="radio"/> Yes | No |
| Is the well clearly labeled?                  | <input checked="" type="radio"/> Yes | No |
| Flush mount - Is it secure from runoff?       | <input checked="" type="radio"/> Yes | No |

Other Comments \_\_\_\_\_

## Recommendations

|                                      |                                      |                                     |
|--------------------------------------|--------------------------------------|-------------------------------------|
| Well needs to be redeveloped         | Yes                                  | <input checked="" type="radio"/> No |
| Well needs to be re-surveyed.        | Yes                                  | <input checked="" type="radio"/> No |
| Well needs to be repaired.           | Yes                                  | <input checked="" type="radio"/> No |
| Well needs to be replaced.           | Yes                                  | <input checked="" type="radio"/> No |
| Well needs to be properly abandoned. | Yes                                  | <input checked="" type="radio"/> No |
| No action necessary.                 | <input checked="" type="radio"/> Yes | No                                  |

## Comments

Locks are in bad condition

Inspected by: MG  
Date of Inspection: 7/9/2022  
Reviewed by: [Signature] (Print)  
(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: DW-9  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: None

Elevation (top of inner casing): \_\_\_\_\_

Surface casing material: Steel

Well casing material: PVC

Surface Casing diameter: 4 inches

Well Diameter: 4 inches

Well Depth (as installed): \_\_\_\_\_ ftbgs

Well Depth (as measured): 90.10 fttoc

Screened interval: \_\_\_\_\_ ft

Open hole interval: \_\_\_\_\_ ft

Depth to water: 21.58 fttoc

Date: 7/19/2022 Time: 0900

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): ~~345~~ 1468 ppb

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

## Well Condition

|                                               |                                         |                                        |
|-----------------------------------------------|-----------------------------------------|----------------------------------------|
| Is the concrete pad in good condition?        | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is the well surface casing in good condition? | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is the surface casing vertical?               | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is there an internal well seal?               | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Has there been physical damage to the well?   | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Does sounding depth match completed depth?    | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is measuring point marked?                    | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is the well clearly labeled?                  | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Flush mount - Is it secure from runoff?       | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |

Other Comments \_\_\_\_\_

## Recommendations

|                                      |                                         |                                        |
|--------------------------------------|-----------------------------------------|----------------------------------------|
| Well needs to be redeveloped         | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be re-surveyed.        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be repaired.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be replaced.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be properly abandoned. | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| No action necessary.                 | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |

## Comments

Lock in bad shape condition

Inspected by: MG  
 Date of Inspection: 7/19/2022  
 Reviewed by: [Signature] (Print)  
 (Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: DW-3  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: Pad lock

Elevation (top of inner casing): \_\_\_\_\_

Surface casing material: Steel

Well casing material: PVC

Surface Casing diameter: 6 inches

Well Diameter: 4 inches

Well Depth (as installed): \_\_\_\_\_ ftbgs

Well Depth (as measured): 87.50 fttoc

Screened interval: \_\_\_\_\_ ft

Open hole interval: \_\_\_\_\_ ft

Depth to water: 19.16 ftbtoc

Date: 7/19/2022      Time: 0910

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 491 ~~ppm~~ ppb

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

## Well Condition

|                                               |                                         |                                        |
|-----------------------------------------------|-----------------------------------------|----------------------------------------|
| Is the concrete pad in good condition?        | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is the well surface casing in good condition? | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is the surface casing vertical?               | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is there an internal well seal?               | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Has there been physical damage to the well?   | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Does sounding depth match completed depth?    | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is measuring point marked?                    | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Is the well clearly labeled?                  | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |
| Flush mount - Is it secure from runoff?       | <input checked="" type="checkbox"/> Yes | No <input type="checkbox"/>            |

Other Comments \_\_\_\_\_

## Recommendations

|                                      |                                         |                                        |
|--------------------------------------|-----------------------------------------|----------------------------------------|
| Well needs to be redeveloped         | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be re-surveyed.        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be repaired.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be replaced.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be properly abandoned. | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| No action necessary.                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

## Comments

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Inspected by: MG  
Date of Inspection: 7/19/2022  
Reviewed by: \_\_\_\_\_

(Print)

(Sign)

[Signature]

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: SW-3  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: Pad Lock

Elevation (top of inner casing): \_\_\_\_\_

Surface casing material: Steel

Well casing material: PVC

Surface Casing diameter: 3 inches

Well Diameter: 2 inches

Well Depth (as installed): \_\_\_\_\_ ftbgs

Well Depth (as measured): 29.83 ftboc

Screened interval: \_\_\_\_\_ ft

Open hole interval: \_\_\_\_\_ ft

Depth to water: 19.80 ftboc

Date: 7/19/2022      Time: 0914

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 1614 ppm ppb

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush mount - Is it secure from runoff?

Yes

No

Other Comments \_\_\_\_\_

## Recommendations

Well needs to be redeveloped

Yes

No

Well needs to be re-surveyed.

Yes

No

Well needs to be repaired.

Yes

No

Well needs to be replaced.

Yes

No

Well needs to be properly abandoned.

Yes

No

No action necessary.

Yes

No

## Comments

• Lock in bad condition  
• Large ~~ant~~ nest  
• well is very overgrown by brush

Inspected by: MG

Date of Inspection: 7/19/2022

Reviewed by:

(Print)

(Sign)

# **EPA Region 2 Superfund Well Assessment Checklist**

## **Facility Information**

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## **Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: BM-121  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## **Well Construction Details**

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: None

Elevation (top of inner casing): \_\_\_\_\_

Surface casing material: Steel

Well casing material: \_\_\_\_\_

Surface Casing diameter: 6 inches

Well Diameter: 6 inches

Well Depth (as installed): \_\_\_\_\_ ftbgs

Well Depth (as measured): 56.26 ftboc

Screened interval: \_\_\_\_\_ ft

Open hole interval: \_\_\_\_\_ ft

Depth to water: 27.32 ftboc

Date: 7/19/2022 Time: 0830

\* If multilevel well please see attached worksheet.



# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 20 ~~ppm~~ ppb

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is measuring point marked?

Yes

No MG

Is the well clearly labeled?

Yes

No

Flush mount - Is it secure from runoff?

Yes

No

Other Comments \_\_\_\_\_

## Recommendations

Well needs to be redeveloped

Yes

No

Well needs to be re-surveyed.

Yes

No

Well needs to be repaired.

Yes

No

Well needs to be replaced.

Yes

No

Well needs to be properly abandoned.

Yes

No

No action necessary.

Yes

No

## Comments

Tubing present in well and removed by EA

Inspected by: MG

Date of Inspection: 7/19/2022

Reviewed by:

(Print)

(Sign)

Michael Selkey

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: URS-55  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## Well Construction Details

Type of well (Circle one) Flush Mount Stick up Multilevel Well\*

Well lock/security type: None

Elevation (top of inner casing): \_\_\_\_\_

Surface casing material: Steel

Well casing material: Steel

Surface Casing diameter: 8 in and 1.4 ft inches

Well Diameter: 2 inches

Well Depth (as installed): \_\_\_\_\_ ftbgs

Well Depth (as measured): 26.50 ftoc

Screened interval: \_\_\_\_\_ ft

Open hole interval: \_\_\_\_\_ ft

Depth to water: 23.40 ftbtoc

Date: 7/19/2022 Time: 0842

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 2 ppm ppb

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

☒ No

## Well Condition

Is the concrete pad in good condition?

☒ Yes

☒ No

Is the well surface casing in good condition?

☒ Yes

No

Is the surface casing vertical?

☒ Yes

No

Is there an internal well seal?

☒ Yes

No

Has there been physical damage to the well?

Yes

☒ No

Does sounding depth match completed depth?

☒ Yes

No

Is measuring point marked?

☒ Yes

No

Is the well clearly labeled?

Yes

☒ No

Flush mount - Is it secure from runoff?

☒ Yes

No

Other Comments \_\_\_\_\_

## Recommendations

Well needs to be redeveloped

Yes

☒ No

Well needs to be re-surveyed.

Yes

☒ No

Well needs to be repaired.

Yes

☒ No

Well needs to be replaced.

Yes

☒ No

Well needs to be properly abandoned.

Yes

☒ No

No action necessary.

☒ Yes

No

## Comments

• Tubing present in well and removed by EA

• Has double outer casing

Inspected by: WMB MG

Date of Inspection: 7/19/2022

Reviewed by: \_\_\_\_\_

(Print)

(Sign)

M. J. Silkey

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: URS-25  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## Well Construction Details

Type of well (Circle one) Flush Mount Stick up Multilevel Well\*  
 Well lock/security type: None  
 Elevation (top of inner casing): \_\_\_\_\_  
 Surface casing material: Steel  
 Well casing material: Steel  
 Surface Casing diameter: 8 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 58.19 ftboc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 33.13 ftboc  
 Date: 7/19/2022 Time: 0813

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

## Well Condition

|                                               |                                         |                                        |
|-----------------------------------------------|-----------------------------------------|----------------------------------------|
| Is the concrete pad in good condition?        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Is the well surface casing in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is the surface casing vertical?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is there an internal well seal?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Has there been physical damage to the well?   | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Does sounding depth match completed depth?    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is measuring point marked?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is the well clearly labeled?                  | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Flush mount - Is it secure from runoff?       | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |

Other Comments Standing water present in the casing

## Recommendations

|                                      |                                         |                                        |
|--------------------------------------|-----------------------------------------|----------------------------------------|
| Well needs to be redeveloped         | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be re-surveyed.        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be repaired.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be replaced.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be properly abandoned. | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| No action necessary.                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

## Comments

Well needs new J-plug  
Bolts need to be placed

Inspected by: MLG  
Date of Inspection: 7/19/2022  
Reviewed by: [Signature] (Print)  
(Sign)

# EPA Region 2 Superfund Well Assessment Checklist

## Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

## Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: URS-3D  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

## Well Construction Details

Type of well (Circle one)      Flush Mount      Stick up      Multilevel Well\*

Well lock/security type: Pad Lock

Elevation (top of inner casing): \_\_\_\_\_

Surface casing material: Steel

Well casing material: Steel

Surface Casing diameter: \_\_\_\_\_ inches

Well Diameter: 2 inches

Well Depth (as installed): \_\_\_\_\_ ftbgs

Well Depth (as measured): 86.34 ftboc

Screened interval: \_\_\_\_\_ ft

Open hole interval: \_\_\_\_\_ ft

Depth to water: 39.21 ftbtoc

Date: 7/19/2022      Time: 0747

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

## Well Condition

|                                               |                                         |                                        |
|-----------------------------------------------|-----------------------------------------|----------------------------------------|
| Is the concrete pad in good condition?        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Is the well surface casing in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is the surface casing vertical?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is there an internal well seal?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Has there been physical damage to the well?   | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Does sounding depth match completed depth?    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is measuring point marked?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is the well clearly labeled?                  | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Flush mount - Is it secure from runoff?       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

Other Comments \_\_\_\_\_

## Recommendations

|                                      |                                         |                                        |
|--------------------------------------|-----------------------------------------|----------------------------------------|
| Well needs to be redeveloped         | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be re-surveyed.        | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be repaired.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be replaced.           | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| Well needs to be properly abandoned. | Yes <input type="checkbox"/>            | No <input checked="" type="checkbox"/> |
| No action necessary.                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

## Comments

|  |
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|  |
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|  |
|  |

Inspected by: W. MG  
 Date of Inspection: 7/19/2022  
 Reviewed by: [Signature] (Print)  
 (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: URS-2D  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one) Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: None  
 Elevation (top of inner casing): \_\_\_\_\_  
 Surface casing material: Steel  
 Well casing material: Steel  
 Surface Casing diameter: 8 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 90.41 ftboc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 32.94 ftboc  
 Date: 7/19/2022      Time: 0807

\* If multilevel well please see attached worksheet.



# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist? Yes ☐ No ☒

## Well Condition

|                                               |                                     |                                        |
|-----------------------------------------------|-------------------------------------|----------------------------------------|
| Is the concrete pad in good condition?        | Yes <input type="checkbox"/>        | No <input checked="" type="checkbox"/> |
| Is the well surface casing in good condition? | <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is the surface casing vertical?               | <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is there an internal well seal?               | <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Has there been physical damage to the well?   | Yes <input type="checkbox"/>        | No <input checked="" type="checkbox"/> |
| Does sounding depth match completed depth?    | <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is measuring point marked?                    | <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |
| Is the well clearly labeled?                  | Yes <input type="checkbox"/>        | No <input checked="" type="checkbox"/> |
| Flush mount - Is it secure from runoff?       | Yes <input type="checkbox"/>        | No <input checked="" type="checkbox"/> |

Other Comments Some stagnant water accumulated in casing

## Recommendations

|                                      |                                     |                                        |
|--------------------------------------|-------------------------------------|----------------------------------------|
| Well needs to be redeveloped         | Yes <input type="checkbox"/>        | No <input checked="" type="checkbox"/> |
| Well needs to be re-surveyed.        | Yes <input type="checkbox"/>        | No <input checked="" type="checkbox"/> |
| Well needs to be repaired.           | Yes <input type="checkbox"/>        | No <input checked="" type="checkbox"/> |
| Well needs to be replaced.           | Yes <input type="checkbox"/>        | No <input checked="" type="checkbox"/> |
| Well needs to be properly abandoned. | Yes <input type="checkbox"/>        | No <input checked="" type="checkbox"/> |
| No action necessary.                 | <input checked="" type="checkbox"/> | No <input type="checkbox"/>            |

## Comments

Well needs a new 3-plug  
Steel casing missing locking mechanism

Inspected by: MG  
Date of Inspection: 7/19/2022  
Reviewed by: \_\_\_\_\_

(Print)

(Sign)

Morish Selkey

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: SW-7RE  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_  
 GPS Instrument used: \_\_\_\_\_  
 Datum: \_\_\_\_\_  
 Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one) Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Padlock  
 Elevation (top of inner casing): \_\_\_\_\_  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: \_\_\_\_\_ inches  
 Well Diameter: 2" 8" inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 27.44 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 18.79 ftbtoc  
 Date: 07/19/22      Time: 0950

\* If multilevel well please see attached worksheet.

## EPA Region 2 Superfund Well Assessment Checklist

### Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 0 ppm

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
 O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
 CO: \_\_\_\_\_ ppm  
 H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

☒ No

### Well Condition

Is the concrete pad in good condition?

☒ Yes

No

Is the well surface casing in good condition?

☒ Yes

No

Is the surface casing vertical?

☒ Yes

No

Is there an internal well seal?

☒ Yes

No

Has there been physical damage to the well?

Yes

☒ No

Does sounding depth match completed depth?

☒ Yes

No

Is measuring point marked?

☒ Yes

No

Is the well clearly labeled?

Yes

☒ No

Flush mount - Is it secure from runoff?

☒ Yes

No

Other Comments \_\_\_\_\_

### Recommendations

Well needs to be redeveloped

Yes

☒ No

Well needs to be re-surveyed.

Yes

☒ No

Well needs to be repaired.

Yes

☒ No

Well needs to be replaced.

Yes

☒ No

Well needs to be properly abandoned.

Yes

☒ No

No action necessary.

☒ Yes

No

### Comments

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---



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Inspected by: M. Gilkey (EA)

Date of Inspection: 07/19/2022

Reviewed by: Meriah Gilkey

(Print)

Meriah Gilkey

(Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Air Force Plant 59  
 Site Address: 667-677 NY 17C Johnson City  
 Site County: Broome  
 Site State: New York  
 EPA Site ID Number: \_\_\_\_\_  
 Site Owner: Air Force  
 EPA Project Manager: Chris Schroer

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: SW-4RE  
 Well Installation date: \_\_\_\_\_

|                          | From Log | By GPS |
|--------------------------|----------|--------|
| Ground Surface Elevation |          |        |
| Latitude                 |          |        |
| Longitude                |          |        |
| Northing (State Plane)   |          |        |
| Easting (State Plane)    |          |        |

Cross streets (if applicable): \_\_\_\_\_

GPS Instrument used: \_\_\_\_\_

Datum: \_\_\_\_\_

Accuracy/Precision: \_\_\_\_\_

### Well Construction Details

Type of well (Circle one) Flush Mount      Stick up      Multilevel Well\*  
 Well lock/security type: Pad lock on J-plug  
 Elevation (top of inner casing): \_\_\_\_\_  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 8" inches  
 Well Diameter: 2" inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 30.97 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 14.11 ftbtoc  
 Date: 07/19/22 Time: 0944

\* If multilevel well please see attached worksheet.

# EPA Region 2 Superfund Well Assessment Checklist

## Well Headspace Readings

PID/FID Reading taken inside top of casing (if applicable): 116 ~~ppm~~ <sup>VOC</sup> ppb

Multi-gas/CGI meter Readings taken (if applicable):

LEL: \_\_\_\_\_ % LEL  
O<sub>2</sub>: \_\_\_\_\_ 40% Vol.  
CO: \_\_\_\_\_ ppm  
H<sub>2</sub>S: \_\_\_\_\_ ppm

Do readings indicate unsafe conditions exist?

Yes

No

## Well Condition

Is the concrete pad in good condition?

Yes

No

Is the well surface casing in good condition?

Yes

No

Is the surface casing vertical?

Yes

No

Is there an internal well seal?

Yes

No

Has there been physical damage to the well?

Yes

No

Does sounding depth match completed depth?

Yes

No

Is measuring point marked?

Yes

No

Is the well clearly labeled?

Yes

No

Flush mount - Is it secure from runoff?

Yes

No

Other Comments Well seems to be at a low pt in the field  
run off could impact

## Recommendations

Well needs to be redeveloped

Yes

No

Well needs to be re-surveyed.

Yes

No

Well needs to be repaired.

Yes

No

Well needs to be replaced.

Yes

No

Well needs to be properly abandoned.

Yes

No

No action necessary.

Yes

No

## Comments

Inspected by: M. Gulten (EA)

Date of Inspection: 07/19/22

Reviewed by:

(Print)

(Sign)

# **Appendix B**

## **Raw Laboratory Data**

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September 22, 2022

Service Request No:R2206604

Ms. Emily Cummings  
EA Engineering, Science, and Technology  
269 W. Jefferson Street  
Syracuse, NY 13202

**Laboratory Results for: AFP - 59**

Dear Ms.Cummings,

Enclosed are the results of the sample(s) submitted to our laboratory July 20, 2022  
For your reference, these analyses have been assigned our service request number **R2206604**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at [Meghan.Pedro@alsglobal.com](mailto:Meghan.Pedro@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Meghan Pedro  
Project Manager

CC: Chris Schroer

**ADDRESS**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

**PHONE**

+1 585 288 5380

**FAX**

+1 585 288 8475

ALS Group USA, Corp.  
dba ALS Environmental





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## Narrative Documents

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)



**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Received:** 07/20/2022

#### **CASE NARRATIVE**

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

#### **Sample Receipt:**

Eleven water samples were received for analysis at ALS Environmental on 07/20/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

#### **Semivolatiles by GC/MS:**

Report was revised, the wrong calibration curve was included in the raw data.

#### **Volatiles by GC/MS:**

No significant anomalies were noted with this analysis.

Approved by Meghan Pedro

Date 08/04/2022



## Sample Receipt Information

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:**R2206604

**SAMPLE CROSS-REFERENCE**

| <u>SAMPLE #</u> | <u>CLIENT SAMPLE ID</u> | <u>DATE</u> | <u>TIME</u> |
|-----------------|-------------------------|-------------|-------------|
| R2206604-001    | URS-2S-07192022         | 7/19/2022   | 1600        |
| R2206604-002    | URS-2D-07192022         | 7/19/2022   | 1537        |
| R2206604-003    | SW-4RE-07192022         | 7/19/2022   | 1359        |
| R2206604-004    | SW-7RE-07192022         | 7/19/2022   | 1257        |
| R2206604-005    | SW-9-07192022           | 7/19/2022   | 1032        |
| R2206604-006    | DW-9-07192022           | 7/19/2022   | 1200        |
| R2206604-007    | DW-3-07192022           | 7/19/2022   | 1333        |
| R2206604-008    | URS-3D-07192022         | 7/19/2022   | 1640        |
| R2206604-009    | DUP-01-07192022         | 7/19/2022   |             |
| R2206604-010    | EB-07192022             | 7/19/2022   | 1640        |
| R2206604-011    | TB-01-07192022          | 7/19/2022   | 1635        |



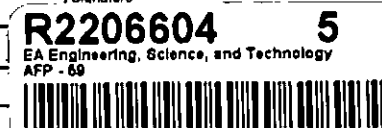


# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

064647

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

|                                                                                        |  |                                               |  |                                                                       |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                      |  |                                                                                                                                                                                                 |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
|----------------------------------------------------------------------------------------|--|-----------------------------------------------|--|-----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|
| Project Name<br><b>AFP-59</b>                                                          |  | Project Number<br><b>6337601</b>              |  | ANALYSIS REQUESTED (Include Method Number and Container Preservative) |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                      |  |                                                                                                                                                                                                 |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| Project Manager<br><b>Chris Schroer</b>                                                |  | Report CC                                     |  | PRESERVATIVE                                                          |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                      |  |                                                                                                                                                                                                 |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| Company/Address<br><b>EA Engineering<br/>269 W Jefferson St<br/>Syracuse, NY 13202</b> |  |                                               |  | NUMBER OF CONTAINERS                                                  | GC/MS VOCs<br>• 8260 • 824 • QLP<br>GC/MS SVOCs<br>• 8270 • 825<br>GC VOCs<br>• 8021 • 801/802<br>PESTICIDES<br>• 8091 • 808<br>PCBs<br>• 8032 • 808<br>METALS TOTAL<br>(List in comments below)<br>METALS DISSOLVED<br>(List in comments below)<br><b>14-0:oxgiz<br/>8270D SIM</b> | PRESERVATIVE KEY<br>0. NONE<br>1. HCL<br>2. HNO <sub>3</sub><br>3. H <sub>2</sub> SO <sub>4</sub><br>4. NaOH<br>5. Zn. Acetate<br>6. MeOH<br>7. NaHSO <sub>4</sub><br>8. Other _____ |  |                                                                                                                                                                                                 |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| Phone #<br><b>315 569 8308</b>                                                         |  | Email<br><b>Cschroer@eaest.com</b>            |  |                                                                       |                                                                                                                                                                                                                                                                                     | REMARKS/<br>ALTERNATE DESCRIPTION                                                                                                                                                    |  |                                                                                                                                                                                                 |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| Sampler's Signature<br><i>Monah Gilkey</i>                                             |  | Sampler's Printed Name<br><b>Monah Gilkey</b> |  |                                                                       |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                      |  |                                                                                                                                                                                                 |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| FOR OFFICE USE ONLY LAB ID                                                             |  | SAMPLING DATE                                 |  |                                                                       |                                                                                                                                                                                                                                                                                     | TIME                                                                                                                                                                                 |  | MATRIX                                                                                                                                                                                          |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| CLIENT SAMPLE ID                                                                       |  | DATE                                          |  | TIME                                                                  |                                                                                                                                                                                                                                                                                     | MATRIX                                                                                                                                                                               |  |                                                                                                                                                                                                 |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| URS-2S-07192022                                                                        |  | 07/19/22                                      |  | 1600                                                                  |                                                                                                                                                                                                                                                                                     | GN                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| URS-2D-07192022                                                                        |  | 07/19/22                                      |  | 1537                                                                  |                                                                                                                                                                                                                                                                                     | GN                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| SW-4RE-07192022                                                                        |  | 07/19/22                                      |  | 1359                                                                  |                                                                                                                                                                                                                                                                                     | GW                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| SW-7RE-07192022                                                                        |  | 07/19/22                                      |  | 1257                                                                  |                                                                                                                                                                                                                                                                                     | GW                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| SW-9-07192022                                                                          |  | 07/19/22                                      |  | 1032                                                                  |                                                                                                                                                                                                                                                                                     | GW                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| DW-9-07192022                                                                          |  | 07/19/22                                      |  | 1200                                                                  |                                                                                                                                                                                                                                                                                     | GW                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| DW-3-07192022                                                                          |  | 07/19/22                                      |  | 1333                                                                  |                                                                                                                                                                                                                                                                                     | GW                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| URS-3D-07192022                                                                        |  | 07/19/22                                      |  | 1640                                                                  |                                                                                                                                                                                                                                                                                     | GW                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| DUP-01-07192022                                                                        |  | 07/19/22                                      |  | ---                                                                   |                                                                                                                                                                                                                                                                                     | GW                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| EB-07192022                                                                            |  | 07/19/22                                      |  | 1640                                                                  |                                                                                                                                                                                                                                                                                     | GW                                                                                                                                                                                   |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| TB-01-07192022                                                                         |  | 07/19/22                                      |  | 1635                                                                  |                                                                                                                                                                                                                                                                                     | W                                                                                                                                                                                    |  | X                                                                                                                                                                                               |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| SPECIAL INSTRUCTIONS/COMMENTS<br>Metals                                                |  |                                               |  |                                                                       |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                      |  | TURNAROUND REQUIREMENTS<br>RUSH (SURCHARGES APPLY)<br>1 day 2 day 3 day<br>4 day 5 day<br><input checked="" type="checkbox"/> Standard (10 business days-No Surcharge)<br>REQUESTED REPORT DATE |  |              |  | REPORT REQUIREMENTS<br>I. Results Only<br>II. Results + OC Summaries (LCS, DUP, MS/MSD as required)<br><input checked="" type="checkbox"/> III. Results + OC and Calibration Summaries<br>IV. Data Validation Report with Raw Data<br>Edata Yes No |  |              |  | INVOICE INFORMATION<br>PO #<br>6337601/0002/3<br>BILL TO: North East Account<br>EA Engineering (MS)<br>Payable<br>3 Washington Ctr<br>Newburgh NY 12550 |  |  |  |  |  |  |
| STATE WHERE SAMPLES WERE COLLECTED                                                     |  |                                               |  |                                                                       |                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                      |  |                                                                                                                                                                                                 |  |              |  |                                                                                                                                                                                                                                                    |  |              |  |                                                                                                                                                         |  |  |  |  |  |  |
| RELINQUISHED BY<br><i>Monah Gilkey</i>                                                 |  | RECEIVED BY<br><i>Azalia Lugo</i>             |  | RELINQUISHED BY                                                       |                                                                                                                                                                                                                                                                                     | RECEIVED BY                                                                                                                                                                          |  | RELINQUISHED BY                                                                                                                                                                                 |  | RECEIVED BY  |  | RELINQUISHED BY                                                                                                                                                                                                                                    |  | RECEIVED BY  |  |                                                                                                                                                         |  |  |  |  |  |  |
| Signature<br><i>Monah Gilkey</i>                                                       |  | Signature<br><i>Azalia Lugo</i>               |  | Signature                                                             |                                                                                                                                                                                                                                                                                     | Signature                                                                                                                                                                            |  | Signature                                                                                                                                                                                       |  | Signature    |  | Signature                                                                                                                                                                                                                                          |  | Signature    |  |                                                                                                                                                         |  |  |  |  |  |  |
| Printed Name<br><b>Monah Gilkey</b>                                                    |  | Printed Name<br><b>Azalia Lugo</b>            |  | Printed Name                                                          |                                                                                                                                                                                                                                                                                     | Printed Name                                                                                                                                                                         |  | Printed Name                                                                                                                                                                                    |  | Printed Name |  | Printed Name                                                                                                                                                                                                                                       |  | Printed Name |  |                                                                                                                                                         |  |  |  |  |  |  |
| Firm<br><b>EA Engineering</b>                                                          |  | Firm<br><b>ALS</b>                            |  | Firm                                                                  |                                                                                                                                                                                                                                                                                     | Firm                                                                                                                                                                                 |  | Firm                                                                                                                                                                                            |  | Firm         |  | Firm                                                                                                                                                                                                                                               |  | Firm         |  |                                                                                                                                                         |  |  |  |  |  |  |
| Date/Time<br><b>07/19/2022 TSS</b>                                                     |  | Date/Time<br><b>8/20/22 0740</b>              |  | Date/Time                                                             |                                                                                                                                                                                                                                                                                     | Date/Time                                                                                                                                                                            |  | Date/Time                                                                                                                                                                                       |  | Date/Time    |  | Date/Time                                                                                                                                                                                                                                          |  | Date/Time    |  |                                                                                                                                                         |  |  |  |  |  |  |





## Cooler Receipt and Preservation

R2206604

5

EA Engineering, Science, and Technology  
AFP - 69Project/Client AFP-59

Folder Number \_\_\_\_\_

Cooler received on 07/20/22 by: ALCOURIER: ALS UPS FEDEX VELOCITY CLIENT

|   |                                                      |                   |
|---|------------------------------------------------------|-------------------|
| 1 | Were Custody seals on outside of cooler?             | <u>Y</u> N        |
| 2 | Custody papers properly completed (ink, signed)?     | <u>Y</u> N        |
| 3 | Did all bottles arrive in good condition (unbroken)? | <u>Y</u> <u>N</u> |
| 4 | Circle: <u>Wet Ice</u> Dry Ice Gel packs present?    | <u>Y</u> N        |

|    |                                                          |                       |
|----|----------------------------------------------------------|-----------------------|
| 5a | Perchlorate samples have required headspace?             | Y N <u>NA</u>         |
| 5b | Did <u>VOA</u> vials, Alk, or Sulfide have sig* bubbles? | Y <u>N</u> NA         |
| 6  | Where did the bottles originate?                         | <u>ALS/ROC</u> CLIENT |
| 7  | Soil VOA received as: Bulk Encore 5035set                | <u>NA</u>             |

8. Temperature Readings Date: 07/20/22 Time: 0758ID: IR#7 R#11From: Temp Blank Sample Bottle

|                               |            |            |     |     |     |     |     |
|-------------------------------|------------|------------|-----|-----|-----|-----|-----|
| Observed Temp (°C)            | <u>3.1</u> | <u>3.6</u> |     |     |     |     |     |
| Within 0-6°C?                 | <u>Y</u> N | <u>Y</u> N | Y N | Y N | Y N | Y N | Y N |
| If <0°C, were samples frozen? | Y N        | Y N        | Y N | Y N | Y N | Y N | Y N |

If out of Temperature, note packing/ice condition: \_\_\_\_\_ Ice melted Poorly Packed (described below) Same Day Rule  
& Client Approval to Run Samples: \_\_\_\_\_ Standing Approval Client aware at drop-off Client notified by: \_\_\_\_\_

All samples held in storage location: R-002 by AL on 07/20/22 at 0809

5035 samples placed in storage location: \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check\*\*: Date: 07/20/22 Time: 1054 by: AL

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO  
 10. Did all bottle labels and tags agree with custody papers? YES NO  
 11. Were correct containers used for the tests indicated? YES NO  
 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO  
 13. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated N/A

| pH                    | Lot of test paper | Reagent                                       | Preserved? |    | Lot Received                                                                                             | Exp | Sample ID Adjusted | Vol. Added | Lot Added | Final pH |
|-----------------------|-------------------|-----------------------------------------------|------------|----|----------------------------------------------------------------------------------------------------------|-----|--------------------|------------|-----------|----------|
| ≥12                   |                   | NaOH                                          | Yes        | No |                                                                                                          |     |                    |            |           |          |
| ≤2                    |                   | HNO <sub>3</sub>                              |            |    |                                                                                                          |     |                    |            |           |          |
| ≤2                    |                   | H <sub>2</sub> SO <sub>4</sub>                |            |    |                                                                                                          |     |                    |            |           |          |
| <4                    |                   | NaHSO <sub>4</sub>                            |            |    |                                                                                                          |     |                    |            |           |          |
| 5-9                   |                   | For 608pest                                   |            |    | No=Notify for 3day                                                                                       |     |                    |            |           |          |
| Residual Chlorine (-) |                   | For CN, Phenol, 625, 608pest, 522             |            |    | If +, contact PM to add Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (625, 608, CN), ascorbic (phenol). |     |                    |            |           |          |
|                       |                   | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |            |    |                                                                                                          |     |                    |            |           |          |
|                       |                   | ZnAcetate                                     | -          | -  |                                                                                                          |     |                    |            |           |          |
|                       |                   | HCl                                           | **         | ** |                                                                                                          |     |                    |            |           |          |

\*\*VOAs and 1664 Not to be tested before analysis.  
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 80828-C2781

Explain all Discrepancies/ Other Comments:

\* URS-3D07192022-MS/MSD cracked cap, replaced

8260 HCl lot 229504

|       |        |
|-------|--------|
| HPROD | BULK   |
| HTR   | FLDT   |
| SUB   | HGFB   |
| ALS   | LL3541 |

Labels secondary reviewed by: AL

PC Secondary Review: \_\_\_\_\_

\*significant air bubbles: VOA &gt; 5-6 mm : WC &gt; 1 in. diameter

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Internal Chain of Custody Report

**Client:** EA Engineering, Science, and Technology  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

| Bottle ID       | Methods | Date      | Time | Sample Location / User | Disposed On |
|-----------------|---------|-----------|------|------------------------|-------------|
| R2206604-001.02 |         |           |      |                        |             |
|                 | 8260C   | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         | 7/28/2022 | 1114 | In Lab / FNAEGLER      |             |
|                 |         | 7/28/2022 | 1116 | R-001-S08 / FNAEGLER   |             |
|                 |         |           |      |                        |             |
| R2206604-001.03 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-001.04 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-001.05 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| R2206604-001.06 |         |           |      |                        |             |
|                 | 8270D   | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-002.02 |         |           |      |                        |             |
|                 | 8260C   | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         | 7/28/2022 | 1114 | In Lab / FNAEGLER      |             |
|                 |         | 7/28/2022 | 1116 | R-001-S08 / FNAEGLER   |             |
|                 |         |           |      |                        |             |
| R2206604-002.03 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-002.04 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-002.05 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |

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Internal Chain of Custody Report

**Client:** EA Engineering, Science, and Technology  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

| Bottle ID       | Methods | Date      | Time | Sample Location / User | Disposed On |
|-----------------|---------|-----------|------|------------------------|-------------|
| R2206604-002.06 | 8270D   | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-003.02 | 8260C   | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         | 7/28/2022 | 1114 | In Lab / FNAEGLER      |             |
|                 |         | 7/28/2022 | 1116 | R-001-S08 / FNAEGLER   |             |
| R2206604-003.03 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-003.04 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-003.05 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-003.06 | 8270D   | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-004.02 | 8260C   | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         | 7/28/2022 | 1114 | In Lab / FNAEGLER      |             |
|                 |         | 7/28/2022 | 1116 | R-001-S08 / FNAEGLER   |             |
| R2206604-004.03 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-004.04 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         |           |      |                        |             |

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Internal Chain of Custody Report

**Client:** EA Engineering, Science, and Technology  
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**Service Request:** R2206604

| Bottle ID       | Methods | Date      | Time | Sample Location / User | Disposed On |
|-----------------|---------|-----------|------|------------------------|-------------|
| R2206604-004.05 | 8270D   | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-004.06 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-005.02 | 8260C   | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         | 7/28/2022 | 1114 | In Lab / FNAEGLER      |             |
|                 |         | 7/28/2022 | 1116 | R-001-S08 / FNAEGLER   |             |
|                 |         |           |      |                        |             |
| R2206604-005.03 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-005.04 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-005.05 | 8270D   | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-005.06 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-006.02 | 8260C   | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         | 7/28/2022 | 1114 | In Lab / FNAEGLER      |             |
|                 |         | 7/28/2022 | 1116 | R-001-S08 / FNAEGLER   |             |
|                 |         |           |      |                        |             |
| R2206604-006.03 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         |           |      |                        |             |

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Internal Chain of Custody Report

**Client:** EA Engineering, Science, and Technology  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

| Bottle ID              | Methods | Date      | Time | Sample Location / User | Disposed On |
|------------------------|---------|-----------|------|------------------------|-------------|
| <b>R2206604-006.04</b> |         |           |      |                        |             |
|                        |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                        |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| <b>R2206604-006.05</b> |         |           |      |                        |             |
|                        |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                        |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| <b>R2206604-006.06</b> |         |           |      |                        |             |
|                        | 8270D   |           |      |                        |             |
|                        |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                        |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| <b>R2206604-007.02</b> |         |           |      |                        |             |
|                        | 8260C   |           |      |                        |             |
|                        |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                        |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                        |         | 7/28/2022 | 1114 | In Lab / FNAEGLER      |             |
|                        |         | 7/28/2022 | 1116 | R-001-S08 / FNAEGLER   |             |
| <b>R2206604-007.03</b> |         |           |      |                        |             |
|                        |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                        |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| <b>R2206604-007.04</b> |         |           |      |                        |             |
|                        |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                        |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| <b>R2206604-007.05</b> |         |           |      |                        |             |
|                        | 8270D   |           |      |                        |             |
|                        |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                        |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| <b>R2206604-007.06</b> |         |           |      |                        |             |
|                        |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                        |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| <b>R2206604-008.02</b> |         |           |      |                        |             |
|                        |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                        |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| <b>R2206604-008.03</b> |         |           |      |                        |             |

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Internal Chain of Custody Report

**Client:** EA Engineering, Science, and Technology  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

| Bottle ID       | Methods | Date      | Time | Sample Location / User | Disposed On |
|-----------------|---------|-----------|------|------------------------|-------------|
| R2206604-008.04 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-008.05 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-008.06 | 8270D   | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| R2206604-008.07 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| R2206604-008.08 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| R2206604-008.09 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| R2206604-008.10 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-008.11 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-008.12 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-008.13 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |

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Internal Chain of Custody Report

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**Project:** AFP - 59/6337601

**Service Request:** R2206604

| Bottle ID       | Methods | Date      | Time | Sample Location / User | Disposed On |
|-----------------|---------|-----------|------|------------------------|-------------|
|                 | 8260C   | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         | 7/28/2022 | 1114 | In Lab / FNAEGLER      |             |
|                 |         | 7/28/2022 | 1116 | R-001-S08 / FNAEGLER   |             |
|                 |         |           |      |                        |             |
| R2206604-008.14 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-008.15 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-008.16 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| R2206604-009.02 |         |           |      |                        |             |
|                 | 8260C   | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
|                 |         | 7/28/2022 | 1114 | In Lab / FNAEGLER      |             |
|                 |         | 7/28/2022 | 1116 | R-001-S08 / FNAEGLER   |             |
|                 |         |           |      |                        |             |
| R2206604-009.03 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-009.04 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1054 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1059 | R-001 / GESMERIAN      |             |
| R2206604-009.05 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
| R2206604-009.06 |         |           |      |                        |             |
|                 | 8270D   | 7/20/2022 | 1057 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1058 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206604-010.02 |         |           |      |                        |             |



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Internal Chain of Custody Report

**Client:** EA Engineering, Science, and Technology  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

| Bottle ID       | Methods   | Date      | Time                 | Sample Location / User | Disposed On |
|-----------------|-----------|-----------|----------------------|------------------------|-------------|
|                 |           | 7/20/2022 | 1054                 | SMO / GESMERIAN        |             |
|                 |           | 7/20/2022 | 1059                 | R-001 / GESMERIAN      |             |
| R2206604-010.03 |           |           |                      |                        |             |
| 7/20/2022       |           | 1054      | SMO / GESMERIAN      |                        |             |
| 7/20/2022       |           | 1059      | R-001 / GESMERIAN    |                        |             |
| R2206604-010.04 |           |           |                      |                        |             |
| 7/20/2022       |           | 1054      | SMO / GESMERIAN      |                        |             |
| 7/20/2022       |           | 1059      | R-001 / GESMERIAN    |                        |             |
| 7/28/2022       |           | 1114      | In Lab / FNAEGLER    |                        |             |
| 7/28/2022       |           | 1116      | R-001-S08 / FNAEGLER |                        |             |
| R2206604-010.05 |           |           |                      |                        |             |
| 8270D           | 7/20/2022 | 1057      | SMO / GESMERIAN      |                        |             |
|                 | 7/20/2022 | 1058      | R-002 / GESMERIAN    |                        |             |
| R2206604-010.06 |           |           |                      |                        |             |
|                 | 7/20/2022 | 1057      | SMO / GESMERIAN      |                        |             |
|                 | 7/20/2022 | 1058      | R-002 / GESMERIAN    |                        |             |
| R2206604-011.01 |           |           |                      |                        |             |
|                 | 7/20/2022 | 1054      | SMO / GESMERIAN      |                        |             |
|                 | 7/20/2022 | 1059      | R-001 / GESMERIAN    |                        |             |
| R2206604-011.02 |           |           |                      |                        |             |
|                 | 7/20/2022 | 1054      | SMO / GESMERIAN      |                        |             |
|                 | 7/20/2022 | 1059      | R-001 / GESMERIAN    |                        |             |
| R2206604-011.03 |           |           |                      |                        |             |
| 8260C           | 7/20/2022 | 1054      | SMO / GESMERIAN      |                        |             |
|                 | 7/20/2022 | 1059      | R-001 / GESMERIAN    |                        |             |
|                 | 7/28/2022 | 1114      | In Lab / FNAEGLER    |                        |             |
|                 | 7/28/2022 | 1116      | R-001-S08 / FNAEGLER |                        |             |



## Miscellaneous Forms

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)

## REPORT QUALIFIERS AND DEFINITIONS

|   |                                                                                                                                                                                                                                                                                                        |     |                                                                                                                                                                                                                      |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U | Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.                                                                                                                       | +   | Correlation coefficient for MSA is <0.995.                                                                                                                                                                           |
| J | Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors). | N   | Inorganics- Matrix spike recovery was outside laboratory limits.                                                                                                                                                     |
| B | Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.                                                                                                                                                                            | N   | Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.                                                                                                                     |
| E | Inorganics- Concentration is estimated due to the serial dilution was outside control limits.                                                                                                                                                                                                          | S   | Concentration has been determined using Method of Standard Additions (MSA).                                                                                                                                          |
| E | Organics- Concentration has exceeded the calibration range for that specific analysis.                                                                                                                                                                                                                 | W   | Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.                                                                                                   |
| D | Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.                                                                                            | P   | Concentration >40% difference between the two GC columns.                                                                                                                                                            |
| * | Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.                                                                                                                  | C   | Confirmed by GC/MS                                                                                                                                                                                                   |
| H | Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.                                                                                                                                                                                                         | Q   | DoD reports: indicates a pesticide/Aroclor is not confirmed ( $\geq 100\%$ Difference between two GC columns).                                                                                                       |
| # | Spike was diluted out.                                                                                                                                                                                                                                                                                 | X   | See Case Narrative for discussion.                                                                                                                                                                                   |
|   |                                                                                                                                                                                                                                                                                                        | MRL | Method Reporting Limit. Also known as:                                                                                                                                                                               |
|   |                                                                                                                                                                                                                                                                                                        | LOQ | Limit of Quantitation (LOQ)<br>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.                                                                          |
|   |                                                                                                                                                                                                                                                                                                        | MDL | Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier). |
|   |                                                                                                                                                                                                                                                                                                        | LOD | Limit of Detection. A value at or above the MDL which has been verified to be detectable.                                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                        | ND  | Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.                                                                                                                               |

### Rochester Lab ID # for State Accreditations<sup>1</sup>



| NELAP States            |
|-------------------------|
| Florida ID # E87674     |
| New Hampshire ID # 2941 |
| New York ID # 10145     |
| Pennsylvania ID# 68-786 |
| Virginia #460167        |

| Non-NELAP States       |
|------------------------|
| Connecticut ID #PH0556 |
| Delaware Approved      |
| Maine ID #NY01587      |
| North Carolina #36701  |
| North Carolina #676    |
| Rhode Island LAO00333  |

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

## ALS Laboratory Group

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### Acronyms

|            |                                                                                                                                          |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| ASTM       | American Society for Testing and Materials                                                                                               |
| A2LA       | American Association for Laboratory Accreditation                                                                                        |
| CARB       | California Air Resources Board                                                                                                           |
| CAS Number | Chemical Abstract Service registry Number                                                                                                |
| CFC        | Chlorofluorocarbon                                                                                                                       |
| CFU        | Colony-Forming Unit                                                                                                                      |
| DEC        | Department of Environmental Conservation                                                                                                 |
| DEQ        | Department of Environmental Quality                                                                                                      |
| DHS        | Department of Health Services                                                                                                            |
| DOE        | Department of Ecology                                                                                                                    |
| DOH        | Department of Health                                                                                                                     |
| EPA        | U. S. Environmental Protection Agency                                                                                                    |
| ELAP       | Environmental Laboratory Accreditation Program                                                                                           |
| GC         | Gas Chromatography                                                                                                                       |
| GC/MS      | Gas Chromatography/Mass Spectrometry                                                                                                     |
| LUFT       | Leaking Underground Fuel Tank                                                                                                            |
| M          | Modified                                                                                                                                 |
| MCL        | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL        | Method Detection Limit                                                                                                                   |
| MPN        | Most Probable Number                                                                                                                     |
| MRL        | Method Reporting Limit                                                                                                                   |
| NA         | Not Applicable                                                                                                                           |
| NC         | Not Calculated                                                                                                                           |
| NCASI      | National Council of the Paper Industry for Air and Stream Improvement                                                                    |
| ND         | Not Detected                                                                                                                             |
| NIOSH      | National Institute for Occupational Safety and Health                                                                                    |
| PQL        | Practical Quantitation Limit                                                                                                             |
| RCRA       | Resource Conservation and Recovery Act                                                                                                   |
| SIM        | Selected Ion Monitoring                                                                                                                  |
| TPH        | Total Petroleum Hydrocarbons                                                                                                             |
| tr         | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.                           |

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Analyst Summary report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

**Sample Name:** URS-2S-07192022  
**Lab Code:** R2206604-001  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

**Sample Name:** URS-2D-07192022  
**Lab Code:** R2206604-002  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

**Sample Name:** SW-4RE-07192022  
**Lab Code:** R2206604-003  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

**Sample Name:** SW-7RE-07192022  
**Lab Code:** R2206604-004  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

ALS Group USA, Corp.  
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Analyst Summary report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

**Sample Name:** SW-9-07192022  
**Lab Code:** R2206604-005  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

**Sample Name:** DW-9-07192022  
**Lab Code:** R2206604-006  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

**Sample Name:** DW-3-07192022  
**Lab Code:** R2206604-007  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

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Analyst Summary report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

**Sample Name:** DUP-01-07192022  
**Lab Code:** R2206604-009  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

**Sample Name:** EB-07192022  
**Lab Code:** R2206604-010  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C  
8270D

**Extracted/Digested By**  
  
MMCMAHON

**Analyzed By**  
FNAEGLER  
MMCMAHON

**Sample Name:** TB-01-07192022  
**Lab Code:** R2206604-011  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
8260C

**Extracted/Digested By**

**Analyzed By**  
FNAEGLER



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

| Analytical Method             | Preparation Method |
|-------------------------------|--------------------|
| 200.7                         | 200.2              |
| 200.8                         | 200.2              |
| 6010C                         | 3005A/3010A        |
| 6020A                         | ILM05.3            |
| 9034 Sulfide Acid Soluble     | 9030B              |
| SM 4500-CN-E Residual Cyanide | SM 4500-CN-G       |
| SM 4500-CN-E WAD Cyanide      | SM 4500-CN-I       |

### Solid/Soil/Non-Aqueous Matrix

| Analytical Method                                                                                         | Preparation Method |
|-----------------------------------------------------------------------------------------------------------|--------------------|
| 6010C                                                                                                     | 3050B              |
| 6020A                                                                                                     | 3050B              |
| 6010C TCLP (1311) extract                                                                                 | 3005A/3010A        |
| 6010 SPLP (1312) extract                                                                                  | 3005A/3010A        |
| 7199                                                                                                      | 3060A              |
| 300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions                                              | DI extraction      |
| For analytical methods not listed, the preparation method is the same as the analytical method reference. |                    |





## Sample Results

**ALS Environmental—Rochester Laboratory**

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## Volatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

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**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-2S-07192022  
**Lab Code:** R2206604-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1,1-Trichloroethane (TCA)        | <b>1.5 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>0.99 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 16:27 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 16:27 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 16:27 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Acetone                            | <b>26</b>     | 20  | 10  | 5.0  | 1    | 07/28/22 16:27 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 16:27 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 16:27 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 16:27 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 16:27 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 16:27 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:27 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:27 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 16:27 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 16:27 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 16:27 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 16:27 |   |
| Toluene                            | <b>0.35 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Trichloroethene (TCE)              | <b>2.3 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:27 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 16:27 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Xylenes, Total                     | <b>0.27 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 16:27 |   |
| cis-1,2-Dichloroethene             | <b>2.0 J</b>  | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:27 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-2S-07192022  
**Lab Code:** R2206604-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| m,p-Xylenes                 | 0.27 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:27 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 16:27 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 93    | 85 - 114       | 07/28/22 16:27 |   |
| Dibromofluoromethane | 95    | 80 - 119       | 07/28/22 16:27 |   |
| Toluene-d8           | 97    | 89 - 112       | 07/28/22 16:27 |   |

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 15:37  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-2D-07192022  
**Lab Code:** R2206604-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>0.26 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 19:03 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 19:03 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 19:03 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Acetone                            | ND U          | 20  | 10  | 5.0  | 1    | 07/28/22 19:03 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 19:03 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 19:03 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 19:03 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 19:03 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 19:03 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:03 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 19:03 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 19:03 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 19:03 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 19:03 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 19:03 |   |
| Toluene                            | <b>0.64 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Trichloroethene (TCE)              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 19:03 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 19:03 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Xylenes, Total                     | <b>0.42 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 19:03 |   |
| cis-1,2-Dichloroethene             | <b>65</b>     | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:03 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 15:37  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-2D-07192022  
**Lab Code:** R2206604-002

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| m,p-Xylenes                 | 0.42 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:03 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 19:03 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 95    | 85 - 114       | 07/28/22 19:03 |   |
| Dibromofluoromethane | 98    | 80 - 119       | 07/28/22 19:03 |   |
| Toluene-d8           | 98    | 89 - 112       | 07/28/22 19:03 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:59  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-4RE-07192022  
**Lab Code:** R2206604-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1,1-Trichloroethane (TCA)        | <b>1.6 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>0.71 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1-Dichloroethene (1,1-DCE)       | <b>0.32 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 16:50 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 16:50 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 16:50 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Acetone                            | ND U          | 20  | 10  | 5.0  | 1    | 07/28/22 16:50 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 16:50 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 16:50 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 16:50 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 16:50 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 16:50 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:50 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:50 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 16:50 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 16:50 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 16:50 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Tetrachloroethene (PCE)            | <b>0.30 J</b> | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 16:50 |   |
| Toluene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Trichloroethene (TCE)              | <b>3.4 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:50 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 16:50 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Xylenes, Total                     | ND U          | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 16:50 |   |
| cis-1,2-Dichloroethene             | <b>0.98 J</b> | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:50 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:59  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-4RE-07192022  
**Lab Code:** R2206604-003

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:50 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 16:50 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 91    | 85 - 114       | 07/28/22 16:50 |   |
| Dibromofluoromethane | 97    | 80 - 119       | 07/28/22 16:50 |   |
| Toluene-d8           | 97    | 89 - 112       | 07/28/22 16:50 |   |



**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:57  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-7RE-07192022  
**Lab Code:** R2206604-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1,1-Trichloroethane (TCA)        | 1.5 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1,2,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1,2-Trichloroethane              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1-Dichloroethane (1,1-DCA)       | 2.5 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1-Dichloroethene (1,1-DCE)       | 0.46 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,2,3-Trichloropropane             | ND U   | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 19:25 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U   | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 19:25 |   |
| 1,2-Dibromoethane                  | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,2-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,2-Dichloroethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,2-Dichloropropane                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,4-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 2-Butanone (MEK)                   | ND U   | 10  | 1.0 | 0.78 | 1    | 07/28/22 19:25 |   |
| 2-Hexanone                         | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 4-Methyl-2-pentanone               | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Acetone                            | ND U   | 20  | 10  | 5.0  | 1    | 07/28/22 19:25 |   |
| Acrylonitrile                      | ND U   | 100 | -   | 0.90 | 1    | 07/28/22 19:25 |   |
| Benzene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Bromochloromethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Bromodichloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Bromoform                          | ND U   | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 19:25 |   |
| Bromomethane                       | ND U   | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 19:25 |   |
| Carbon Disulfide                   | ND U   | 10  | 1.0 | 0.42 | 1    | 07/28/22 19:25 |   |
| Carbon Tetrachloride               | ND U   | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 19:25 |   |
| Chlorobenzene                      | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Chloroethane                       | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:25 |   |
| Chloroform                         | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 19:25 |   |
| Chloromethane                      | ND U   | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 19:25 |   |
| Dibromochloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Dibromomethane                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Methylene Chloride                 | ND U   | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 19:25 |   |
| Ethylbenzene                       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Iodomethane                        | ND U   | 10  | -   | 4.3  | 1    | 07/28/22 19:25 |   |
| Styrene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Tetrachloroethene (PCE)            | ND U   | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 19:25 |   |
| Toluene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Trichloroethene (TCE)              | 4.5 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Trichlorofluoromethane (CFC 11)    | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 19:25 |   |
| Vinyl Acetate                      | ND U   | 10  | -   | 1.1  | 1    | 07/28/22 19:25 |   |
| Vinyl Chloride                     | 0.45 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Xylenes, Total                     | ND U   | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 19:25 |   |
| cis-1,2-Dichloroethene             | 34     | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:25 |   |

ALS Group USA, Corp.  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:57  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-7RE-07192022  
**Lab Code:** R2206604-004

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| trans-1,2-Dichloroethene    | 0.21 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:25 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 19:25 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 93    | 85 - 114       | 07/28/22 19:25 |   |
| Dibromofluoromethane | 98    | 80 - 119       | 07/28/22 19:25 |   |
| Toluene-d8           | 99    | 89 - 112       | 07/28/22 19:25 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 10:32  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-9-07192022  
**Lab Code:** R2206604-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>1.0 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 17:12 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 17:12 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 2-Butanone (MEK)                   | <b>4.9 J</b>  | 10  | 1.0 | 0.78 | 1    | 07/28/22 17:12 |   |
| 2-Hexanone                         | <b>0.35 J</b> | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 4-Methyl-2-pentanone               | <b>0.56 J</b> | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Acetone                            | <b>49</b>     | 20  | 10  | 5.0  | 1    | 07/28/22 17:12 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 17:12 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 17:12 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 17:12 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 17:12 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 17:12 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:12 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:12 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 17:12 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Methylene Chloride                 | <b>0.73 J</b> | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 17:12 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 17:12 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 17:12 |   |
| Toluene                            | <b>0.58 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Trichloroethene (TCE)              | <b>3.2 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:12 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 17:12 |   |
| Vinyl Chloride                     | <b>0.65 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Xylenes, Total                     | <b>0.36 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 17:12 |   |
| cis-1,2-Dichloroethene             | <b>1.3 J</b>  | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:12 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 10:32  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-9-07192022  
**Lab Code:** R2206604-005

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| m,p-Xylenes                 | 0.36 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:12 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 17:12 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 93    | 85 - 114       | 07/28/22 17:12 |   |
| Dibromofluoromethane | 93    | 80 - 119       | 07/28/22 17:12 |   |
| Toluene-d8           | 97    | 89 - 112       | 07/28/22 17:12 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-9-07192022  
**Lab Code:** R2206604-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1,2,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1,2-Trichloroethane              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,2,3-Trichloropropane             | ND U   | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 17:34 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U   | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 17:34 |   |
| 1,2-Dibromoethane                  | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,2-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,2-Dichloroethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,2-Dichloropropane                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,4-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 2-Butanone (MEK)                   | ND U   | 10  | 1.0 | 0.78 | 1    | 07/28/22 17:34 |   |
| 2-Hexanone                         | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 4-Methyl-2-pentanone               | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Acetone                            | ND U   | 20  | 10  | 5.0  | 1    | 07/28/22 17:34 |   |
| Acrylonitrile                      | ND U   | 100 | -   | 0.90 | 1    | 07/28/22 17:34 |   |
| Benzene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Bromochloromethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Bromodichloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Bromoform                          | ND U   | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 17:34 |   |
| Bromomethane                       | ND U   | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 17:34 |   |
| Carbon Disulfide                   | ND U   | 10  | 1.0 | 0.42 | 1    | 07/28/22 17:34 |   |
| Carbon Tetrachloride               | ND U   | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 17:34 |   |
| Chlorobenzene                      | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Chloroethane                       | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:34 |   |
| Chloroform                         | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:34 |   |
| Chloromethane                      | ND U   | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 17:34 |   |
| Dibromochloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Dibromomethane                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Methylene Chloride                 | ND U   | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 17:34 |   |
| Ethylbenzene                       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Iodomethane                        | ND U   | 10  | -   | 4.3  | 1    | 07/28/22 17:34 |   |
| Styrene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Tetrachloroethene (PCE)            | ND U   | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 17:34 |   |
| Toluene                            | 0.42 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Trichloroethene (TCE)              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Trichlorofluoromethane (CFC 11)    | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:34 |   |
| Vinyl Acetate                      | ND U   | 10  | -   | 1.1  | 1    | 07/28/22 17:34 |   |
| Vinyl Chloride                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Xylenes, Total                     | 0.43 J | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 17:34 |   |
| cis-1,2-Dichloroethene             | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:34 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-9-07192022  
**Lab Code:** R2206604-006

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| m,p-Xylenes                 | 0.43 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:34 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 17:34 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 85    | 85 - 114       | 07/28/22 17:34 |   |
| Dibromofluoromethane | 93    | 80 - 119       | 07/28/22 17:34 |   |
| Toluene-d8           | 96    | 89 - 112       | 07/28/22 17:34 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:33  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-3-07192022  
**Lab Code:** R2206604-007

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>0.37 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 17:56 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 17:56 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 17:56 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Acetone                            | ND U          | 20  | 10  | 5.0  | 1    | 07/28/22 17:56 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 17:56 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 17:56 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 17:56 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 17:56 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 17:56 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:56 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:56 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 17:56 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 17:56 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 17:56 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 17:56 |   |
| Toluene                            | <b>0.59 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Trichloroethene (TCE)              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:56 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 17:56 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Xylenes, Total                     | <b>0.70 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 17:56 |   |
| cis-1,2-Dichloroethene             | <b>48</b>     | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:56 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:33  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-3-07192022  
**Lab Code:** R2206604-007

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|---------------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| m,p-Xylenes                 | <b>0.50 J</b> | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| o-Xylene                    | <b>0.20 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| trans-1,2-Dichloroethene    | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| trans-1,3-Dichloropropene   | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:56 |   |
| trans-1,4-Dichloro-2-butene | ND U          | 5.0 | -   | 0.78 | 1    | 07/28/22 17:56 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 91    | 85 - 114       | 07/28/22 17:56 |   |
| Dibromofluoromethane | 98    | 80 - 119       | 07/28/22 17:56 |   |
| Toluene-d8           | 99    | 89 - 112       | 07/28/22 17:56 |   |



**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1,1-Trichloroethane (TCA)        | <b>0.82 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 18:18 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 18:18 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 18:18 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Acetone                            | ND U          | 20  | 10  | 5.0  | 1    | 07/28/22 18:18 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 18:18 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 18:18 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 18:18 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 18:18 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 18:18 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:18 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 18:18 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 18:18 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 18:18 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 18:18 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 18:18 |   |
| Toluene                            | <b>0.51 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Trichloroethene (TCE)              | <b>1.6 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 18:18 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 18:18 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Xylenes, Total                     | <b>0.73 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 18:18 |   |
| cis-1,2-Dichloroethene             | <b>0.69 J</b> | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:18 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| m,p-Xylenes                 | 0.52 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| o-Xylene                    | 0.21 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:18 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 18:18 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 91    | 85 - 114       | 07/28/22 18:18 |   |
| Dibromofluoromethane | 96    | 80 - 119       | 07/28/22 18:18 |   |
| Toluene-d8           | 97    | 89 - 112       | 07/28/22 18:18 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-01-07192022  
**Lab Code:** R2206604-009

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1,1-Trichloroethane (TCA)        | 1.5 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1,2,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1,2-Trichloroethane              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1-Dichloroethane (1,1-DCA)       | 0.73 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1-Dichloroethene (1,1-DCE)       | 0.31 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,2,3-Trichloropropane             | ND U   | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 18:41 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U   | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 18:41 |   |
| 1,2-Dibromoethane                  | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,2-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,2-Dichloroethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,2-Dichloropropane                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,4-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 2-Butanone (MEK)                   | ND U   | 10  | 1.0 | 0.78 | 1    | 07/28/22 18:41 |   |
| 2-Hexanone                         | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 4-Methyl-2-pentanone               | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Acetone                            | ND U   | 20  | 10  | 5.0  | 1    | 07/28/22 18:41 |   |
| Acrylonitrile                      | ND U   | 100 | -   | 0.90 | 1    | 07/28/22 18:41 |   |
| Benzene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Bromochloromethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Bromodichloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Bromoform                          | ND U   | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 18:41 |   |
| Bromomethane                       | ND U   | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 18:41 |   |
| Carbon Disulfide                   | ND U   | 10  | 1.0 | 0.42 | 1    | 07/28/22 18:41 |   |
| Carbon Tetrachloride               | ND U   | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 18:41 |   |
| Chlorobenzene                      | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Chloroethane                       | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:41 |   |
| Chloroform                         | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 18:41 |   |
| Chloromethane                      | ND U   | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 18:41 |   |
| Dibromochloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Dibromomethane                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Methylene Chloride                 | ND U   | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 18:41 |   |
| Ethylbenzene                       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Iodomethane                        | ND U   | 10  | -   | 4.3  | 1    | 07/28/22 18:41 |   |
| Styrene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Tetrachloroethene (PCE)            | 0.26 J | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 18:41 |   |
| Toluene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Trichloroethene (TCE)              | 3.4 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Trichlorofluoromethane (CFC 11)    | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 18:41 |   |
| Vinyl Acetate                      | ND U   | 10  | -   | 1.1  | 1    | 07/28/22 18:41 |   |
| Vinyl Chloride                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Xylenes, Total                     | ND U   | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 18:41 |   |
| cis-1,2-Dichloroethene             | 1.0 J  | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:41 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-01-07192022  
**Lab Code:** R2206604-009

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:41 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 18:41 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 89    | 85 - 114       | 07/28/22 18:41 |   |
| Dibromofluoromethane | 95    | 80 - 119       | 07/28/22 18:41 |   |
| Toluene-d8           | 98    | 89 - 112       | 07/28/22 18:41 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** EB-07192022  
**Lab Code:** R2206604-010

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result       | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1,2,2-Tetrachloroethane          | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1,2-Trichloroethane              | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,2,3-Trichloropropane             | ND U         | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 15:43 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U         | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 15:43 |   |
| 1,2-Dibromoethane                  | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,2-Dichlorobenzene                | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,2-Dichloroethane                 | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,2-Dichloropropane                | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,4-Dichlorobenzene                | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 2-Butanone (MEK)                   | ND U         | 10  | 1.0 | 0.78 | 1    | 07/28/22 15:43 |   |
| 2-Hexanone                         | ND U         | 10  | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 4-Methyl-2-pentanone               | ND U         | 10  | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Acetone                            | <b>39</b>    | 20  | 10  | 5.0  | 1    | 07/28/22 15:43 |   |
| Acrylonitrile                      | ND U         | 100 | -   | 0.90 | 1    | 07/28/22 15:43 |   |
| Benzene                            | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Bromochloromethane                 | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Bromodichloromethane               | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Bromoform                          | ND U         | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 15:43 |   |
| Bromomethane                       | ND U         | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 15:43 |   |
| Carbon Disulfide                   | ND U         | 10  | 1.0 | 0.42 | 1    | 07/28/22 15:43 |   |
| Carbon Tetrachloride               | ND U         | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 15:43 |   |
| Chlorobenzene                      | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Chloroethane                       | ND U         | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 15:43 |   |
| Chloroform                         | <b>2.4 J</b> | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 15:43 |   |
| Chloromethane                      | ND U         | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 15:43 |   |
| Dibromochloromethane               | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Dibromomethane                     | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Methylene Chloride                 | ND U         | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 15:43 |   |
| Ethylbenzene                       | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Iodomethane                        | ND U         | 10  | -   | 4.3  | 1    | 07/28/22 15:43 |   |
| Styrene                            | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Tetrachloroethene (PCE)            | ND U         | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 15:43 |   |
| Toluene                            | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Trichloroethene (TCE)              | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Trichlorofluoromethane (CFC 11)    | ND U         | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 15:43 |   |
| Vinyl Acetate                      | ND U         | 10  | -   | 1.1  | 1    | 07/28/22 15:43 |   |
| Vinyl Chloride                     | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Xylenes, Total                     | ND U         | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 15:43 |   |
| cis-1,2-Dichloroethene             | ND U         | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 15:43 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** EB-07192022  
**Lab Code:** R2206604-010

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 15:43 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 15:43 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 89    | 85 - 114       | 07/28/22 15:43 |   |
| Dibromofluoromethane | 96    | 80 - 119       | 07/28/22 15:43 |   |
| Toluene-d8           | 96    | 89 - 112       | 07/28/22 15:43 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:35  
**Date Received:** 07/20/22 07:40

**Sample Name:** TB-01-07192022  
**Lab Code:** R2206604-011

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1,2,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1,2-Trichloroethane              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,2,3-Trichloropropane             | ND U   | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 16:05 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U   | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 16:05 |   |
| 1,2-Dibromoethane                  | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,2-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,2-Dichloroethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,2-Dichloropropane                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,4-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 2-Butanone (MEK)                   | ND U   | 10  | 1.0 | 0.78 | 1    | 07/28/22 16:05 |   |
| 2-Hexanone                         | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 4-Methyl-2-pentanone               | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Acetone                            | ND U   | 20  | 10  | 5.0  | 1    | 07/28/22 16:05 |   |
| Acrylonitrile                      | ND U   | 100 | -   | 0.90 | 1    | 07/28/22 16:05 |   |
| Benzene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Bromochloromethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Bromodichloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Bromoform                          | ND U   | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 16:05 |   |
| Bromomethane                       | ND U   | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 16:05 |   |
| Carbon Disulfide                   | ND U   | 10  | 1.0 | 0.42 | 1    | 07/28/22 16:05 |   |
| Carbon Tetrachloride               | ND U   | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 16:05 |   |
| Chlorobenzene                      | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Chloroethane                       | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:05 |   |
| Chloroform                         | 3.1 J  | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:05 |   |
| Chloromethane                      | ND U   | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 16:05 |   |
| Dibromochloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Dibromomethane                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Methylene Chloride                 | ND U   | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 16:05 |   |
| Ethylbenzene                       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Iodomethane                        | ND U   | 10  | -   | 4.3  | 1    | 07/28/22 16:05 |   |
| Styrene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Tetrachloroethene (PCE)            | ND U   | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 16:05 |   |
| Toluene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Trichloroethene (TCE)              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Trichlorofluoromethane (CFC 11)    | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:05 |   |
| Vinyl Acetate                      | ND U   | 10  | -   | 1.1  | 1    | 07/28/22 16:05 |   |
| Vinyl Chloride                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Xylenes, Total                     | ND U   | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 16:05 |   |
| cis-1,2-Dichloroethene             | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:05 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:35  
**Date Received:** 07/20/22 07:40

**Sample Name:** TB-01-07192022  
**Lab Code:** R2206604-011

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:05 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 16:05 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 91    | 85 - 114       | 07/28/22 16:05 |   |
| Dibromofluoromethane | 96    | 80 - 119       | 07/28/22 16:05 |   |
| Toluene-d8           | 98    | 89 - 112       | 07/28/22 16:05 |   |





## Semivolatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** URS-2S-07192022  
**Lab Code:** R2206604-001

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:00  
**Date Received:** 07/20/22 07:40  
  
**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 3.2    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 11:44 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 98    | 64 - 124       | 07/29/22 11:44 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 15:37  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-2D-07192022  
**Lab Code:** R2206604-002

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 21     | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 12:01 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 95    | 64 - 124       | 07/29/22 12:01 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:59  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-4RE-07192022  
**Lab Code:** R2206604-003

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 2.0    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 12:18 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 95    | 64 - 124       | 07/29/22 12:18 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:57  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-7RE-07192022  
**Lab Code:** R2206604-004

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 2.9    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 12:35 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 95    | 64 - 124       | 07/29/22 12:35 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 10:32  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-9-07192022  
**Lab Code:** R2206604-005

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.98   | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 12:53 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 93    | 64 - 124       | 07/29/22 12:53 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-9-07192022  
**Lab Code:** R2206604-006

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 8.7    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 13:10 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 92    | 64 - 124       | 07/29/22 13:10 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:33  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-3-07192022  
**Lab Code:** R2206604-007

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 6.5    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 13:27 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 90    | 64 - 124       | 07/29/22 13:27 |   |



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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40  
  
**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 6.1    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 13:44 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 96    | 64 - 124       | 07/29/22 13:44 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-01-07192022  
**Lab Code:** R2206604-009

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 2.0    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 14:36 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 85    | 64 - 124       | 07/29/22 14:36 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** EB-07192022  
**Lab Code:** R2206604-010

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result  | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|---------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.034 J | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 14:54 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 93    | 64 - 124       | 07/29/22 14:54 |   |



## QC Summary Forms

**ALS Environmental—Rochester Laboratory**

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## Volatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604

**SURROGATE RECOVERY SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Extraction Method:** EPA 5030C

| Sample Name         | Lab Code     | 4-Bromofluorobenzene | Dibromofluoromethane | Toluene-d8 |
|---------------------|--------------|----------------------|----------------------|------------|
|                     |              | 85-114               | 80-119               | 89-112     |
| URS-2S-07192022     | R2206604-001 | 93                   | 95                   | 97         |
| URS-2D-07192022     | R2206604-002 | 95                   | 98                   | 98         |
| SW-4RE-07192022     | R2206604-003 | 91                   | 97                   | 97         |
| SW-7RE-07192022     | R2206604-004 | 93                   | 98                   | 99         |
| SW-9-07192022       | R2206604-005 | 93                   | 93                   | 97         |
| DW-9-07192022       | R2206604-006 | 85                   | 93                   | 96         |
| DW-3-07192022       | R2206604-007 | 91                   | 98                   | 99         |
| URS-3D-07192022     | R2206604-008 | 91                   | 96                   | 97         |
| DUP-01-07192022     | R2206604-009 | 89                   | 95                   | 98         |
| EB-07192022         | R2206604-010 | 89                   | 96                   | 96         |
| TB-01-07192022      | R2206604-011 | 91                   | 96                   | 98         |
| Method Blank        | RQ2208816-04 | 94                   | 95                   | 98         |
| Lab Control Sample  | RQ2208816-03 | 96                   | 98                   | 98         |
| URS-3D-07192022 MS  | RQ2208816-05 | 94                   | 98                   | 98         |
| URS-3D-07192022 DMS | RQ2208816-06 | 95                   | 100                  | 99         |

**ALS Group USA, Corp.**  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22  
**Date Analyzed:** 07/28/22  
**Date Extracted:** NA

**Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008  
**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

**Units:** ug/L  
**Basis:** NA

| Analyte Name                       | Matrix Spike<br>RQ2208816-05 |        |              |       |  | Duplicate Matrix Spike<br>RQ2208816-06 |              |       |              |     |
|------------------------------------|------------------------------|--------|--------------|-------|--|----------------------------------------|--------------|-------|--------------|-----|
|                                    | Sample Result                | Result | Spike Amount | % Rec |  | Result                                 | Spike Amount | % Rec | % Rec Limits | RPD |
| 1,1,1,2-Tetrachloroethane          | ND U                         | 46.2   | 50.0         | 92    |  | 50.3                                   | 50.0         | 101   | 78-124       | 8   |
| 1,1,1-Trichloroethane (TCA)        | 0.82 J                       | 49.6   | 50.0         | 98    |  | 53.4                                   | 50.0         | 105   | 74-131       | 7   |
| 1,1,2,2-Tetrachloroethane          | ND U                         | 48.8   | 50.0         | 98    |  | 52.4                                   | 50.0         | 105   | 71-121       | 7   |
| 1,1,2-Trichloroethane              | ND U                         | 47.4   | 50.0         | 95    |  | 51.3                                   | 50.0         | 103   | 80-119       | 8   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U                         | 55.5   | 50.0         | 111   |  | 59.4                                   | 50.0         | 119   | 77-125       | 7   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U                         | 59.7   | 50.0         | 119   |  | 64.9                                   | 50.0         | 130   | 71-131       | 8   |
| 1,2,3-Trichloropropane             | ND U                         | 45.0   | 50.0         | 90    |  | 48.9                                   | 50.0         | 98    | 73-122       | 8   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U                         | 41.5   | 50.0         | 83    |  | 44.5                                   | 50.0         | 89    | 62-128       | 7   |
| 1,2-Dibromoethane                  | ND U                         | 47.0   | 50.0         | 94    |  | 50.4                                   | 50.0         | 101   | 77-121       | 7   |
| 1,2-Dichlorobenzene                | ND U                         | 46.1   | 50.0         | 92    |  | 50.9                                   | 50.0         | 102   | 80-119       | 10  |
| 1,2-Dichloroethane                 | ND U                         | 45.6   | 50.0         | 91    |  | 49.3                                   | 50.0         | 99    | 73-128       | 8   |
| 1,2-Dichloropropane                | ND U                         | 50.4   | 50.0         | 101   |  | 54.3                                   | 50.0         | 109   | 78-122       | 7   |
| 1,4-Dichlorobenzene                | ND U                         | 46.1   | 50.0         | 92    |  | 50.8                                   | 50.0         | 102   | 79-118       | 10  |
| 2-Butanone (MEK)                   | ND U                         | 45.3   | 50.0         | 91    |  | 47.8                                   | 50.0         | 96    | 56-143       | 5   |
| 2-Hexanone                         | ND U                         | 46.6   | 50.0         | 93    |  | 47.8                                   | 50.0         | 96    | 57-139       | 3   |
| 4-Methyl-2-pentanone               | ND U                         | 44.8   | 50.0         | 90    |  | 47.2                                   | 50.0         | 94    | 67-130       | 5   |
| Acetone                            | ND U                         | 51.3   | 50.0         | 103   |  | 52.7                                   | 50.0         | 105   | 39-160       | 3   |
| Acrylonitrile                      | ND U                         | 250    | 250          | 100   |  | 259                                    | 250          | 103   | 63-135       | 3   |
| Benzene                            | ND U                         | 51.5   | 50.0         | 103   |  | 56.2                                   | 50.0         | 112   | 79-120       | 9   |
| Bromochloromethane                 | ND U                         | 50.6   | 50.0         | 101   |  | 54.6                                   | 50.0         | 109   | 78-123       | 8   |
| Bromodichloromethane               | ND U                         | 46.0   | 50.0         | 92    |  | 50.5                                   | 50.0         | 101   | 79-125       | 9   |
| Bromoform                          | ND U                         | 43.9   | 50.0         | 88    |  | 48.5                                   | 50.0         | 97    | 66-130       | 10  |
| Bromomethane                       | ND U                         | 64.6   | 50.0         | 129   |  | 66.9                                   | 50.0         | 134   | 53-141       | 4   |
| Carbon Disulfide                   | ND U                         | 53.5   | 50.0         | 107   |  | 59.4                                   | 50.0         | 119   | 64-133       | 11  |
| Carbon Tetrachloride               | ND U                         | 47.8   | 50.0         | 96    |  | 53.1                                   | 50.0         | 106   | 72-136       | 10  |
| Chlorobenzene                      | ND U                         | 48.0   | 50.0         | 96    |  | 50.9                                   | 50.0         | 102   | 82-118       | 6   |
| Chloroethane                       | ND U                         | 44.4   | 50.0         | 89    |  | 50.1                                   | 50.0         | 100   | 60-138       | 12  |
| Chloroform                         | ND U                         | 51.1   | 50.0         | 102   |  | 54.7                                   | 50.0         | 109   | 79-124       | 7   |
| Chloromethane                      | ND U                         | 42.2   | 50.0         | 84    |  | 46.5                                   | 50.0         | 93    | 50-139       | 10  |
| Dibromochloromethane               | ND U                         | 48.5   | 50.0         | 97    |  | 51.7                                   | 50.0         | 103   | 74-126       | 6   |
| Dibromomethane                     | ND U                         | 48.7   | 50.0         | 97    |  | 51.7                                   | 50.0         | 103   | 79-123       | 6   |
| Methylene Chloride                 | ND U                         | 53.0   | 50.0         | 106   |  | 56.9                                   | 50.0         | 114   | 74-124       | 7   |
| Ethylbenzene                       | ND U                         | 52.6   | 50.0         | 105   |  | 55.7                                   | 50.0         | 111   | 79-121       | 6   |

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22  
**Date Analyzed:** 07/28/22  
**Date Extracted:** NA

**Duplicate Matrix Spike Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008  
**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

**Units:** ug/L  
**Basis:** NA

| Analyte Name                    | Matrix Spike<br>RQ2208816-05 |        |                 |       | Duplicate Matrix Spike<br>RQ2208816-06 |                 |       |                 |     |              |
|---------------------------------|------------------------------|--------|-----------------|-------|----------------------------------------|-----------------|-------|-----------------|-----|--------------|
|                                 | Sample<br>Result             | Result | Spike<br>Amount | % Rec | Result                                 | Spike<br>Amount | % Rec | % Rec<br>Limits | RPD | RPD<br>Limit |
| Iodomethane                     | ND U                         | 42.9   | 50.0            | 86    | 52.4                                   | 50.0            | 105   | 69-131          | 20  | 20           |
| Styrene                         | ND U                         | 51.6   | 50.0            | 103   | 54.3                                   | 50.0            | 109   | 78-123          | 5   | 20           |
| Tetrachloroethene (PCE)         | ND U                         | 50.4   | 50.0            | 101   | 54.1                                   | 50.0            | 108   | 74-129          | 7   | 20           |
| Toluene                         | 0.51 J                       | 51.2   | 50.0            | 101   | 56.0                                   | 50.0            | 111   | 80-121          | 9   | 20           |
| Trichloroethene (TCE)           | 1.6 J                        | 50.6   | 50.0            | 98    | 55.0                                   | 50.0            | 107   | 79-123          | 8   | 20           |
| Trichlorofluoromethane (CFC 11) | ND U                         | 49.9   | 50.0            | 100   | 53.3                                   | 50.0            | 107   | 65-141          | 7   | 20           |
| Vinyl Acetate                   | ND U                         | 44.2   | 50.0            | 88    | 46.7                                   | 50.0            | 93    | 54-146          | 5   | 20           |
| Vinyl Chloride                  | ND U                         | 46.1   | 50.0            | 92    | 50.3                                   | 50.0            | 101   | 58-137          | 9   | 20           |
| Xylenes, Total                  | 0.73 J                       | 160    | 150             | 106   | 170                                    | 150             | 113   | 79-121          | 6   | 20           |
| cis-1,2-Dichloroethene          | 0.69 J                       | 53.2   | 50.0            | 105   | 56.7                                   | 50.0            | 112   | 78-123          | 6   | 20           |
| cis-1,3-Dichloropropene         | ND U                         | 49.1   | 50.0            | 98    | 53.6                                   | 50.0            | 107   | 75-124          | 9   | 20           |
| m,p-Xylenes                     | 0.52 J                       | 107    | 100             | 107   | 114                                    | 100             | 114   | 80-121          | 6   | 20           |
| o-Xylene                        | 0.21 J                       | 52.7   | 50.0            | 105   | 56.2                                   | 50.0            | 112   | 78-122          | 6   | 20           |
| trans-1,2-Dichloroethene        | ND U                         | 54.6   | 50.0            | 109   | 59.7                                   | 50.0            | 119   | 75-124          | 9   | 20           |
| trans-1,3-Dichloropropene       | ND U                         | 45.1   | 50.0            | 90    | 50.1                                   | 50.0            | 100   | 73-127          | 11  | 20           |
| trans-1,4-Dichloro-2-butene     | ND U                         | 35.5   | 50.0            | 71    | 38.6                                   | 50.0            | 77    | 43-140          | 8   | 20           |

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.



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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 12:01  
**Date Extracted:**

**Method Blank Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** Method Blank  
**Lab Code:** RQ2208816-04  
**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

**Instrument ID:** R-MS-14  
**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5537.D\  
**Analysis Lot:** 772031

This Method Blank applies to the following analyses.

| Sample Name        | Lab Code     | File ID                                  | Date Analyzed  |
|--------------------|--------------|------------------------------------------|----------------|
| Lab Control Sample | RQ2208816-03 | I:\ACQUDATA\MSVOA14\Data\072822\V5534.D\ | 07/28/22 10:40 |
| EB-07192022        | R2206604-010 | I:\ACQUDATA\MSVOA14\Data\072822\V5547.D\ | 07/28/22 15:43 |
| TB-01-07192022     | R2206604-011 | I:\ACQUDATA\MSVOA14\Data\072822\V5548.D\ | 07/28/22 16:05 |
| URS-2S-07192022    | R2206604-001 | I:\ACQUDATA\MSVOA14\Data\072822\V5549.D\ | 07/28/22 16:27 |
| SW-4RE-07192022    | R2206604-003 | I:\ACQUDATA\MSVOA14\Data\072822\V5550.D\ | 07/28/22 16:50 |
| SW-9-07192022      | R2206604-005 | I:\ACQUDATA\MSVOA14\Data\072822\V5551.D\ | 07/28/22 17:12 |
| DW-9-07192022      | R2206604-006 | I:\ACQUDATA\MSVOA14\Data\072822\V5552.D\ | 07/28/22 17:34 |
| DW-3-07192022      | R2206604-007 | I:\ACQUDATA\MSVOA14\Data\072822\V5553.D\ | 07/28/22 17:56 |
| URS-3D-07192022    | R2206604-008 | I:\ACQUDATA\MSVOA14\Data\072822\V5554.D\ | 07/28/22 18:18 |
| DUP-01-07192022    | R2206604-009 | I:\ACQUDATA\MSVOA14\Data\072822\V5555.D\ | 07/28/22 18:41 |
| URS-2D-07192022    | R2206604-002 | I:\ACQUDATA\MSVOA14\Data\072822\V5556.D\ | 07/28/22 19:03 |
| SW-7RE-07192022    | R2206604-004 | I:\ACQUDATA\MSVOA14\Data\072822\V5557.D\ | 07/28/22 19:25 |
| URS-3D-07192022MS  | RQ2208816-05 | I:\ACQUDATA\MSVOA14\Data\072822\V5558.D\ | 07/28/22 19:47 |
| URS-3D-07192022DMS | RQ2208816-06 | I:\ACQUDATA\MSVOA14\Data\072822\V5559.D\ | 07/28/22 20:10 |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** RQ2208816-04

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,1,2,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,1,2-Trichloroethane              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,2,3-Trichloropropane             | ND U   | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 12:01 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U   | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 12:01 |   |
| 1,2-Dibromoethane                  | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,2-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,2-Dichloroethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,2-Dichloropropane                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 1,4-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 2-Butanone (MEK)                   | ND U   | 10  | 1.0 | 0.78 | 1    | 07/28/22 12:01 |   |
| 2-Hexanone                         | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| 4-Methyl-2-pentanone               | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Acetone                            | ND U   | 20  | 10  | 5.0  | 1    | 07/28/22 12:01 |   |
| Acrylonitrile                      | ND U   | 100 | -   | 0.90 | 1    | 07/28/22 12:01 |   |
| Benzene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Bromochloromethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Bromodichloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Bromoform                          | ND U   | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 12:01 |   |
| Bromomethane                       | ND U   | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 12:01 |   |
| Carbon Disulfide                   | ND U   | 10  | 1.0 | 0.42 | 1    | 07/28/22 12:01 |   |
| Carbon Tetrachloride               | ND U   | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 12:01 |   |
| Chlorobenzene                      | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Chloroethane                       | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 12:01 |   |
| Chloroform                         | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 12:01 |   |
| Chloromethane                      | ND U   | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 12:01 |   |
| Dibromochloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Dibromomethane                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Methylene Chloride                 | ND U   | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 12:01 |   |
| Ethylbenzene                       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Iodomethane                        | ND U   | 10  | -   | 4.3  | 1    | 07/28/22 12:01 |   |
| Styrene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Tetrachloroethene (PCE)            | ND U   | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 12:01 |   |
| Toluene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Trichloroethene (TCE)              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Trichlorofluoromethane (CFC 11)    | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 12:01 |   |
| Vinyl Acetate                      | ND U   | 10  | -   | 1.1  | 1    | 07/28/22 12:01 |   |
| Vinyl Chloride                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| Xylenes, Total                     | ND U   | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 12:01 |   |
| cis-1,2-Dichloroethene             | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 12:01 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** RQ2208816-04

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 12:01 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 12:01 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 12:01 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 94    | 85 - 114       | 07/28/22 12:01 |   |
| Dibromofluoromethane | 95    | 80 - 119       | 07/28/22 12:01 |   |
| Toluene-d8           | 98    | 89 - 112       | 07/28/22 12:01 |   |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 10:40  
**Date Extracted:**

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Sample Name:** Lab Control Sample  
**Lab Code:** RQ2208816-03  
**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

**Instrument ID:** R-MS-14  
**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5534.D\  
**Analysis Lot:** 772031

This Lab Control Sample applies to the following analyses.

| Sample Name        | Lab Code     | File ID                                  | Date Analyzed  |
|--------------------|--------------|------------------------------------------|----------------|
| Method Blank       | RQ2208816-04 | I:\ACQUDATA\MSVOA14\Data\072822\V5537.D\ | 07/28/22 12:01 |
| EB-07192022        | R2206604-010 | I:\ACQUDATA\MSVOA14\Data\072822\V5547.D\ | 07/28/22 15:43 |
| TB-01-07192022     | R2206604-011 | I:\ACQUDATA\MSVOA14\Data\072822\V5548.D\ | 07/28/22 16:05 |
| URS-2S-07192022    | R2206604-001 | I:\ACQUDATA\MSVOA14\Data\072822\V5549.D\ | 07/28/22 16:27 |
| SW-4RE-07192022    | R2206604-003 | I:\ACQUDATA\MSVOA14\Data\072822\V5550.D\ | 07/28/22 16:50 |
| SW-9-07192022      | R2206604-005 | I:\ACQUDATA\MSVOA14\Data\072822\V5551.D\ | 07/28/22 17:12 |
| DW-9-07192022      | R2206604-006 | I:\ACQUDATA\MSVOA14\Data\072822\V5552.D\ | 07/28/22 17:34 |
| DW-3-07192022      | R2206604-007 | I:\ACQUDATA\MSVOA14\Data\072822\V5553.D\ | 07/28/22 17:56 |
| URS-3D-07192022    | R2206604-008 | I:\ACQUDATA\MSVOA14\Data\072822\V5554.D\ | 07/28/22 18:18 |
| DUP-01-07192022    | R2206604-009 | I:\ACQUDATA\MSVOA14\Data\072822\V5555.D\ | 07/28/22 18:41 |
| URS-2D-07192022    | R2206604-002 | I:\ACQUDATA\MSVOA14\Data\072822\V5556.D\ | 07/28/22 19:03 |
| SW-7RE-07192022    | R2206604-004 | I:\ACQUDATA\MSVOA14\Data\072822\V5557.D\ | 07/28/22 19:25 |
| URS-3D-07192022MS  | RQ2208816-05 | I:\ACQUDATA\MSVOA14\Data\072822\V5558.D\ | 07/28/22 19:47 |
| URS-3D-07192022DMS | RQ2208816-06 | I:\ACQUDATA\MSVOA14\Data\072822\V5559.D\ | 07/28/22 20:10 |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
RQ2208816-03

| Analyte Name                       | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|------------------------------------|-------------------|--------|--------------|-------|--------------|
| 1,1,1,2-Tetrachloroethane          | 8260C             | 19.8   | 20.0         | 99    | 78-124       |
| 1,1,1-Trichloroethane (TCA)        | 8260C             | 20.8   | 20.0         | 104   | 74-131       |
| 1,1,2,2-Tetrachloroethane          | 8260C             | 17.4   | 20.0         | 87    | 71-121       |
| 1,1,2-Trichloroethane              | 8260C             | 21.0   | 20.0         | 105   | 80-119       |
| 1,1-Dichloroethane (1,1-DCA)       | 8260C             | 23.8   | 20.0         | 119   | 77-125       |
| 1,1-Dichloroethene (1,1-DCE)       | 8260C             | 25.2   | 20.0         | 126   | 71-131       |
| 1,2,3-Trichloropropane             | 8260C             | 17.9   | 20.0         | 90    | 73-122       |
| 1,2-Dibromo-3-chloropropane (DBCP) | 8260C             | 17.2   | 20.0         | 86    | 62-128       |
| 1,2-Dibromoethane                  | 8260C             | 20.0   | 20.0         | 100   | 77-121       |
| 1,2-Dichlorobenzene                | 8260C             | 20.7   | 20.0         | 104   | 80-119       |
| 1,2-Dichloroethane                 | 8260C             | 19.5   | 20.0         | 97    | 73-128       |
| 1,2-Dichloropropane                | 8260C             | 21.7   | 20.0         | 108   | 78-122       |
| 1,4-Dichlorobenzene                | 8260C             | 20.9   | 20.0         | 104   | 79-118       |
| 2-Butanone (MEK)                   | 8260C             | 16.7   | 20.0         | 84    | 56-143       |
| 2-Hexanone                         | 8260C             | 16.5   | 20.0         | 83    | 57-139       |
| 4-Methyl-2-pentanone               | 8260C             | 16.5   | 20.0         | 82    | 67-130       |
| Acetone                            | 8260C             | 18.7 J | 20.0         | 93    | 39-160       |
| Acrylonitrile                      | 8260C             | 96.5 J | 100          | 96    | 63-135       |
| Benzene                            | 8260C             | 21.9   | 20.0         | 109   | 79-120       |
| Bromochloromethane                 | 8260C             | 22.1   | 20.0         | 110   | 78-123       |
| Bromodichloromethane               | 8260C             | 20.5   | 20.0         | 102   | 79-125       |
| Bromoform                          | 8260C             | 19.7   | 20.0         | 99    | 66-130       |
| Bromomethane                       | 8260C             | 21.5   | 20.0         | 107   | 53-141       |
| Carbon Disulfide                   | 8260C             | 23.5   | 20.0         | 117   | 64-133       |
| Carbon Tetrachloride               | 8260C             | 20.8   | 20.0         | 104   | 72-136       |
| Chlorobenzene                      | 8260C             | 20.3   | 20.0         | 102   | 82-118       |
| Chloroethane                       | 8260C             | 19.2   | 20.0         | 96    | 60-138       |
| Chloroform                         | 8260C             | 21.9   | 20.0         | 110   | 79-124       |
| Chloromethane                      | 8260C             | 19.0   | 20.0         | 95    | 50-139       |
| Dibromochloromethane               | 8260C             | 20.2   | 20.0         | 101   | 74-126       |
| Dibromomethane                     | 8260C             | 21.2   | 20.0         | 106   | 79-123       |
| Methylene Chloride                 | 8260C             | 22.9   | 20.0         | 115   | 74-124       |
| Ethylbenzene                       | 8260C             | 22.1   | 20.0         | 110   | 79-121       |

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Superset Reference:22-0000634792 rev 00

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22

**Lab Control Sample Summary**  
**Volatile Organic Compounds by GC/MS**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
RQ2208816-03

| Analyte Name                    | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---------------------------------|-------------------|--------|--------------|-------|--------------|
| Iodomethane                     | 8260C             | 22.1   | 20.0         | 111   | 69-131       |
| Styrene                         | 8260C             | 22.6   | 20.0         | 113   | 78-123       |
| Tetrachloroethene (PCE)         | 8260C             | 22.4   | 20.0         | 112   | 74-129       |
| Toluene                         | 8260C             | 21.9   | 20.0         | 110   | 80-121       |
| Trichloroethene (TCE)           | 8260C             | 22.2   | 20.0         | 111   | 79-123       |
| Trichlorofluoromethane (CFC 11) | 8260C             | 21.2   | 20.0         | 106   | 65-141       |
| Vinyl Acetate                   | 8260C             | 20.3   | 20.0         | 102   | 54-146       |
| Vinyl Chloride                  | 8260C             | 20.3   | 20.0         | 102   | 58-137       |
| Xylenes, Total                  | 8260C             | 67.8   | 60.0         | 113   | 79-121       |
| cis-1,2-Dichloroethene          | 8260C             | 22.4   | 20.0         | 112   | 78-123       |
| cis-1,3-Dichloropropene         | 8260C             | 21.5   | 20.0         | 108   | 75-124       |
| m,p-Xylenes                     | 8260C             | 45.4   | 40.0         | 113   | 80-121       |
| o-Xylene                        | 8260C             | 22.4   | 20.0         | 112   | 78-122       |
| trans-1,2-Dichloroethene        | 8260C             | 23.4   | 20.0         | 117   | 75-124       |
| trans-1,3-Dichloropropene       | 8260C             | 20.0   | 20.0         | 100   | 73-127       |
| trans-1,4-Dichloro-2-butene     | 8260C             | 15.8   | 20.0         | 79    | 43-140       |

**ALS Group USA, Corp.**  
dba ALS Environmental

QC/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 09:23

**Tune Summary**  
**Volatile Organic Compounds by GC/MS**

**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5532.D\  
**Instrument ID:** R-MS-14

**Analytical Method:** 8260C  
**Analysis Lot:** 772031

| Target Mass | Relative to Mass | Lower Limit % | Upper Limit % | Relative Abundance % | Raw Abundance | Result Pass/Fail |
|-------------|------------------|---------------|---------------|----------------------|---------------|------------------|
| 50          | 95               | 15            | 40            | 18.3                 | 44768         | Pass             |
| 75          | 95               | 30            | 60            | 48.9                 | 119736        | Pass             |
| 95          | 95               | 100           | 100           | 100.0                | 244790        | Pass             |
| 96          | 95               | 5             | 9             | 6.7                  | 16313         | Pass             |
| 173         | 174              | 0             | 2             | 0.5                  | 1195          | Pass             |
| 174         | 95               | 50            | 120           | 91.3                 | 223381        | Pass             |
| 175         | 174              | 5             | 9             | 7.9                  | 17696         | Pass             |
| 176         | 174              | 95            | 101           | 97.5                 | 217792        | Pass             |
| 177         | 176              | 5             | 9             | 6.2                  | 13471         | Pass             |

| Sample Name                         | Lab Code     | File ID:                                 | Date Analyzed: | Q |
|-------------------------------------|--------------|------------------------------------------|----------------|---|
| Continuing Calibration Verification | RQ2208816-02 | I:\ACQUDATA\MSVOA14\Data\072822\V5533.D\ | 07/28/22 10:06 |   |
| Lab Control Sample                  | RQ2208816-03 | I:\ACQUDATA\MSVOA14\Data\072822\V5534.D\ | 07/28/22 10:40 |   |
| Method Blank                        | RQ2208816-04 | I:\ACQUDATA\MSVOA14\Data\072822\V5537.D\ | 07/28/22 12:01 |   |
| EB-07192022                         | R2206604-010 | I:\ACQUDATA\MSVOA14\Data\072822\V5547.D\ | 07/28/22 15:43 |   |
| TB-01-07192022                      | R2206604-011 | I:\ACQUDATA\MSVOA14\Data\072822\V5548.D\ | 07/28/22 16:05 |   |
| URS-2S-07192022                     | R2206604-001 | I:\ACQUDATA\MSVOA14\Data\072822\V5549.D\ | 07/28/22 16:27 |   |
| SW-4RE-07192022                     | R2206604-003 | I:\ACQUDATA\MSVOA14\Data\072822\V5550.D\ | 07/28/22 16:50 |   |
| SW-9-07192022                       | R2206604-005 | I:\ACQUDATA\MSVOA14\Data\072822\V5551.D\ | 07/28/22 17:12 |   |
| DW-9-07192022                       | R2206604-006 | I:\ACQUDATA\MSVOA14\Data\072822\V5552.D\ | 07/28/22 17:34 |   |
| DW-3-07192022                       | R2206604-007 | I:\ACQUDATA\MSVOA14\Data\072822\V5553.D\ | 07/28/22 17:56 |   |
| URS-3D-07192022                     | R2206604-008 | I:\ACQUDATA\MSVOA14\Data\072822\V5554.D\ | 07/28/22 18:18 |   |
| DUP-01-07192022                     | R2206604-009 | I:\ACQUDATA\MSVOA14\Data\072822\V5555.D\ | 07/28/22 18:41 |   |
| URS-2D-07192022                     | R2206604-002 | I:\ACQUDATA\MSVOA14\Data\072822\V5556.D\ | 07/28/22 19:03 |   |
| SW-7RE-07192022                     | R2206604-004 | I:\ACQUDATA\MSVOA14\Data\072822\V5557.D\ | 07/28/22 19:25 |   |
| URS-3D-07192022                     | RQ2208816-05 | I:\ACQUDATA\MSVOA14\Data\072822\V5558.D\ | 07/28/22 19:47 |   |
| URS-3D-07192022                     | RQ2208816-06 | I:\ACQUDATA\MSVOA14\Data\072822\V5559.D\ | 07/28/22 20:10 |   |
| Continuing Cal. Verification        | RQ2208816-07 | I:\ACQUDATA\MSVOA14\Data\072822\V5560.D\ | 07/28/22 20:32 |   |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 10:06

**Internal Standard Area and RT SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5533.D\  
**Instrument ID:** R-MS-14  
**Analysis Method:** 8260C

**Lab Code:** RQ2208816-02  
**Analysis Lot:** 772031  
**Signal ID:** 1

|                           | 1,4-Dichlorobenzene-d4 |           | 1,4-Difluorobenzene |           | Chlorobenzene-d5 |           |
|---------------------------|------------------------|-----------|---------------------|-----------|------------------|-----------|
|                           | <b>Area</b>            | <b>RT</b> | <b>Area</b>         | <b>RT</b> | <b>Area</b>      | <b>RT</b> |
| <b>Result ==&gt;</b>      | 460,479                | 12.04     | 915,258             | 6.48      | 838,138          | 9.94      |
| <b>Upper Limit ==&gt;</b> | 920,958                | 12.21     | 1,830,516           | 6.65      | 1,676,276        | 10.11     |
| <b>Lower Limit ==&gt;</b> | 230,240                | 11.87     | 457,629             | 6.31      | 419,069          | 9.77      |

**Associated Analyses**

|                                     |              |        |       |        |      |        |      |
|-------------------------------------|--------------|--------|-------|--------|------|--------|------|
| Continuing Calibration Verification | RQ2208816-02 | 460479 | 12.04 | 915258 | 6.48 | 838138 | 9.94 |
| Lab Control Sample                  | RQ2208816-03 | 442575 | 12.04 | 877657 | 6.48 | 800068 | 9.94 |
| Method Blank                        | RQ2208816-04 | 399878 | 12.04 | 865287 | 6.49 | 772684 | 9.94 |
| EB-07192022                         | R2206604-010 | 400219 | 12.04 | 926870 | 6.49 | 815668 | 9.94 |
| TB-01-07192022                      | R2206604-011 | 388641 | 12.04 | 891662 | 6.49 | 786896 | 9.94 |
| URS-2S-07192022                     | R2206604-001 | 402748 | 12.04 | 855962 | 6.49 | 777918 | 9.94 |
| SW-4RE-07192022                     | R2206604-003 | 391272 | 12.04 | 891278 | 6.49 | 793102 | 9.94 |
| SW-9-07192022                       | R2206604-005 | 392900 | 12.04 | 821097 | 6.49 | 729528 | 9.94 |
| DW-9-07192022                       | R2206604-006 | 368431 | 12.04 | 914302 | 6.49 | 787036 | 9.94 |
| DW-3-07192022                       | R2206604-007 | 387395 | 12.04 | 884402 | 6.49 | 793479 | 9.94 |
| URS-3D-07192022                     | R2206604-008 | 378181 | 12.04 | 875495 | 6.49 | 780210 | 9.94 |
| DUP-01-07192022                     | R2206604-009 | 382039 | 12.04 | 884742 | 6.49 | 783631 | 9.94 |
| URS-2D-07192022                     | R2206604-002 | 391229 | 12.04 | 851552 | 6.49 | 767754 | 9.94 |
| SW-7RE-07192022                     | R2206604-004 | 386673 | 12.04 | 868928 | 6.49 | 787462 | 9.94 |
| URS-3D-07192022MS                   | RQ2208816-05 | 446674 | 12.04 | 938267 | 6.49 | 832473 | 9.94 |
| URS-3D-07192022DMS                  | RQ2208816-06 | 431522 | 12.04 | 920741 | 6.49 | 826142 | 9.94 |



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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 10:06

**Internal Standard Area and RT SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5533.D\  
**Instrument ID:** R-MS-14  
**Analysis Method:** 8260C

**Lab Code:** RQ2208816-02  
**Analysis Lot:** 772031  
**Signal ID:** 1

|                           | Pentafluorobenzene |      |
|---------------------------|--------------------|------|
|                           | Area               | RT   |
| <b>Result ==&gt;</b>      | 593,242            | 5.36 |
| <b>Upper Limit ==&gt;</b> | 1,186,484          | 5.53 |
| <b>Lower Limit ==&gt;</b> | 296,621            | 5.19 |

**Associated Analyses**

|                                     |              |        |      |
|-------------------------------------|--------------|--------|------|
| Continuing Calibration Verification | RQ2208816-02 | 593242 | 5.36 |
| Lab Control Sample                  | RQ2208816-03 | 578773 | 5.36 |
| Method Blank                        | RQ2208816-04 | 558845 | 5.36 |
| EB-07192022                         | R2206604-010 | 611949 | 5.36 |
| TB-01-07192022                      | R2206604-011 | 582608 | 5.36 |
| URS-2S-07192022                     | R2206604-001 | 562864 | 5.36 |
| SW-4RE-07192022                     | R2206604-003 | 584863 | 5.36 |
| SW-9-07192022                       | R2206604-005 | 541628 | 5.36 |
| DW-9-07192022                       | R2206604-006 | 595485 | 5.36 |
| DW-3-07192022                       | R2206604-007 | 577176 | 5.36 |
| URS-3D-07192022                     | R2206604-008 | 572926 | 5.36 |
| DUP-01-07192022                     | R2206604-009 | 581431 | 5.36 |
| URS-2D-07192022                     | R2206604-002 | 559821 | 5.36 |
| SW-7RE-07192022                     | R2206604-004 | 574169 | 5.36 |
| URS-3D-07192022MS                   | RQ2208816-05 | 613962 | 5.36 |
| URS-3D-07192022DMS                  | RQ2208816-06 | 610745 | 5.36 |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 20:32

**Internal Standard Area and RT SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5560.D\  
**Instrument ID:** R-MS-14  
**Analysis Method:** 8260C

**Lab Code:** RQ2208816-07  
**Analysis Lot:** 772031  
**Signal ID:** 1

|                              |              | 1,4-Dichlorobenzene-d4 |       | 1,4-Difluorobenzene |      | Chlorobenzene-d5 |       |
|------------------------------|--------------|------------------------|-------|---------------------|------|------------------|-------|
|                              |              | Area                   | RT    | Area                | RT   | Area             | RT    |
| <b>Result ==&gt;</b>         |              | 441,708                | 12.04 | 948,209             | 6.49 | 844,572          | 9.94  |
| <b>Upper Limit ==&gt;</b>    |              | 883,416                | 12.21 | 1,896,418           | 6.66 | 1,689,144        | 10.11 |
| <b>Lower Limit ==&gt;</b>    |              | 220,854                | 11.87 | 474,105             | 6.32 | 422,286          | 9.77  |
| <b>Associated Analyses</b>   |              |                        |       |                     |      |                  |       |
| Continuing Cal. Verification | RQ2208816-07 | 441708                 | 12.04 | 948209              | 6.49 | 844572           | 9.94  |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 20:32

**Internal Standard Area and RT SUMMARY**  
**Volatile Organic Compounds by GC/MS**

**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5560.D\  
**Instrument ID:** R-MS-14  
**Analysis Method:** 8260C

**Lab Code:** RQ2208816-07  
**Analysis Lot:** 772031  
**Signal ID:** 1

|                           | Pentafluorobenzene |      |
|---------------------------|--------------------|------|
|                           | Area               | RT   |
| <b>Result ==&gt;</b>      | 628,911            | 5.36 |
| <b>Upper Limit ==&gt;</b> | 1,257,822          | 5.53 |
| <b>Lower Limit ==&gt;</b> | 314,456            | 5.19 |

***Associated Analyses***

|                              |              |        |      |
|------------------------------|--------------|--------|------|
| Continuing Cal. Verification | RQ2208816-07 | 628911 | 5.36 |
|------------------------------|--------------|--------|------|



## Semivolatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604

**SURROGATE RECOVERY SUMMARY**  
**1,4-Dioxane by GC/MS**

**Analysis Method:** 8270D  
**Extraction Method:** EPA 3535A

| Tetrahydrofuran-d8 (SUR)     |              |        |
|------------------------------|--------------|--------|
| Sample Name                  | Lab Code     | 64-124 |
| URS-2S-07192022              | R2206604-001 | 98     |
| URS-2D-07192022              | R2206604-002 | 95     |
| SW-4RE-07192022              | R2206604-003 | 95     |
| SW-7RE-07192022              | R2206604-004 | 95     |
| SW-9-07192022                | R2206604-005 | 93     |
| DW-9-07192022                | R2206604-006 | 92     |
| DW-3-07192022                | R2206604-007 | 90     |
| URS-3D-07192022              | R2206604-008 | 96     |
| DUP-01-07192022              | R2206604-009 | 85     |
| EB-07192022                  | R2206604-010 | 93     |
| Method Blank                 | RQ2208649-01 | 78     |
| Lab Control Sample           | RQ2208649-02 | 78     |
| Duplicate Lab Control Sample | RQ2208649-03 | 94     |
| URS-3D-07192022 MS           | RQ2208649-06 | 86     |
| URS-3D-07192022 DMS          | RQ2208649-07 | 84     |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22  
**Date Analyzed:** 07/29/22  
**Date Extracted:** 07/26/22

**Duplicate Matrix Spike Summary**  
**1,4-Dioxane by GC/MS**

**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008  
**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

**Units:** ug/L  
**Basis:** NA

| Analyte Name | Sample Result | Result | Matrix Spike<br>RQ2208649-06 |       | Duplicate Matrix Spike<br>RQ2208649-07 |              | % Rec | Limits | RPD | RPD Limit |
|--------------|---------------|--------|------------------------------|-------|----------------------------------------|--------------|-------|--------|-----|-----------|
|              |               |        | Spike Amount                 | % Rec | Result                                 | Spike Amount | % Rec |        |     |           |
| 1,4-Dioxane  | 6.1           | 14.5   | 10.0                         | 83    | 14.4                                   | 10.0         | 83    | 33-146 | <1  | 30        |

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Analyzed:** 07/29/22 08:53  
**Date Extracted:** 07/26/22

**Method Blank Summary****1,4-Dioxane by GC/MS****Sample Name:** Method Blank**Instrument ID:** R-MS-56**Lab Code:** RQ2208649-01**File ID:** I:\ACQUDATA\5975E\data\072922\BH908.D\**Analysis Method:** 8270D**Analysis Lot:** 772495**Prep Method:** EPA 3535A**Extraction Lot:** 403402

This Method Blank applies to the following analyses.

| <b>Sample Name</b>           | <b>Lab Code</b> | <b>File ID</b>                         | <b>Date Analyzed</b> |
|------------------------------|-----------------|----------------------------------------|----------------------|
| Lab Control Sample           | RQ2208649-02    | I:\ACQUDATA\5975E\data\072922\BH909.D\ | 07/29/22 09:10       |
| Duplicate Lab Control Sample | RQ2208649-03    | I:\ACQUDATA\5975E\data\072922\BH910.D\ | 07/29/22 09:43       |
| URS-2S-07192022              | R2206604-001    | I:\ACQUDATA\5975E\data\072922\BH917.D\ | 07/29/22 11:44       |
| URS-2D-07192022              | R2206604-002    | I:\ACQUDATA\5975E\data\072922\BH918.D\ | 07/29/22 12:01       |
| SW-4RE-07192022              | R2206604-003    | I:\ACQUDATA\5975E\data\072922\BH919.D\ | 07/29/22 12:18       |
| SW-7RE-07192022              | R2206604-004    | I:\ACQUDATA\5975E\data\072922\BH920.D\ | 07/29/22 12:35       |
| SW-9-07192022                | R2206604-005    | I:\ACQUDATA\5975E\data\072922\BH921.D\ | 07/29/22 12:53       |
| DW-9-07192022                | R2206604-006    | I:\ACQUDATA\5975E\data\072922\BH922.D\ | 07/29/22 13:10       |
| DW-3-07192022                | R2206604-007    | I:\ACQUDATA\5975E\data\072922\BH923.D\ | 07/29/22 13:27       |
| URS-3D-07192022              | R2206604-008    | I:\ACQUDATA\5975E\data\072922\BH924.D\ | 07/29/22 13:44       |
| URS-3D-07192022MS            | RQ2208649-06    | I:\ACQUDATA\5975E\data\072922\BH925.D\ | 07/29/22 14:02       |
| URS-3D-07192022DMS           | RQ2208649-07    | I:\ACQUDATA\5975E\data\072922\BH926.D\ | 07/29/22 14:19       |
| DUP-01-07192022              | R2206604-009    | I:\ACQUDATA\5975E\data\072922\BH927.D\ | 07/29/22 14:36       |
| EB-07192022                  | R2206604-010    | I:\ACQUDATA\5975E\data\072922\BH928.D\ | 07/29/22 14:54       |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** Method Blank  
**Lab Code:** RQ2208649-01

**Service Request:** R2206604  
**Date Collected:** NA  
**Date Received:** NA  
  
**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | ND U   | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 08:53 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 78    | 64 - 124       | 07/29/22 08:53 |   |



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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Analyzed:** 07/29/22 09:10  
**Date Extracted:** 07/26/22

**Lab Control Sample Summary**  
**1,4-Dioxane by GC/MS**

**Sample Name:** Lab Control Sample**Instrument ID:** R-MS-56**Lab Code:** RQ2208649-02**File ID:** I:\ACQUDATA\5975E\data\072922\BH909.D\**Analysis Method:** 8270D**Analysis Lot:** 772495**Prep Method:** EPA 3535A**Extraction Lot:** 403402

This Lab Control Sample applies to the following analyses.

| <b>Sample Name</b>           | <b>Lab Code</b> | <b>File ID</b>                         | <b>Date Analyzed</b> |
|------------------------------|-----------------|----------------------------------------|----------------------|
| Method Blank                 | RQ2208649-01    | I:\ACQUDATA\5975E\data\072922\BH908.D\ | 07/29/22 08:53       |
| Duplicate Lab Control Sample | RQ2208649-03    | I:\ACQUDATA\5975E\data\072922\BH910.D\ | 07/29/22 09:43       |
| URS-2S-07192022              | R2206604-001    | I:\ACQUDATA\5975E\data\072922\BH917.D\ | 07/29/22 11:44       |
| URS-2D-07192022              | R2206604-002    | I:\ACQUDATA\5975E\data\072922\BH918.D\ | 07/29/22 12:01       |
| SW-4RE-07192022              | R2206604-003    | I:\ACQUDATA\5975E\data\072922\BH919.D\ | 07/29/22 12:18       |
| SW-7RE-07192022              | R2206604-004    | I:\ACQUDATA\5975E\data\072922\BH920.D\ | 07/29/22 12:35       |
| SW-9-07192022                | R2206604-005    | I:\ACQUDATA\5975E\data\072922\BH921.D\ | 07/29/22 12:53       |
| DW-9-07192022                | R2206604-006    | I:\ACQUDATA\5975E\data\072922\BH922.D\ | 07/29/22 13:10       |
| DW-3-07192022                | R2206604-007    | I:\ACQUDATA\5975E\data\072922\BH923.D\ | 07/29/22 13:27       |
| URS-3D-07192022              | R2206604-008    | I:\ACQUDATA\5975E\data\072922\BH924.D\ | 07/29/22 13:44       |
| URS-3D-07192022MS            | RQ2208649-06    | I:\ACQUDATA\5975E\data\072922\BH925.D\ | 07/29/22 14:02       |
| URS-3D-07192022DMS           | RQ2208649-07    | I:\ACQUDATA\5975E\data\072922\BH926.D\ | 07/29/22 14:19       |
| DUP-01-07192022              | R2206604-009    | I:\ACQUDATA\5975E\data\072922\BH927.D\ | 07/29/22 14:36       |
| EB-07192022                  | R2206604-010    | I:\ACQUDATA\5975E\data\072922\BH928.D\ | 07/29/22 14:54       |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Analyzed:** 07/29/22

**Duplicate Lab Control Sample Summary**  
**1,4-Dioxane by GC/MS**

**Units:**ug/L  
**Basis:**NA

| Lab Control Sample |                   |        |              |       | Duplicate Lab Control Sample |              |       |              |     |           |
|--------------------|-------------------|--------|--------------|-------|------------------------------|--------------|-------|--------------|-----|-----------|
| RQ2208649-02       |                   |        |              |       | RQ2208649-03                 |              |       |              |     |           |
| Analyte Name       | Analytical Method | Result | Spike Amount | % Rec | Result                       | Spike Amount | % Rec | % Rec Limits | RPD | RPD Limit |
| 1,4-Dioxane        | 8270D             | 8.19   | 10.0         | 82    | 9.16                         | 10.0         | 92    | 58-124       | 11  | 30        |

**ALS Group USA, Corp.**  
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QC/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/29/22 08:10

**Tune Summary**  
**1,4-Dioxane by GC/MS**

**File ID:** I:\ACQUDATA\5975E\data\072922\BH906.D\  
**Instrument ID:** R-MS-56

**Analytical Method:** 8270D  
**Analysis Lot:** 772495

| Target Mass | Relative to Mass | Lower Limit % | Upper Limit % | Relative Abundance % | Raw Abundance | Result Pass/Fail |
|-------------|------------------|---------------|---------------|----------------------|---------------|------------------|
| 68          | 69               | 0.00          | 2             | 1.5                  | 8826          | Pass             |
| 69          | 69               | 100           | 100           | 100.0                | 604347        | Pass             |
| 70          | 69               | 0.00          | 2             | 0.4                  | 2534          | Pass             |
| 197         | 198              | 0.00          | 2             | 0.0                  | 0             | Pass             |
| 198         | 198              | 100           | 100           | 100.0                | 1528491       | Pass             |
| 199         | 198              | 5             | 9             | 6.7                  | 102715        | Pass             |
| 365         | 198              | 1             | 200           | 2.2                  | 33405         | Pass             |
| 441         | 443              | 0.01          | 150           | 80.8                 | 175083        | Pass             |
| 442         | 442              | 100           | 100           | 100.0                | 1120939       | Pass             |
| 443         | 442              | 15            | 24            | 19.3                 | 216597        | Pass             |

| Sample Name                         | Lab Code     | File ID:                               | Date Analyzed: | Q |
|-------------------------------------|--------------|----------------------------------------|----------------|---|
| Continuing Calibration Verification | RQ2209018-02 | I:\ACQUDATA\5975E\data\072922\BH907.D\ | 07/29/22 08:36 |   |
| Method Blank                        | RQ2208649-01 | I:\ACQUDATA\5975E\data\072922\BH908.D\ | 07/29/22 08:53 |   |
| Lab Control Sample                  | RQ2208649-02 | I:\ACQUDATA\5975E\data\072922\BH909.D\ | 07/29/22 09:10 |   |
| Duplicate Lab Control Sample        | RQ2208649-03 | I:\ACQUDATA\5975E\data\072922\BH910.D\ | 07/29/22 09:43 |   |
| URS-2S-07192022                     | R2206604-001 | I:\ACQUDATA\5975E\data\072922\BH917.D\ | 07/29/22 11:44 |   |
| URS-2D-07192022                     | R2206604-002 | I:\ACQUDATA\5975E\data\072922\BH918.D\ | 07/29/22 12:01 |   |
| SW-4RE-07192022                     | R2206604-003 | I:\ACQUDATA\5975E\data\072922\BH919.D\ | 07/29/22 12:18 |   |
| SW-7RE-07192022                     | R2206604-004 | I:\ACQUDATA\5975E\data\072922\BH920.D\ | 07/29/22 12:35 |   |
| SW-9-07192022                       | R2206604-005 | I:\ACQUDATA\5975E\data\072922\BH921.D\ | 07/29/22 12:53 |   |
| DW-9-07192022                       | R2206604-006 | I:\ACQUDATA\5975E\data\072922\BH922.D\ | 07/29/22 13:10 |   |
| DW-3-07192022                       | R2206604-007 | I:\ACQUDATA\5975E\data\072922\BH923.D\ | 07/29/22 13:27 |   |
| URS-3D-07192022                     | R2206604-008 | I:\ACQUDATA\5975E\data\072922\BH924.D\ | 07/29/22 13:44 |   |
| URS-3D-07192022                     | RQ2208649-06 | I:\ACQUDATA\5975E\data\072922\BH925.D\ | 07/29/22 14:02 |   |
| URS-3D-07192022                     | RQ2208649-07 | I:\ACQUDATA\5975E\data\072922\BH926.D\ | 07/29/22 14:19 |   |
| DUP-01-07192022                     | R2206604-009 | I:\ACQUDATA\5975E\data\072922\BH927.D\ | 07/29/22 14:36 |   |
| EB-07192022                         | R2206604-010 | I:\ACQUDATA\5975E\data\072922\BH928.D\ | 07/29/22 14:54 |   |
| Continuing Cal. Verification        | RQ2209018-06 | I:\ACQUDATA\5975E\data\072922\BH932.D\ | 07/29/22 16:03 |   |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/29/22 08:36

**Internal Standard Area and RT SUMMARY**  
**1,4-Dioxane by GC/MS**

**File ID:** I:\ACQUDATA\5975E\data\072922\BH907.D\  
**Instrument ID:** R-MS-56  
**Analysis Method:** 8270D

**Lab Code:** RQ2209018-02  
**Analysis Lot:** 772495  
**Signal ID:** 1

|                           | Toluene-d8 |      |
|---------------------------|------------|------|
|                           | Area       | RT   |
| <b>Result ==&gt;</b>      | 124,947    | 5.26 |
| <b>Upper Limit ==&gt;</b> | 249,894    | 5.76 |
| <b>Lower Limit ==&gt;</b> | 62,474     | 4.76 |

**Associated Analyses**

|                                     |              |        |      |
|-------------------------------------|--------------|--------|------|
| Continuing Calibration Verification | RQ2209018-02 | 124947 | 5.26 |
| Method Blank                        | RQ2208649-01 | 117426 | 5.25 |
| Lab Control Sample                  | RQ2208649-02 | 149796 | 5.25 |
| Duplicate Lab Control Sample        | RQ2208649-03 | 124169 | 5.25 |
| URS-2S-07192022                     | R2206604-001 | 121126 | 5.25 |
| URS-2D-07192022                     | R2206604-002 | 120914 | 5.25 |
| SW-4RE-07192022                     | R2206604-003 | 120437 | 5.26 |
| SW-7RE-07192022                     | R2206604-004 | 113808 | 5.24 |
| SW-9-07192022                       | R2206604-005 | 118861 | 5.24 |
| DW-9-07192022                       | R2206604-006 | 110919 | 5.25 |
| DW-3-07192022                       | R2206604-007 | 118340 | 5.25 |
| URS-3D-07192022                     | R2206604-008 | 116362 | 5.25 |
| URS-3D-07192022MS                   | RQ2208649-06 | 115691 | 5.24 |
| URS-3D-07192022DMS                  | RQ2208649-07 | 127360 | 5.26 |
| DUP-01-07192022                     | R2206604-009 | 99353  | 5.22 |
| EB-07192022                         | R2206604-010 | 123202 | 5.25 |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/29/22 16:03

**Internal Standard Area and RT SUMMARY**  
**1,4-Dioxane by GC/MS**

**File ID:** I:\ACQUDATA\5975E\data\072922\BH932.D\  
**Instrument ID:** R-MS-56  
**Analysis Method:** 8270D

**Lab Code:** RQ2209018-06  
**Analysis Lot:** 772495  
**Signal ID:** 1

|                           | Toluene-d8 |      |
|---------------------------|------------|------|
|                           | Area       | RT   |
| <b>Result ==&gt;</b>      | 116,966    | 5.25 |
| <b>Upper Limit ==&gt;</b> | 233,932    | 5.75 |
| <b>Lower Limit ==&gt;</b> | 58,483     | 4.75 |

***Associated Analyses***

|                              |              |        |      |
|------------------------------|--------------|--------|------|
| Continuing Cal. Verification | RQ2209018-06 | 116966 | 5.25 |
|------------------------------|--------------|--------|------|



## Raw Data

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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## Volatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-2S-07192022  
**Lab Code:** R2206604-001

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1,1-Trichloroethane (TCA)        | <b>1.5 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>0.99 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 16:27 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 16:27 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 16:27 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Acetone                            | <b>26</b>     | 20  | 10  | 5.0  | 1    | 07/28/22 16:27 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 16:27 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 16:27 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 16:27 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 16:27 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 16:27 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:27 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:27 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 16:27 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 16:27 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 16:27 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 16:27 |   |
| Toluene                            | <b>0.35 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Trichloroethene (TCE)              | <b>2.3 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:27 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 16:27 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| Xylenes, Total                     | <b>0.27 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 16:27 |   |
| cis-1,2-Dichloroethene             | <b>2.0 J</b>  | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:27 |   |



ALS Group USA, Corp.  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-2S-07192022  
**Lab Code:** R2206604-001

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| m,p-Xylenes                 | 0.27 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:27 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:27 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 16:27 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 93    | 85 - 114       | 07/28/22 16:27 |   |
| Dibromofluoromethane | 95    | 80 - 119       | 07/28/22 16:27 |   |
| Toluene-d8           | 97    | 89 - 112       | 07/28/22 16:27 |   |

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 15:37  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-2D-07192022  
**Lab Code:** R2206604-002

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>0.26 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 19:03 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 19:03 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 19:03 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Acetone                            | ND U          | 20  | 10  | 5.0  | 1    | 07/28/22 19:03 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 19:03 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 19:03 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 19:03 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 19:03 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 19:03 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:03 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 19:03 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 19:03 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 19:03 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 19:03 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 19:03 |   |
| Toluene                            | <b>0.64 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Trichloroethene (TCE)              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 19:03 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 19:03 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| Xylenes, Total                     | <b>0.42 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 19:03 |   |
| cis-1,2-Dichloroethene             | <b>65</b>     | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:03 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 15:37  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-2D-07192022  
**Lab Code:** R2206604-002

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| m,p-Xylenes                 | 0.42 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:03 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:03 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 19:03 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 95    | 85 - 114       | 07/28/22 19:03 |   |
| Dibromofluoromethane | 98    | 80 - 119       | 07/28/22 19:03 |   |
| Toluene-d8           | 98    | 89 - 112       | 07/28/22 19:03 |   |

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:59  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-4RE-07192022  
**Lab Code:** R2206604-003

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1,1-Trichloroethane (TCA)        | <b>1.6 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>0.71 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,1-Dichloroethene (1,1-DCE)       | <b>0.32 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 16:50 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 16:50 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 16:50 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Acetone                            | ND U          | 20  | 10  | 5.0  | 1    | 07/28/22 16:50 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 16:50 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 16:50 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 16:50 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 16:50 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 16:50 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:50 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:50 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 16:50 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 16:50 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 16:50 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Tetrachloroethene (PCE)            | <b>0.30 J</b> | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 16:50 |   |
| Toluene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Trichloroethene (TCE)              | <b>3.4 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:50 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 16:50 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| Xylenes, Total                     | ND U          | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 16:50 |   |
| cis-1,2-Dichloroethene             | <b>0.98 J</b> | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:50 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:59  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-4RE-07192022  
**Lab Code:** R2206604-003

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:50 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:50 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 16:50 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 91    | 85 - 114       | 07/28/22 16:50 |   |
| Dibromofluoromethane | 97    | 80 - 119       | 07/28/22 16:50 |   |
| Toluene-d8           | 97    | 89 - 112       | 07/28/22 16:50 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:57  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-7RE-07192022  
**Lab Code:** R2206604-004

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1,1-Trichloroethane (TCA)        | 1.5 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1,2,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1,2-Trichloroethane              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1-Dichloroethane (1,1-DCA)       | 2.5 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,1-Dichloroethene (1,1-DCE)       | 0.46 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,2,3-Trichloropropane             | ND U   | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 19:25 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U   | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 19:25 |   |
| 1,2-Dibromoethane                  | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,2-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,2-Dichloroethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,2-Dichloropropane                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 1,4-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 2-Butanone (MEK)                   | ND U   | 10  | 1.0 | 0.78 | 1    | 07/28/22 19:25 |   |
| 2-Hexanone                         | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| 4-Methyl-2-pentanone               | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Acetone                            | ND U   | 20  | 10  | 5.0  | 1    | 07/28/22 19:25 |   |
| Acrylonitrile                      | ND U   | 100 | -   | 0.90 | 1    | 07/28/22 19:25 |   |
| Benzene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Bromochloromethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Bromodichloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Bromoform                          | ND U   | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 19:25 |   |
| Bromomethane                       | ND U   | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 19:25 |   |
| Carbon Disulfide                   | ND U   | 10  | 1.0 | 0.42 | 1    | 07/28/22 19:25 |   |
| Carbon Tetrachloride               | ND U   | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 19:25 |   |
| Chlorobenzene                      | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Chloroethane                       | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:25 |   |
| Chloroform                         | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 19:25 |   |
| Chloromethane                      | ND U   | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 19:25 |   |
| Dibromochloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Dibromomethane                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Methylene Chloride                 | ND U   | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 19:25 |   |
| Ethylbenzene                       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Iodomethane                        | ND U   | 10  | -   | 4.3  | 1    | 07/28/22 19:25 |   |
| Styrene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Tetrachloroethene (PCE)            | ND U   | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 19:25 |   |
| Toluene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Trichloroethene (TCE)              | 4.5 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Trichlorofluoromethane (CFC 11)    | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 19:25 |   |
| Vinyl Acetate                      | ND U   | 10  | -   | 1.1  | 1    | 07/28/22 19:25 |   |
| Vinyl Chloride                     | 0.45 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| Xylenes, Total                     | ND U   | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 19:25 |   |
| cis-1,2-Dichloroethene             | 34     | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:25 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:57  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-7RE-07192022  
**Lab Code:** R2206604-004

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| trans-1,2-Dichloroethene    | 0.21 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 19:25 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 19:25 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 19:25 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 93    | 85 - 114       | 07/28/22 19:25 |   |
| Dibromofluoromethane | 98    | 80 - 119       | 07/28/22 19:25 |   |
| Toluene-d8           | 99    | 89 - 112       | 07/28/22 19:25 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 10:32  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-9-07192022  
**Lab Code:** R2206604-005

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>1.0 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 17:12 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 17:12 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 2-Butanone (MEK)                   | <b>4.9 J</b>  | 10  | 1.0 | 0.78 | 1    | 07/28/22 17:12 |   |
| 2-Hexanone                         | <b>0.35 J</b> | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| 4-Methyl-2-pentanone               | <b>0.56 J</b> | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Acetone                            | <b>49</b>     | 20  | 10  | 5.0  | 1    | 07/28/22 17:12 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 17:12 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 17:12 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 17:12 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 17:12 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 17:12 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:12 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:12 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 17:12 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Methylene Chloride                 | <b>0.73 J</b> | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 17:12 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 17:12 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 17:12 |   |
| Toluene                            | <b>0.58 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Trichloroethene (TCE)              | <b>3.2 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:12 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 17:12 |   |
| Vinyl Chloride                     | <b>0.65 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| Xylenes, Total                     | <b>0.36 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 17:12 |   |
| cis-1,2-Dichloroethene             | <b>1.3 J</b>  | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:12 |   |



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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 10:32  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-9-07192022  
**Lab Code:** R2206604-005

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| m,p-Xylenes                 | 0.36 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:12 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:12 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 17:12 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 93    | 85 - 114       | 07/28/22 17:12 |   |
| Dibromofluoromethane | 93    | 80 - 119       | 07/28/22 17:12 |   |
| Toluene-d8           | 97    | 89 - 112       | 07/28/22 17:12 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-9-07192022  
**Lab Code:** R2206604-006

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1,2,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1,2-Trichloroethane              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,2,3-Trichloropropane             | ND U   | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 17:34 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U   | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 17:34 |   |
| 1,2-Dibromoethane                  | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,2-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,2-Dichloroethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,2-Dichloropropane                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 1,4-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 2-Butanone (MEK)                   | ND U   | 10  | 1.0 | 0.78 | 1    | 07/28/22 17:34 |   |
| 2-Hexanone                         | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| 4-Methyl-2-pentanone               | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Acetone                            | ND U   | 20  | 10  | 5.0  | 1    | 07/28/22 17:34 |   |
| Acrylonitrile                      | ND U   | 100 | -   | 0.90 | 1    | 07/28/22 17:34 |   |
| Benzene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Bromochloromethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Bromodichloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Bromoform                          | ND U   | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 17:34 |   |
| Bromomethane                       | ND U   | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 17:34 |   |
| Carbon Disulfide                   | ND U   | 10  | 1.0 | 0.42 | 1    | 07/28/22 17:34 |   |
| Carbon Tetrachloride               | ND U   | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 17:34 |   |
| Chlorobenzene                      | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Chloroethane                       | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:34 |   |
| Chloroform                         | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:34 |   |
| Chloromethane                      | ND U   | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 17:34 |   |
| Dibromochloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Dibromomethane                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Methylene Chloride                 | ND U   | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 17:34 |   |
| Ethylbenzene                       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Iodomethane                        | ND U   | 10  | -   | 4.3  | 1    | 07/28/22 17:34 |   |
| Styrene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Tetrachloroethene (PCE)            | ND U   | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 17:34 |   |
| Toluene                            | 0.42 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Trichloroethene (TCE)              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Trichlorofluoromethane (CFC 11)    | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:34 |   |
| Vinyl Acetate                      | ND U   | 10  | -   | 1.1  | 1    | 07/28/22 17:34 |   |
| Vinyl Chloride                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| Xylenes, Total                     | 0.43 J | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 17:34 |   |
| cis-1,2-Dichloroethene             | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:34 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-9-07192022  
**Lab Code:** R2206604-006

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| m,p-Xylenes                 | 0.43 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:34 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:34 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 17:34 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 85    | 85 - 114       | 07/28/22 17:34 |   |
| Dibromofluoromethane | 93    | 80 - 119       | 07/28/22 17:34 |   |
| Toluene-d8           | 96    | 89 - 112       | 07/28/22 17:34 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:33  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-3-07192022  
**Lab Code:** R2206604-007

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1-Dichloroethane (1,1-DCA)       | <b>0.37 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 17:56 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 17:56 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 17:56 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Acetone                            | ND U          | 20  | 10  | 5.0  | 1    | 07/28/22 17:56 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 17:56 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 17:56 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 17:56 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 17:56 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 17:56 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:56 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:56 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 17:56 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 17:56 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 17:56 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 17:56 |   |
| Toluene                            | <b>0.59 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Trichloroethene (TCE)              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 17:56 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 17:56 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| Xylenes, Total                     | <b>0.70 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 17:56 |   |
| cis-1,2-Dichloroethene             | <b>48</b>     | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:56 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:33  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-3-07192022  
**Lab Code:** R2206604-007

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|---------------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| m,p-Xylenes                 | <b>0.50 J</b> | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| o-Xylene                    | <b>0.20 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| trans-1,2-Dichloroethene    | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 17:56 |   |
| trans-1,3-Dichloropropene   | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 17:56 |   |
| trans-1,4-Dichloro-2-butene | ND U          | 5.0 | -   | 0.78 | 1    | 07/28/22 17:56 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 91    | 85 - 114       | 07/28/22 17:56 |   |
| Dibromofluoromethane | 98    | 80 - 119       | 07/28/22 17:56 |   |
| Toluene-d8           | 99    | 89 - 112       | 07/28/22 17:56 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result        | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|---------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1,1-Trichloroethane (TCA)        | <b>0.82 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1,2,2-Tetrachloroethane          | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1,2-Trichloroethane              | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,2,3-Trichloropropane             | ND U          | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 18:18 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U          | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 18:18 |   |
| 1,2-Dibromoethane                  | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,2-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,2-Dichloroethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,2-Dichloropropane                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 1,4-Dichlorobenzene                | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 2-Butanone (MEK)                   | ND U          | 10  | 1.0 | 0.78 | 1    | 07/28/22 18:18 |   |
| 2-Hexanone                         | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| 4-Methyl-2-pentanone               | ND U          | 10  | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Acetone                            | ND U          | 20  | 10  | 5.0  | 1    | 07/28/22 18:18 |   |
| Acrylonitrile                      | ND U          | 100 | -   | 0.90 | 1    | 07/28/22 18:18 |   |
| Benzene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Bromochloromethane                 | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Bromodichloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Bromoform                          | ND U          | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 18:18 |   |
| Bromomethane                       | ND U          | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 18:18 |   |
| Carbon Disulfide                   | ND U          | 10  | 1.0 | 0.42 | 1    | 07/28/22 18:18 |   |
| Carbon Tetrachloride               | ND U          | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 18:18 |   |
| Chlorobenzene                      | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Chloroethane                       | ND U          | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:18 |   |
| Chloroform                         | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 18:18 |   |
| Chloromethane                      | ND U          | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 18:18 |   |
| Dibromochloromethane               | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Dibromomethane                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Methylene Chloride                 | ND U          | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 18:18 |   |
| Ethylbenzene                       | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Iodomethane                        | ND U          | 10  | -   | 4.3  | 1    | 07/28/22 18:18 |   |
| Styrene                            | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Tetrachloroethene (PCE)            | ND U          | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 18:18 |   |
| Toluene                            | <b>0.51 J</b> | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Trichloroethene (TCE)              | <b>1.6 J</b>  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Trichlorofluoromethane (CFC 11)    | ND U          | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 18:18 |   |
| Vinyl Acetate                      | ND U          | 10  | -   | 1.1  | 1    | 07/28/22 18:18 |   |
| Vinyl Chloride                     | ND U          | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| Xylenes, Total                     | <b>0.73 J</b> | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 18:18 |   |
| cis-1,2-Dichloroethene             | <b>0.69 J</b> | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:18 |   |

ALS Group USA, Corp.  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| m,p-Xylenes                 | 0.52 J | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| o-Xylene                    | 0.21 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:18 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:18 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 18:18 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 91    | 85 - 114       | 07/28/22 18:18 |   |
| Dibromofluoromethane | 96    | 80 - 119       | 07/28/22 18:18 |   |
| Toluene-d8           | 97    | 89 - 112       | 07/28/22 18:18 |   |

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-01-07192022  
**Lab Code:** R2206604-009

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1,1-Trichloroethane (TCA)        | 1.5 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1,2,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1,2-Trichloroethane              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1-Dichloroethane (1,1-DCA)       | 0.73 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,1-Dichloroethene (1,1-DCE)       | 0.31 J | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,2,3-Trichloropropane             | ND U   | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 18:41 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U   | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 18:41 |   |
| 1,2-Dibromoethane                  | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,2-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,2-Dichloroethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,2-Dichloropropane                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 1,4-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 2-Butanone (MEK)                   | ND U   | 10  | 1.0 | 0.78 | 1    | 07/28/22 18:41 |   |
| 2-Hexanone                         | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| 4-Methyl-2-pentanone               | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Acetone                            | ND U   | 20  | 10  | 5.0  | 1    | 07/28/22 18:41 |   |
| Acrylonitrile                      | ND U   | 100 | -   | 0.90 | 1    | 07/28/22 18:41 |   |
| Benzene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Bromochloromethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Bromodichloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Bromoform                          | ND U   | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 18:41 |   |
| Bromomethane                       | ND U   | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 18:41 |   |
| Carbon Disulfide                   | ND U   | 10  | 1.0 | 0.42 | 1    | 07/28/22 18:41 |   |
| Carbon Tetrachloride               | ND U   | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 18:41 |   |
| Chlorobenzene                      | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Chloroethane                       | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:41 |   |
| Chloroform                         | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 18:41 |   |
| Chloromethane                      | ND U   | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 18:41 |   |
| Dibromochloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Dibromomethane                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Methylene Chloride                 | ND U   | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 18:41 |   |
| Ethylbenzene                       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Iodomethane                        | ND U   | 10  | -   | 4.3  | 1    | 07/28/22 18:41 |   |
| Styrene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Tetrachloroethene (PCE)            | 0.26 J | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 18:41 |   |
| Toluene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Trichloroethene (TCE)              | 3.4 J  | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Trichlorofluoromethane (CFC 11)    | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 18:41 |   |
| Vinyl Acetate                      | ND U   | 10  | -   | 1.1  | 1    | 07/28/22 18:41 |   |
| Vinyl Chloride                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| Xylenes, Total                     | ND U   | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 18:41 |   |
| cis-1,2-Dichloroethene             | 1.0 J  | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:41 |   |



ALS Group USA, Corp.  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-01-07192022  
**Lab Code:** R2206604-009

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 18:41 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 18:41 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 18:41 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 89    | 85 - 114       | 07/28/22 18:41 |   |
| Dibromofluoromethane | 95    | 80 - 119       | 07/28/22 18:41 |   |
| Toluene-d8           | 98    | 89 - 112       | 07/28/22 18:41 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** EB-07192022  
**Lab Code:** R2206604-010

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result       | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1,2,2-Tetrachloroethane          | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1,2-Trichloroethane              | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,2,3-Trichloropropane             | ND U         | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 15:43 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U         | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 15:43 |   |
| 1,2-Dibromoethane                  | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,2-Dichlorobenzene                | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,2-Dichloroethane                 | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,2-Dichloropropane                | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 1,4-Dichlorobenzene                | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 2-Butanone (MEK)                   | ND U         | 10  | 1.0 | 0.78 | 1    | 07/28/22 15:43 |   |
| 2-Hexanone                         | ND U         | 10  | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| 4-Methyl-2-pentanone               | ND U         | 10  | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Acetone                            | <b>39</b>    | 20  | 10  | 5.0  | 1    | 07/28/22 15:43 |   |
| Acrylonitrile                      | ND U         | 100 | -   | 0.90 | 1    | 07/28/22 15:43 |   |
| Benzene                            | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Bromochloromethane                 | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Bromodichloromethane               | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Bromoform                          | ND U         | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 15:43 |   |
| Bromomethane                       | ND U         | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 15:43 |   |
| Carbon Disulfide                   | ND U         | 10  | 1.0 | 0.42 | 1    | 07/28/22 15:43 |   |
| Carbon Tetrachloride               | ND U         | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 15:43 |   |
| Chlorobenzene                      | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Chloroethane                       | ND U         | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 15:43 |   |
| Chloroform                         | <b>2.4 J</b> | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 15:43 |   |
| Chloromethane                      | ND U         | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 15:43 |   |
| Dibromochloromethane               | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Dibromomethane                     | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Methylene Chloride                 | ND U         | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 15:43 |   |
| Ethylbenzene                       | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Iodomethane                        | ND U         | 10  | -   | 4.3  | 1    | 07/28/22 15:43 |   |
| Styrene                            | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Tetrachloroethene (PCE)            | ND U         | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 15:43 |   |
| Toluene                            | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Trichloroethene (TCE)              | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Trichlorofluoromethane (CFC 11)    | ND U         | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 15:43 |   |
| Vinyl Acetate                      | ND U         | 10  | -   | 1.1  | 1    | 07/28/22 15:43 |   |
| Vinyl Chloride                     | ND U         | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| Xylenes, Total                     | ND U         | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 15:43 |   |
| cis-1,2-Dichloroethene             | ND U         | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 15:43 |   |

ALS Group USA, Corp.  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** EB-07192022  
**Lab Code:** R2206604-010

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 15:43 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 15:43 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 15:43 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 89    | 85 - 114       | 07/28/22 15:43 |   |
| Dibromofluoromethane | 96    | 80 - 119       | 07/28/22 15:43 |   |
| Toluene-d8           | 96    | 89 - 112       | 07/28/22 15:43 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:35  
**Date Received:** 07/20/22 07:40

**Sample Name:** TB-01-07192022  
**Lab Code:** R2206604-011

**Units:** ug/L  
**Basis:** NA

**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                       | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|------------------------------------|--------|-----|-----|------|------|----------------|---|
| 1,1,1,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1,1-Trichloroethane (TCA)        | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1,2,2-Tetrachloroethane          | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1,2-Trichloroethane              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1-Dichloroethane (1,1-DCA)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,1-Dichloroethene (1,1-DCE)       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,2,3-Trichloropropane             | ND U   | 5.0 | 1.0 | 0.26 | 1    | 07/28/22 16:05 |   |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND U   | 5.0 | 1.0 | 0.45 | 1    | 07/28/22 16:05 |   |
| 1,2-Dibromoethane                  | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,2-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,2-Dichloroethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,2-Dichloropropane                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 1,4-Dichlorobenzene                | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 2-Butanone (MEK)                   | ND U   | 10  | 1.0 | 0.78 | 1    | 07/28/22 16:05 |   |
| 2-Hexanone                         | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| 4-Methyl-2-pentanone               | ND U   | 10  | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Acetone                            | ND U   | 20  | 10  | 5.0  | 1    | 07/28/22 16:05 |   |
| Acrylonitrile                      | ND U   | 100 | -   | 0.90 | 1    | 07/28/22 16:05 |   |
| Benzene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Bromochloromethane                 | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Bromodichloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Bromoform                          | ND U   | 5.0 | 1.0 | 0.25 | 1    | 07/28/22 16:05 |   |
| Bromomethane                       | ND U   | 5.0 | 1.0 | 0.70 | 1    | 07/28/22 16:05 |   |
| Carbon Disulfide                   | ND U   | 10  | 1.0 | 0.42 | 1    | 07/28/22 16:05 |   |
| Carbon Tetrachloride               | ND U   | 5.0 | 1.0 | 0.34 | 1    | 07/28/22 16:05 |   |
| Chlorobenzene                      | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Chloroethane                       | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:05 |   |
| Chloroform                         | 3.1 J  | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:05 |   |
| Chloromethane                      | ND U   | 5.0 | 1.0 | 0.28 | 1    | 07/28/22 16:05 |   |
| Dibromochloromethane               | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Dibromomethane                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Methylene Chloride                 | ND U   | 5.0 | 1.0 | 0.65 | 1    | 07/28/22 16:05 |   |
| Ethylbenzene                       | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Iodomethane                        | ND U   | 10  | -   | 4.3  | 1    | 07/28/22 16:05 |   |
| Styrene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Tetrachloroethene (PCE)            | ND U   | 5.0 | 1.0 | 0.21 | 1    | 07/28/22 16:05 |   |
| Toluene                            | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Trichloroethene (TCE)              | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Trichlorofluoromethane (CFC 11)    | ND U   | 5.0 | 1.0 | 0.24 | 1    | 07/28/22 16:05 |   |
| Vinyl Acetate                      | ND U   | 10  | -   | 1.1  | 1    | 07/28/22 16:05 |   |
| Vinyl Chloride                     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| Xylenes, Total                     | ND U   | 5.0 | 3.0 | 0.23 | 1    | 07/28/22 16:05 |   |
| cis-1,2-Dichloroethene             | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:05 |   |

ALS Group USA, Corp.  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:35  
**Date Received:** 07/20/22 07:40

**Sample Name:** TB-01-07192022  
**Lab Code:** R2206604-011

**Units:** ug/L  
**Basis:** NA

Volatile Organic Compounds by GC/MS

**Analysis Method:** 8260C  
**Prep Method:** EPA 5030C

| Analyte Name                | Result | LOQ | LOD | MDL  | Dil. | Date Analyzed  | Q |
|-----------------------------|--------|-----|-----|------|------|----------------|---|
| cis-1,3-Dichloropropene     | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| m,p-Xylenes                 | ND U   | 5.0 | 2.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| o-Xylene                    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| trans-1,2-Dichloroethene    | ND U   | 5.0 | 1.0 | 0.20 | 1    | 07/28/22 16:05 |   |
| trans-1,3-Dichloropropene   | ND U   | 5.0 | 1.0 | 0.23 | 1    | 07/28/22 16:05 |   |
| trans-1,4-Dichloro-2-butene | ND U   | 5.0 | -   | 0.78 | 1    | 07/28/22 16:05 |   |

| Surrogate Name       | % Rec | Control Limits | Date Analyzed  | Q |
|----------------------|-------|----------------|----------------|---|
| 4-Bromofluorobenzene | 91    | 85 - 114       | 07/28/22 16:05 |   |
| Dibromofluoromethane | 96    | 80 - 119       | 07/28/22 16:05 |   |
| Toluene-d8           | 98    | 89 - 112       | 07/28/22 16:05 |   |

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5549.D  
 Acq On : 28 Jul 2022 4:27 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-001|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 17 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:30:11 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

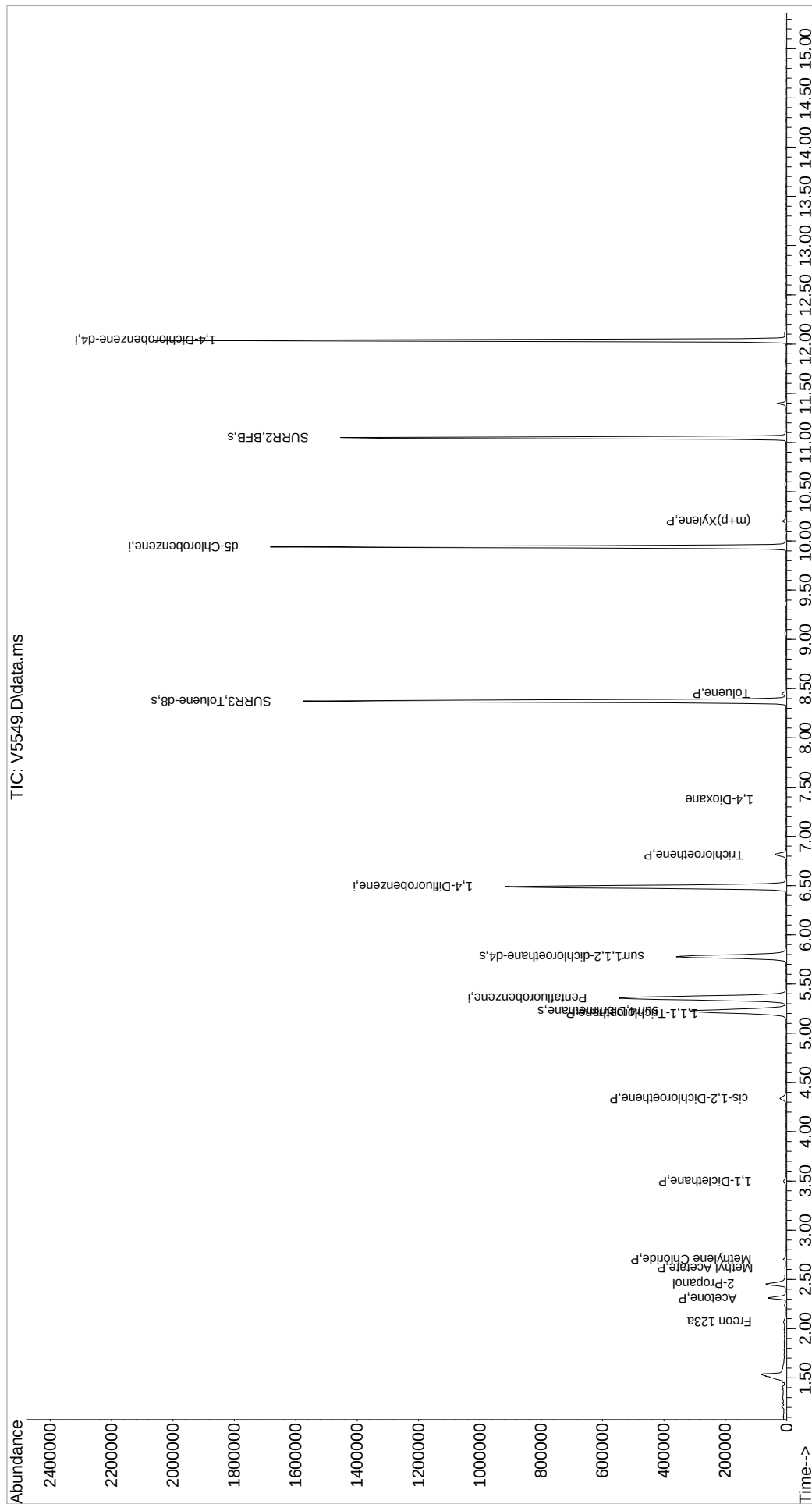
| Compound                      | R.T.           | QIon | Response   | Conc      | Units    | Dev(Min) |
|-------------------------------|----------------|------|------------|-----------|----------|----------|
| Internal Standards            |                |      |            |           |          |          |
| 1) Pentafluorobenzene         | 5.356          | 168  | 562864     | 50.00     | ug/L     | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.490          | 114  | 855962     | 50.00     | ug/L     | 0.00     |
| 70) d5-Chlorobenzene          | 9.940          | 117  | 777918     | 50.00     | ug/L     | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.037         | 152  | 402748     | 50.00     | ug/L     | 0.00     |
| System Monitoring Compounds   |                |      |            |           |          |          |
| 44) surr4,Dibrflmethane       | 5.228          | 113  | 260333     | 47.31     | ug/L     | 0.00     |
| Spiked Amount 50.000          | Range 80 - 116 |      | Recovery = | 94.62%    |          |          |
| 47) surr1,1,2-dichloroetha... | 5.776          | 65   | 303640     | 47.18     | ug/L     | 0.00     |
| Spiked Amount 50.000          | Range 73 - 125 |      | Recovery = | 94.36%    |          |          |
| 64) SURR3,Toluene-d8          | 8.373          | 98   | 995996     | 48.37     | ug/L     | 0.00     |
| Spiked Amount 50.000          | Range 87 - 121 |      | Recovery = | 96.74%    |          |          |
| 69) SURR2,BFB                 | 11.050         | 95   | 365040     | 46.27     | ug/L     | 0.00     |
| Spiked Amount 50.000          | Range 85 - 122 |      | Recovery = | 92.54%    |          |          |
| Target Compounds              |                |      |            |           |          |          |
| 5) Bromomethane               | 1.545          | 94   | 699        | Below Cal | Qvalue # | 73       |
| 10) Freon 123a                | 2.070          | 67   | 954        | 0.20      | ug/L     | 91       |
| 15) Acetone                   | 2.308          | 43   | 61940      | 25.76     | ug/L     | 96       |
| 16) 2-Propanol                | 2.454          | 45   | 82442      | 146.29    | ug/L     | 81       |
| 21) Methyl Acetate            | 2.612          | 43   | 1575       | 0.24      | ug/L     | 90       |
| 22) Methylene Chloride        | 2.704          | 84   | 2455       | 0.51      | ug/L     | 89       |
| 27) 1,1-Dicethane             | 3.496          | 63   | 7679       | 0.99      | ug/L     | 84       |
| 33) cis-1,2-Dichloroethene    | 4.338          | 96   | 10755      | 2.04      | ug/L     | 89       |
| 40) 1,1,1-Trichloroethane     | 5.203          | 97   | 10892      | 1.52      | ug/L     | 95       |
| 53) Trichloroethene           | 6.813          | 130  | 12472      | 2.34      | ug/L     | 94       |
| 57) 1,4-Dioxane               | 7.367          | 88   | 283        | 2.20      | ug/L #   | 53       |
| 65) Toluene                   | 8.447          | 91   | 7177       | 0.35      | ug/L     | 95       |
| 82) (m+p)Xylene               | 10.202         | 106  | 2356       | 0.27      | ug/L     | 95       |

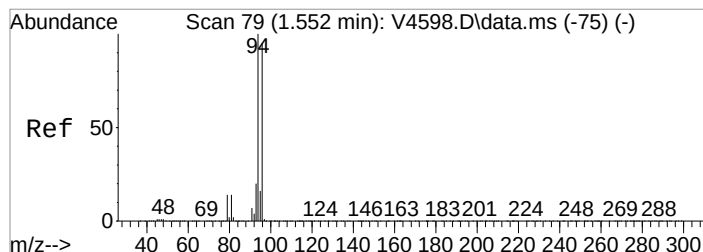
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
 Data File : V5549.D  
 Acq On : 28 Jul 2022 4:27 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-001|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 17 Sample Multiplier: 1

Inst : MSV0A14

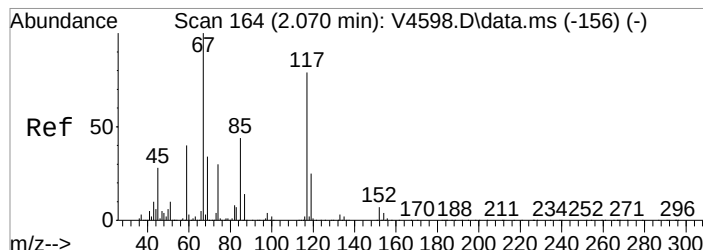
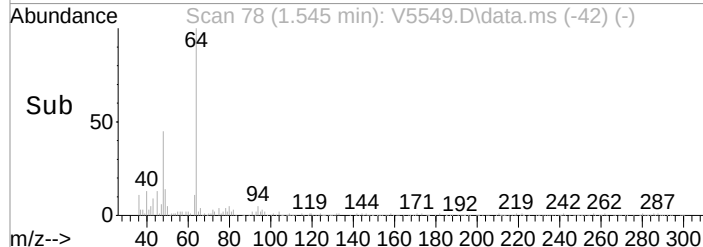
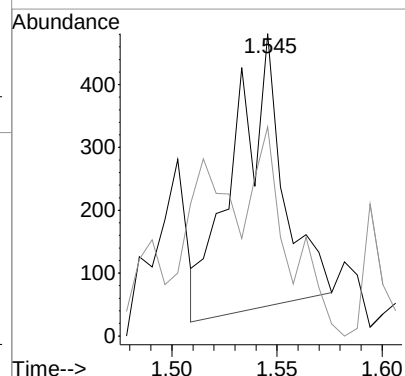
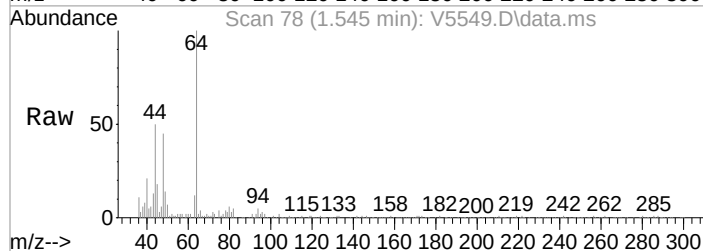
Quant Time: Jul 29 15:30:11 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 Qlast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration





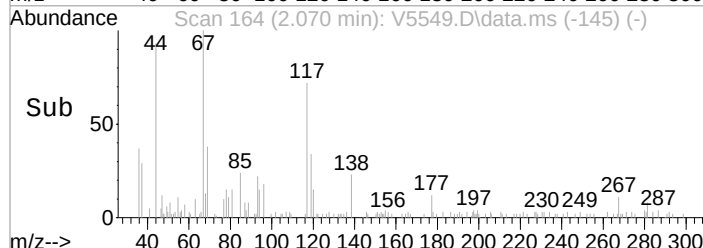
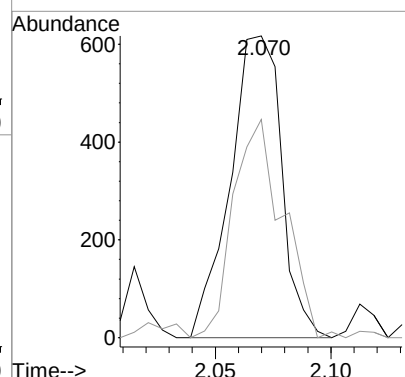
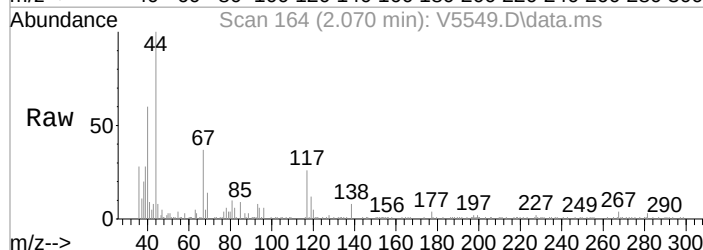
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.545 min Scan# 78  
 Delta R.T. -0.006 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

Tgt Ion: 94 Resp: 699  
 Ion Ratio Lower Upper  
 94 100  
 96 69.2 75.2 115.2#

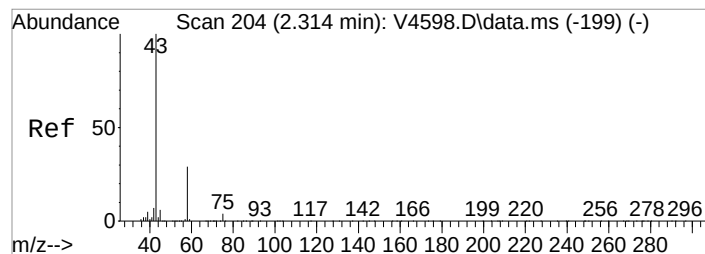


#10  
 Freon 123a  
 Concen: 0.20 ug/L  
 RT: 2.070 min Scan# 164  
 Delta R.T. -0.000 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

Tgt Ion: 67 Resp: 954  
 Ion Ratio Lower Upper  
 67 100  
 117 72.3 60.0 100.0

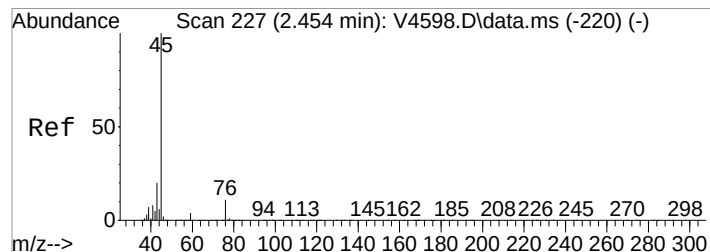
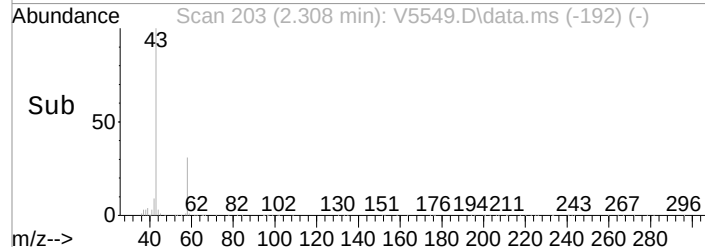
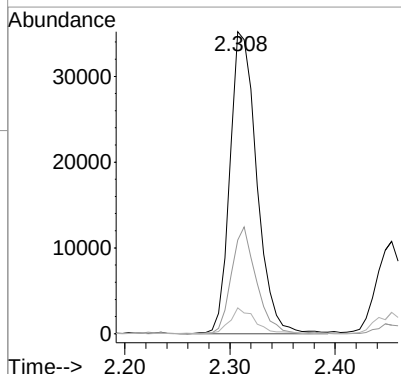
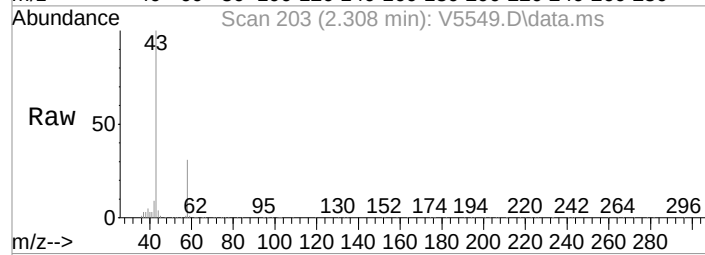






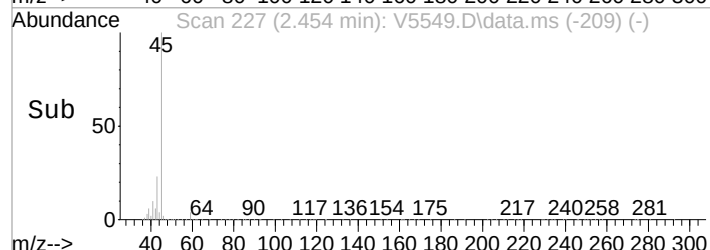
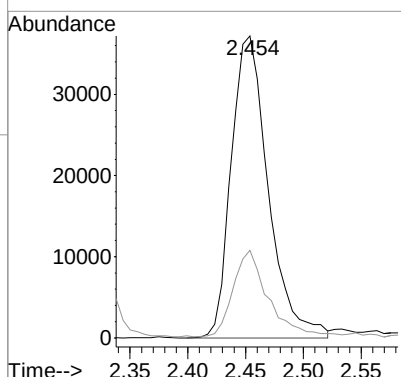
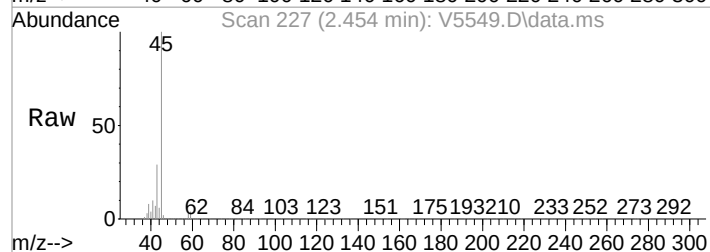
#15  
 Acetone  
 Concen: 25.76 ug/L  
 RT: 2.308 min Scan# 203  
 Delta R.T. -0.006 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

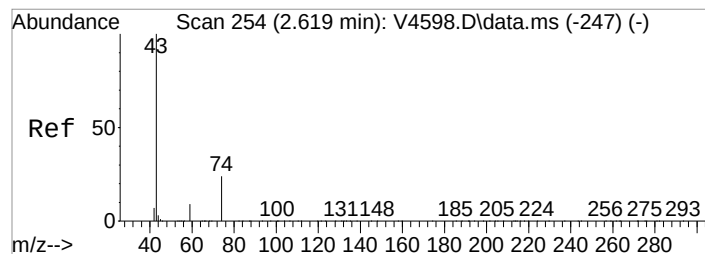
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 58      | 31.0  | 8.9   | 48.9  |
| 42      | 8.5   | 0.0   | 27.4  |



#16  
 2-Propanol  
 Concen: 146.29 ug/L  
 RT: 2.454 min Scan# 227  
 Delta R.T. -0.000 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

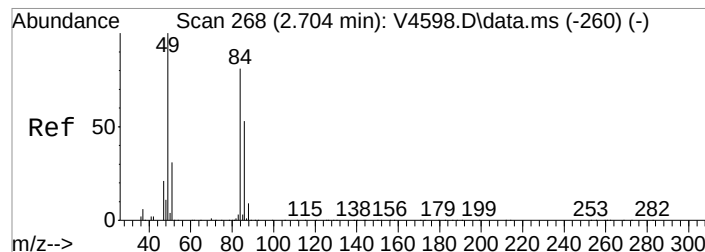
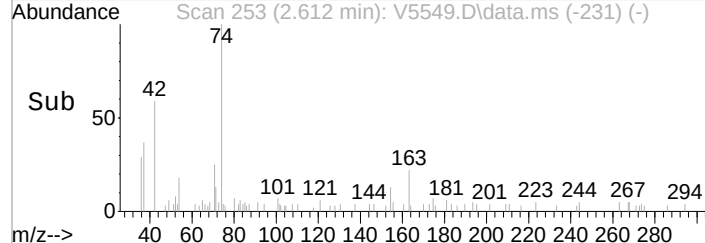
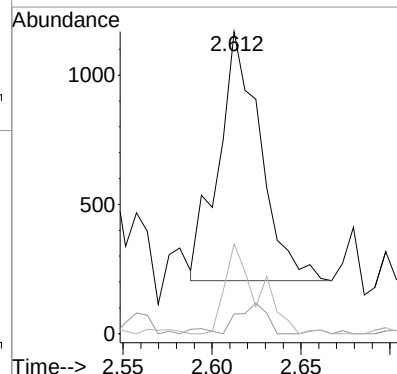
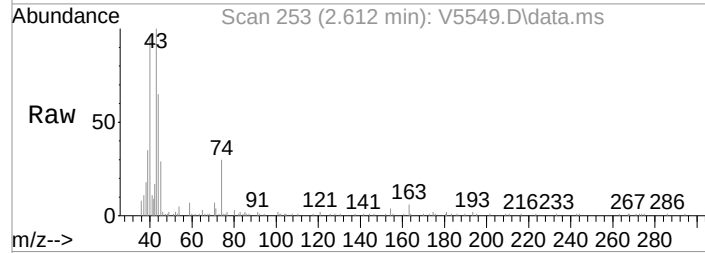
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 45      | 100   |       |       |
| 43      | 29.0  | 0.1   | 40.1  |





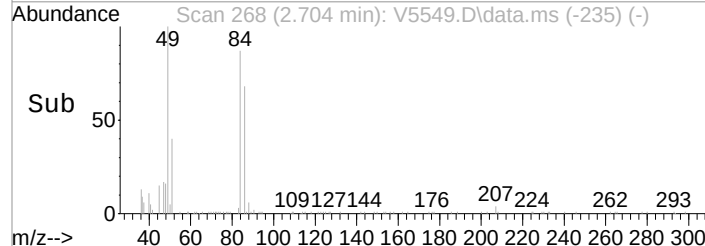
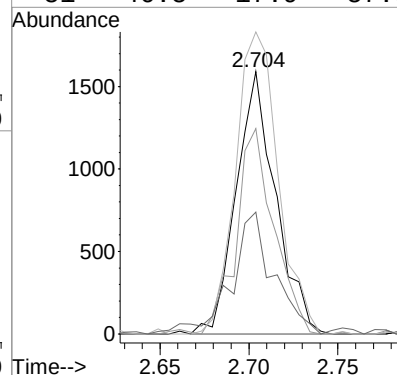
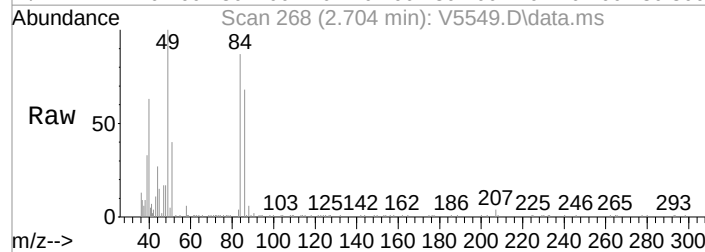
#21  
 Methyl Acetate  
 Concen: 0.24 ug/L  
 RT: 2.612 min Scan# 253  
 Delta R.T. -0.006 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

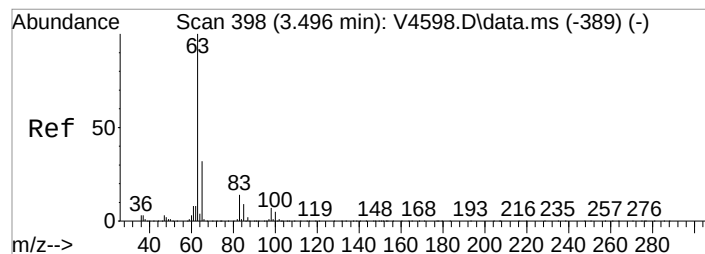
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 43   | Resp: | 1575  |
| Ion Ratio |      | Lower | Upper |
| 43        | 100  |       |       |
| 59        | 6.6  | 0.0   | 28.8  |
| 74        | 29.8 | 3.9   | 43.9  |



#22  
 Methylene Chloride  
 Concen: 0.51 ug/L  
 RT: 2.704 min Scan# 268  
 Delta R.T. -0.000 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

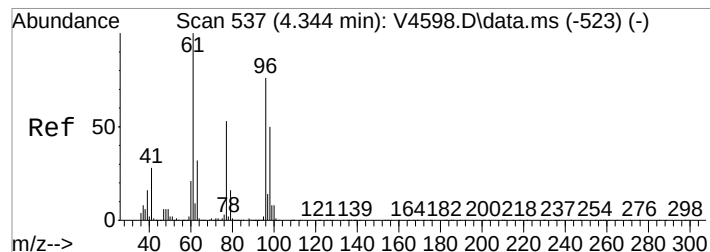
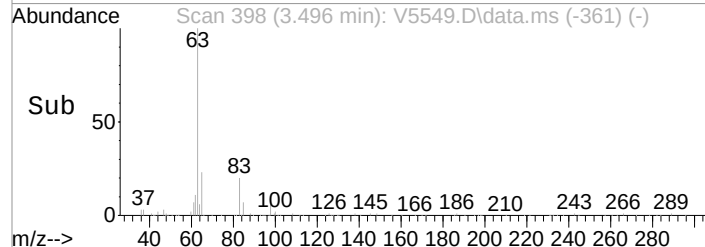
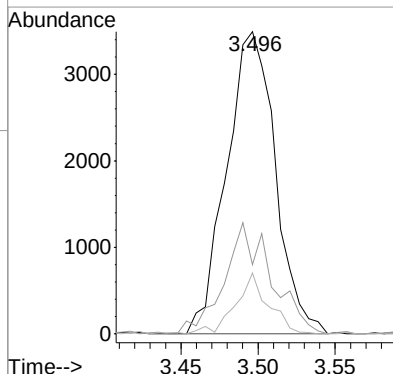
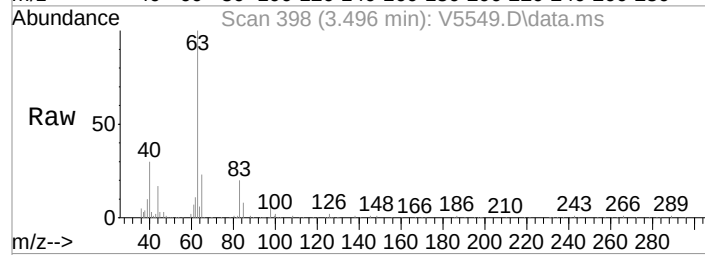
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 84    | Resp: | 2455  |
| Ion Ratio |       | Lower | Upper |
| 84        | 100   |       |       |
| 86        | 78.3  | 45.1  | 85.1  |
| 49        | 115.2 | 103.1 | 143.1 |
| 51        | 46.5  | 17.9  | 57.9  |





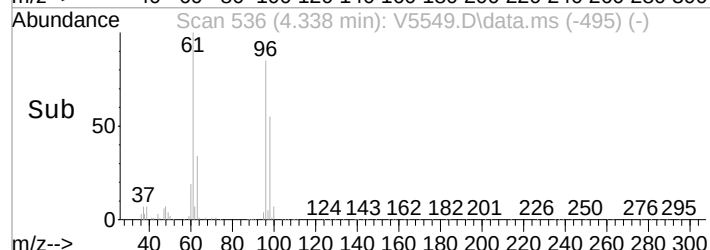
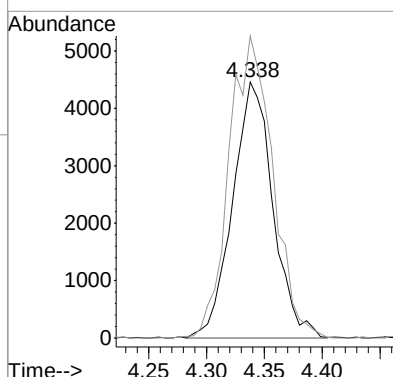
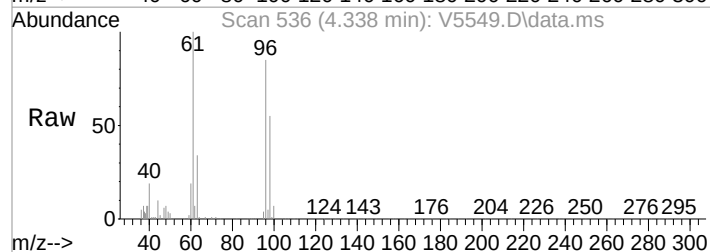
#27  
 1,1-Dichloroethane  
 Concen: 0.99 ug/L  
 RT: 3.496 min Scan# 398  
 Delta R.T. -0.000 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

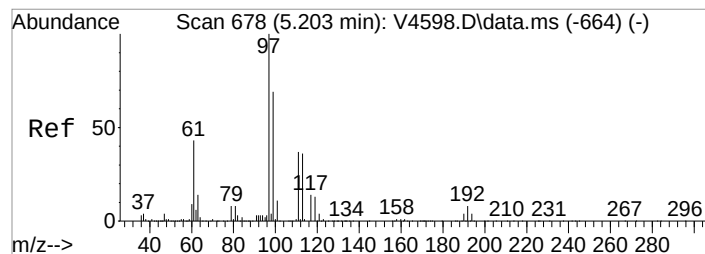
Tgt Ion: 63 Resp: 7679  
 Ion Ratio Lower Upper  
 63 100  
 65 22.8 12.2 52.2  
 83 20.1 0.0 33.8



#33  
 cis-1,2-Dichloroethene  
 Concen: 2.04 ug/L  
 RT: 4.338 min Scan# 536  
 Delta R.T. -0.006 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

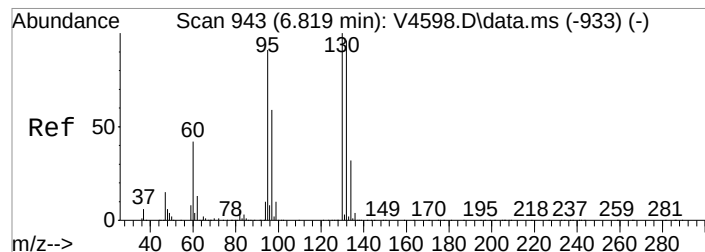
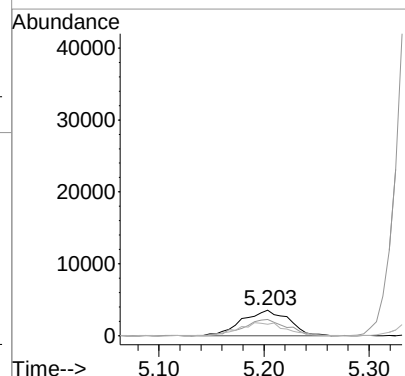
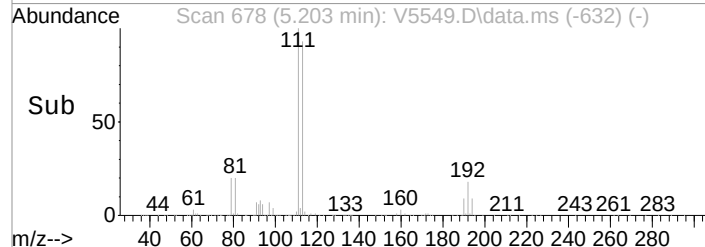
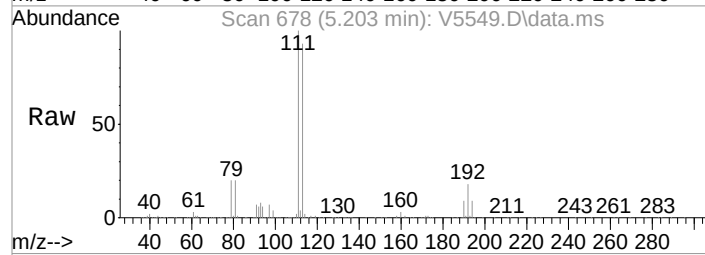
Tgt Ion: 96 Resp: 10755  
 Ion Ratio Lower Upper  
 96 100  
 61 118.0 111.0 151.0





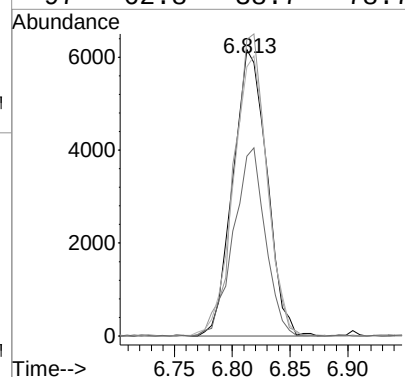
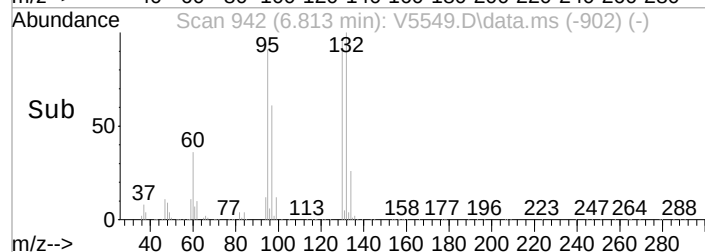
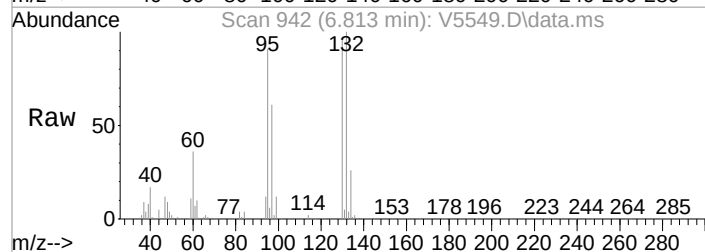
#40  
 1,1,1-Trichloroethane  
 Concen: 1.52 ug/L  
 RT: 5.203 min Scan# 678  
 Delta R.T. -0.000 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

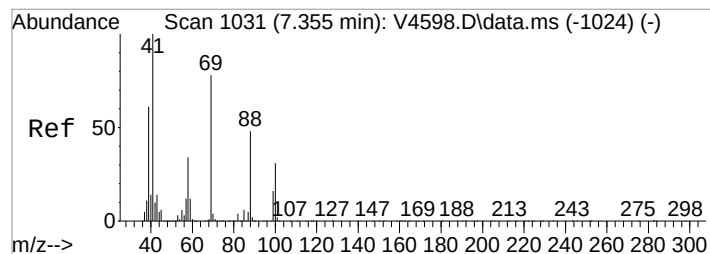
| Tgt Ion:  | 97    | Resp: | 10892 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 97        | 100   |       |       |
| 99        | 64.5  | 48.8  | 88.8  |
| 61        | 45.6  | 23.4  | 63.4  |



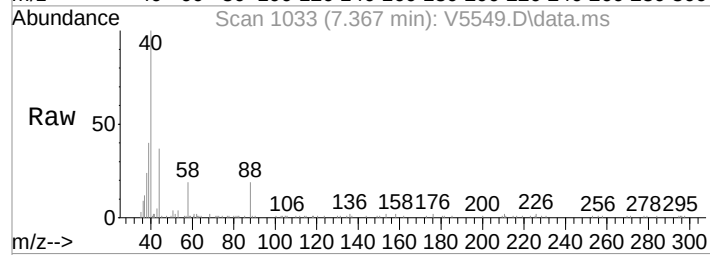
#53  
 Trichloroethene  
 Concen: 2.34 ug/L  
 RT: 6.813 min Scan# 942  
 Delta R.T. -0.006 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

| Tgt Ion:  | 130   | Resp: | 12472 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 130       | 100   |       |       |
| 132       | 103.6 | 76.3  | 116.3 |
| 95        | 94.0  | 70.5  | 110.5 |
| 97        | 62.8  | 38.7  | 78.7  |

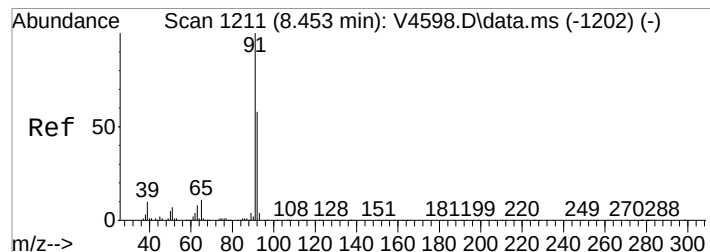
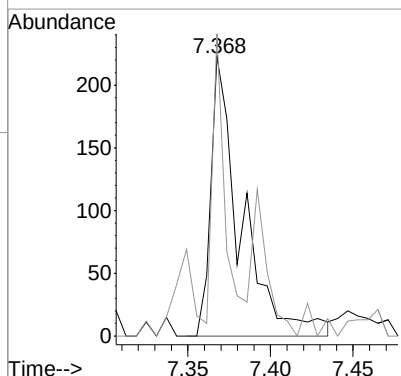
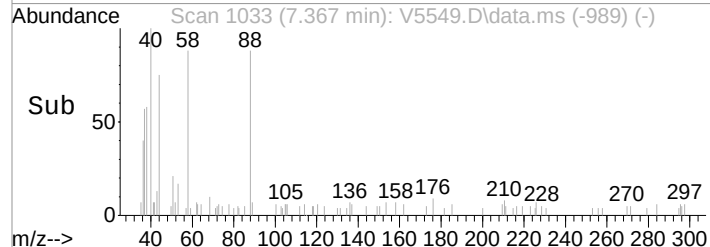




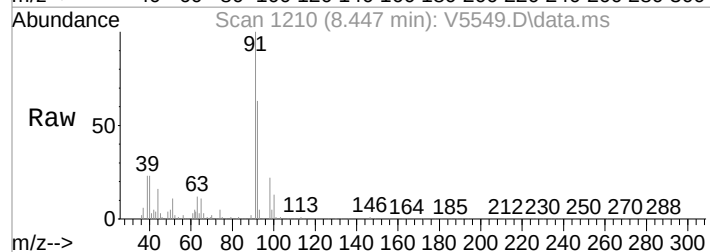
#57  
 1,4-Dioxane  
 Concen: 2.20 ug/L  
 RT: 7.367 min Scan# 1033  
 Delta R.T. 0.012 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm



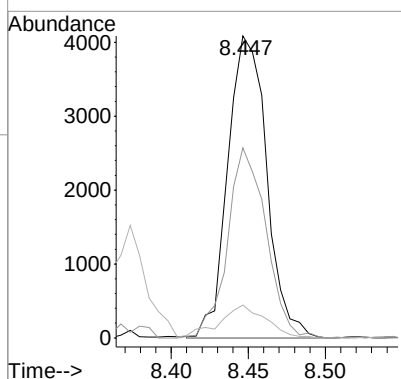
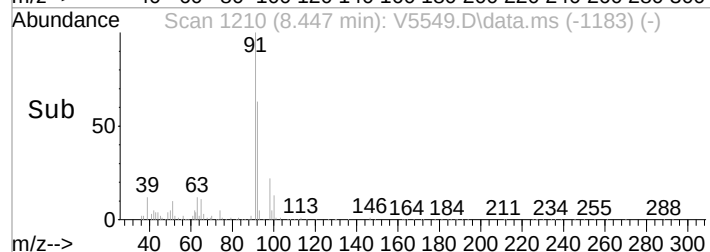
Tgt Ion: 88 Resp: 283  
 Ion Ratio Lower Upper  
 88 100  
 58 108.1 49.7 89.7#

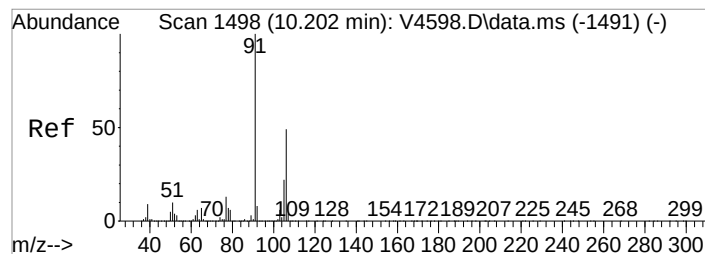


#65  
 Toluene  
 Concen: 0.35 ug/L  
 RT: 8.447 min Scan# 1210  
 Delta R.T. -0.006 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm

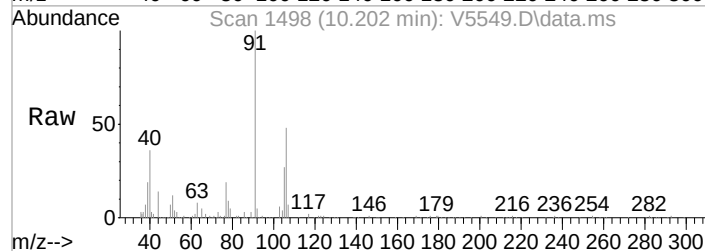


Tgt Ion: 91 Resp: 7177  
 Ion Ratio Lower Upper  
 91 100  
 92 62.9 38.2 78.2  
 65 10.9 0.0 31.2

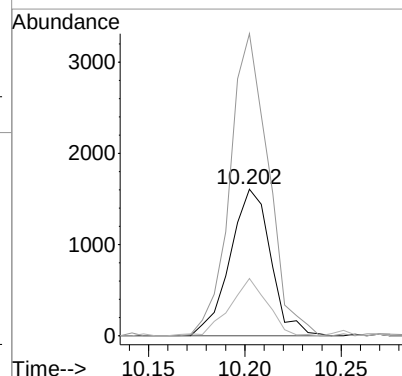
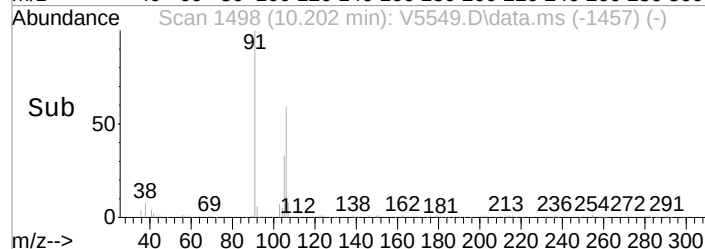




#82  
 (m+p)Xylene  
 Concen: 0.27 ug/L  
 RT: 10.202 min Scan# 1498  
 Delta R.T. -0.000 min  
 Lab File: V5549.D  
 Acq: 28 Jul 2022 4:27 pm



|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 106   | Resp: | 2356  |
| Ion Ratio |       | Lower | Upper |
| 106       | 100   |       |       |
| 91        | 206.4 | 183.3 | 223.3 |
| 77        | 39.0  | 6.8   | 46.8  |



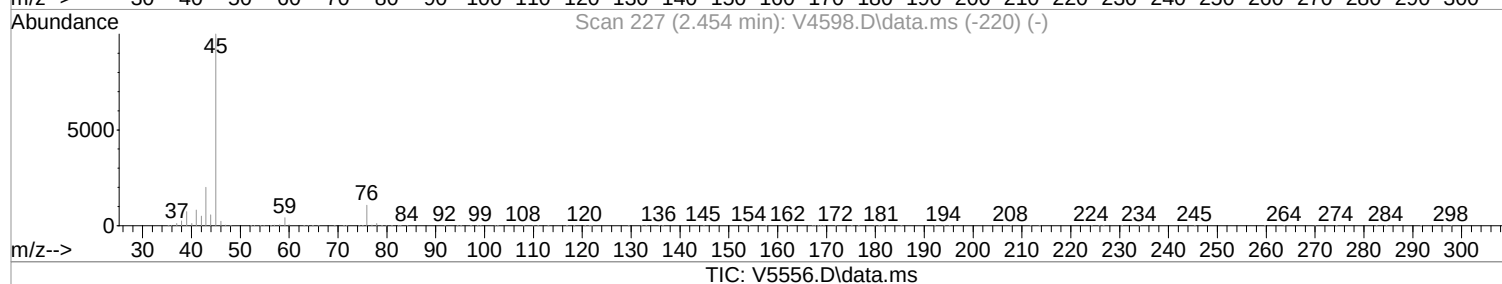
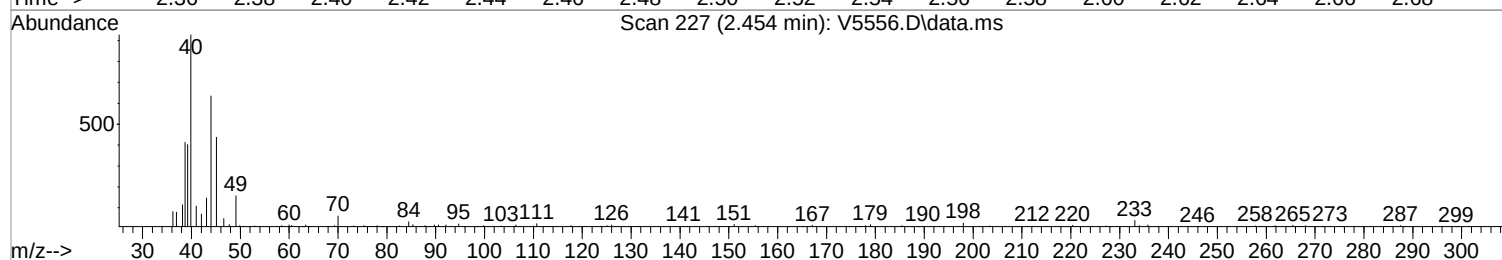
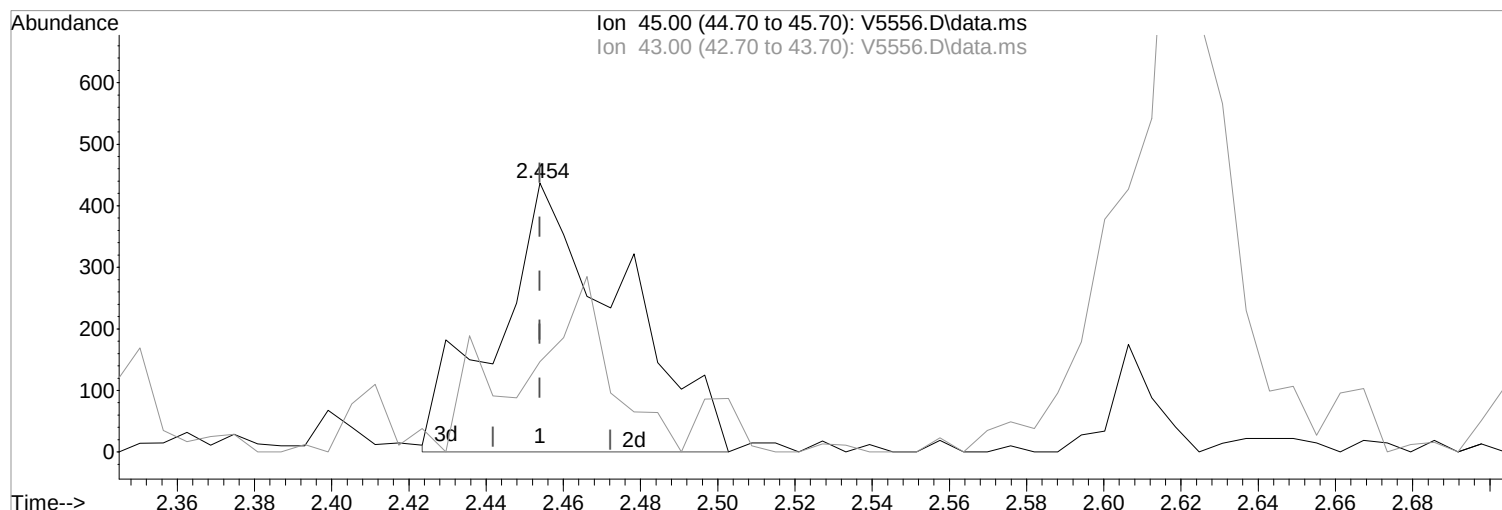
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5556.D  
Acq On : 28 Jul 2022 7:03 pm  
Operator : F.NAEGLER  
Sample : R2206604-002|1.0  
Misc : EAE 19519 T4  
ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:46:44 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



(16) 2-Propanol

2.454min (+0.000) 1.75 ug/L m

response 983

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 45.00 | 100   | 100   |
| 43.00 | 20.10 | 33.64 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

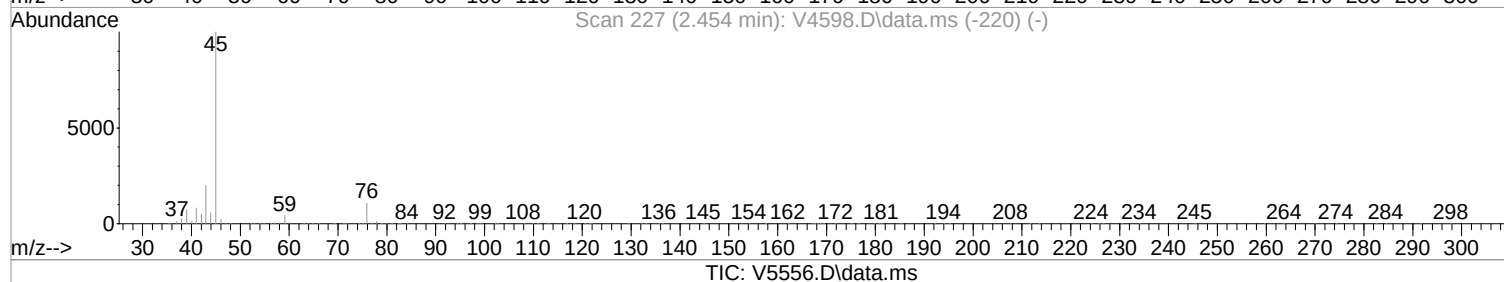
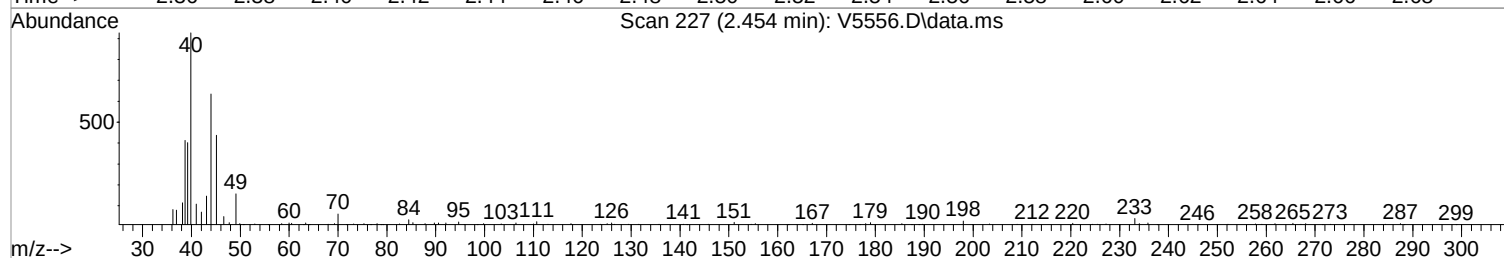
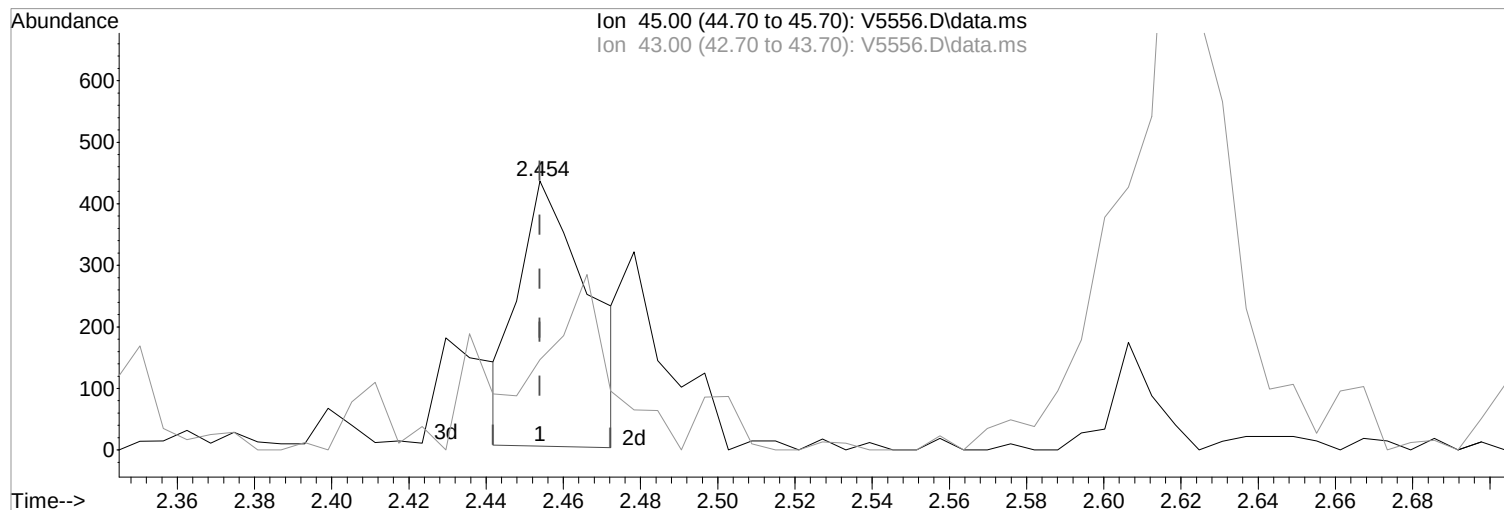
Poor integration.

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5556.D  
Acq On : 28 Jul 2022 7:03 pm  
Operator : F.NAEGLER  
Sample : R2206604-002|1.0  
Misc : EAE 19519 T4  
ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:46:44 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



(16) 2-Propanol

Manual Integration:

2.454min (+0.000) 0.97 ug/L

Before

response 545

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 45.00 | 100   | 100   |
| 43.00 | 20.10 | 33.64 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

07/29/22



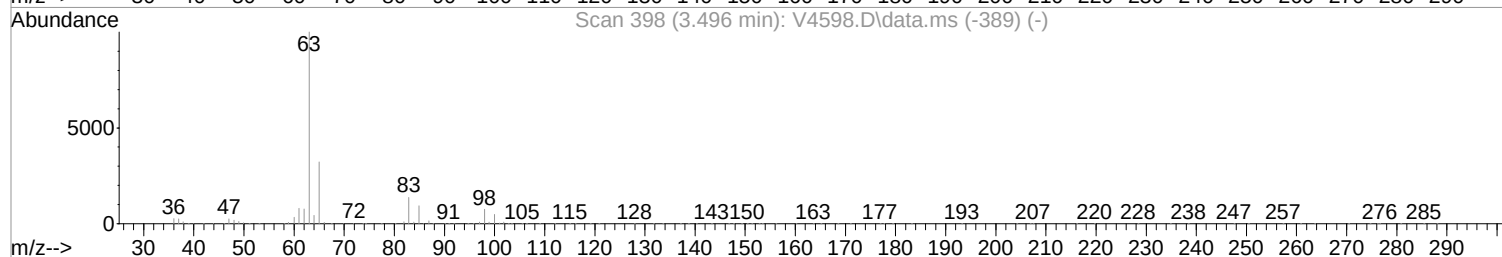
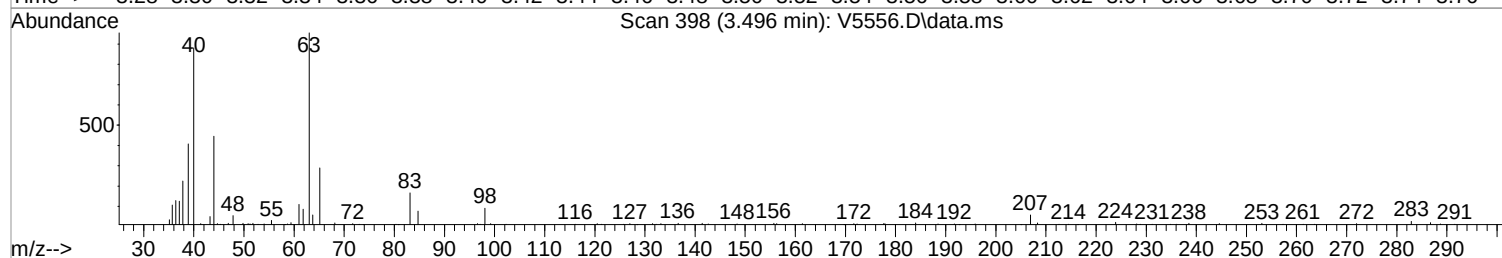
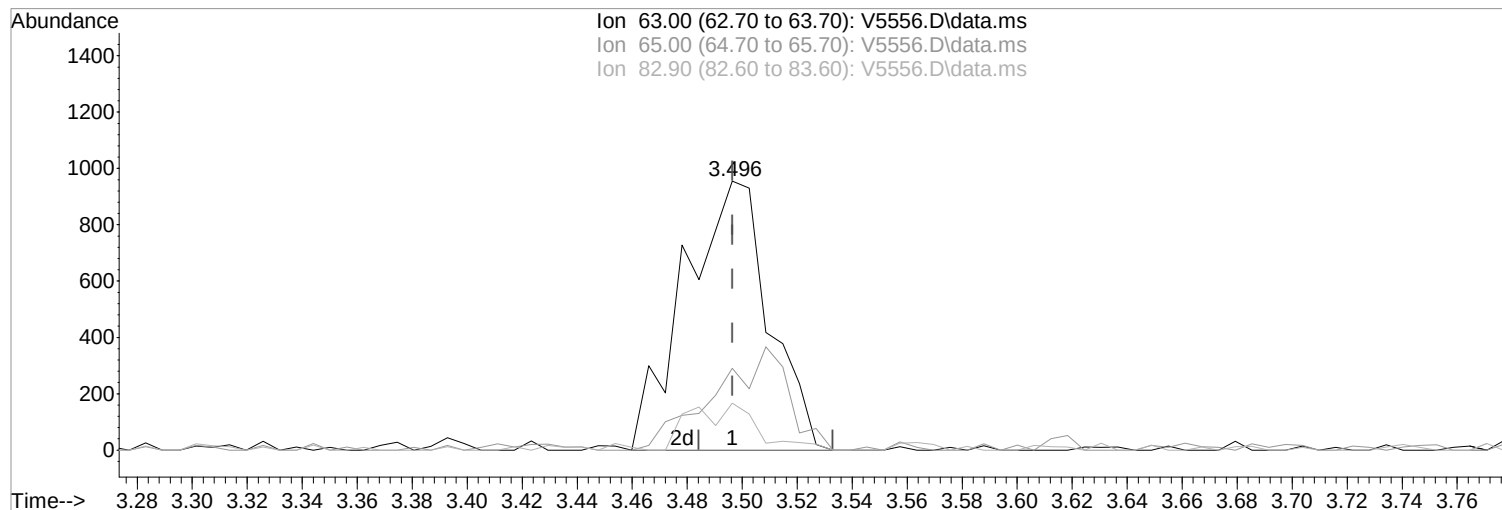
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5556.D  
Acq On : 28 Jul 2022 7:03 pm  
Operator : F.NAEGLER  
Sample : R2206604-002|1.0  
Misc : EAE 19519 T4  
ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:46:44 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5556.D\data.ms

(27) 1,1-Dicethane (P)

3.496min (+0.000) 0.26 ug/L m

response 2031

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 63.00 | 100   | 100   |
| 65.00 | 32.20 | 30.37 |
| 82.90 | 13.80 | 17.49 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/29/22

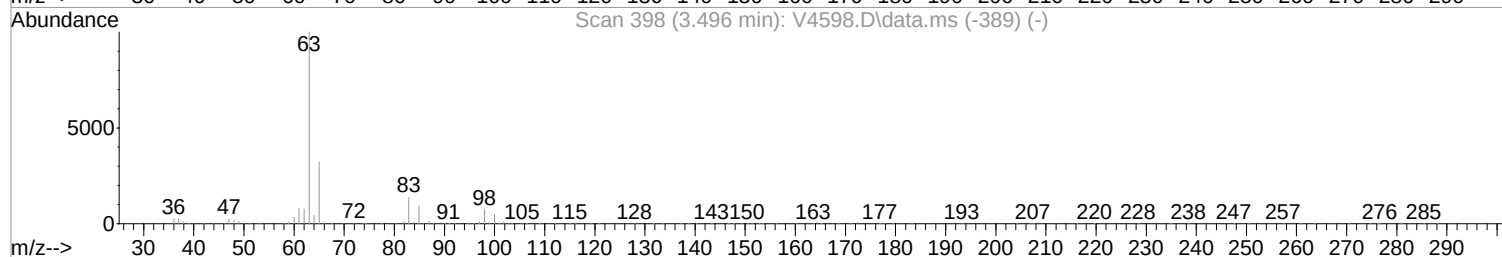
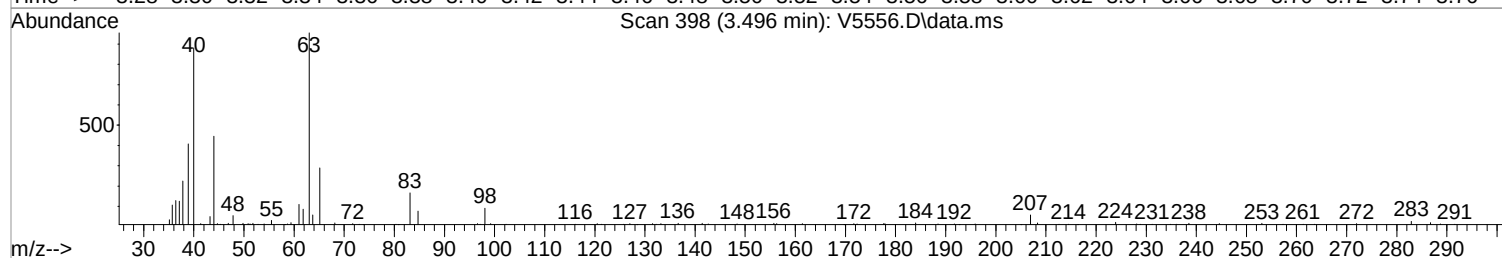
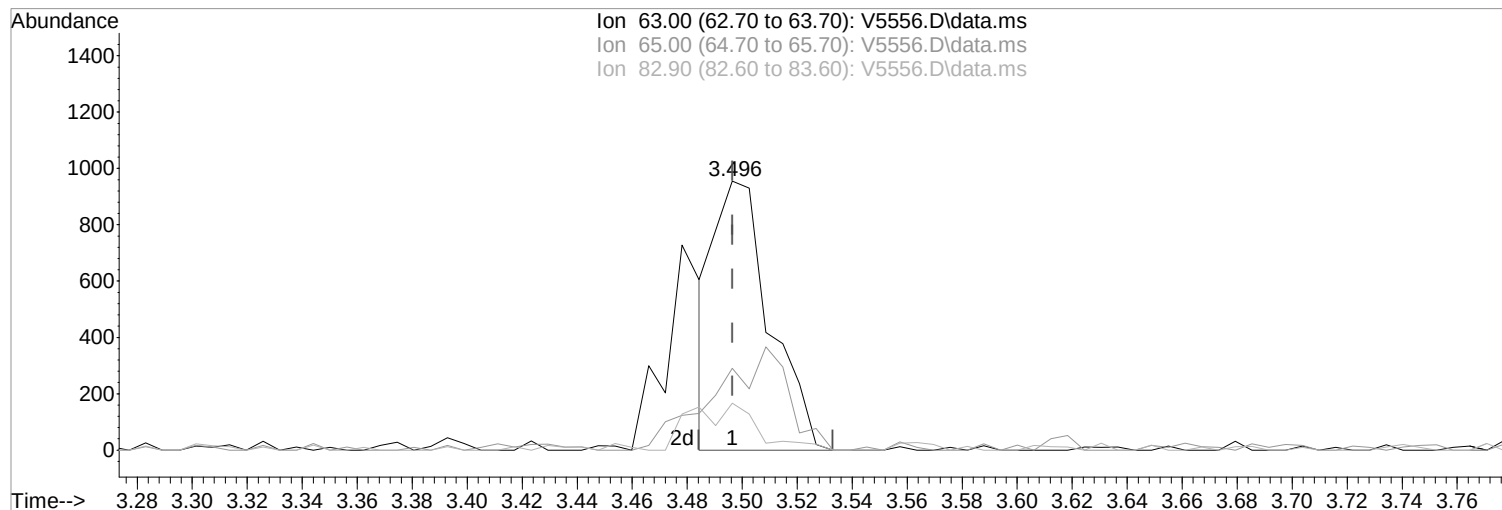
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5556.D  
Acq On : 28 Jul 2022 7:03 pm  
Operator : F.NAEGLER  
Sample : R2206604-002|1.0  
Misc : EAE 19519 T4  
ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:46:44 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5556.D\data.ms

(27) 1,1-Dicethane (P)

Manual Integration:

3.496min (+0.000) 0.18 ug/L

Before

response 1359

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 63.00 | 100   | 100   |
| 65.00 | 32.20 | 28.63 |
| 82.90 | 13.80 | 16.49 |
| 0.00  | 0.00  | 0.00  |

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5556.D  
 Acq On : 28 Jul 2022 7:03 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-002|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 24 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:41:14 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

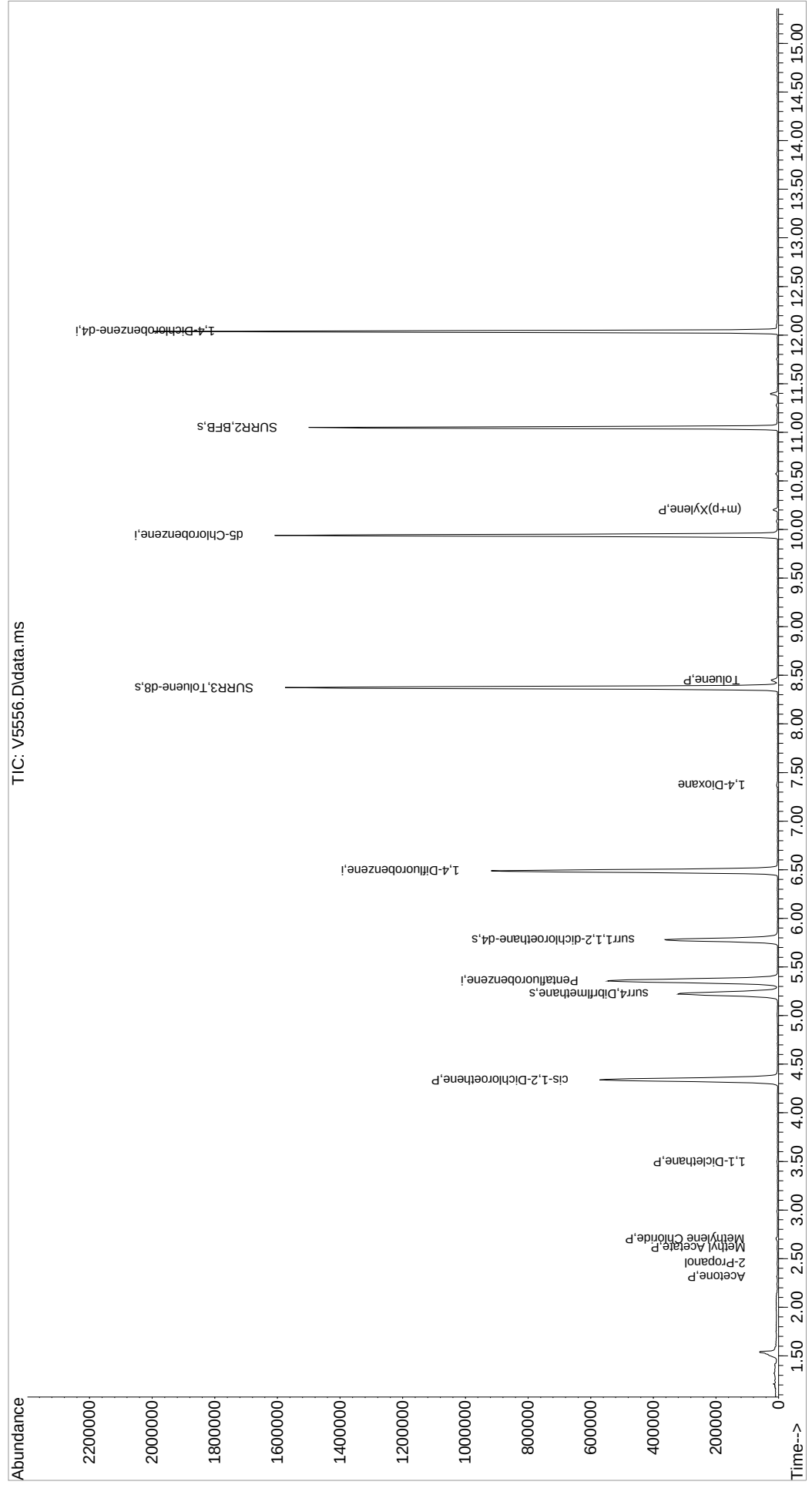
| Compound                      | R.T.           | QIon | Response   | Conc        | Units | Dev(Min) |
|-------------------------------|----------------|------|------------|-------------|-------|----------|
| Internal Standards            |                |      |            |             |       |          |
| 1) Pentafluorobenzene         | 5.362          | 168  | 559821     | 50.00       | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.490          | 114  | 851552     | 50.00       | ug/L  | 0.00     |
| 70) d5-Chlorobenzene          | 9.940          | 117  | 767754     | 50.00       | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.037         | 152  | 391229     | 50.00       | ug/L  | 0.00     |
| System Monitoring Compounds   |                |      |            |             |       |          |
| 44) surr4,Dibrflmethane       | 5.228          | 113  | 269290     | 49.20       | ug/L  | 0.00     |
| Spiked Amount 50.000          | Range 80 - 116 |      | Recovery = | 98.40%      |       |          |
| 47) surr1,1,2-dichloroetha... | 5.776          | 65   | 311697     | 48.69       | ug/L  | 0.00     |
| Spiked Amount 50.000          | Range 73 - 125 |      | Recovery = | 97.38%      |       |          |
| 64) SURR3,Toluene-d8          | 8.374          | 98   | 1008557    | 49.23       | ug/L  | 0.00     |
| Spiked Amount 50.000          | Range 87 - 121 |      | Recovery = | 98.46%      |       |          |
| 69) SURR2,BFB                 | 11.050         | 95   | 371074     | 47.28       | ug/L  | 0.00     |
| Spiked Amount 50.000          | Range 85 - 122 |      | Recovery = | 94.56%      |       |          |
| Target Compounds              |                |      |            |             |       |          |
| 5) Bromomethane               | 1.546          | 94   | 444        | Below Cal   |       | 95       |
| 15) Acetone                   | 2.314          | 43   | 2316       | 0.97 ug/L   |       | 94       |
| 16) 2-Propanol                | 2.454          | 45   | 983m       | 1.75 ug/L   |       |          |
| 21) Methyl Acetate            | 2.619          | 43   | 1537       | 0.24 ug/L   |       | 88       |
| 22) Methylene Chloride        | 2.704          | 84   | 2346       | 0.49 ug/L # |       | 83       |
| 27) 1,1-Dicethane             | 3.496          | 63   | 2031m      | 0.26 ug/L   |       |          |
| 33) cis-1,2-Dichloroethene    | 4.338          | 96   | 342477     | 65.40 ug/L  |       | 93       |
| 57) 1,4-Dioxane               | 7.368          | 88   | 2638       | 20.58 ug/L  |       | 91       |
| 65) Toluene                   | 8.453          | 91   | 12837      | 0.64 ug/L   |       | 93       |
| 82) (m+p)Xylene               | 10.202         | 106  | 3645       | 0.42 ug/L # |       | 71       |

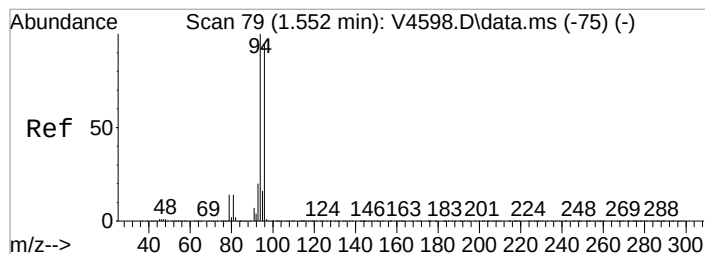
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
Data File : V5556.D  
Acq On : 28 Jul 2022 7:03 pm  
Operator : F.NAEGLER  
Sample : R2206604-002|1.0  
Misc : EAE 19519 T4  
ALS Vial : 24 Sample Multiplier: 1

Inst : MSV0A14

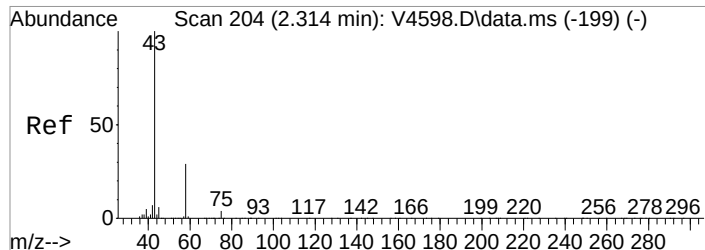
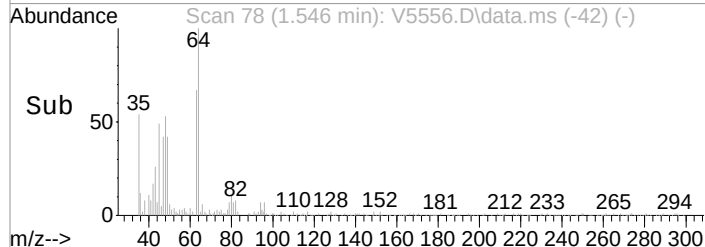
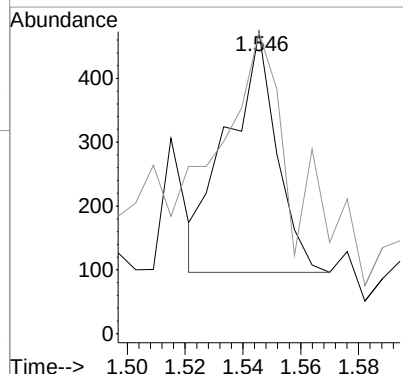
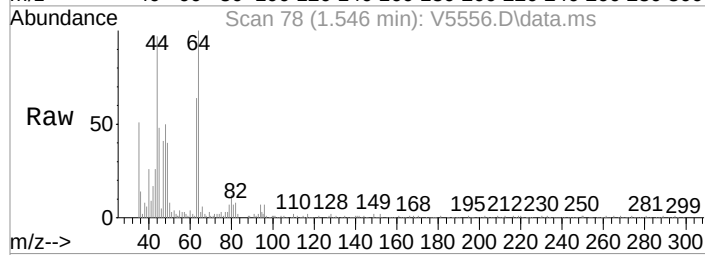
Quant Time: Jul 29 15:41:14 2022  
Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration





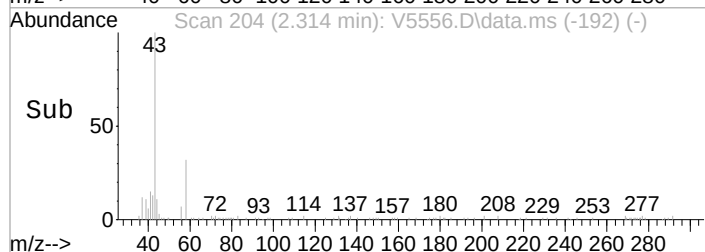
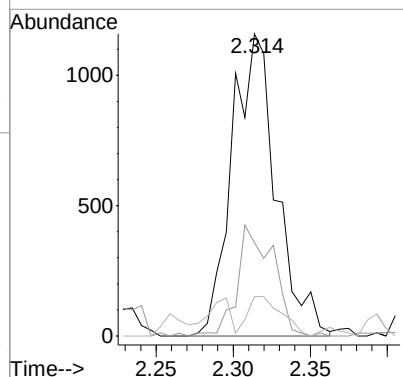
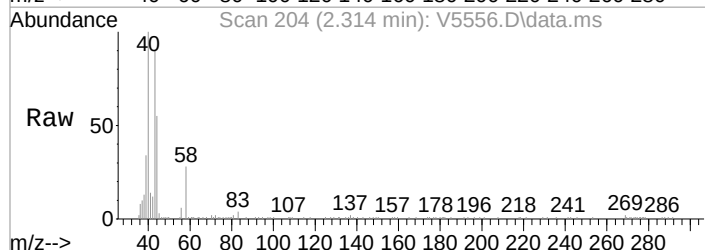
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.546 min Scan# 78  
 Delta R.T. -0.005 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

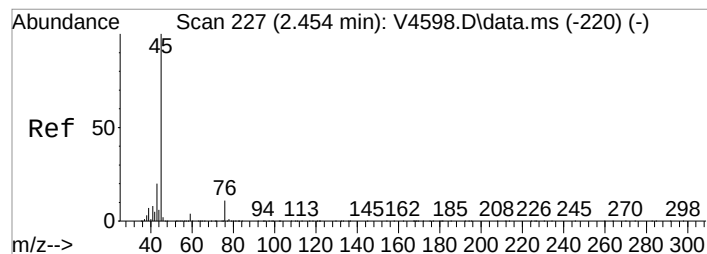
Tgt Ion: 94 Resp: 444  
 Ion Ratio Lower Upper  
 94 100  
 96 99.8 75.2 115.2



#15  
 Acetone  
 Concen: 0.97 ug/L  
 RT: 2.314 min Scan# 204  
 Delta R.T. 0.000 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

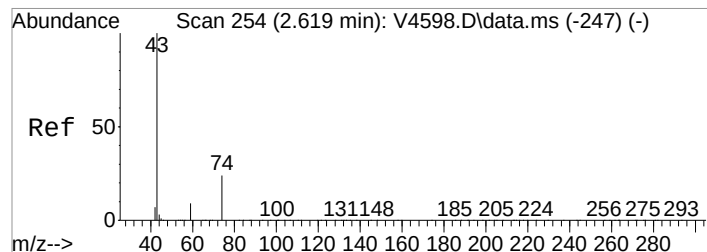
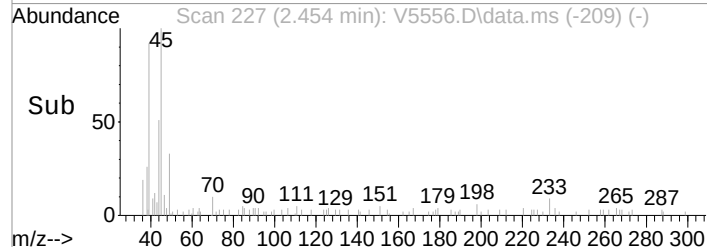
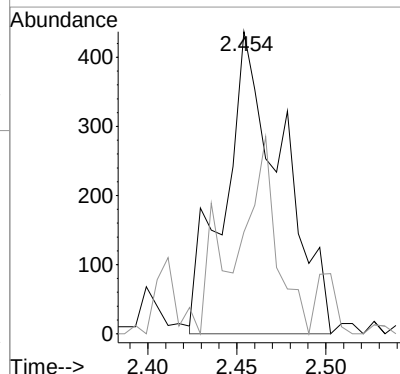
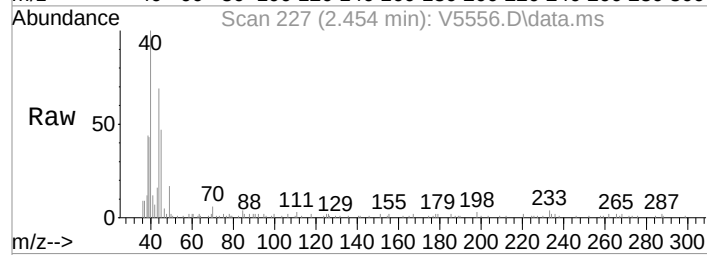
Tgt Ion: 43 Resp: 2316  
 Ion Ratio Lower Upper  
 43 100  
 58 30.9 8.9 48.9  
 42 12.9 0.0 27.4





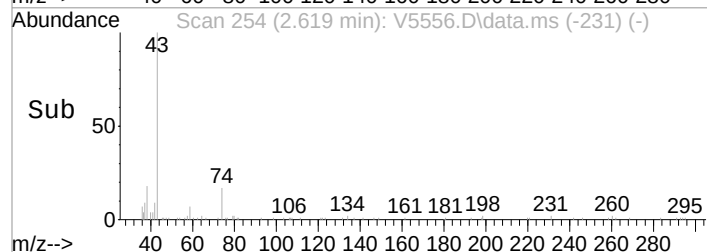
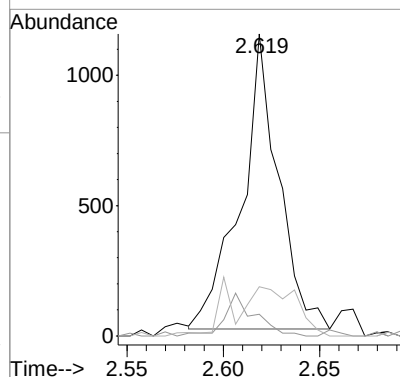
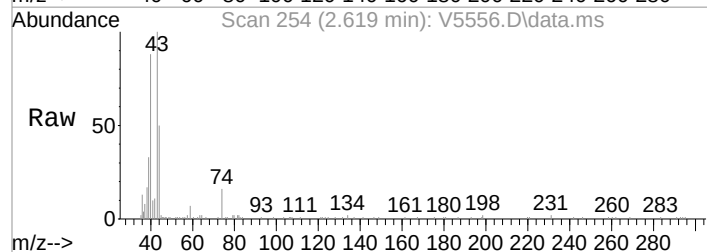
#16  
 2-Propanol  
 Concen: 1.75 ug/L m  
 RT: 2.454 min Scan# 227  
 Delta R.T. 0.000 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

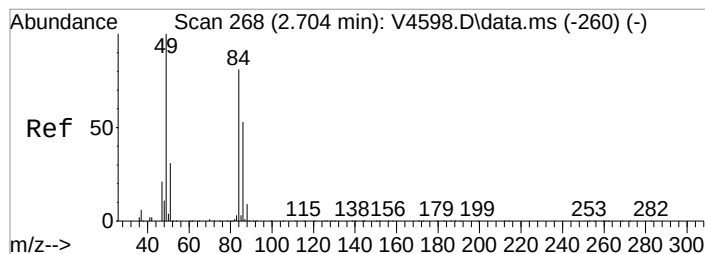
Tgt Ion: 45 Resp: 983  
 Ion Ratio Lower Upper  
 45 100  
 43 33.6 0.1 40.1



#21  
 Methyl Acetate  
 Concen: 0.24 ug/L  
 RT: 2.619 min Scan# 254  
 Delta R.T. 0.000 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

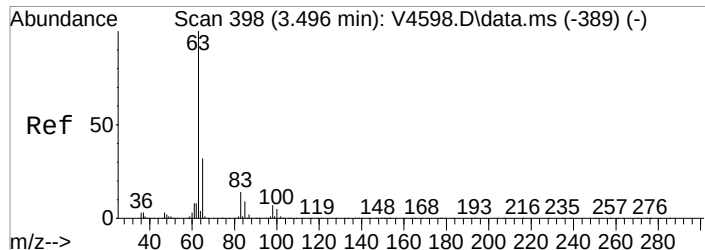
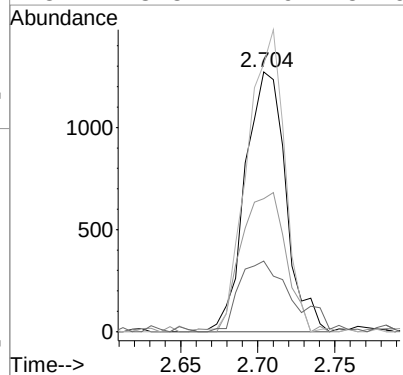
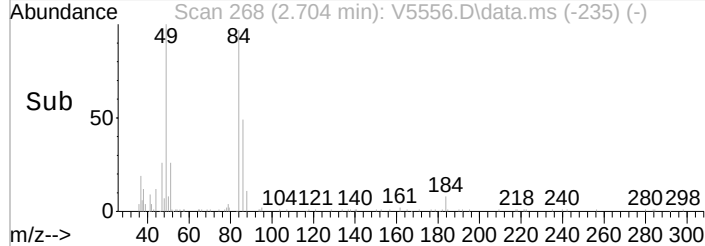
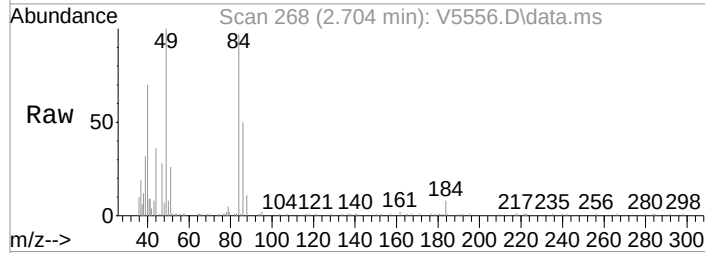
Tgt Ion: 43 Resp: 1537  
 Ion Ratio Lower Upper  
 43 100  
 59 7.2 0.0 28.8  
 74 16.3 3.9 43.9





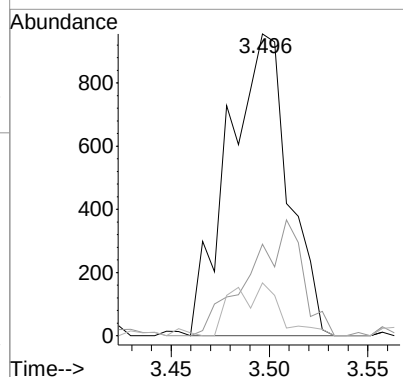
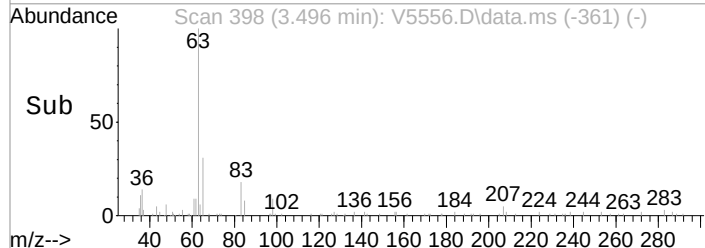
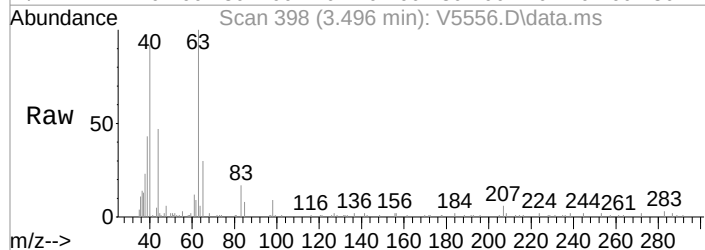
#22  
 Methylene Chloride  
 Concen: 0.49 ug/L  
 RT: 2.704 min Scan# 268  
 Delta R.T. 0.000 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

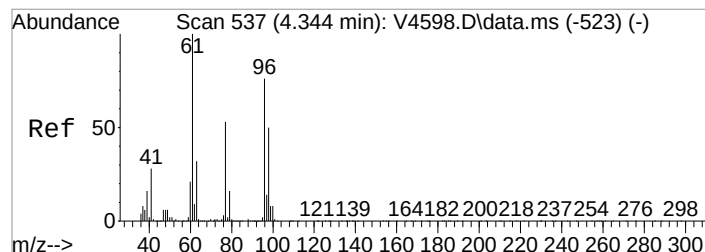
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 84    | Resp: | 2346   |
| Ion Ratio |       | Lower | Upper  |
| 84        | 100   |       |        |
| 86        | 51.2  | 45.1  | 85.1   |
| 49        | 103.1 | 103.1 | 143.1# |
| 51        | 28.5  | 17.9  | 57.9   |



#27  
 1,1-Dicethane  
 Concen: 0.26 ug/L m  
 RT: 3.496 min Scan# 398  
 Delta R.T. 0.000 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

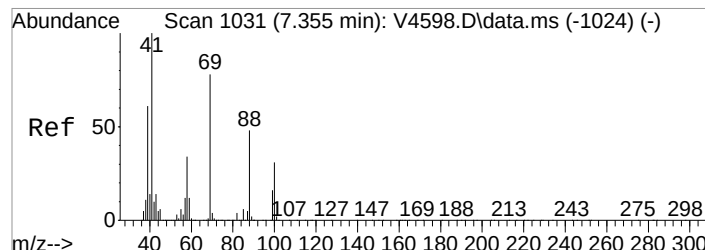
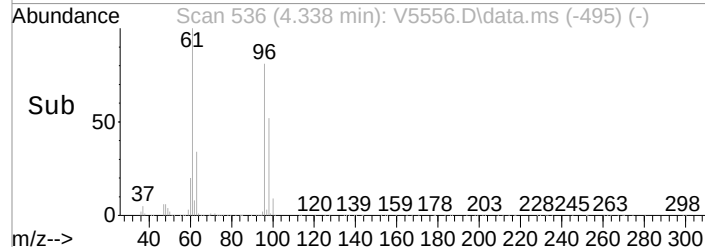
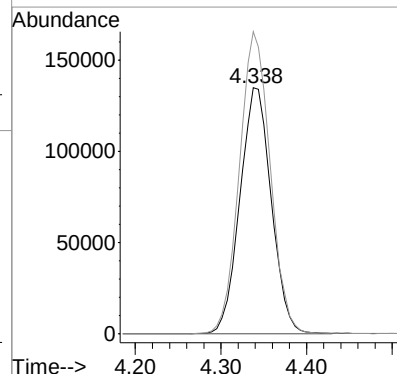
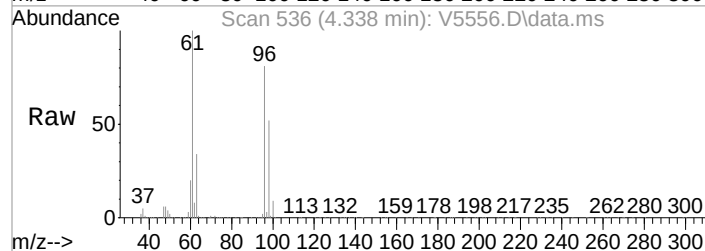
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 63   | Resp: | 2031  |
| Ion Ratio |      | Lower | Upper |
| 63        | 100  |       |       |
| 65        | 30.4 | 12.2  | 52.2  |
| 83        | 17.5 | 0.0   | 33.8  |





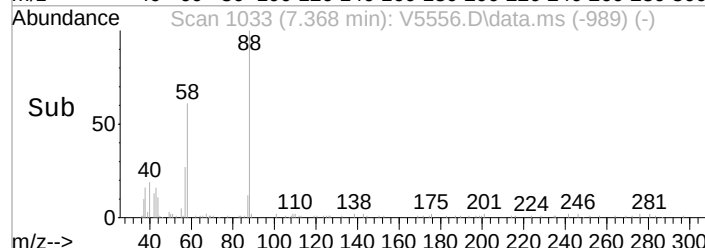
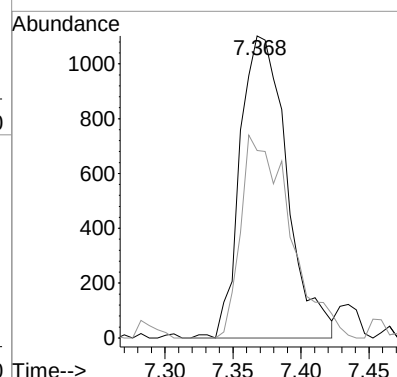
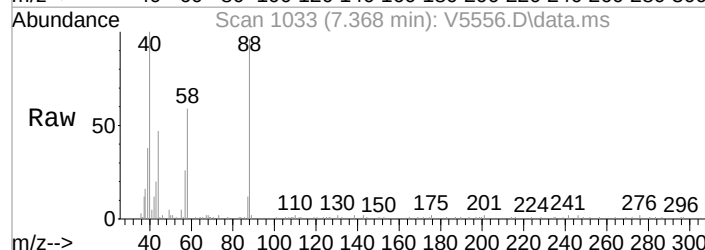
#33  
 cis-1,2-Dichloroethene  
 Concen: 65.40 ug/L  
 RT: 4.338 min Scan# 536  
 Delta R.T. -0.006 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

Tgt Ion: 96 Resp: 342477  
 Ion Ratio Lower Upper  
 96 100  
 61 122.8 111.0 151.0

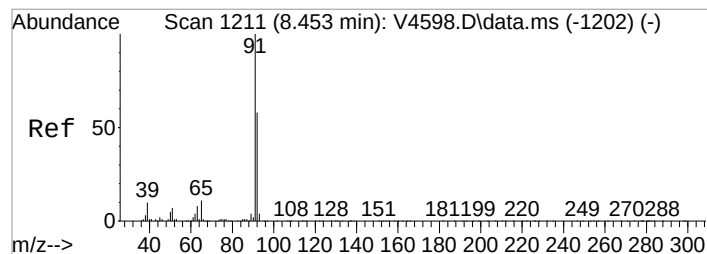


#57  
 1,4-Dioxane  
 Concen: 20.58 ug/L  
 RT: 7.368 min Scan# 1033  
 Delta R.T. 0.012 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

Tgt Ion: 88 Resp: 2638  
 Ion Ratio Lower Upper  
 88 100  
 58 62.1 49.7 89.7

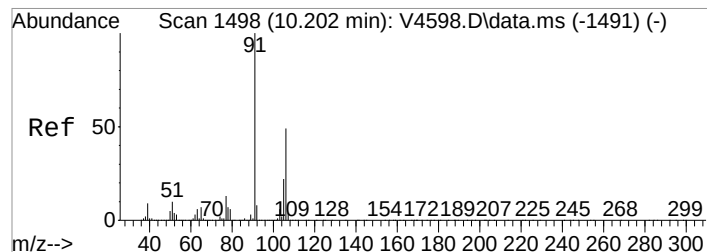
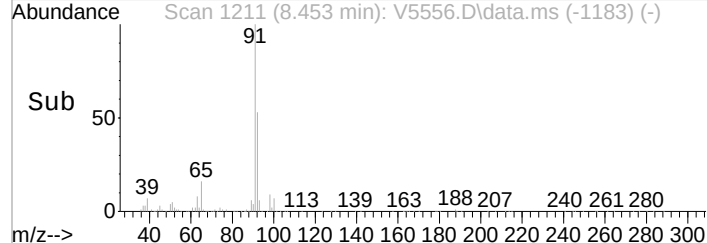
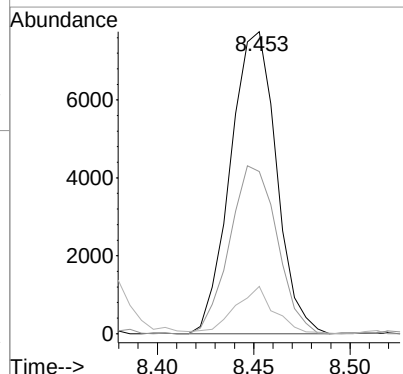
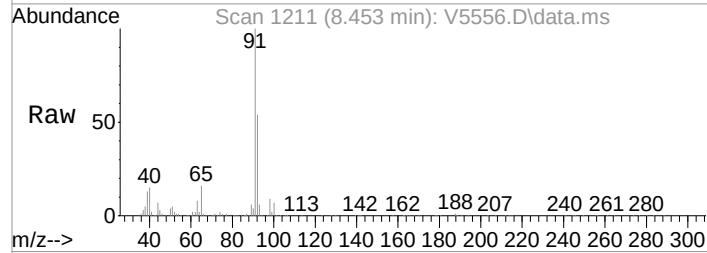






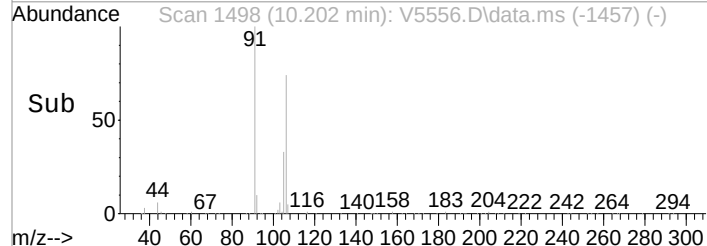
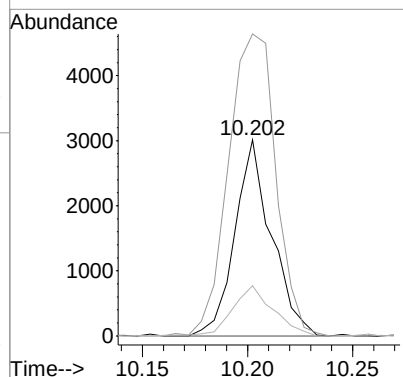
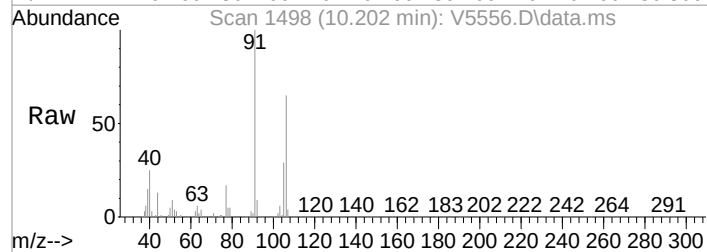
#65  
 Toluene  
 Concen: 0.64 ug/L  
 RT: 8.453 min Scan# 1211  
 Delta R.T. 0.000 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 91   | Resp: | 12837 |
| Ion Ratio |      | Lower | Upper |
| 91        | 100  |       |       |
| 92        | 53.7 | 38.2  | 78.2  |
| 65        | 15.7 | 0.0   | 31.2  |



#82  
 (m+p)Xylene  
 Concen: 0.42 ug/L  
 RT: 10.202 min Scan# 1498  
 Delta R.T. 0.000 min  
 Lab File: V5556.D  
 Acq: 28 Jul 2022 7:03 pm

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 106   | Resp: | 3645   |
| Ion Ratio |       | Lower | Upper  |
| 106       | 100   |       |        |
| 91        | 154.0 | 183.3 | 223.3# |
| 77        | 25.6  | 6.8   | 46.8   |



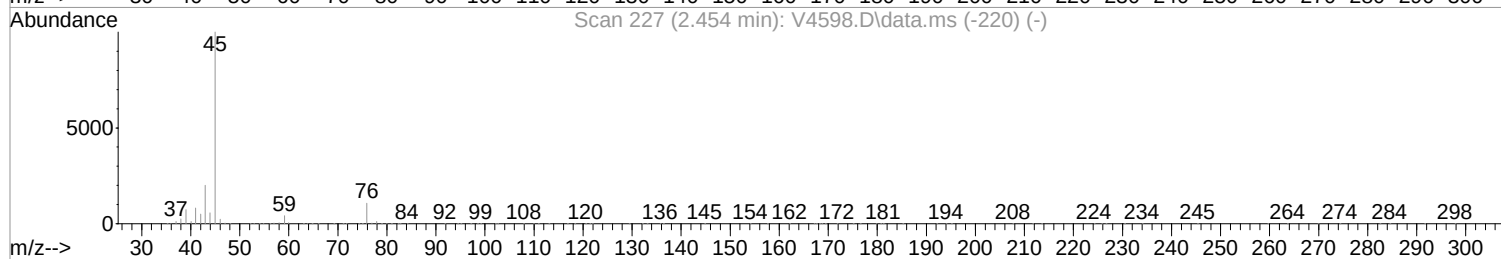
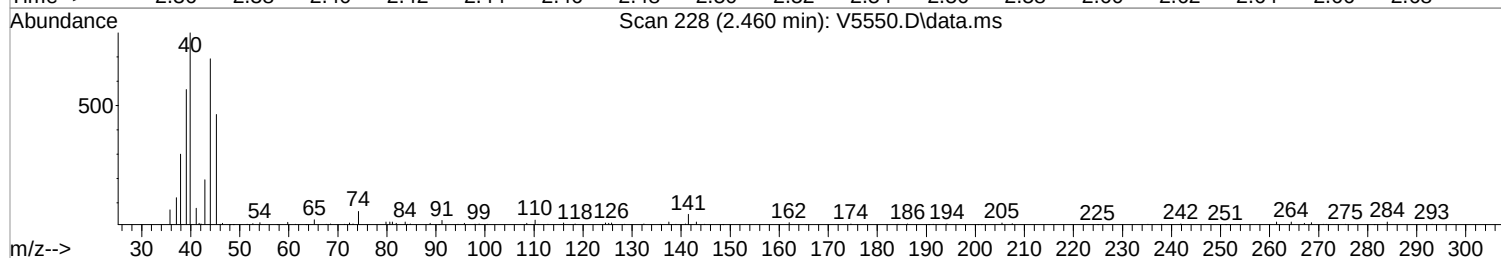
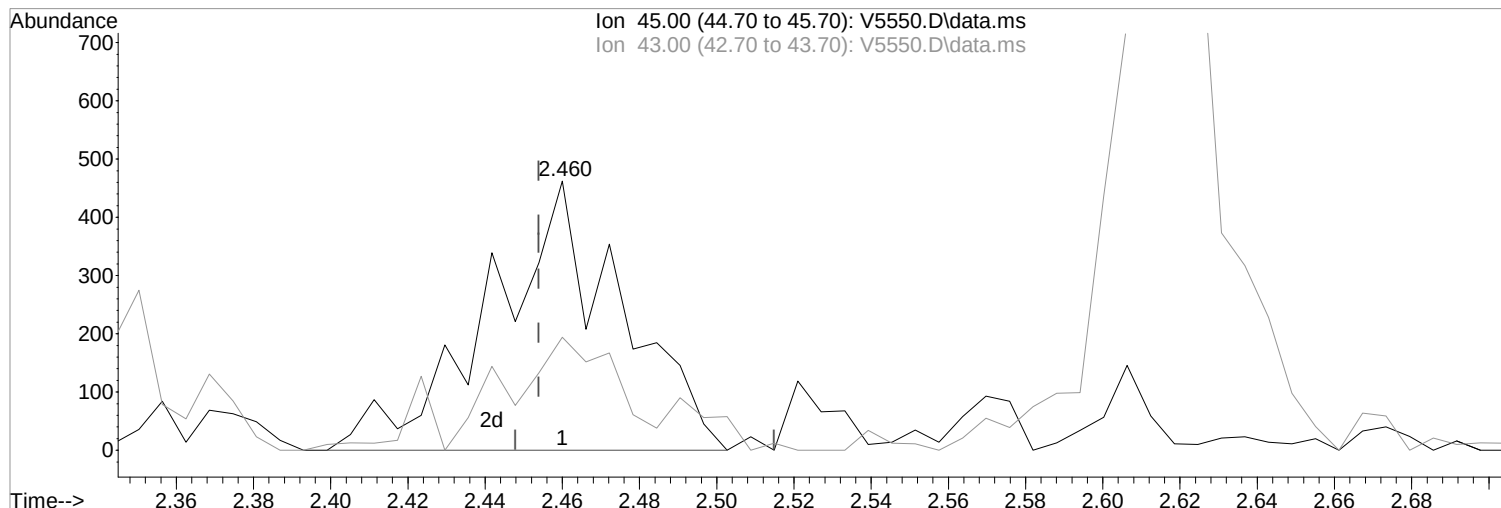
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5550.D  
Acq On : 28 Jul 2022 4:50 pm  
Operator : F.NAEGLER  
Sample : R2206604-003|1.0  
Misc : EAE 19519 T4  
ALS Vial : 18 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:45:08 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5550.D\data.ms

(16) 2-Propanol

2.460min (+0.006) 1.85 ug/L m

response 1083

| Ion   | Exp%  | Act%   |
|-------|-------|--------|
| 45.00 | 100   | 100    |
| 43.00 | 20.10 | 41.99# |
| 0.00  | 0.00  | 0.00   |
| 0.00  | 0.00  | 0.00   |

Manual Integration:

After

Poor integration.

07/29/22

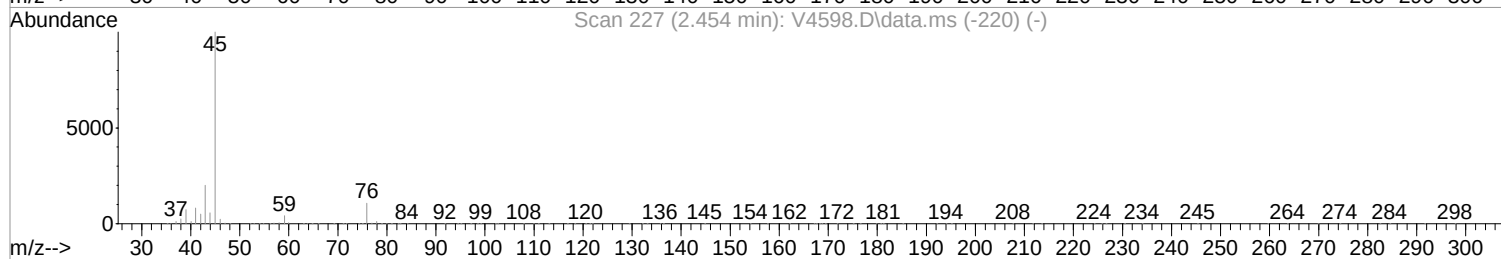
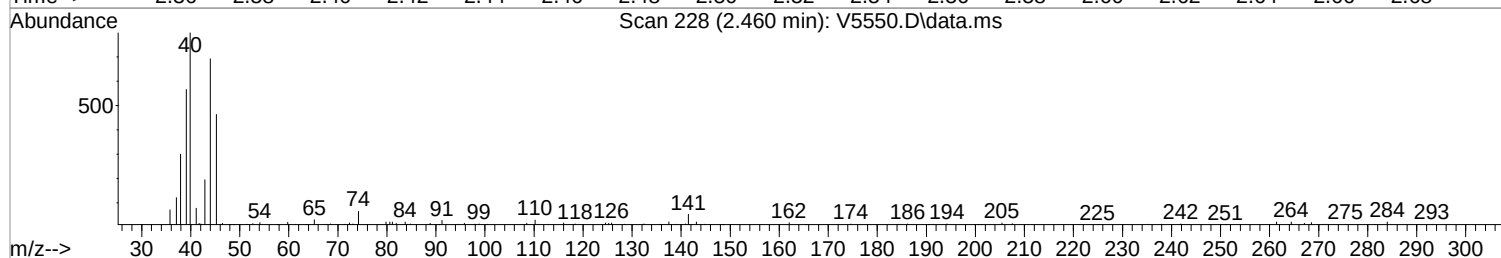
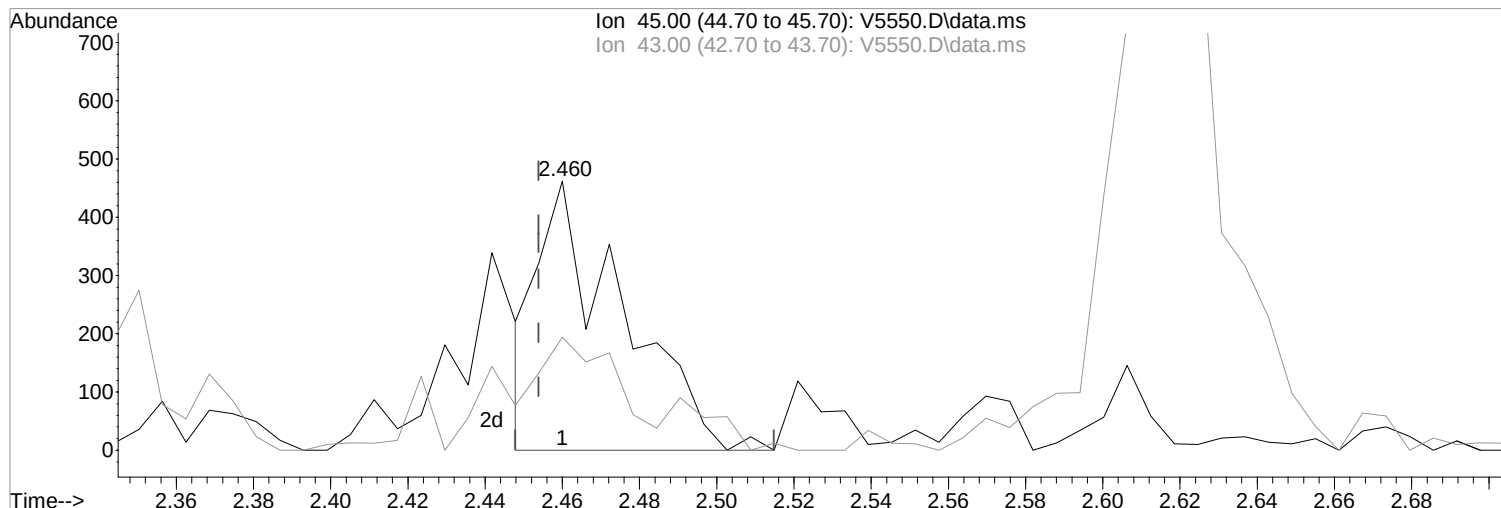
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5550.D  
Acq On : 28 Jul 2022 4:50 pm  
Operator : F.NAEGLER  
Sample : R2206604-003|1.0  
Misc : EAE 19519 T4  
ALS Vial : 18 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:45:08 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5550.D\data.ms

(16) 2-Propanol

Manual Integration:

2.460min (+0.006) 1.20 ug/L

Before

response 702

| Ion   | Exp%  | Act%   |
|-------|-------|--------|
| 45.00 | 100   | 100    |
| 43.00 | 20.10 | 41.99# |
| 0.00  | 0.00  | 0.00   |
| 0.00  | 0.00  | 0.00   |

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5550.D  
 Acq On : 28 Jul 2022 4:50 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-003|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 18 Sample Multiplier: 1

Inst : MSVOA14

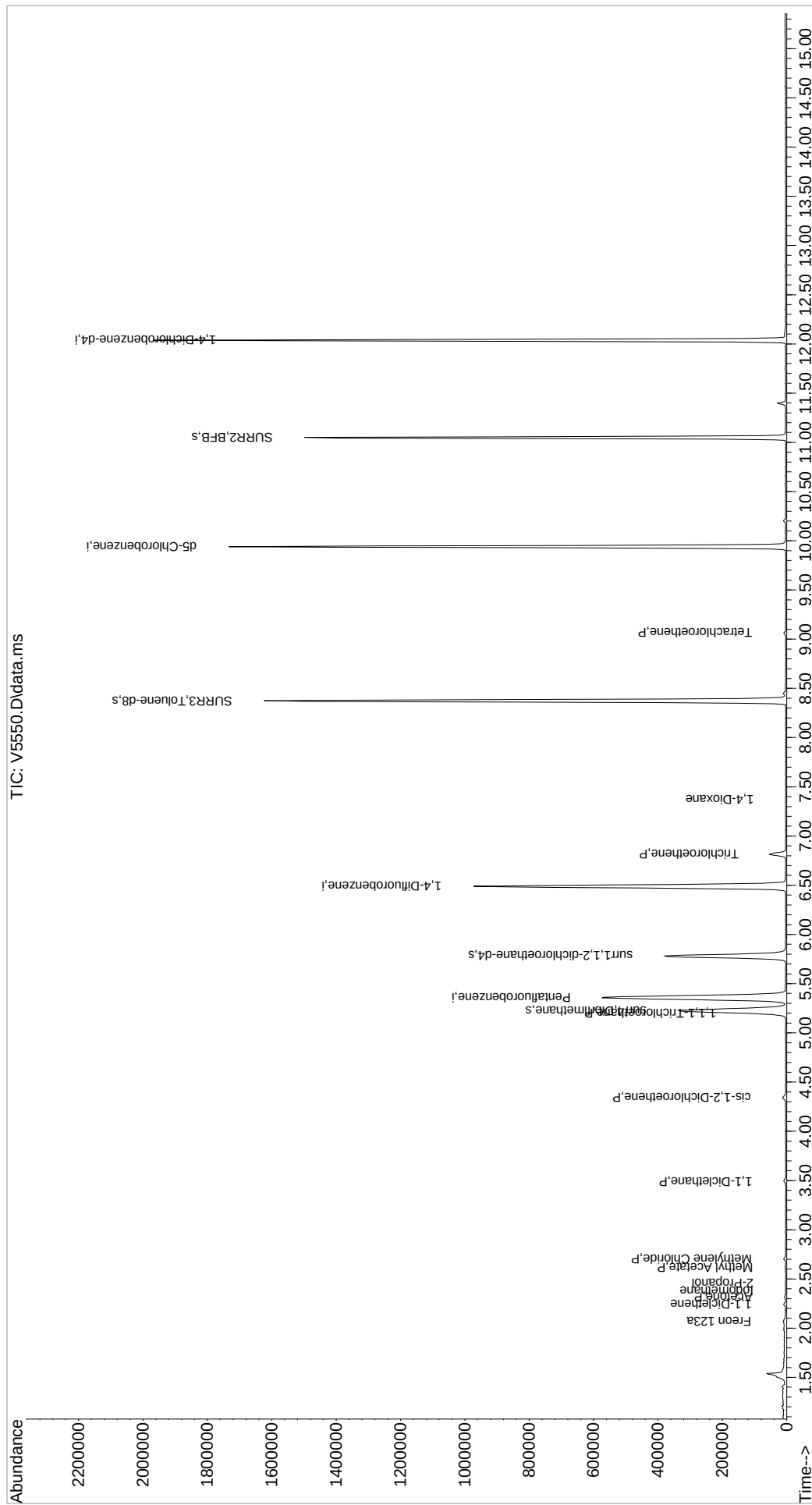
Quant Time: Jul 29 15:31:41 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

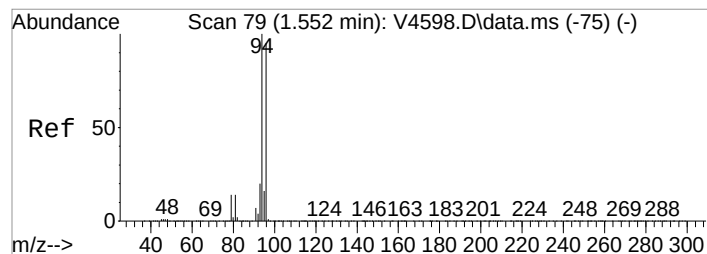
| Compound                      | R.T.   | QIon           | Response | Conc      | Units  | Dev(Min) |
|-------------------------------|--------|----------------|----------|-----------|--------|----------|
| Internal Standards            |        |                |          |           |        |          |
| 1) Pentafluorobenzene         | 5.362  | 168            | 584863   | 50.00     | ug/L   | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.490  | 114            | 891278   | 50.00     | ug/L   | 0.00     |
| 70) d5-Chlorobenzene          | 9.940  | 117            | 793102   | 50.00     | ug/L   | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.037 | 152            | 391272   | 50.00     | ug/L   | 0.00     |
| System Monitoring Compounds   |        |                |          |           |        |          |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 276996   | 48.35     | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =         | 96.70% |          |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 323139   | 48.22     | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =         | 96.44% |          |
| 64) SURR3,Toluene-d8          | 8.373  | 98             | 1039680  | 48.49     | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =         | 96.98% |          |
| 69) SURR2,BFB                 | 11.050 | 95             | 373757   | 45.50     | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =         | 91.00% |          |
| Target Compounds              |        |                |          |           |        |          |
| 5) Bromomethane               | 1.552  | 94             | 456      | Below Cal | #      | 59       |
| 10) Freon 123a                | 2.070  | 67             | 1209     | 0.25 ug/L | #      | 69       |
| 13) 1,1-Dicethene             | 2.247  | 96             | 1285     | 0.32 ug/L | #      | 82       |
| 15) Acetone                   | 2.314  | 43             | 3854     | 1.54 ug/L |        | 90       |
| 16) 2-Propanol                | 2.460  | 45             | 1083m    | 1.85 ug/L |        |          |
| 17) Iodomethane               | 2.381  | 142            | 323      | 2.44 ug/L | #      | 49       |
| 21) Methyl Acetate            | 2.619  | 43             | 1880     | 0.28 ug/L |        | 95       |
| 22) Methylene Chloride        | 2.704  | 84             | 2759     | 0.55 ug/L |        | 93       |
| 27) 1,1-Dicethane             | 3.490  | 63             | 5743     | 0.71 ug/L |        | 98       |
| 33) cis-1,2-Dichloroethene    | 4.344  | 96             | 5361     | 0.98 ug/L | #      | 63       |
| 40) 1,1,1-Trichloroethane     | 5.197  | 97             | 11900    | 1.60 ug/L |        | 90       |
| 53) Trichloroethene           | 6.819  | 130            | 18658    | 3.36 ug/L |        | 96       |
| 57) 1,4-Dioxane               | 7.374  | 88             | 267      | 1.99 ug/L | #      | 27       |
| 71) Tetrachloroethene         | 9.068  | 164            | 1265     | 0.30 ug/L | #      | 80       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
 Data File : V5550.D  
 Acq On : 28 Jul 2022 4:50 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-003|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 18 Sample Multiplier: 1  
 Inst : MSV0A14

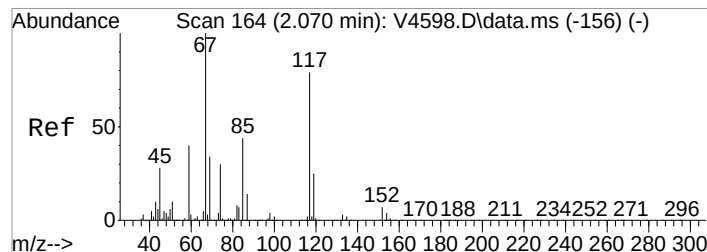
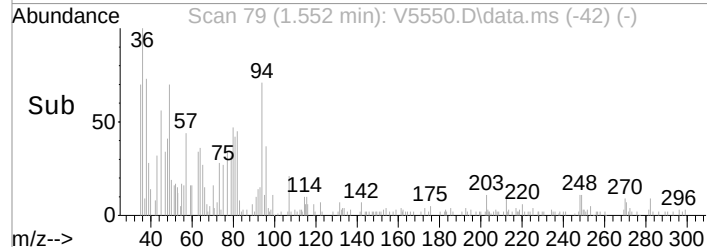
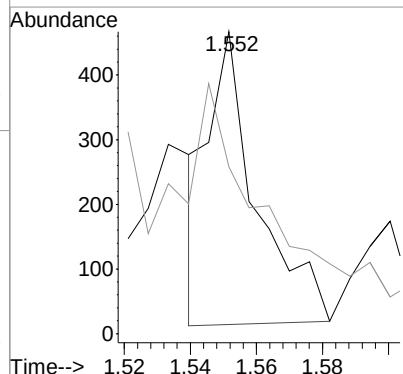
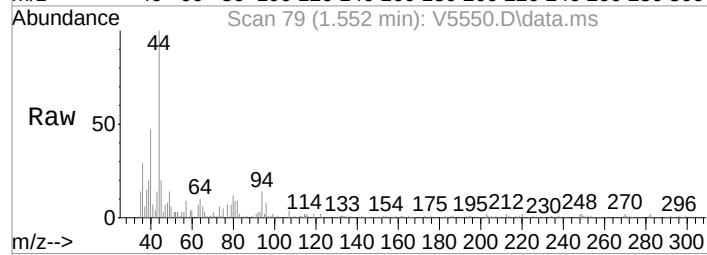
Quant Time: Jul 29 15:31:41 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 Qlast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration





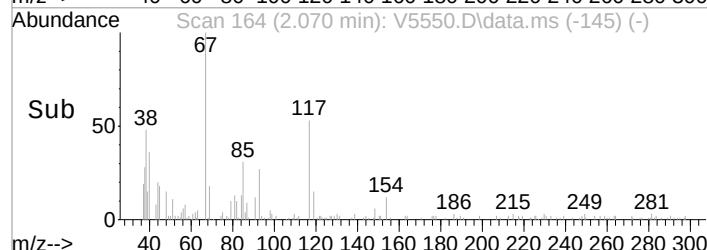
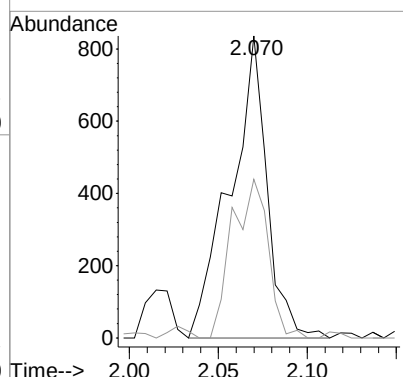
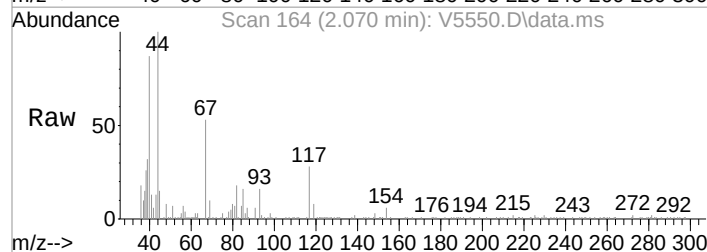
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.552 min Scan# 79  
 Delta R.T. 0.001 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

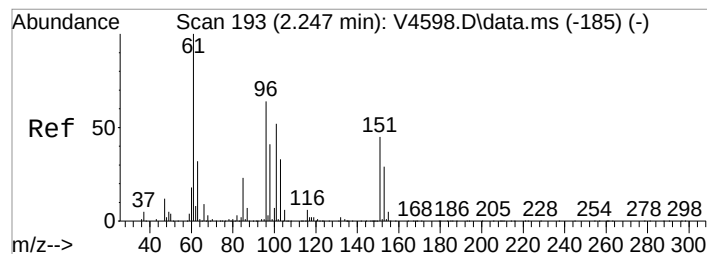
Tgt Ion: 94 Resp: 456  
 Ion Ratio Lower Upper  
 94 100  
 96 55.2 75.2 115.2#



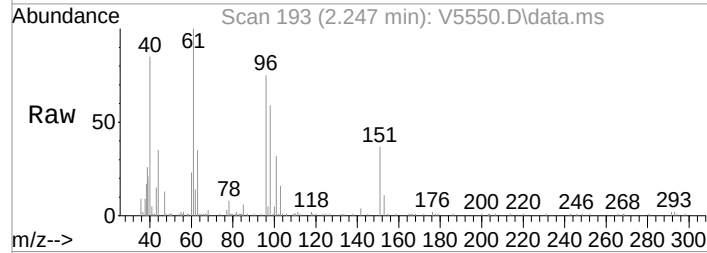
#10  
 Freon 123a  
 Concen: 0.25 ug/L  
 RT: 2.070 min Scan# 164  
 Delta R.T. -0.000 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

Tgt Ion: 67 Resp: 1209  
 Ion Ratio Lower Upper  
 67 100  
 117 52.5 60.0 100.0#

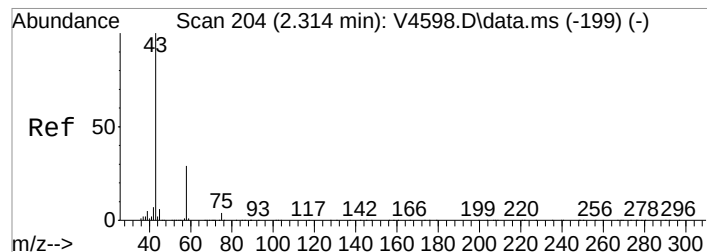
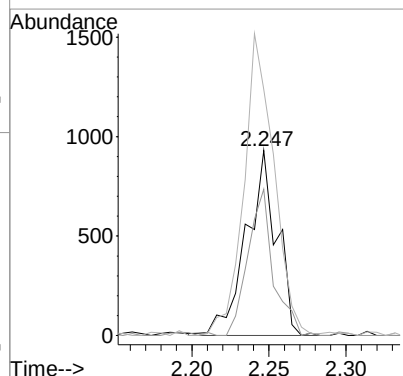
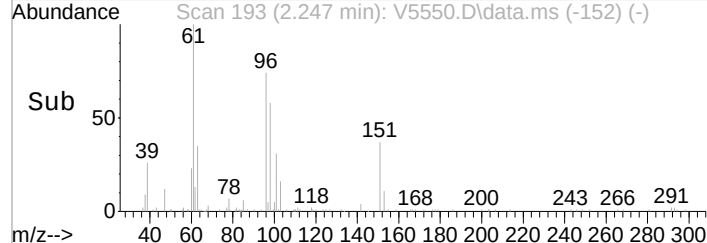




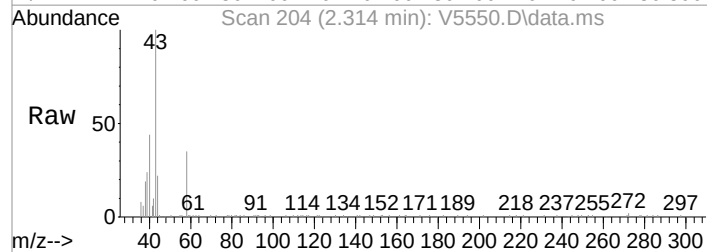
#13  
 1,1-Dicloroethene  
 Concen: 0.32 ug/L  
 RT: 2.247 min Scan# 193  
 Delta R.T. -0.000 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm



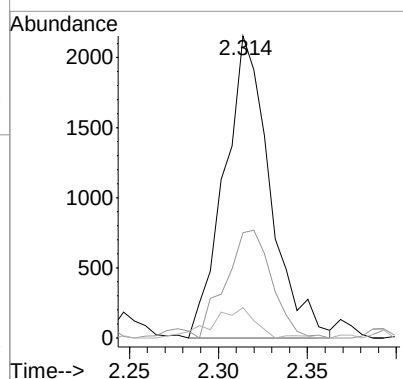
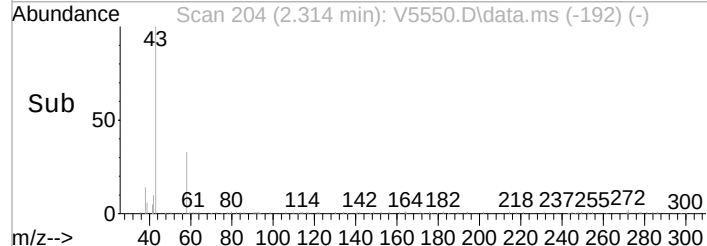
Tgt Ion: 96 Resp: 1285  
 Ion Ratio Lower Upper  
 96 100  
 98 79.1 43.5 83.5  
 61 133.1 135.2 175.2#

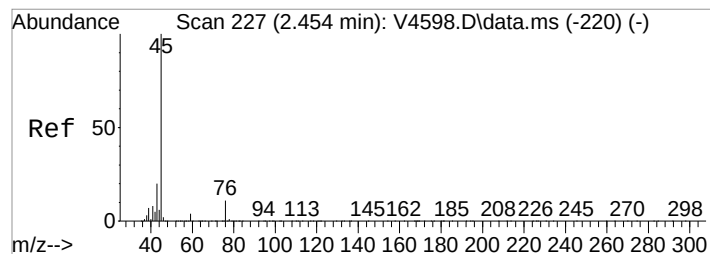


#15  
 Acetone  
 Concen: 1.54 ug/L  
 RT: 2.314 min Scan# 204  
 Delta R.T. -0.000 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm



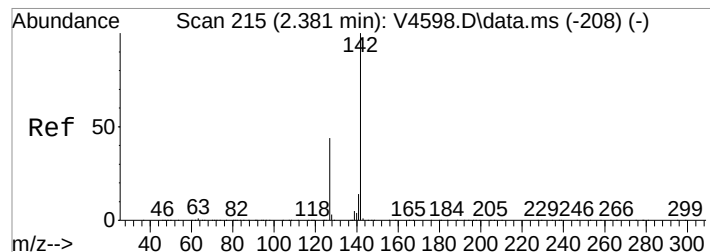
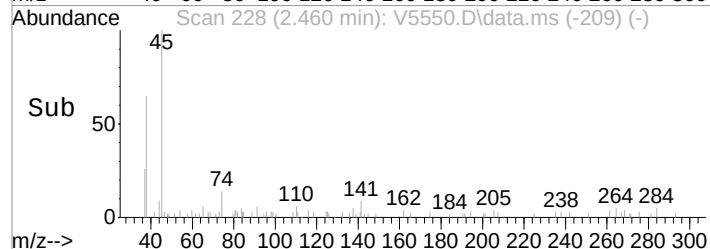
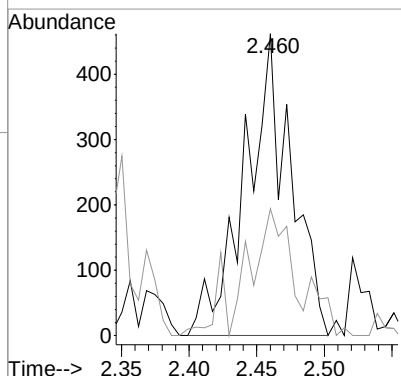
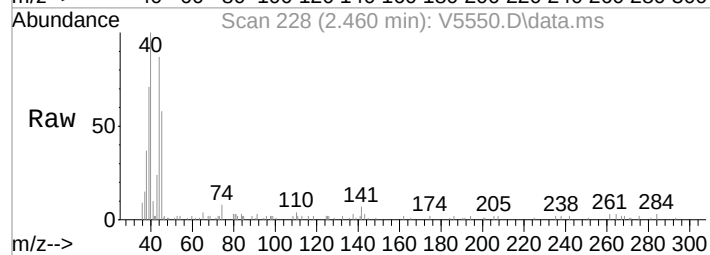
Tgt Ion: 43 Resp: 3854  
 Ion Ratio Lower Upper  
 43 100  
 58 34.9 8.9 48.9  
 42 10.1 0.0 27.4





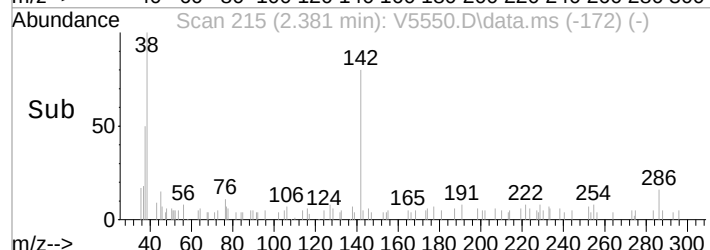
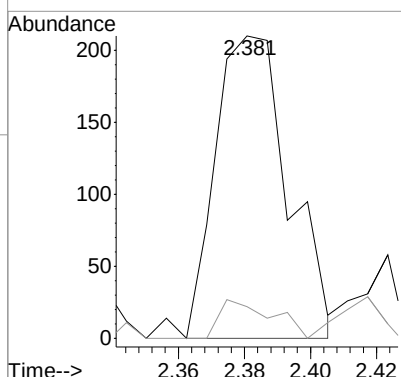
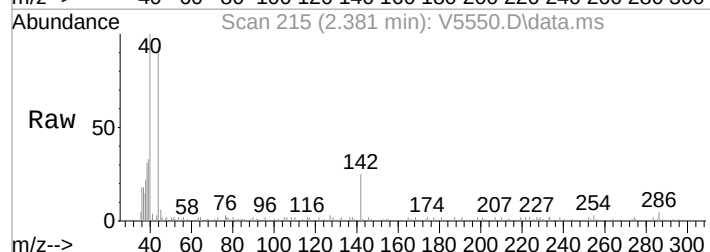
#16  
 2-Propanol  
 Concen: 1.85 ug/L m  
 RT: 2.460 min Scan# 228  
 Delta R.T. 0.006 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

Tgt Ion: 45 Resp: 1083  
 Ion Ratio Lower Upper  
 45 100  
 43 42.0 0.1 40.1#

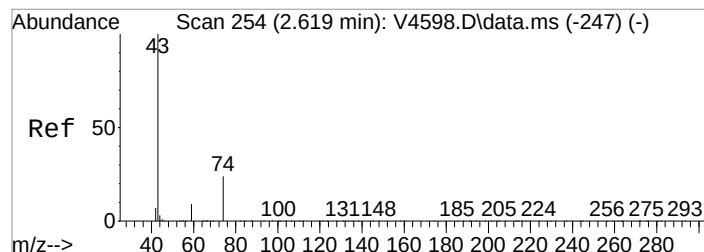


#17  
 Iodomethane  
 Concen: 2.44 ug/L  
 RT: 2.381 min Scan# 215  
 Delta R.T. 0.001 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

Tgt Ion: 142 Resp: 323  
 Ion Ratio Lower Upper  
 142 100  
 127 10.5 23.6 63.6#

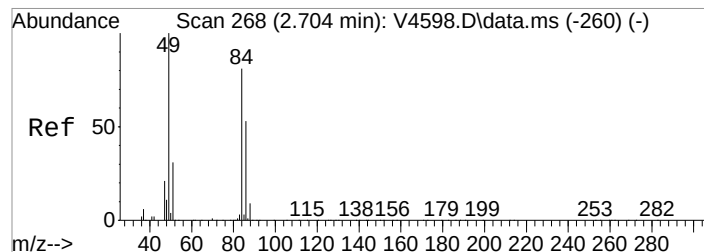
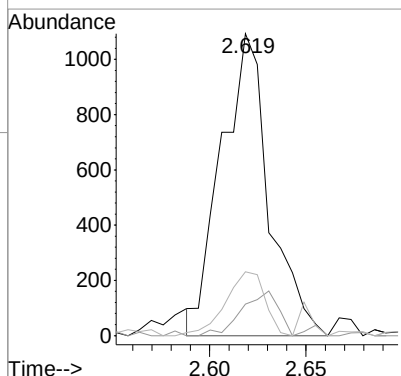
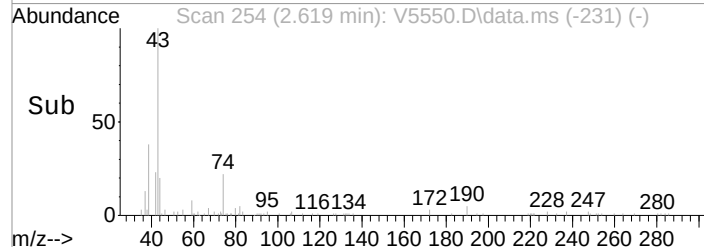
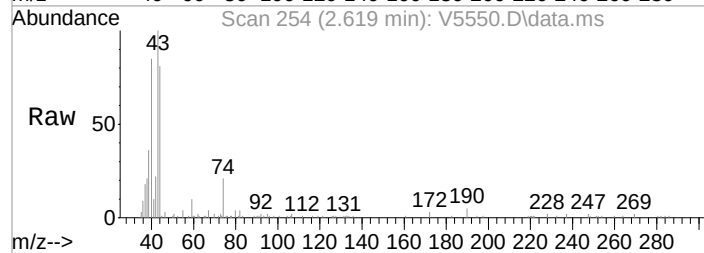






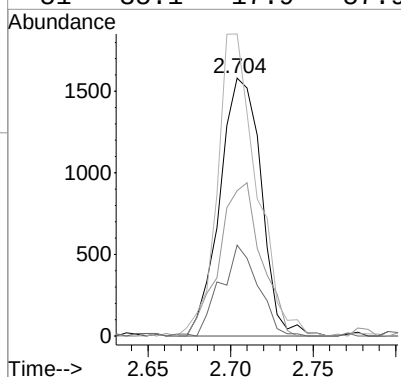
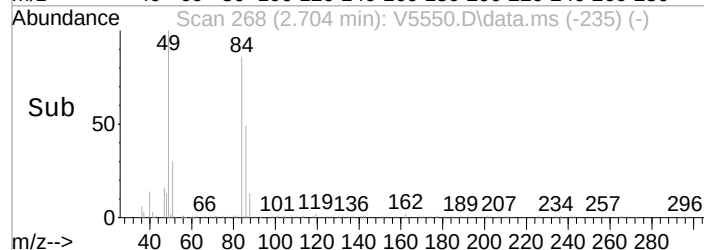
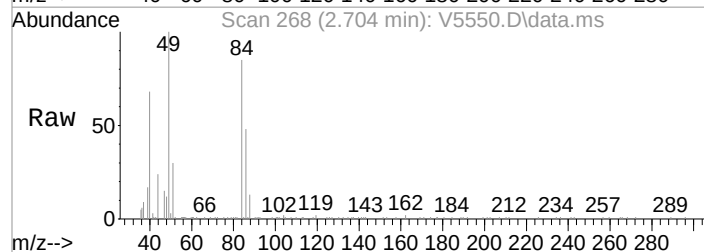
#21  
 Methyl Acetate  
 Concen: 0.28 ug/L  
 RT: 2.619 min Scan# 254  
 Delta R.T. -0.000 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

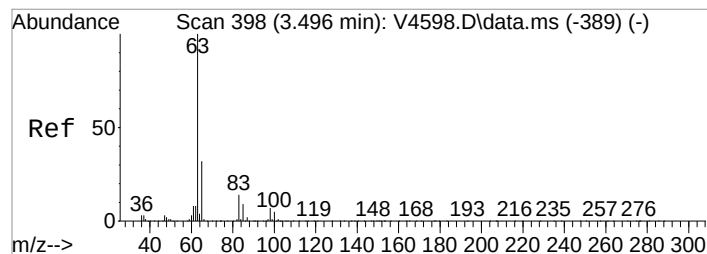
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 43   | Resp: | 1880  |
| Ion Ratio |      | Lower | Upper |
| 43        | 100  |       |       |
| 59        | 10.4 | 0.0   | 28.8  |
| 74        | 21.1 | 3.9   | 43.9  |



#22  
 Methylene Chloride  
 Concen: 0.55 ug/L  
 RT: 2.704 min Scan# 268  
 Delta R.T. -0.000 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

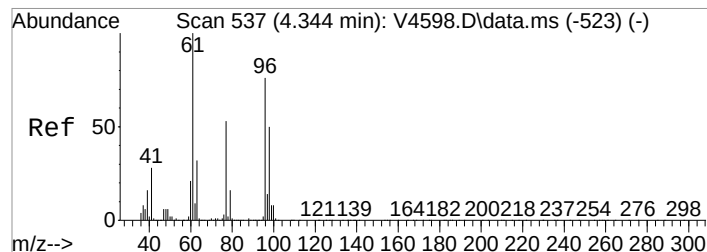
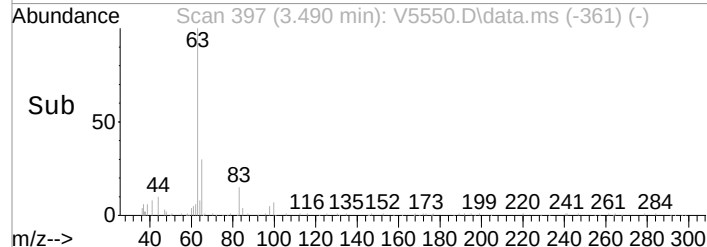
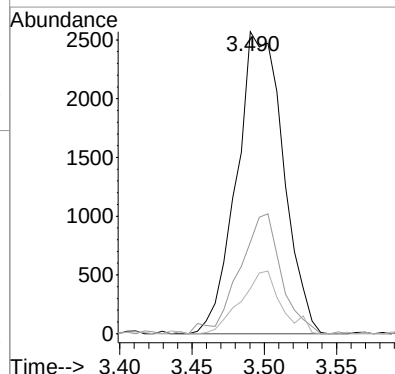
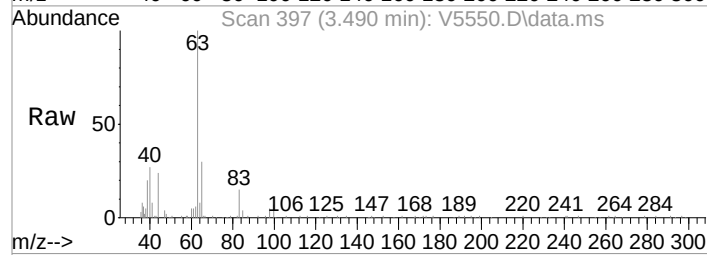
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 84    | Resp: | 2759  |
| Ion Ratio |       | Lower | Upper |
| 84        | 100   |       |       |
| 86        | 56.3  | 45.1  | 85.1  |
| 49        | 117.1 | 103.1 | 143.1 |
| 51        | 35.1  | 17.9  | 57.9  |





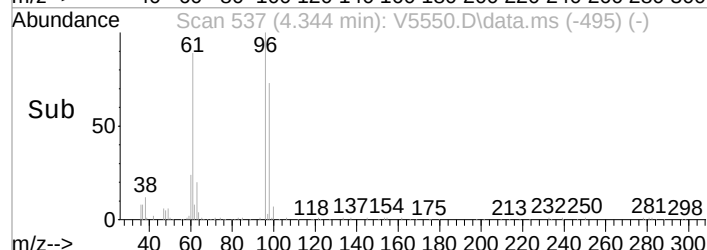
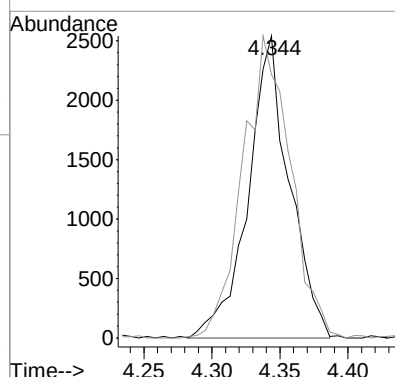
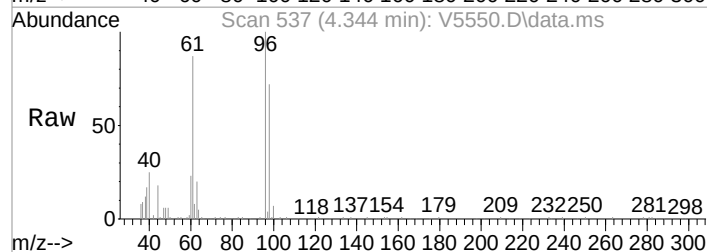
#27  
 1,1-Dicethane  
 Concen: 0.71 ug/L  
 RT: 3.490 min Scan# 397  
 Delta R.T. -0.006 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

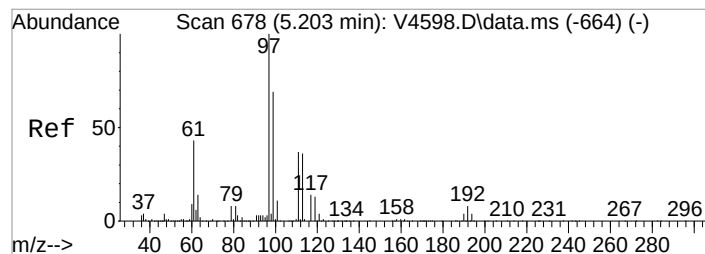
Tgt Ion: 63 Resp: 5743  
 Ion Ratio Lower Upper  
 63 100  
 65 31.0 12.2 52.2  
 83 14.9 0.0 33.8



#33  
 cis-1,2-Dichloroethene  
 Concen: 0.98 ug/L  
 RT: 4.344 min Scan# 537  
 Delta R.T. -0.000 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

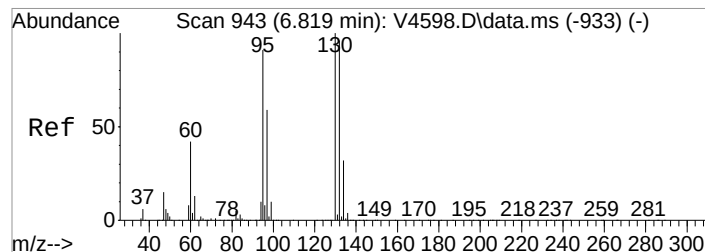
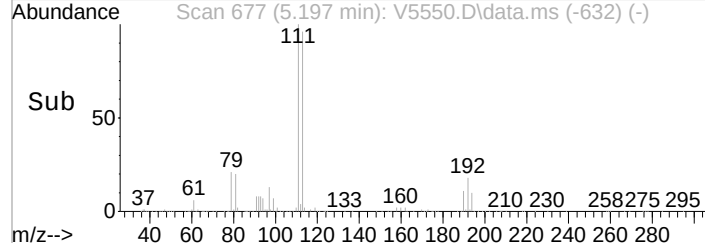
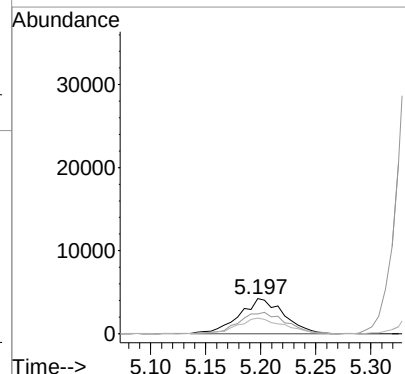
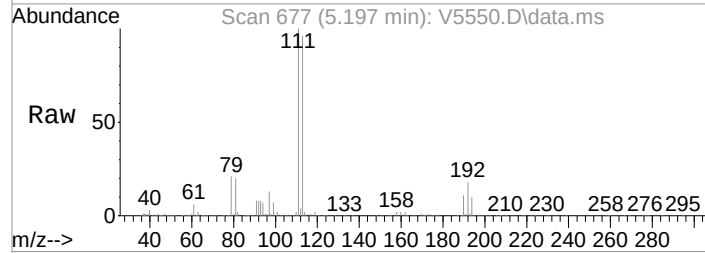
Tgt Ion: 96 Resp: 5361  
 Ion Ratio Lower Upper  
 96 100  
 61 87.3 111.0 151.0#





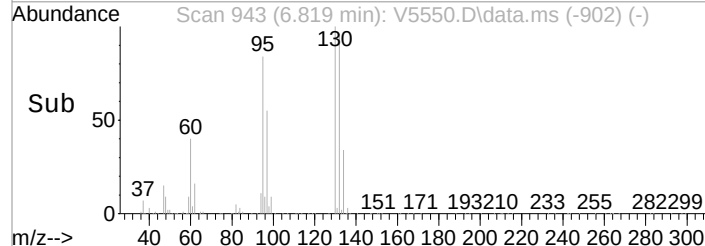
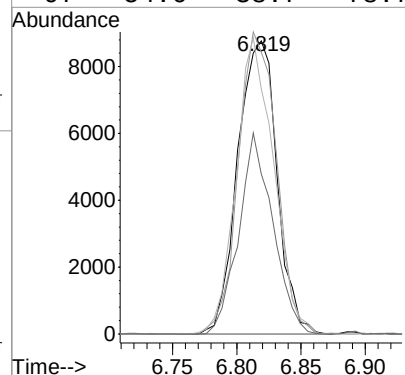
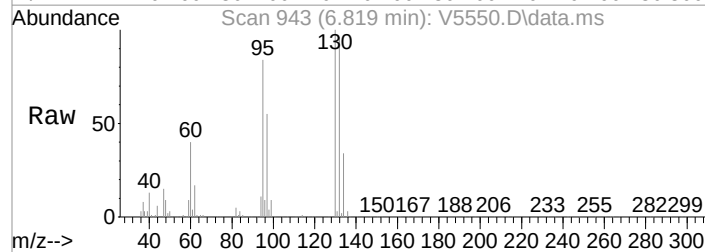
#40  
 1,1,1-Trichloroethane  
 Concen: 1.60 ug/L  
 RT: 5.197 min Scan# 677  
 Delta R.T. -0.006 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

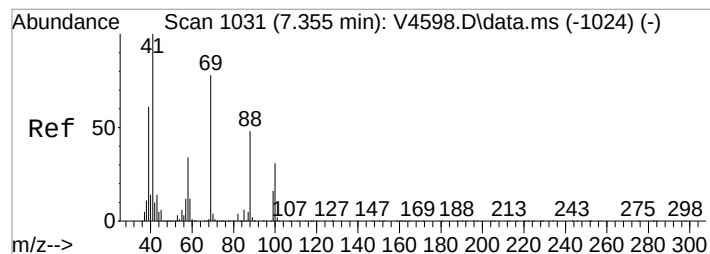
| Tgt Ion:  | 97   | Resp: | 11900 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 99        | 56.4 | 48.8  | 88.8  |
| 61        | 44.8 | 23.4  | 63.4  |



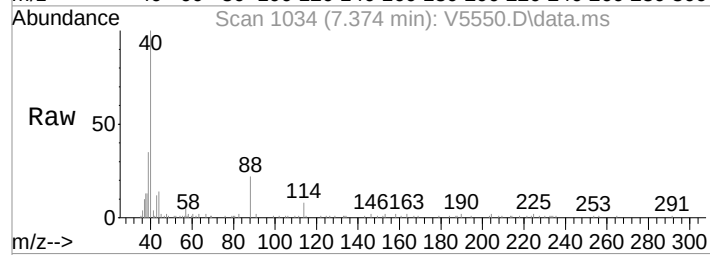
#53  
 Trichloroethene  
 Concen: 3.36 ug/L  
 RT: 6.819 min Scan# 943  
 Delta R.T. -0.000 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm

| Tgt Ion:  | 130  | Resp: | 18658 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 132       | 96.2 | 76.3  | 116.3 |
| 95        | 83.6 | 70.5  | 110.5 |
| 97        | 54.6 | 38.7  | 78.7  |

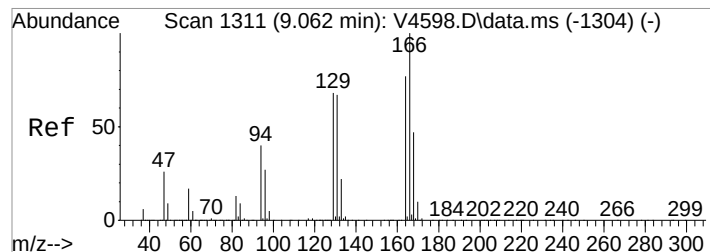
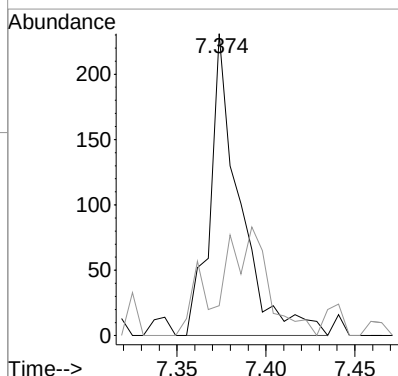
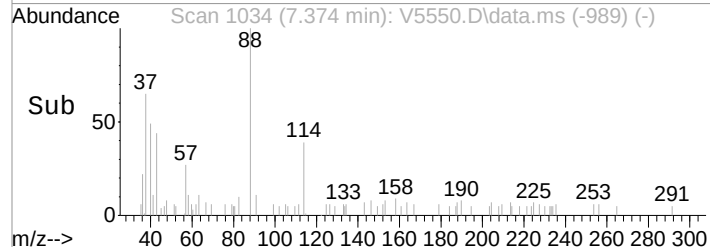




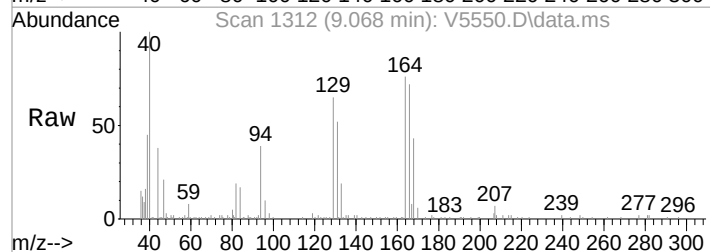
#57  
 1,4-Dioxane  
 Concen: 1.99 ug/L  
 RT: 7.374 min Scan# 1034  
 Delta R.T. 0.018 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm



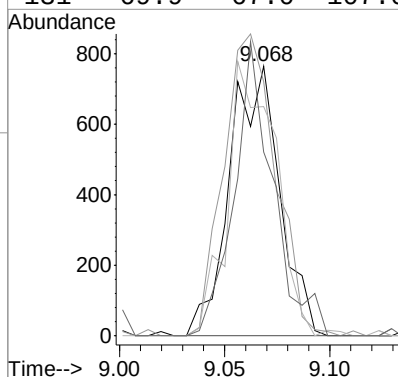
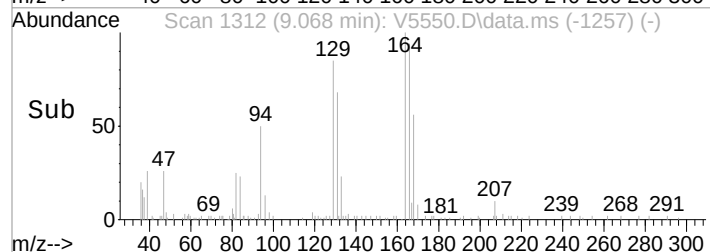
Tgt Ion: 88 Resp: 267  
 Ion Ratio Lower Upper  
 88 100  
 58 10.0 49.7 89.7#



#71  
 Tetrachloroethene  
 Concen: 0.30 ug/L  
 RT: 9.068 min Scan# 1312  
 Delta R.T. 0.006 min  
 Lab File: V5550.D  
 Acq: 28 Jul 2022 4:50 pm



Tgt Ion: 164 Resp: 1265  
 Ion Ratio Lower Upper  
 164 100  
 166 94.4 110.5 150.5#  
 129 85.1 68.5 108.5  
 131 69.9 67.0 107.0



Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5557.D  
 Acq On : 28 Jul 2022 7:25 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-004|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 25 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:42:26 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

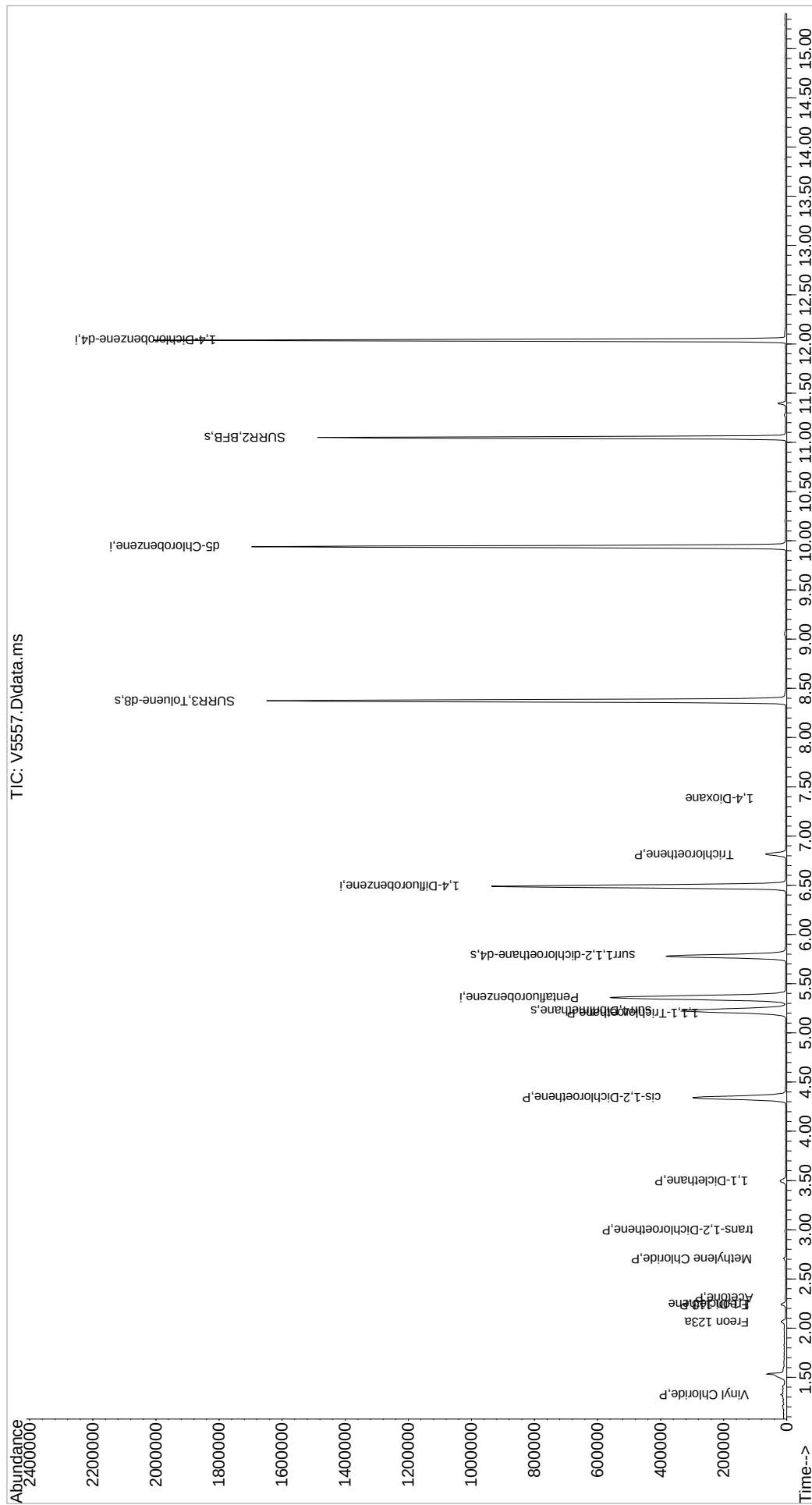
| Compound                      | R.T.           | QIon | Response   | Conc      | Units | Dev(Min)  |
|-------------------------------|----------------|------|------------|-----------|-------|-----------|
| Internal Standards            |                |      |            |           |       |           |
| 1) Pentafluorobenzene         | 5.362          | 168  | 574169     | 50.00     | ug/L  | 0.00      |
| 42) 1,4-Difluorobenzene       | 6.490          | 114  | 868928     | 50.00     | ug/L  | 0.00      |
| 70) d5-Chlorobenzene          | 9.940          | 117  | 787462     | 50.00     | ug/L  | 0.00      |
| 90) 1,4-Dichlorobenzene-d4    | 12.037         | 152  | 386673     | 50.00     | ug/L  | 0.00      |
| System Monitoring Compounds   |                |      |            |           |       |           |
| 44) surr4,Dibrflmethane       | 5.228          | 113  | 273890     | 49.04     | ug/L  | 0.00      |
| Spiked Amount 50.000          | Range 80 - 116 |      | Recovery = | 98.08%    |       |           |
| 47) surr1,1,2-dichloroetha... | 5.783          | 65   | 323355     | 49.50     | ug/L  | 0.00      |
| Spiked Amount 50.000          | Range 73 - 125 |      | Recovery = | 99.00%    |       |           |
| 64) SURR3,Toluene-d8          | 8.374          | 98   | 1038521    | 49.68     | ug/L  | 0.00      |
| Spiked Amount 50.000          | Range 87 - 121 |      | Recovery = | 99.36%    |       |           |
| 69) SURR2,BFB                 | 11.050         | 95   | 371823     | 46.43     | ug/L  | 0.00      |
| Spiked Amount 50.000          | Range 85 - 122 |      | Recovery = | 92.86%    |       |           |
| Target Compounds              |                |      |            |           |       |           |
| 4) Vinyl Chloride             | 1.326          | 62   | 2815       | 0.45      | ug/L  | Qvalue 83 |
| 5) Bromomethane               | 1.546          | 94   | 535        | Below Cal | #     | 69        |
| 10) Freon 123a                | 2.064          | 67   | 4944       | 1.02      | ug/L  | 95        |
| 13) 1,1-Dicethene             | 2.247          | 96   | 1808       | 0.46      | ug/L  | 95        |
| 14) Freon 113                 | 2.241          | 101  | 3636       | 0.89      | ug/L  | 83        |
| 15) Acetone                   | 2.308          | 43   | 1746       | 0.71      | ug/L  | 91        |
| 22) Methylene Chloride        | 2.704          | 84   | 2575       | 0.53      | ug/L  | 94        |
| 26) trans-1,2-Dichloroethene  | 2.997          | 96   | 930        | 0.21      | ug/L  | # 68      |
| 27) 1,1-Dicethane             | 3.496          | 63   | 19401      | 2.45      | ug/L  | 98        |
| 33) cis-1,2-Dichloroethene    | 4.344          | 96   | 181354     | 33.77     | ug/L  | 90        |
| 40) 1,1,1-Trichloroethane     | 5.203          | 97   | 11004      | 1.50      | ug/L  | 90        |
| 53) Trichloroethene           | 6.813          | 130  | 24488      | 4.52      | ug/L  | 92        |
| 57) 1,4-Dioxane               | 7.380          | 88   | 321        | 2.45      | ug/L  | 96        |

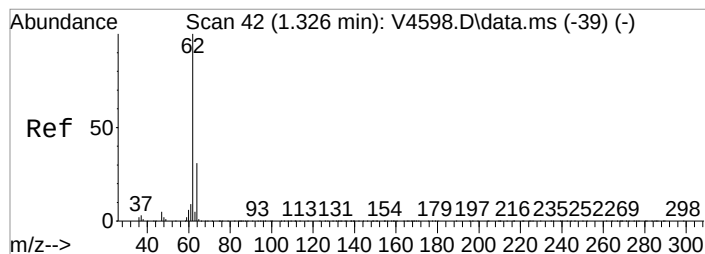
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
 Data File : V5557.D  
 Acq On : 28 Jul 2022 7:25 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-004|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 25 Sample Multiplier: 1

Inst : MSV0A14

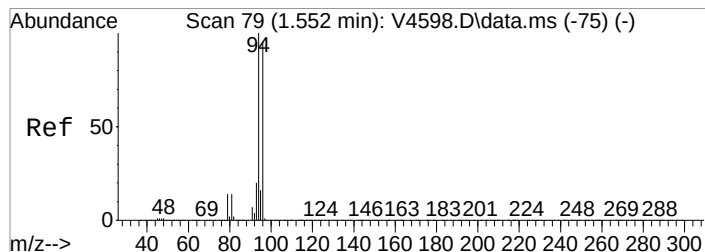
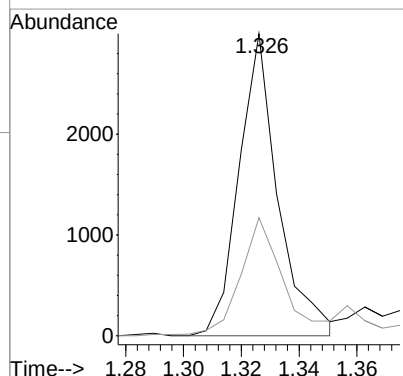
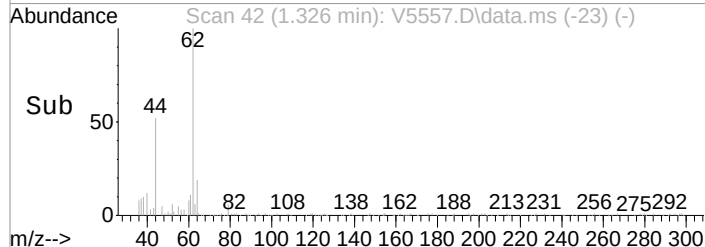
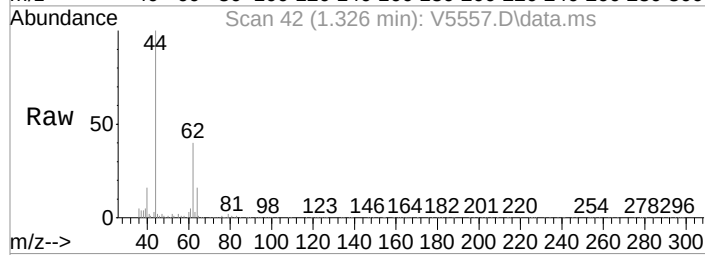
Quant Time: Jul 29 15:42:26 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration





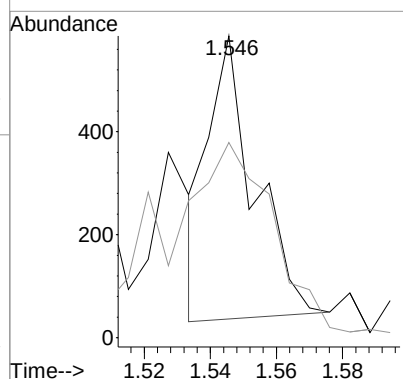
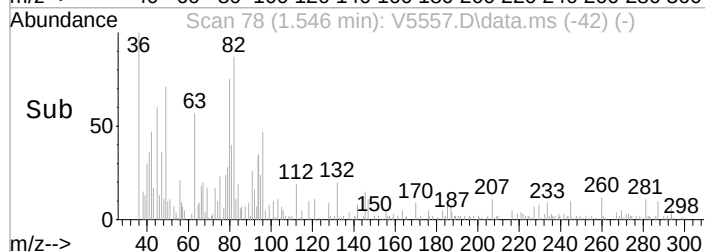
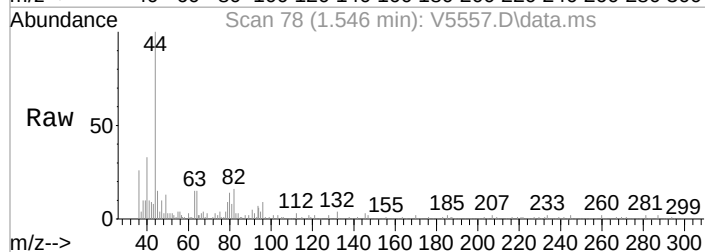
#4  
 Vinyl Chloride  
 Concen: 0.45 ug/L  
 RT: 1.326 min Scan# 42  
 Delta R.T. 0.000 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

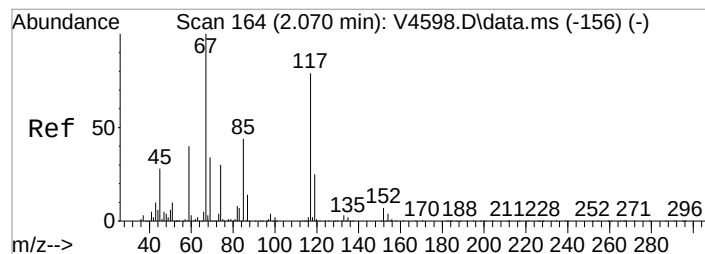
Tgt Ion: 62 Resp: 2815  
 Ion Ratio Lower Upper  
 62 100  
 64 40.4 11.2 51.2



#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.546 min Scan# 78  
 Delta R.T. -0.005 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

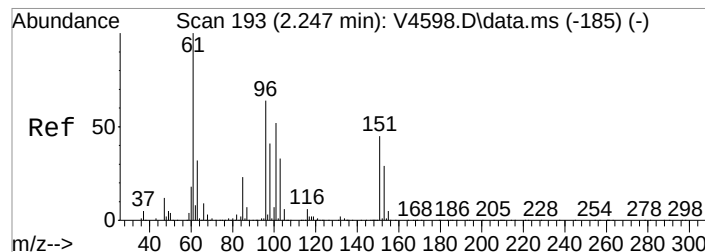
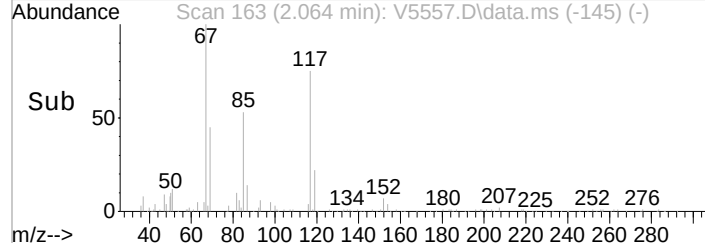
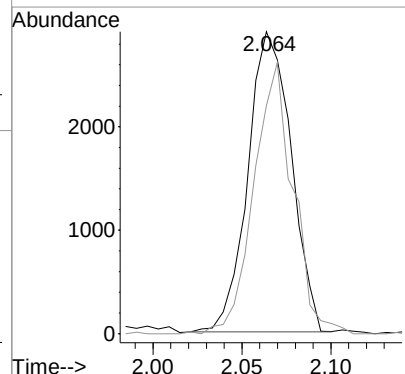
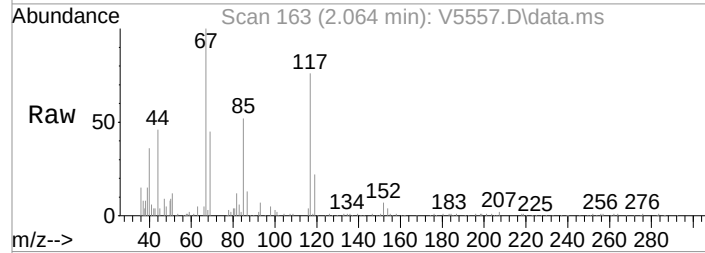
Tgt Ion: 94 Resp: 535  
 Ion Ratio Lower Upper  
 94 100  
 96 64.7 75.2 115.2#





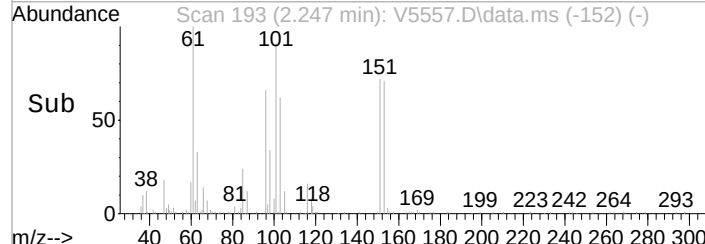
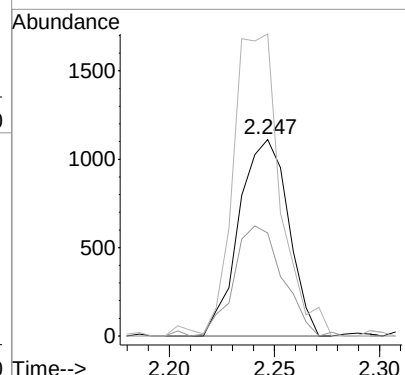
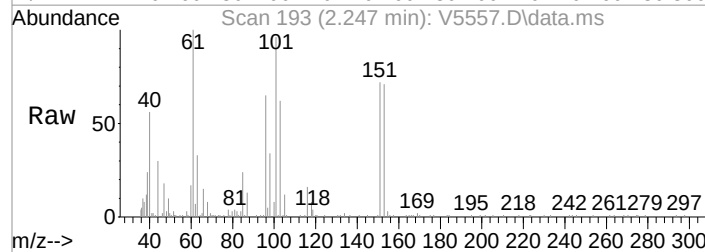
#10  
 Freon 123a  
 Concen: 1.02 ug/L  
 RT: 2.064 min Scan# 163  
 Delta R.T. -0.006 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

Tgt Ion: 67 Resp: 4944  
 Ion Ratio Lower Upper  
 67 100  
 117 75.5 60.0 100.0

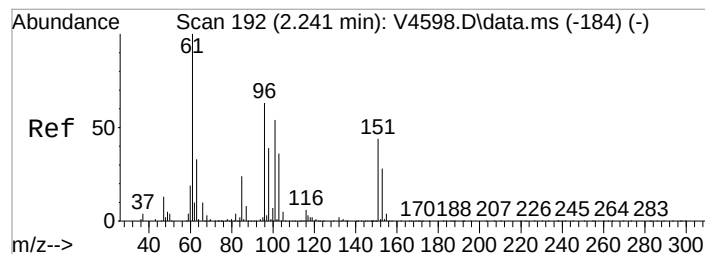


#13  
 1,1-Dicloroethene  
 Concen: 0.46 ug/L  
 RT: 2.247 min Scan# 193  
 Delta R.T. 0.000 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

Tgt Ion: 96 Resp: 1808  
 Ion Ratio Lower Upper  
 96 100  
 98 52.4 43.5 83.5  
 61 153.7 135.2 175.2

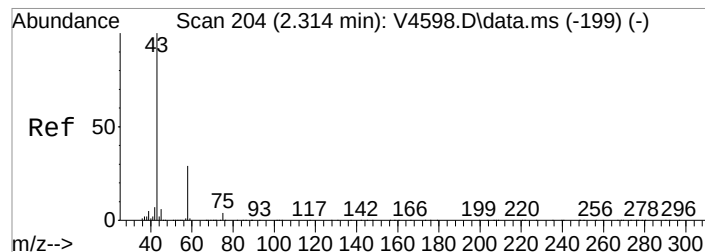
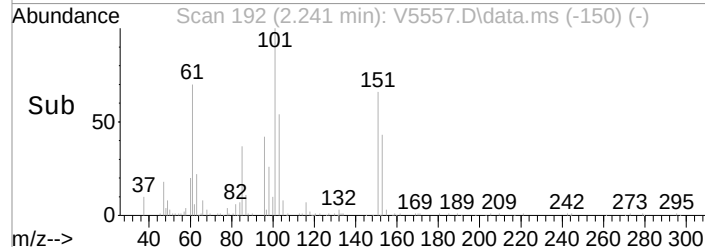
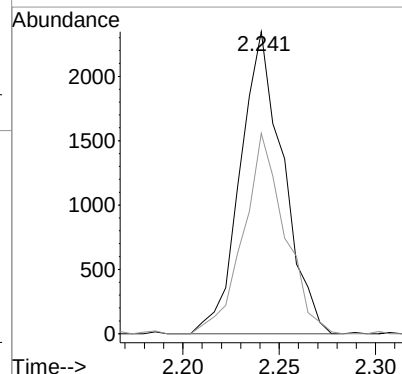
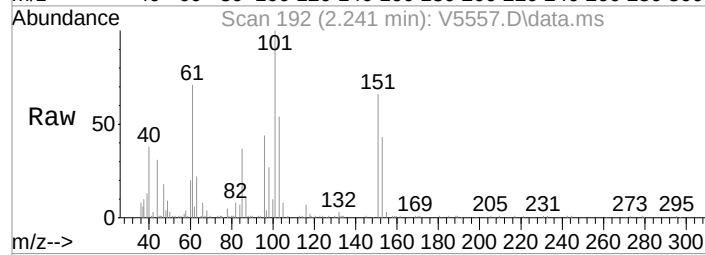






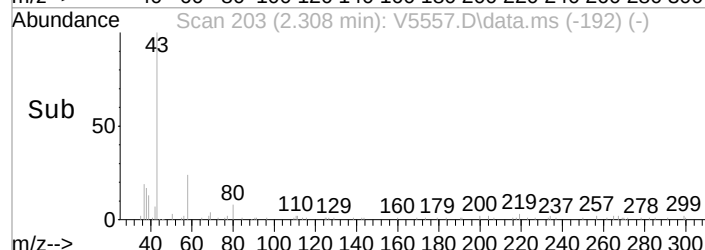
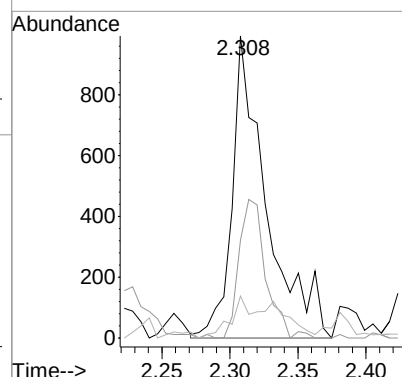
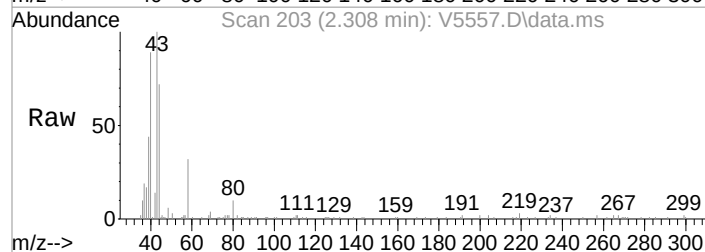
#14  
 Freon 113  
 Concen: 0.89 ug/L  
 RT: 2.241 min Scan# 192  
 Delta R.T. 0.000 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

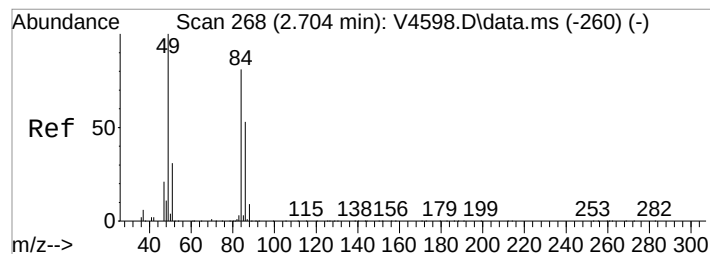
Tgt Ion: 101 Resp: 3636  
 Ion Ratio Lower Upper  
 101 100  
 151 66.3 61.1 101.1



#15  
 Acetone  
 Concen: 0.71 ug/L  
 RT: 2.308 min Scan# 203  
 Delta R.T. -0.006 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

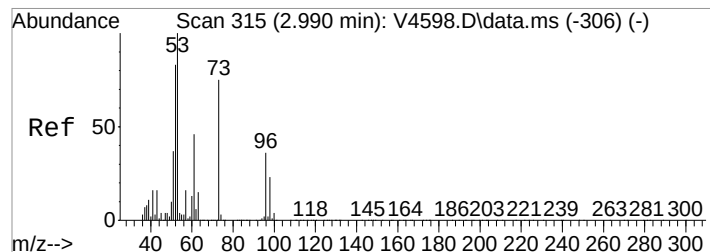
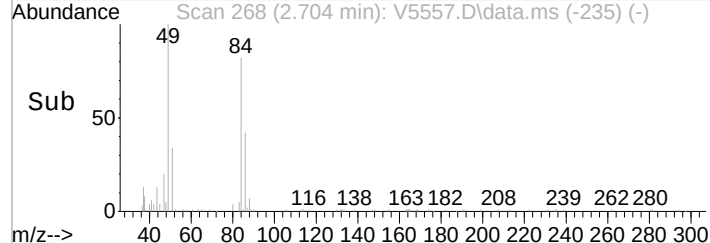
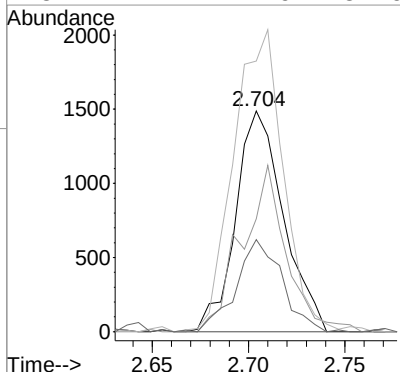
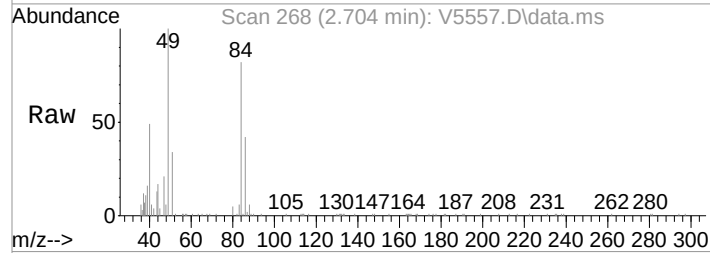
Tgt Ion: 43 Resp: 1746  
 Ion Ratio Lower Upper  
 43 100  
 58 32.4 8.9 48.9  
 42 13.9 0.0 27.4





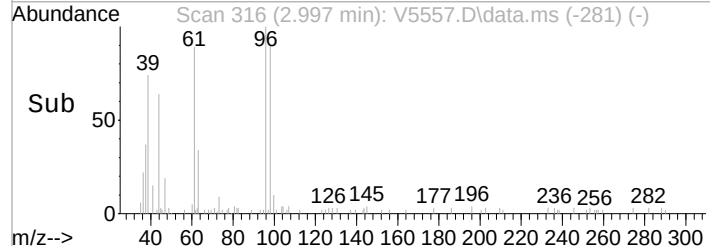
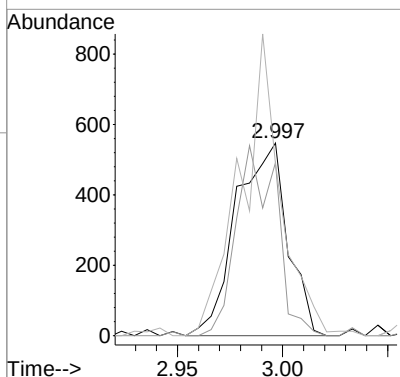
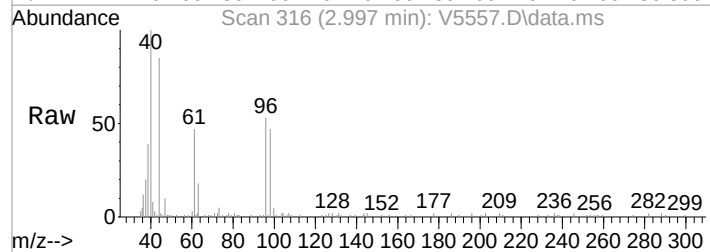
#22  
 Methylene Chloride  
 Concen: 0.53 ug/L  
 RT: 2.704 min Scan# 268  
 Delta R.T. 0.000 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

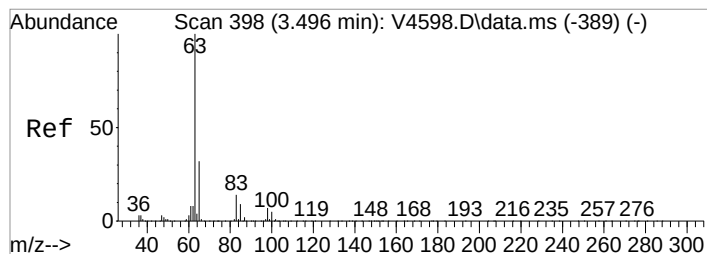
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 84    | Resp: | 2575  |
| Ion Ratio |       | Lower | Upper |
| 84        | 100   |       |       |
| 86        | 51.1  | 45.1  | 85.1  |
| 49        | 122.6 | 103.1 | 143.1 |
| 51        | 41.7  | 17.9  | 57.9  |



#26  
 trans-1,2-Dichloroethene  
 Concen: 0.21 ug/L  
 RT: 2.997 min Scan# 316  
 Delta R.T. 0.006 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

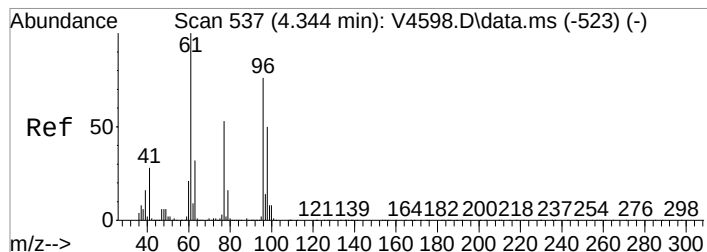
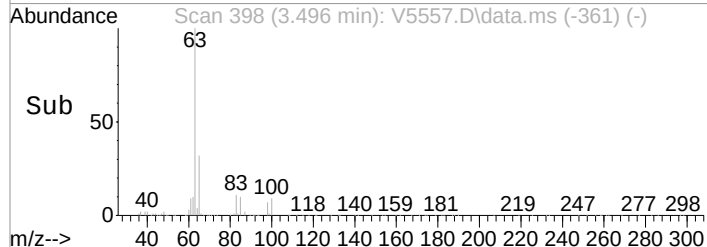
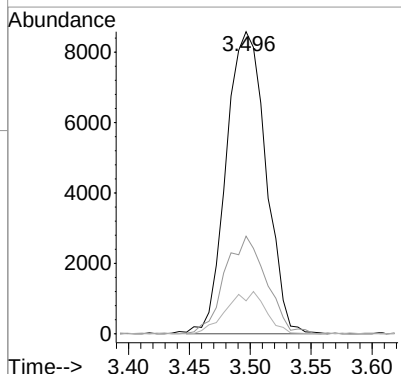
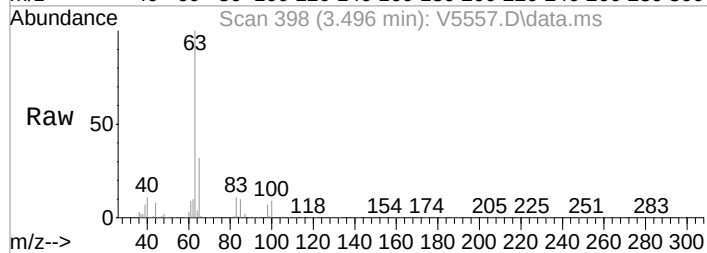
|           |      |       |        |
|-----------|------|-------|--------|
| Tgt Ion:  | 96   | Resp: | 930    |
| Ion Ratio |      | Lower | Upper  |
| 96        | 100  |       |        |
| 98        | 89.9 | 45.4  | 85.4#  |
| 61        | 89.2 | 107.4 | 147.4# |





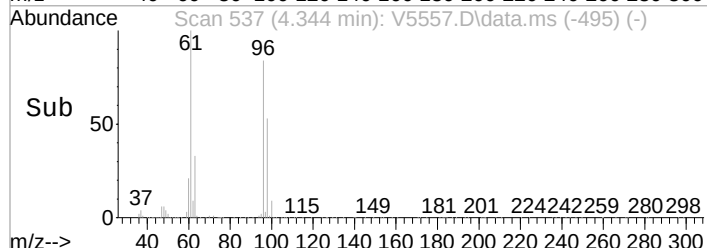
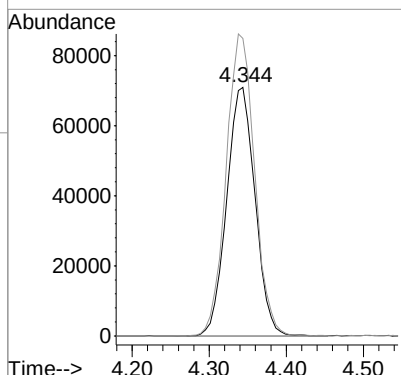
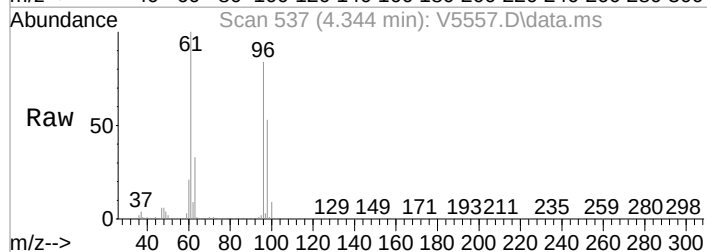
#27  
 1,1-Dicethane  
 Concen: 2.45 ug/L  
 RT: 3.496 min Scan# 398  
 Delta R.T. 0.000 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

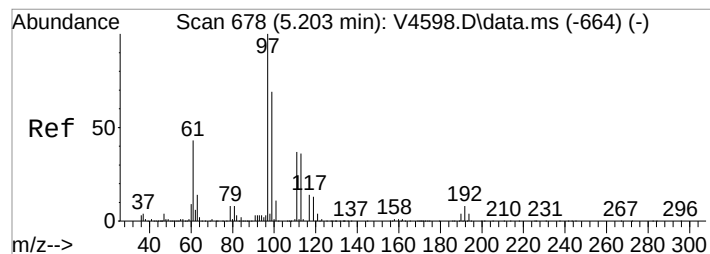
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 63   | Resp: | 19401 |
| Ion Ratio |      | Lower | Upper |
| 63        | 100  |       |       |
| 65        | 32.3 | 12.2  | 52.2  |
| 83        | 10.9 | 0.0   | 33.8  |



#33  
 cis-1,2-Dichloroethene  
 Concen: 33.77 ug/L  
 RT: 4.344 min Scan# 537  
 Delta R.T. 0.000 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

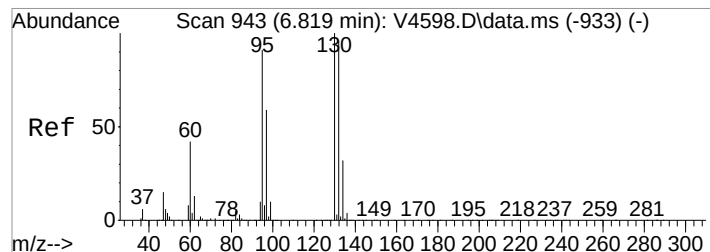
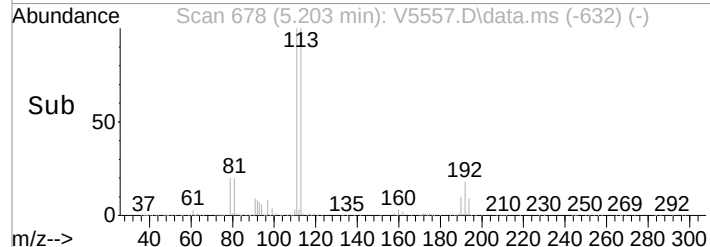
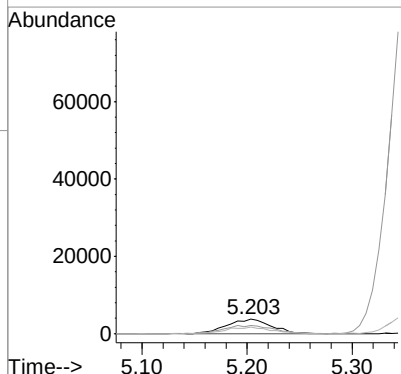
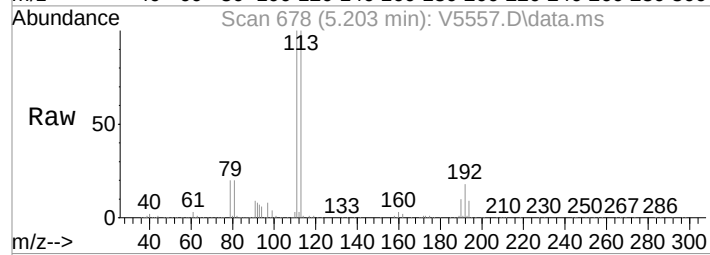
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 96    | Resp: | 181354 |
| Ion Ratio |       | Lower | Upper  |
| 96        | 100   |       |        |
| 61        | 119.7 | 111.0 | 151.0  |





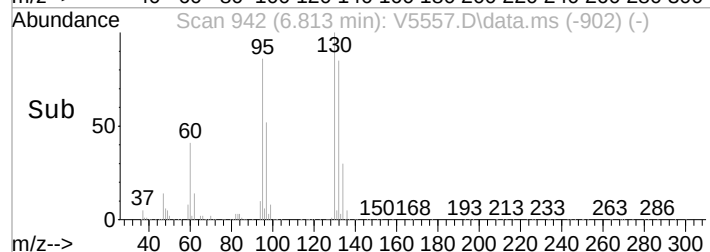
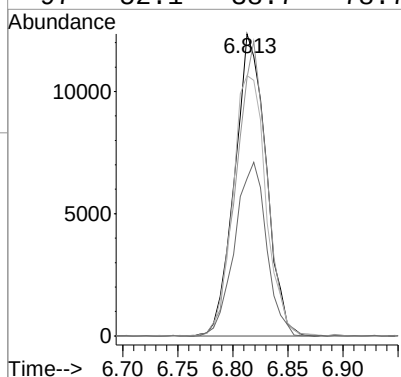
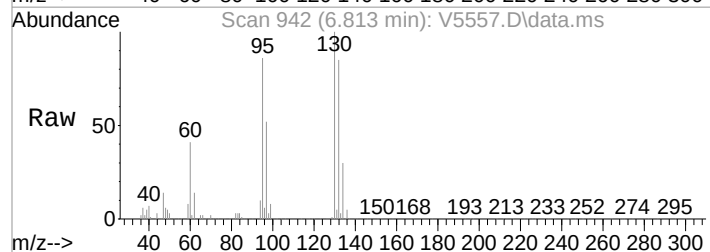
#40  
 1,1,1-Trichloroethane  
 Concen: 1.50 ug/L  
 RT: 5.203 min Scan# 678  
 Delta R.T. 0.000 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

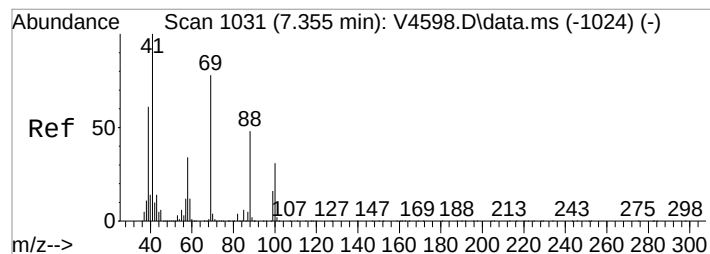
| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 97      | 100   | 11004 |       |       |
| 99      | 56.9  | 48.8  | 88.8  |       |
| 61      | 45.4  | 23.4  | 63.4  |       |



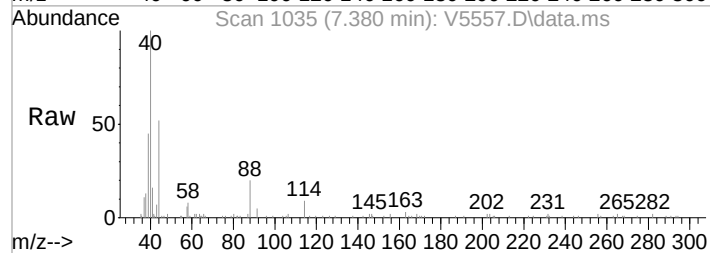
#53  
 Trichloroethene  
 Concen: 4.52 ug/L  
 RT: 6.813 min Scan# 942  
 Delta R.T. -0.006 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm

| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 130     | 100   | 24488 |       |       |
| 132     | 85.5  | 76.3  | 116.3 |       |
| 95      | 86.2  | 70.5  | 110.5 |       |
| 97      | 52.1  | 38.7  | 78.7  |       |

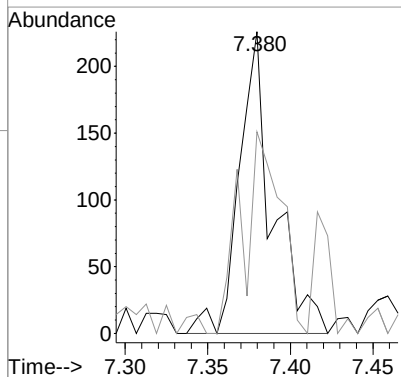
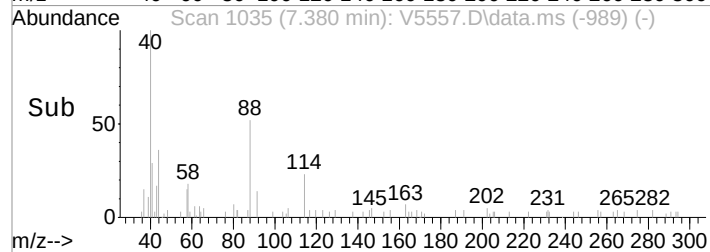




#57  
 1,4-Dioxane  
 Concen: 2.45 ug/L  
 RT: 7.380 min Scan# 1035  
 Delta R.T. 0.024 min  
 Lab File: V5557.D  
 Acq: 28 Jul 2022 7:25 pm



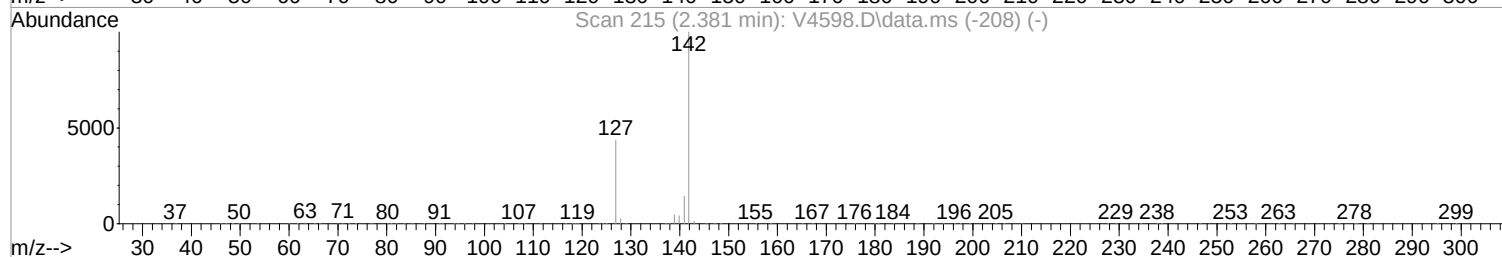
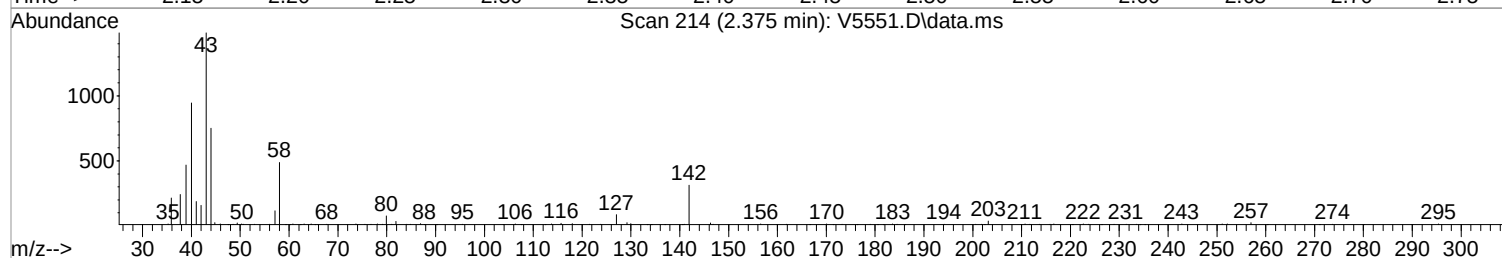
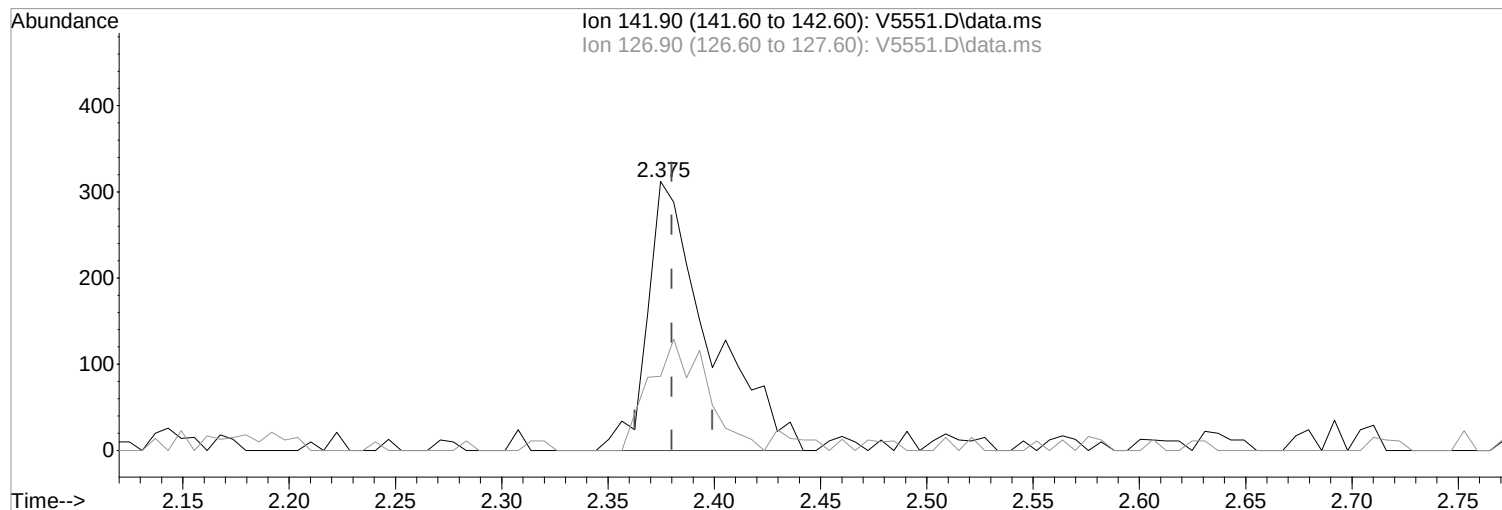
Tgt Ion: 88 Resp: 321  
 Ion Ratio Lower Upper  
 88 100  
 58 66.8 49.7 89.7



Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5551.D  
Acq On : 28 Jul 2022 5:12 pm  
Operator : F.NAEGLER  
Sample : R2206604-005|1.0  
Misc : EAE 19519 T4  
ALS Vial : 19 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:45:25 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5551.D\data.ms

(17) Iodomethane

2.375min (-0.005) 2.50 ug/L m

response 629

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 141.90 | 100   | 100   |
| 126.90 | 43.60 | 27.56 |
| 0.00   | 0.00  | 0.00  |
| 0.00   | 0.00  | 0.00  |

Manual Integration:

After

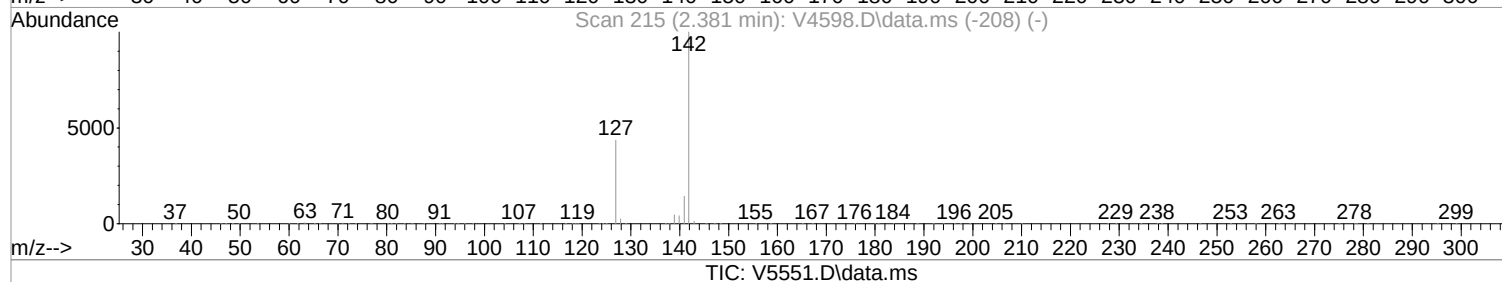
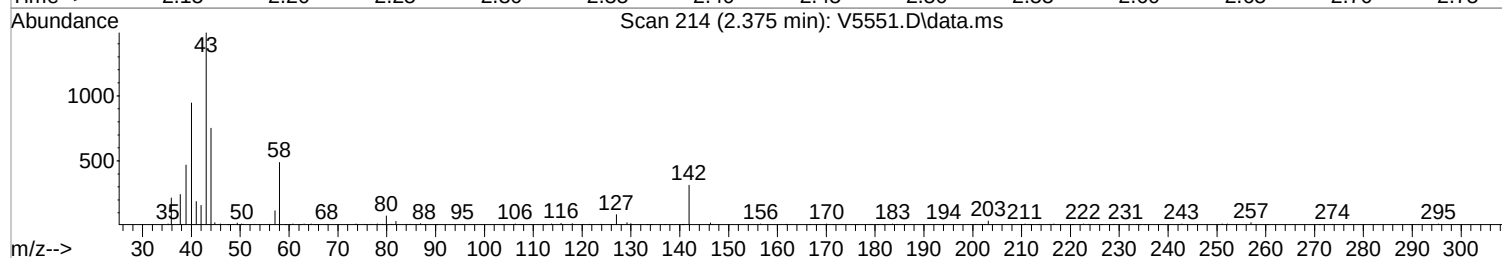
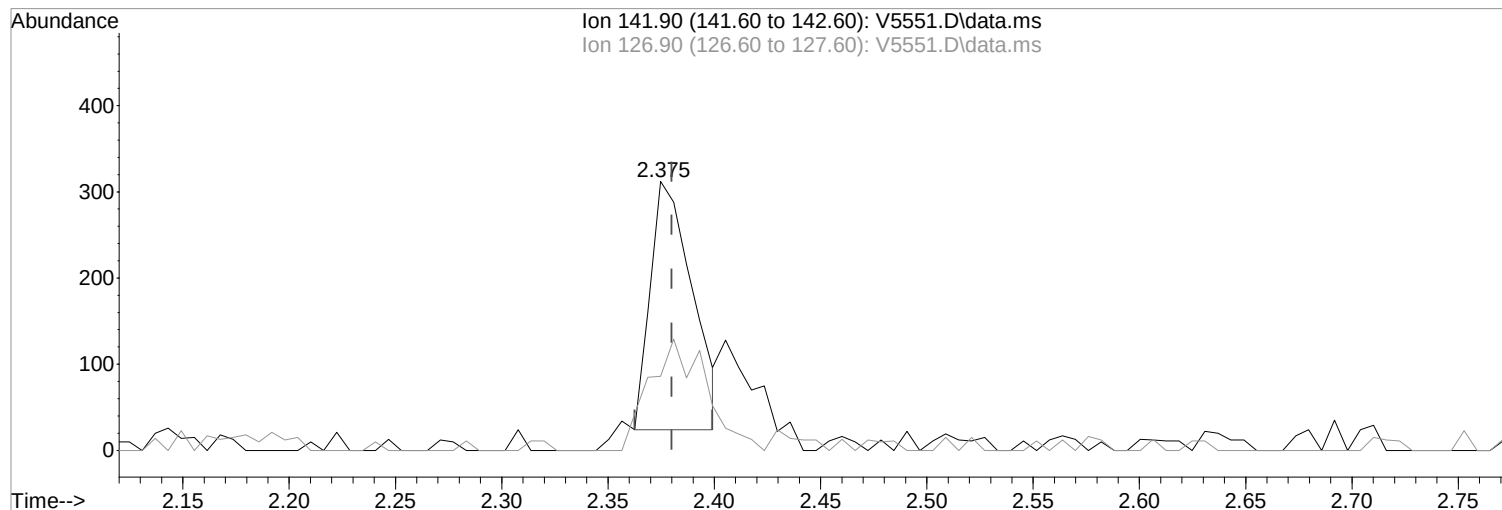
Poor integration.

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5551.D  
Acq On : 28 Jul 2022 5:12 pm  
Operator : F.NAEGLER  
Sample : R2206604-005|1.0  
Misc : EAE 19519 T4  
ALS Vial : 19 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:45:25 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



(17) Iodomethane

Manual Integration:

2.375min (-0.005) 2.46 ug/L

Before

response 395

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 141.90 | 100   | 100   |
| 126.90 | 43.60 | 27.56 |
| 0.00   | 0.00  | 0.00  |
| 0.00   | 0.00  | 0.00  |

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5551.D  
 Acq On : 28 Jul 2022 5:12 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-005|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 19 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:33:33 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

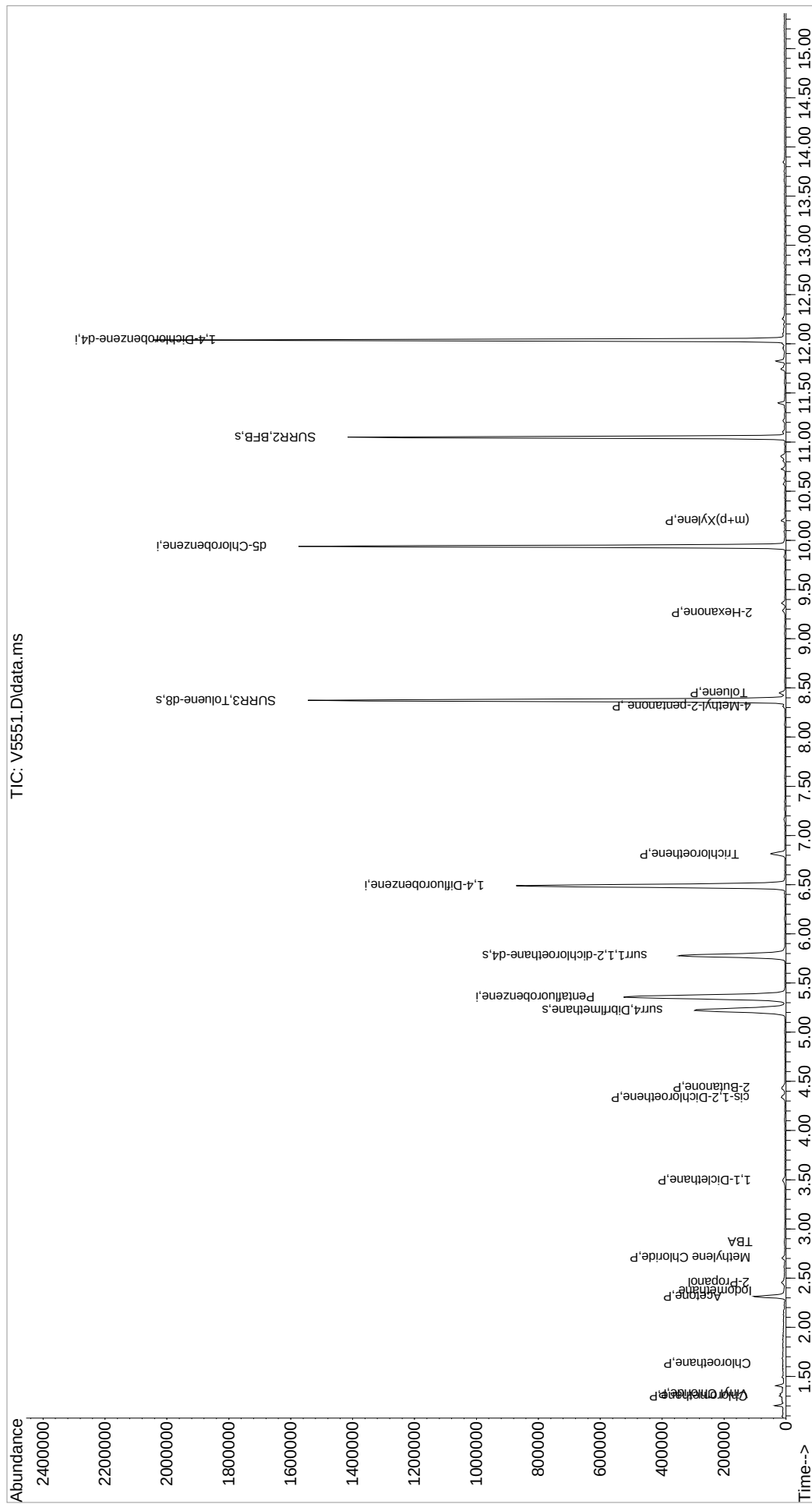
| Compound                      | R.T.   | QIon           | Response | Conc      | Units  | Dev(Min)  |
|-------------------------------|--------|----------------|----------|-----------|--------|-----------|
| Internal Standards            |        |                |          |           |        |           |
| 1) Pentafluorobenzene         | 5.362  | 168            | 541628   | 50.00     | ug/L   | 0.00      |
| 42) 1,4-Difluorobenzene       | 6.490  | 114            | 821097   | 50.00     | ug/L   | 0.00      |
| 70) d5-Chlorobenzene          | 9.940  | 117            | 729528   | 50.00     | ug/L   | 0.00      |
| 90) 1,4-Dichlorobenzene-d4    | 12.038 | 152            | 392900   | 50.00     | ug/L   | 0.00      |
| System Monitoring Compounds   |        |                |          |           |        |           |
| 44) surr4,Dibrflmethane       | 5.222  | 113            | 246238   | 46.65     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =         | 93.30% |           |
| 47) surr1,1,2-dichloroetha... | 5.777  | 65             | 294980   | 47.78     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =         | 95.56% |           |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 959571   | 48.58     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =         | 97.16% |           |
| 69) SURR2,BFB                 | 11.050 | 95             | 352470   | 46.58     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =         | 93.16% |           |
| Target Compounds              |        |                |          |           |        |           |
| 3) Chloromethane              | 1.302  | 50             | 1142     | 0.23      | ug/L   | Qvalue 68 |
| 4) Vinyl Chloride             | 1.326  | 62             | 3840     | 0.65      | ug/L   | 78        |
| 5) Bromomethane               | 1.558  | 94             | 377      | Below Cal | #      | 71        |
| 6) Chloroethane               | 1.637  | 64             | 788      | 0.21      | ug/L   | 74        |
| 15) Acetone                   | 2.314  | 43             | 114459   | 49.46     | ug/L   | 95        |
| 16) 2-Propanol                | 2.454  | 45             | 13175    | 24.29     | ug/L   | 85        |
| 17) Iodomethane               | 2.375  | 142            | 629m     | 2.50      | ug/L   |           |
| 22) Methylene Chloride        | 2.710  | 84             | 3380     | 0.73      | ug/L   | 85        |
| 23) TBA                       | 2.875  | 59             | 1646     | 1.70      | ug/L   | 94        |
| 27) 1,1-Dicethane             | 3.497  | 63             | 7754     | 1.04      | ug/L   | 96        |
| 33) cis-1,2-Dichloroethene    | 4.338  | 96             | 6553     | 1.29      | ug/L   | 98        |
| 34) 2-Butanone                | 4.435  | 43             | 17198    | 4.88      | ug/L   | 99        |
| 53) Trichloroethene           | 6.813  | 130            | 16567    | 3.24      | ug/L   | 92        |
| 63) 4-Methyl-2-pentanone      | 8.313  | 43             | 4082     | 0.56      | ug/L   | 97        |
| 65) Toluene                   | 8.453  | 91             | 11192    | 0.58      | ug/L   | 95        |
| 72) 2-Hexanone                | 9.270  | 43             | 1855     | 0.35      | ug/L   | 91        |
| 82) (m+p)Xylene               | 10.203 | 106            | 2979     | 0.36      | ug/L   | # 87      |

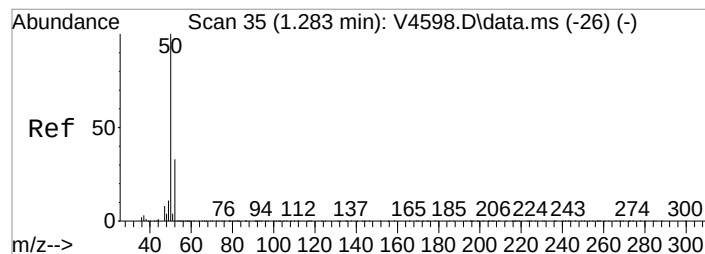
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Data Path : I:\ACQDATA\MSV0A14\Data\072822\  
Data File : V5551.D  
Acq On : 28 Jul 2022 5:12 pm  
Operator : F.NAEGLER  
Sample : R2206604-005|1.0  
Misc : EAE 19519 T4  
ALS Vial : 19 Sample Multiplier: 1  
Inst : MSV0A14

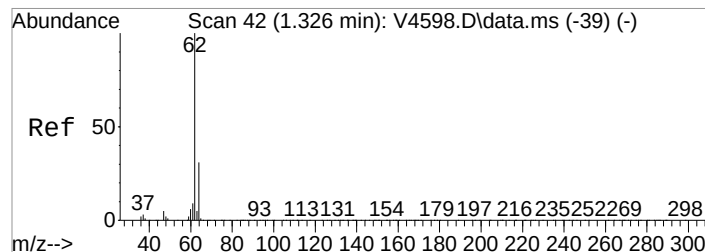
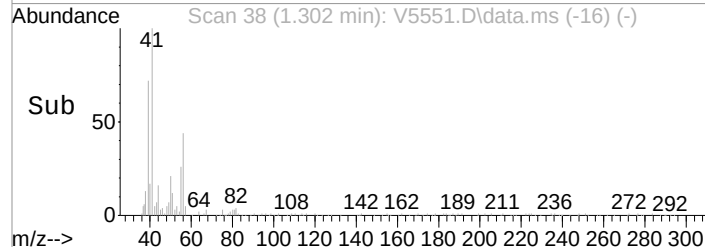
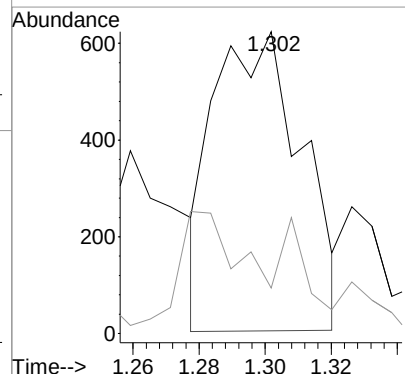
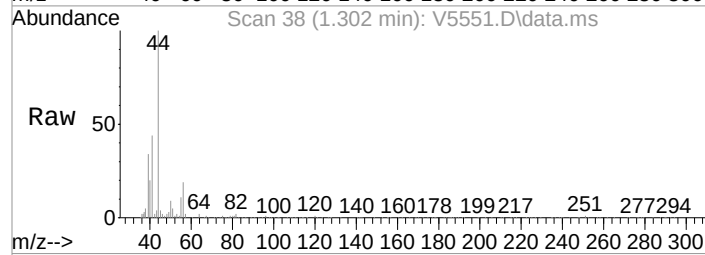
Quant Time: Jul 29 15:33:33 2022  
Quant Method : I:\ACQDATA\MSV0A14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration





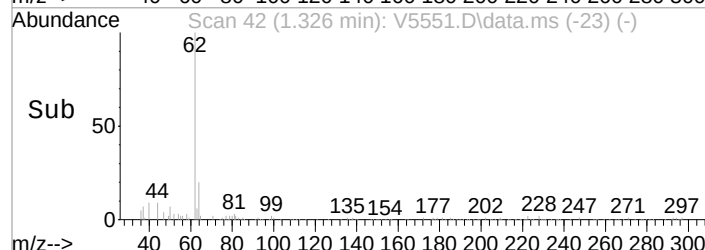
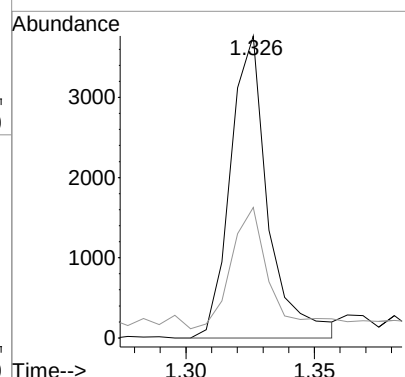
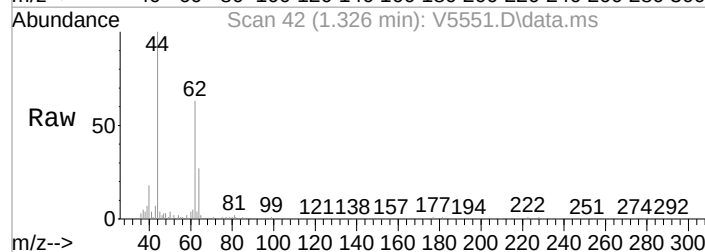
#3  
 Chloromethane  
 Concen: 0.23 ug/L  
 RT: 1.302 min Scan# 38  
 Delta R.T. 0.018 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

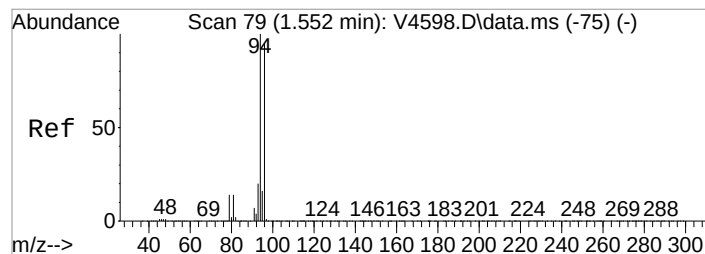
Tgt Ion: 50 Resp: 1142  
 Ion Ratio Lower Upper  
 50 100  
 52 15.1 12.9 52.9



#4  
 Vinyl Chloride  
 Concen: 0.65 ug/L  
 RT: 1.326 min Scan# 42  
 Delta R.T. 0.000 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

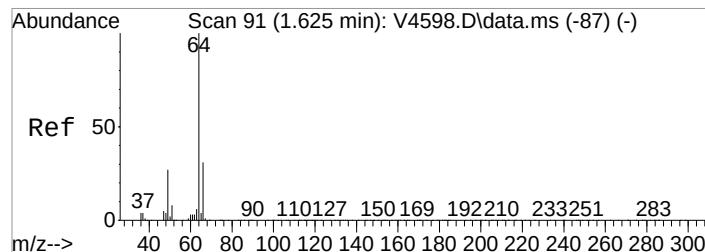
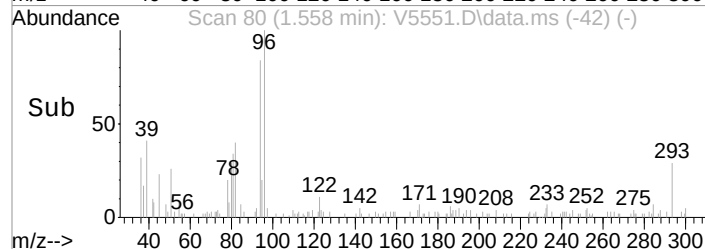
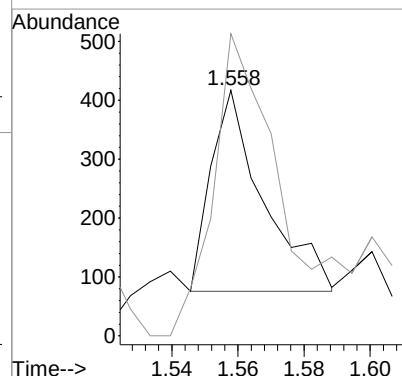
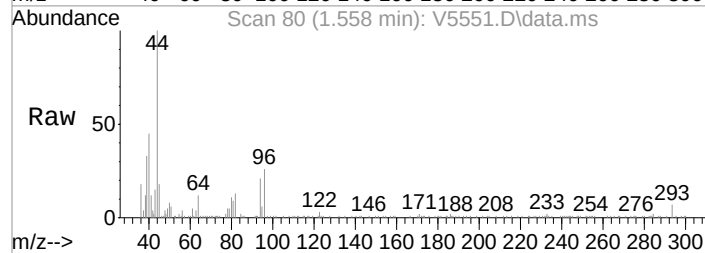
Tgt Ion: 62 Resp: 3840  
 Ion Ratio Lower Upper  
 62 100  
 64 43.2 11.2 51.2





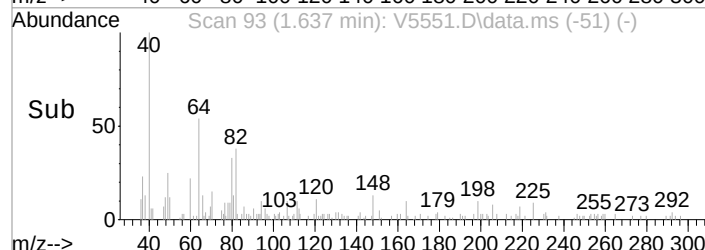
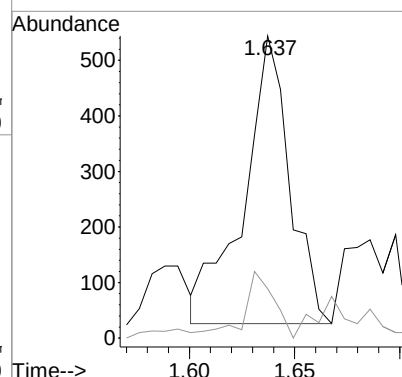
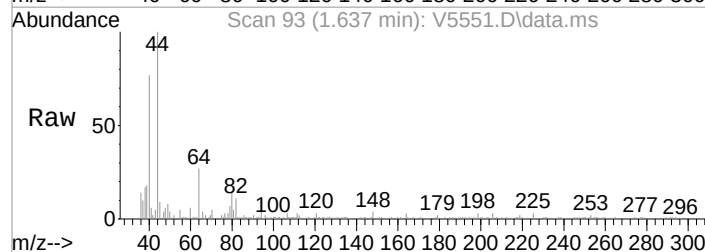
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.558 min Scan# 80  
 Delta R.T. 0.007 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

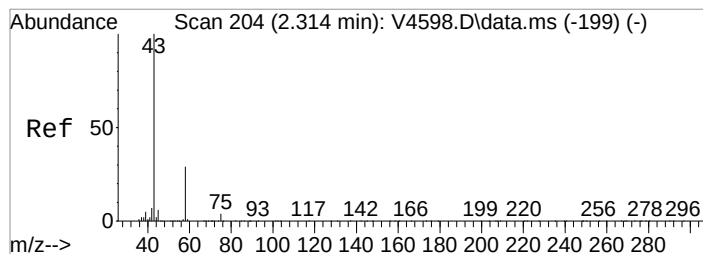
Tgt Ion: 94 Resp: 377  
 Ion Ratio Lower Upper  
 94 100  
 96 123.0 75.2 115.2#



#6  
 Chloroethane  
 Concen: 0.21 ug/L  
 RT: 1.637 min Scan# 93  
 Delta R.T. 0.012 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

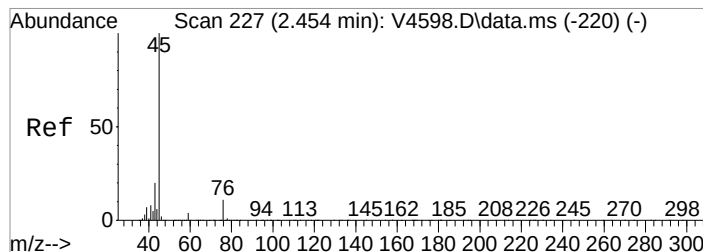
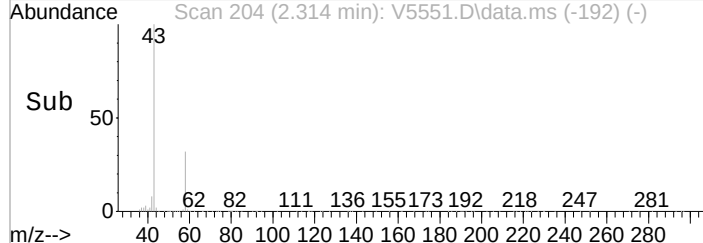
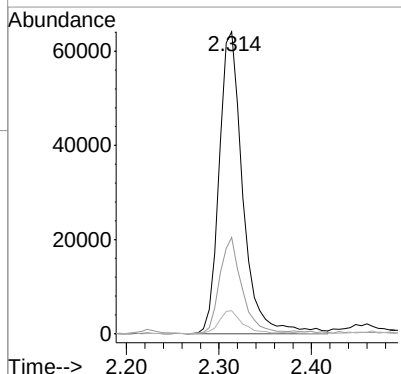
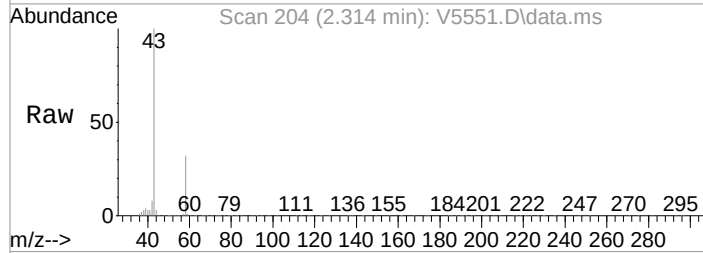
Tgt Ion: 64 Resp: 788  
 Ion Ratio Lower Upper  
 64 100  
 66 16.4 10.5 50.5





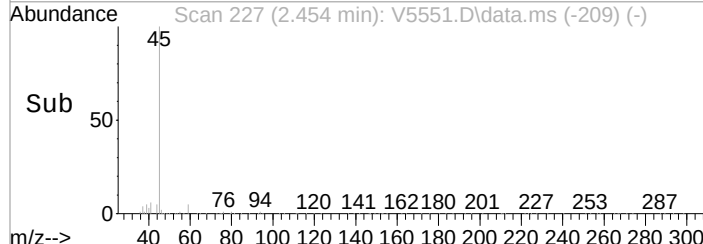
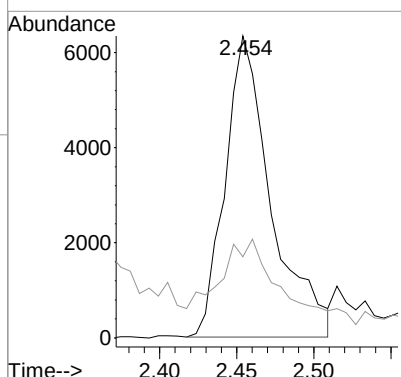
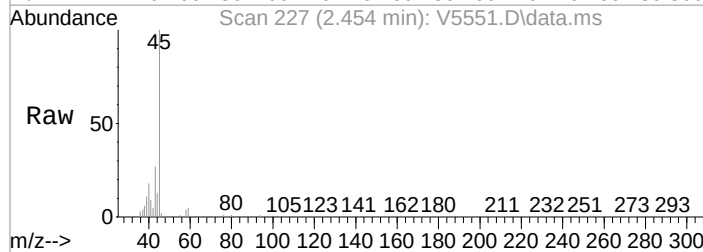
#15  
 Acetone  
 Concen: 49.46 ug/L  
 RT: 2.314 min Scan# 204  
 Delta R.T. 0.000 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

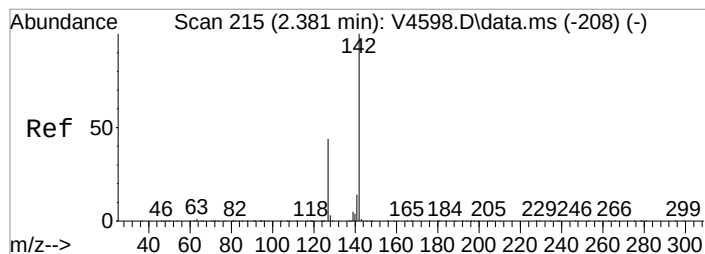
Tgt Ion: 43 Resp: 114459  
 Ion Ratio Lower Upper  
 43 100  
 58 31.9 8.9 48.9  
 42 7.6 0.0 27.4



#16  
 2-Propanol  
 Concen: 24.29 ug/L  
 RT: 2.454 min Scan# 227  
 Delta R.T. 0.000 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

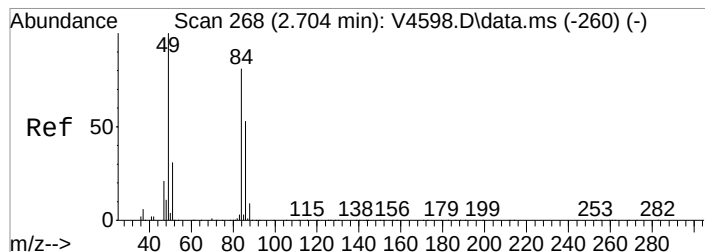
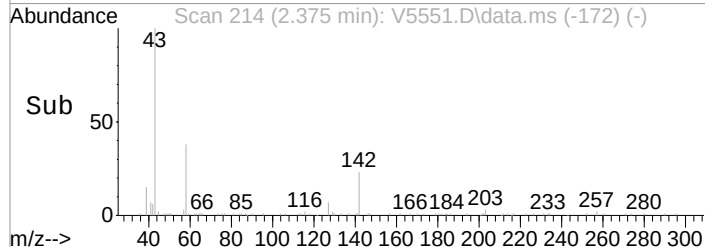
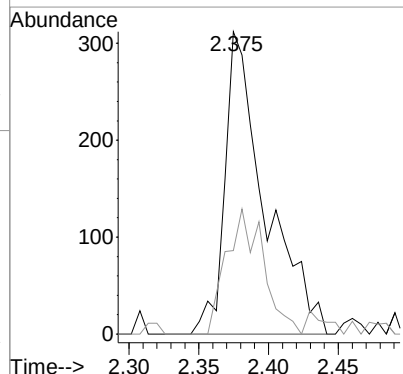
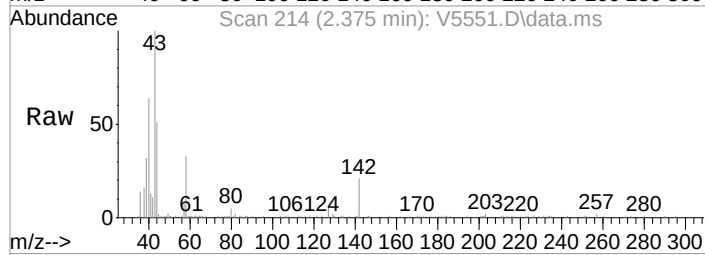
Tgt Ion: 45 Resp: 13175  
 Ion Ratio Lower Upper  
 45 100  
 43 26.8 0.1 40.1





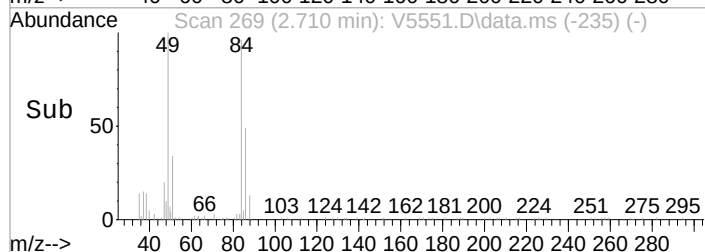
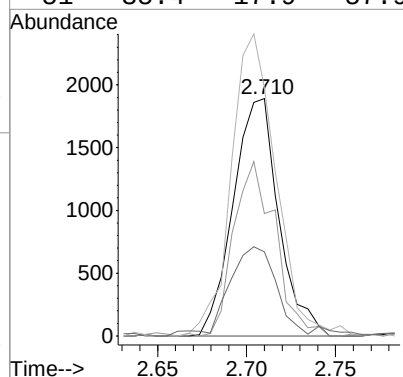
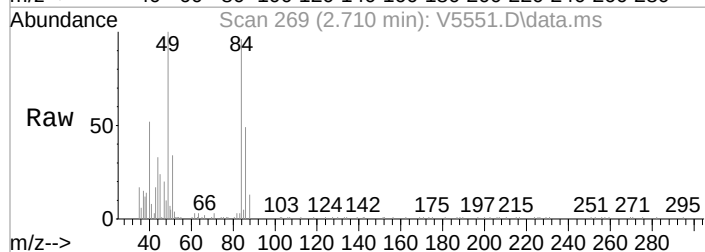
#17  
 Iodomethane  
 Concen: 2.50 ug/L m  
 RT: 2.375 min Scan# 214  
 Delta R.T. -0.005 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

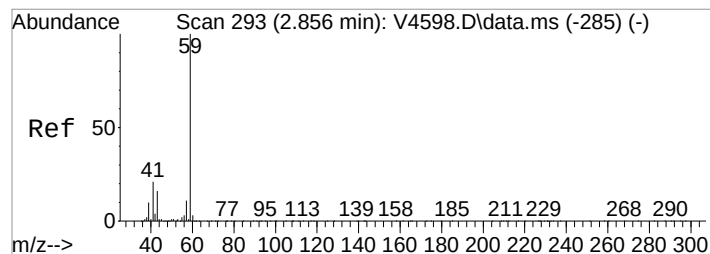
Tgt Ion: 142 Resp: 629  
 Ion Ratio Lower Upper  
 142 100  
 127 27.6 23.6 63.6



#22  
 Methylene Chloride  
 Concen: 0.73 ug/L  
 RT: 2.710 min Scan# 269  
 Delta R.T. 0.006 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

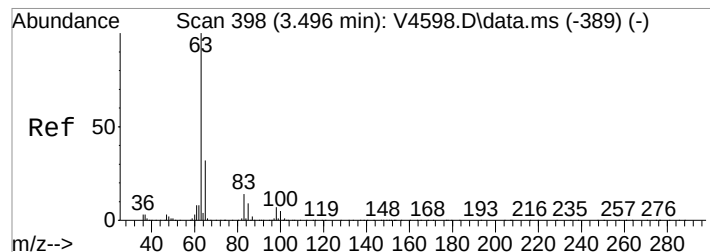
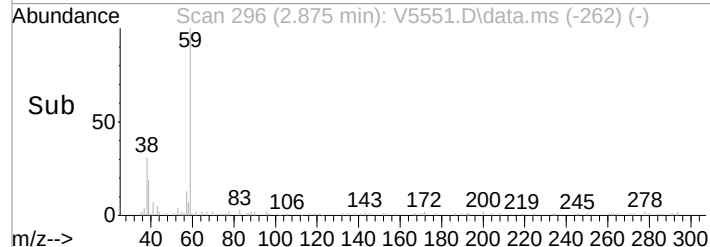
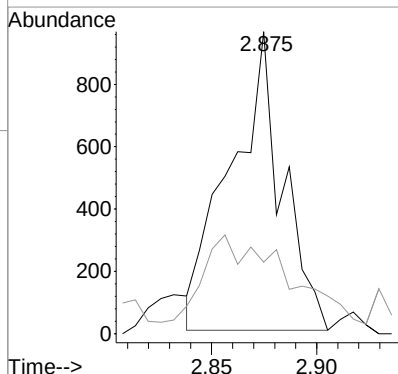
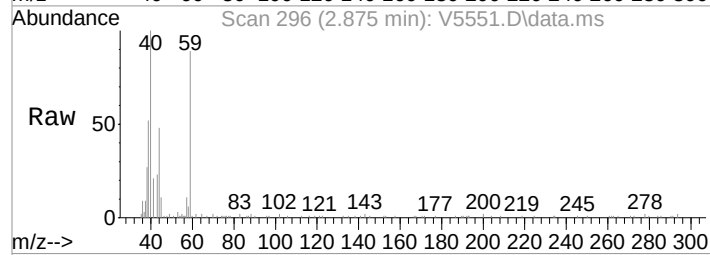
Tgt Ion: 84 Resp: 3380  
 Ion Ratio Lower Upper  
 84 100  
 86 51.7 45.1 85.1  
 49 104.5 103.1 143.1  
 51 35.4 17.9 57.9





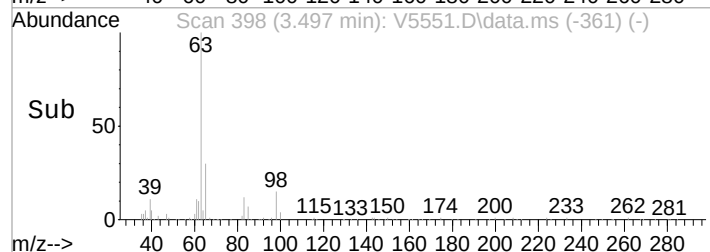
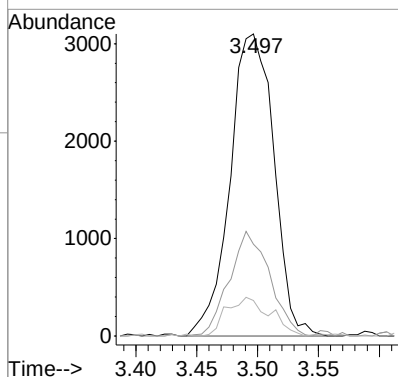
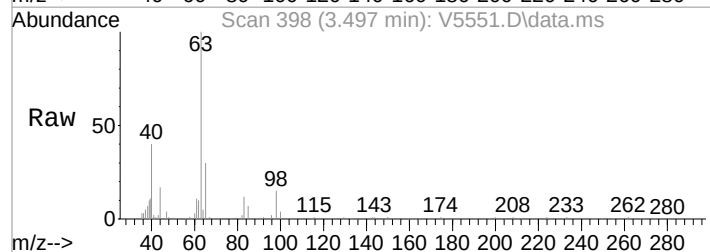
#23  
 TBA  
 Concen: 1.70 ug/L  
 RT: 2.875 min Scan# 296  
 Delta R.T. 0.018 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

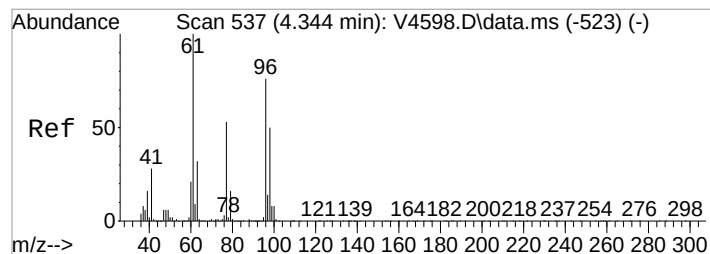
Tgt Ion: 59 Resp: 1646  
 Ion Ratio Lower Upper  
 59 100  
 41 23.7 0.8 40.8



#27  
 1,1-Dicethane  
 Concen: 1.04 ug/L  
 RT: 3.497 min Scan# 398  
 Delta R.T. 0.000 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

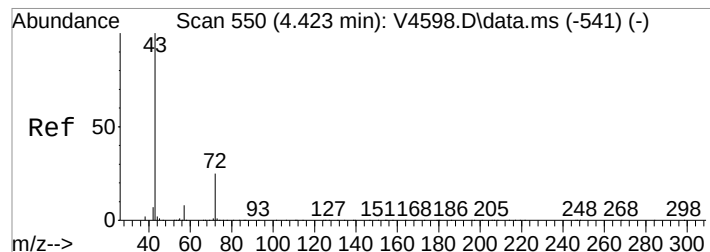
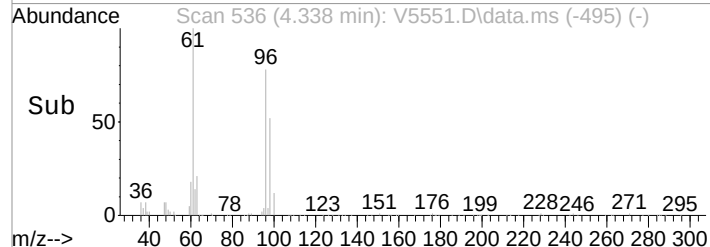
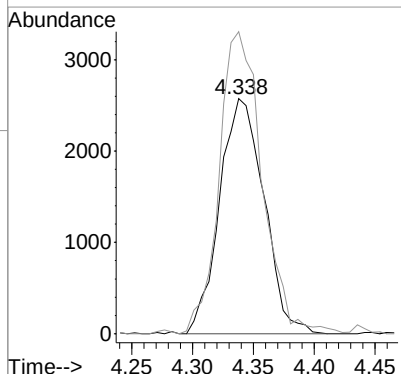
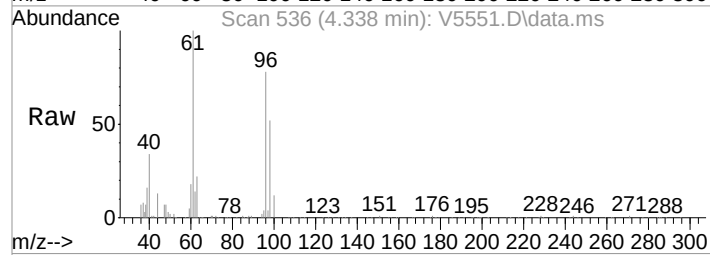
Tgt Ion: 63 Resp: 7754  
 Ion Ratio Lower Upper  
 63 100  
 65 30.4 12.2 52.2  
 83 11.8 0.0 33.8





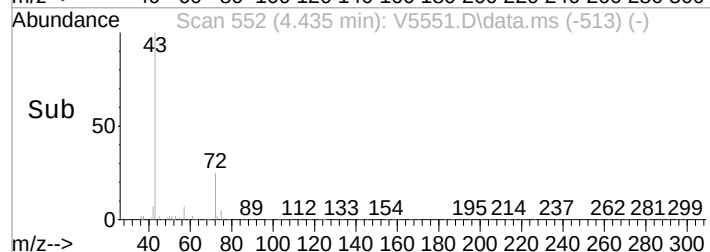
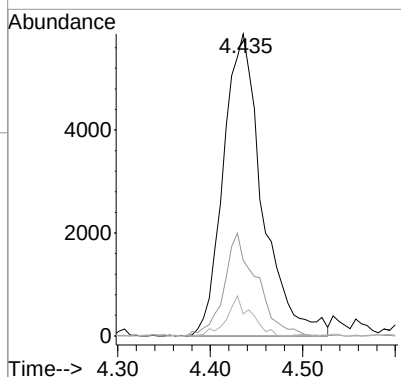
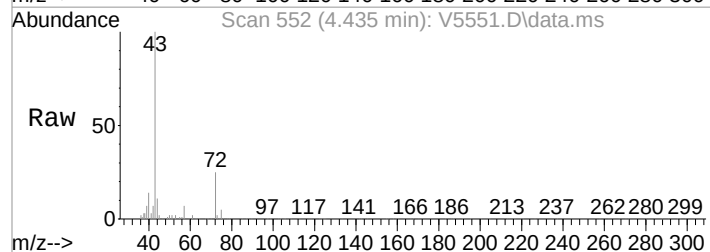
#33  
 cis-1,2-Dichloroethene  
 Concen: 1.29 ug/L  
 RT: 4.338 min Scan# 536  
 Delta R.T. -0.006 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

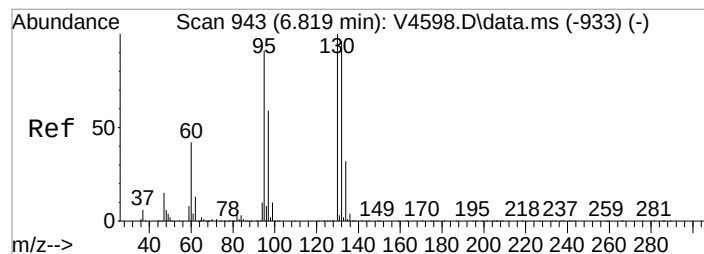
Tgt Ion: 96 Resp: 6553  
 Ion Ratio Lower Upper  
 96 100  
 61 128.5 111.0 151.0



#34  
 2-Butanone  
 Concen: 4.88 ug/L  
 RT: 4.435 min Scan# 552  
 Delta R.T. 0.012 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

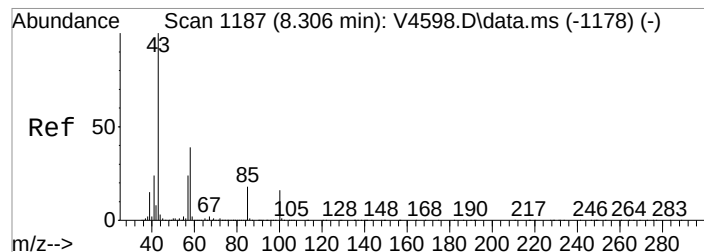
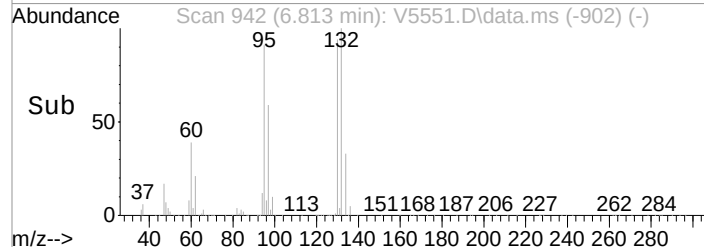
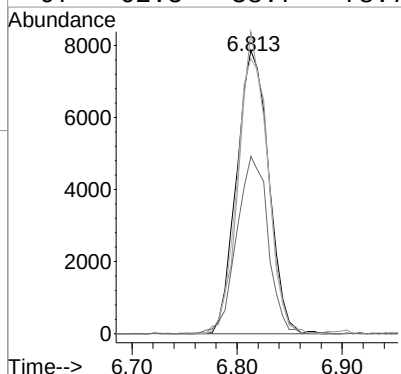
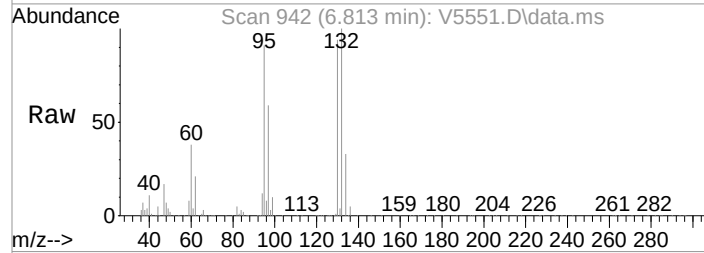
Tgt Ion: 43 Resp: 17198  
 Ion Ratio Lower Upper  
 43 100  
 72 25.0 5.0 45.0  
 57 7.3 0.0 28.1





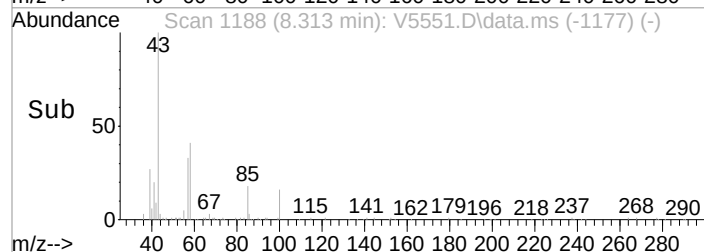
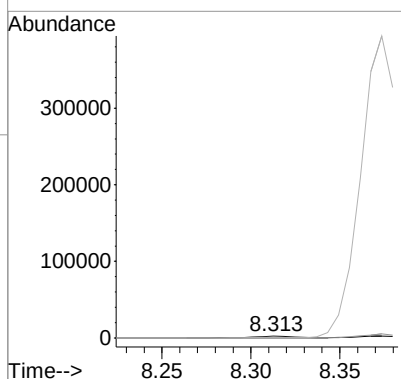
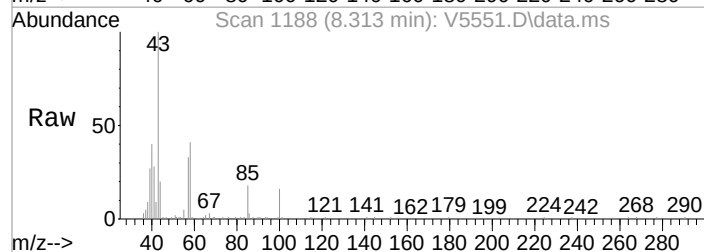
#53  
 Trichloroethene  
 Concen: 3.24 ug/L  
 RT: 6.813 min Scan# 942  
 Delta R.T. -0.006 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

|             |       |            |
|-------------|-------|------------|
| Tgt Ion:130 | Resp: | 16567      |
| Ion Ratio   | Lower | Upper      |
| 130         | 100   |            |
| 132         | 106.5 | 76.3 116.3 |
| 95          | 97.0  | 70.5 110.5 |
| 97          | 62.5  | 38.7 78.7  |

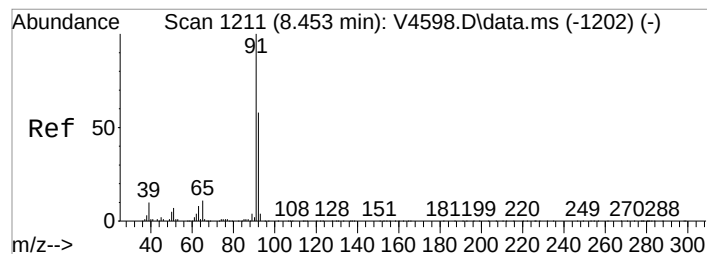


#63  
 4-Methyl-2-pentanone  
 Concen: 0.56 ug/L  
 RT: 8.313 min Scan# 1188  
 Delta R.T. 0.006 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm

|             |       |           |
|-------------|-------|-----------|
| Tgt Ion: 43 | Resp: | 4082      |
| Ion Ratio   | Lower | Upper     |
| 43          | 100   |           |
| 58          | 41.3  | 18.9 58.9 |
| 100         | 15.8  | 0.0 36.3  |

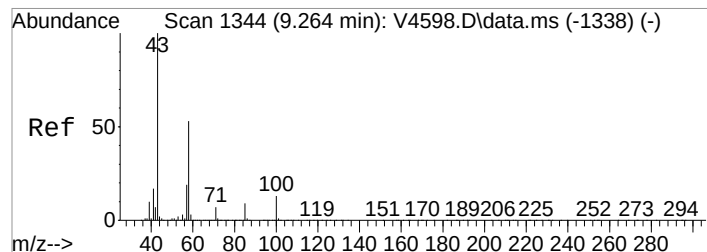
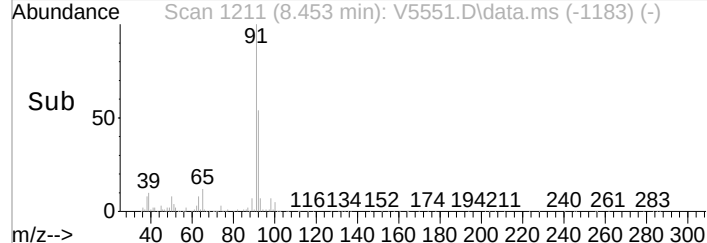
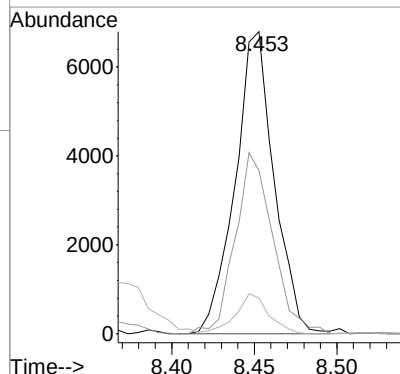
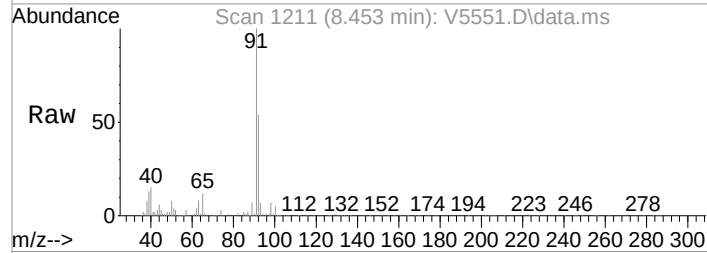






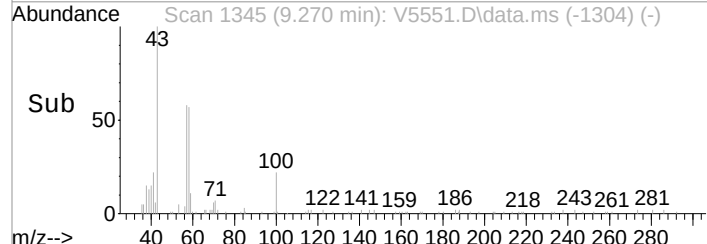
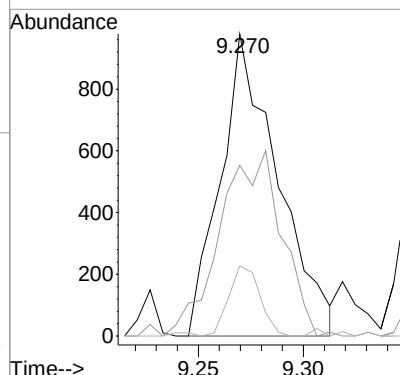
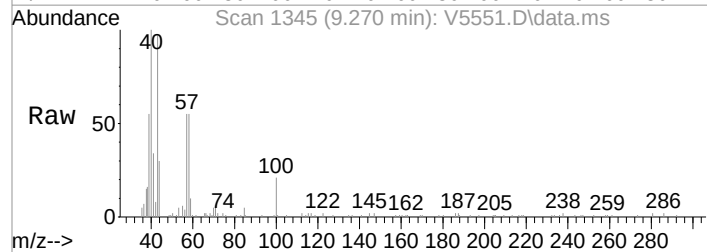
#65  
Toluene  
Concen: 0.58 ug/L  
RT: 8.453 min Scan# 1211  
Delta R.T. 0.000 min  
Lab File: V5551.D  
Acq: 28 Jul 2022 5:12 pm

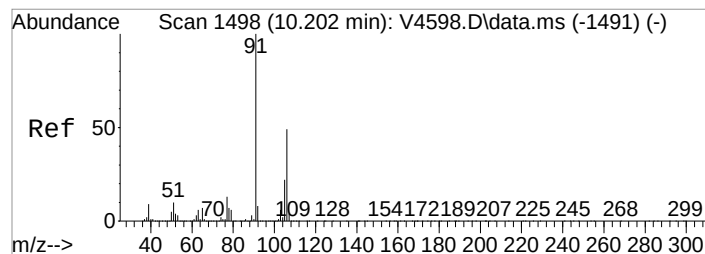
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 91    | Resp: | 11192 |
| Ion Ratio | Lower | Upper |       |
| 91        | 100   |       |       |
| 92        | 54.0  | 38.2  | 78.2  |
| 65        | 11.8  | 0.0   | 31.2  |



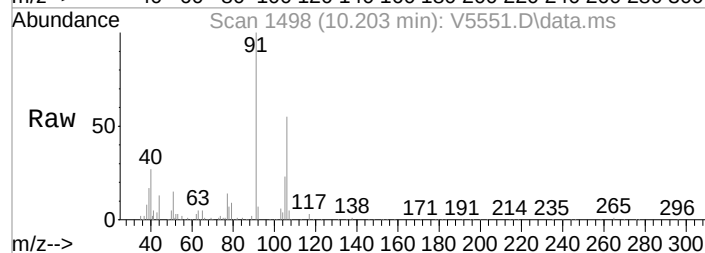
#72  
2-Hexanone  
Concen: 0.35 ug/L  
RT: 9.270 min Scan# 1345  
Delta R.T. 0.006 min  
Lab File: V5551.D  
Acq: 28 Jul 2022 5:12 pm

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 43    | Resp: | 1855 |
| Ion Ratio | Lower | Upper |      |
| 43        | 100   |       |      |
| 58        | 56.5  | 33.3  | 73.3 |
| 100       | 23.2  | 0.0   | 32.6 |

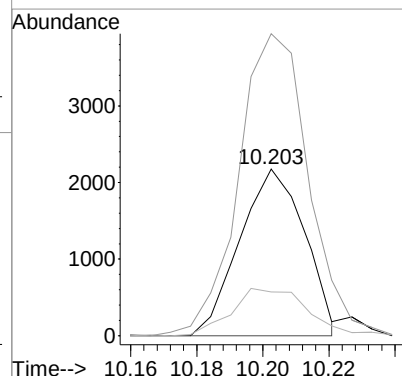
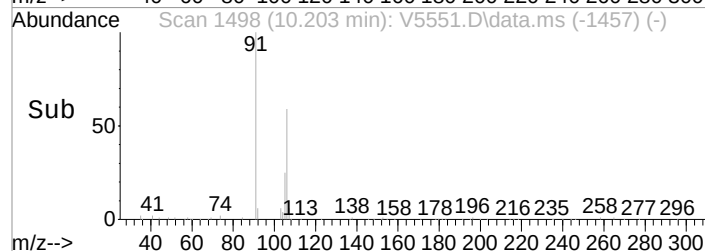




#82  
 (m+p)Xylene  
 Concen: 0.36 ug/L  
 RT: 10.203 min Scan# 1498  
 Delta R.T. 0.000 min  
 Lab File: V5551.D  
 Acq: 28 Jul 2022 5:12 pm



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 106   | Resp: | 2979   |
| Ion Ratio | Lower | Upper |        |
| 106       | 100   |       |        |
| 91        | 181.4 | 183.3 | 223.3# |
| 77        | 26.3  | 6.8   | 46.8   |



Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5552.D  
 Acq On : 28 Jul 2022 5:34 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-006|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 20 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:34:33 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

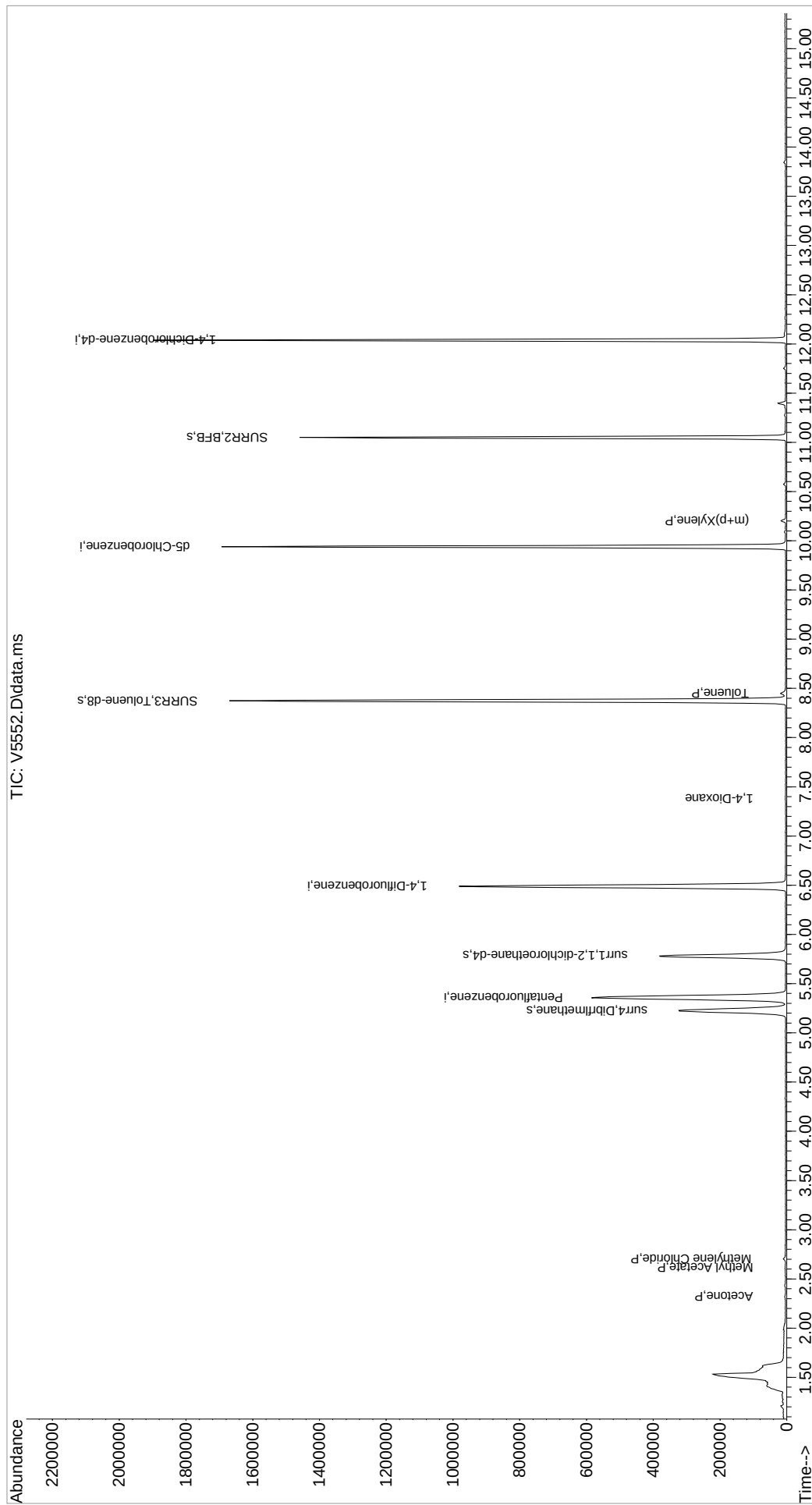
| Compound                      | R.T.   | QIon           | Response | Conc        | Units  | Dev(Min)  |
|-------------------------------|--------|----------------|----------|-------------|--------|-----------|
| Internal Standards            |        |                |          |             |        |           |
| 1) Pentafluorobenzene         | 5.362  | 168            | 595485   | 50.00       | ug/L   | 0.00      |
| 42) 1,4-Difluorobenzene       | 6.490  | 114            | 914302   | 50.00       | ug/L   | 0.00      |
| 70) d5-Chlorobenzene          | 9.940  | 117            | 787036   | 50.00       | ug/L   | 0.00      |
| 90) 1,4-Dichlorobenzene-d4    | 12.037 | 152            | 368431   | 50.00       | ug/L   | 0.00      |
| System Monitoring Compounds   |        |                |          |             |        |           |
| 44) surr4,Dibrflmethane       | 5.222  | 113            | 274678   | 46.74       | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =           | 93.48% |           |
| 47) surr1,1,2-dichloroetha... | 5.782  | 65             | 327844   | 47.69       | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =           | 95.38% |           |
| 64) SURR3,Toluene-d8          | 8.373  | 98             | 1054589  | 47.95       | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =           | 95.90% |           |
| 69) SURR2,BFB                 | 11.050 | 95             | 358866   | 42.59       | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =           | 85.18% |           |
| Target Compounds              |        |                |          |             |        |           |
| 5) Bromomethane               | 1.527  | 94             | 625      | Below Cal   |        | Qvalue 99 |
| 15) Acetone                   | 2.320  | 43             | 2465     | 0.97 ug/L   |        | 89        |
| 21) Methyl Acetate            | 2.612  | 43             | 1915     | 0.28 ug/L   |        | 83        |
| 22) Methylene Chloride        | 2.704  | 84             | 2900     | 0.57 ug/L   |        | 84        |
| 57) 1,4-Dioxane               | 7.380  | 88             | 941      | 6.84 ug/L   |        | 85        |
| 65) Toluene                   | 8.453  | 91             | 9098     | 0.42 ug/L   |        | 97        |
| 82) (m+p)Xylene               | 10.202 | 106            | 3821     | 0.43 ug/L # |        | 79        |

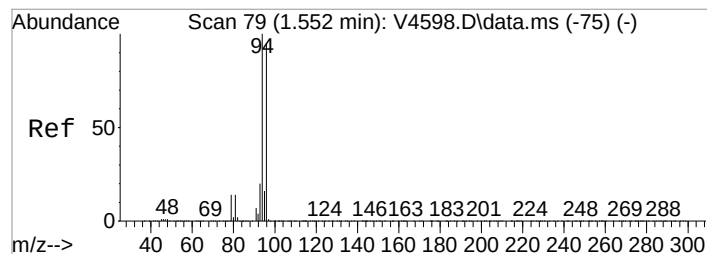
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
 Data File : V5552.D  
 Acq On : 28 Jul 2022 5:34 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-006|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 20 Sample Multiplier: 1

Inst : MSV0A14

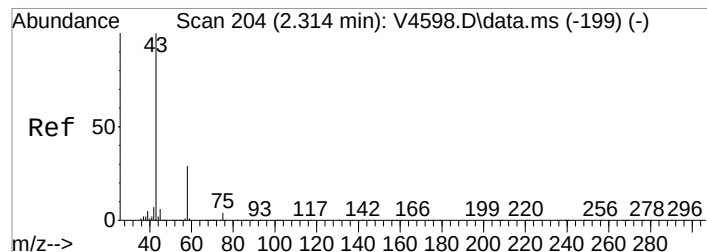
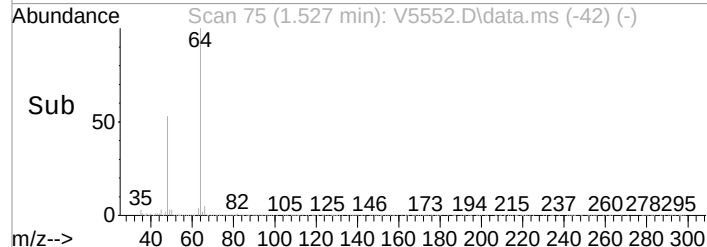
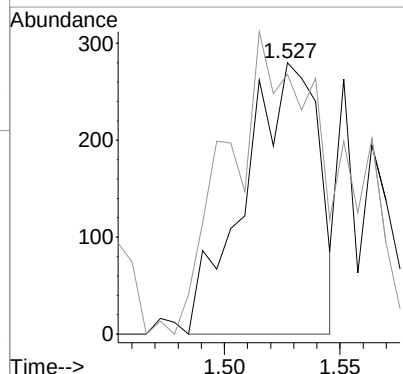
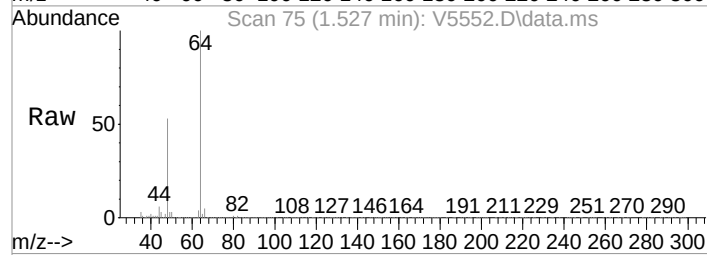
Quant Time: Jul 29 15:34:33 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 Qlast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration





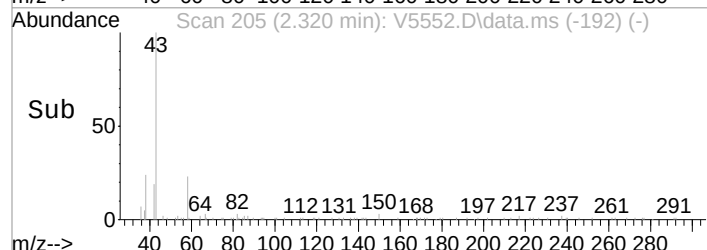
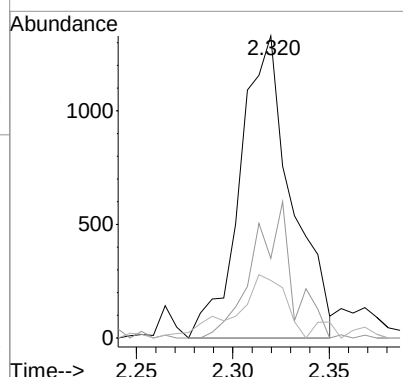
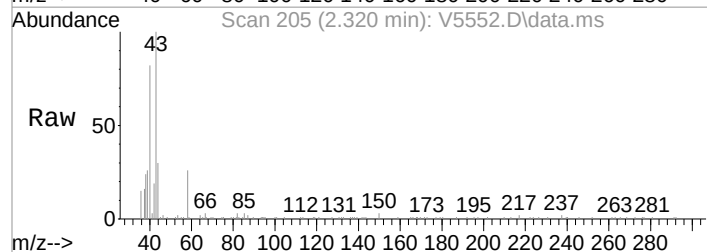
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.527 min Scan# 75  
 Delta R.T. -0.024 min  
 Lab File: V5552.D  
 Acq: 28 Jul 2022 5:34 pm

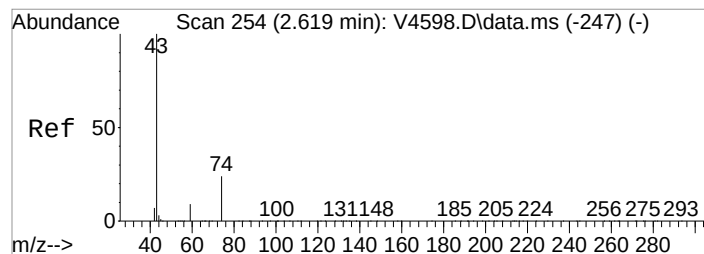
Tgt Ion: 94 Resp: 625  
 Ion Ratio Lower Upper  
 94 100  
 96 95.7 75.2 115.2



#15  
 Acetone  
 Concen: 0.97 ug/L  
 RT: 2.320 min Scan# 205  
 Delta R.T. 0.006 min  
 Lab File: V5552.D  
 Acq: 28 Jul 2022 5:34 pm

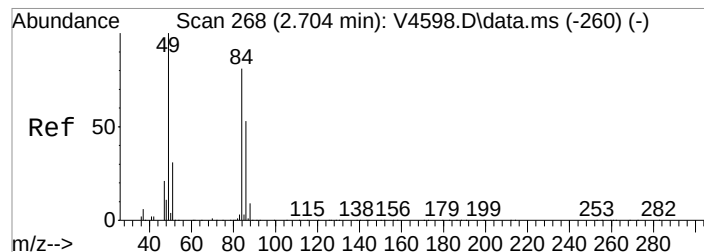
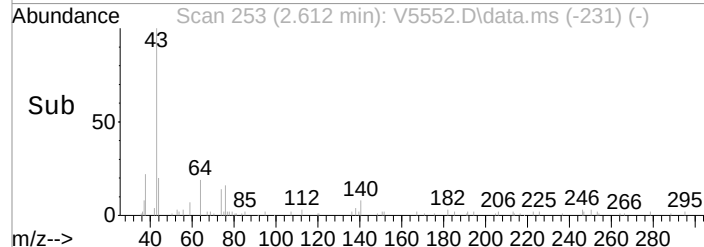
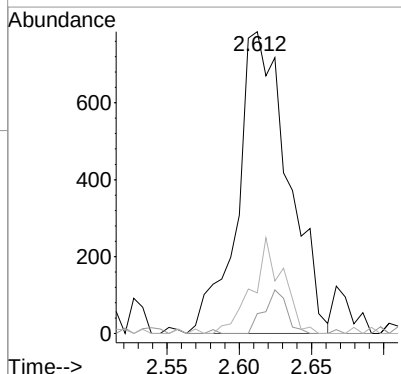
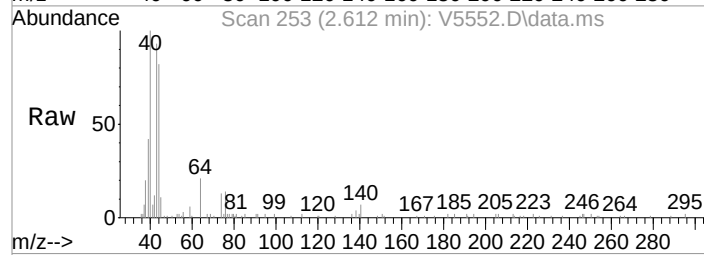
Tgt Ion: 43 Resp: 2465  
 Ion Ratio Lower Upper  
 43 100  
 58 26.4 8.9 48.9  
 42 19.0 0.0 27.4





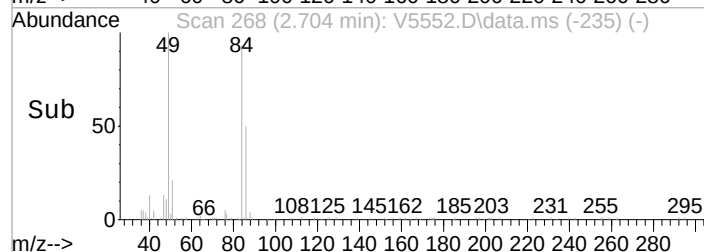
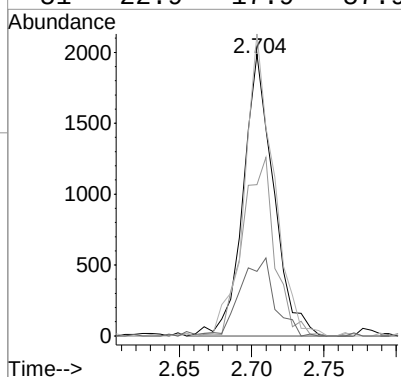
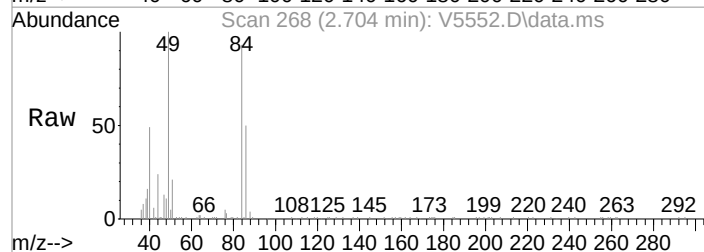
#21  
 Methyl Acetate  
 Concen: 0.28 ug/L  
 RT: 2.612 min Scan# 253  
 Delta R.T. -0.006 min  
 Lab File: V5552.D  
 Acq: 28 Jul 2022 5:34 pm

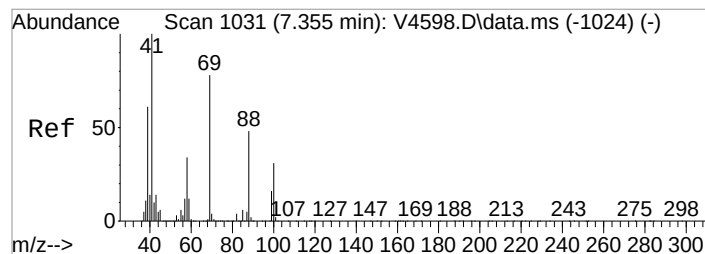
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 43   | Resp: | 1915  |
| Ion Ratio |      | Lower | Upper |
| 43        | 100  |       |       |
| 59        | 6.6  | 0.0   | 28.8  |
| 74        | 13.5 | 3.9   | 43.9  |



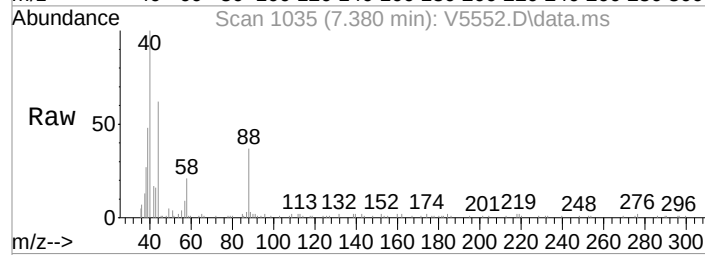
#22  
 Methylene Chloride  
 Concen: 0.57 ug/L  
 RT: 2.704 min Scan# 268  
 Delta R.T. -0.000 min  
 Lab File: V5552.D  
 Acq: 28 Jul 2022 5:34 pm

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 84    | Resp: | 2900  |
| Ion Ratio |       | Lower | Upper |
| 84        | 100   |       |       |
| 86        | 53.6  | 45.1  | 85.1  |
| 49        | 107.1 | 103.1 | 143.1 |
| 51        | 22.9  | 17.9  | 57.9  |

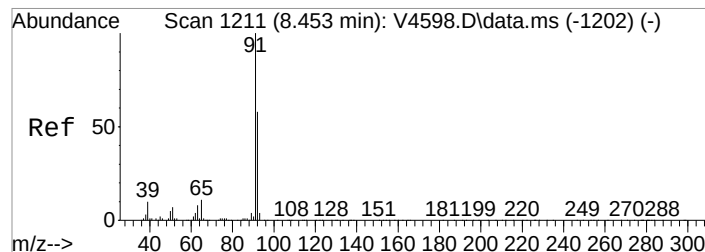
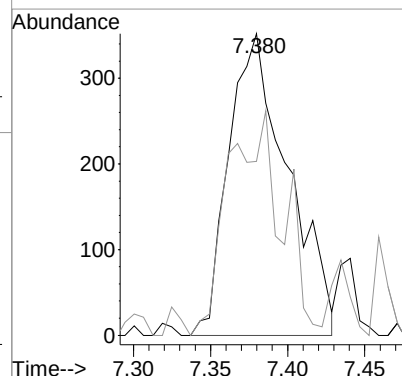
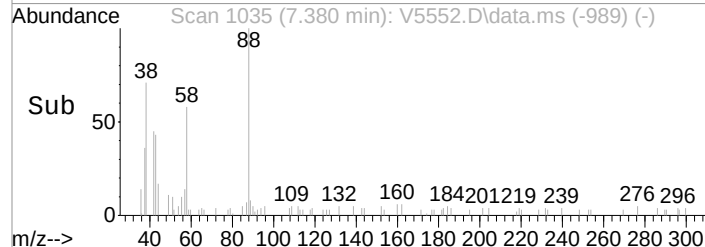




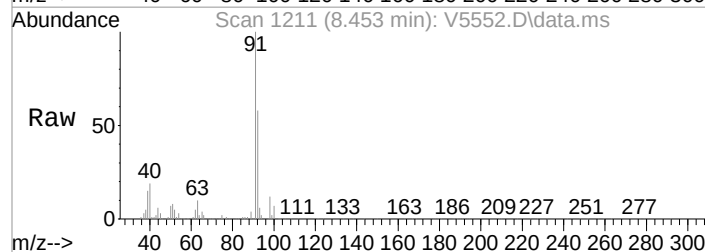
#57  
 1,4-Dioxane  
 Concen: 6.84 ug/L  
 RT: 7.380 min Scan# 1035  
 Delta R.T. 0.024 min  
 Lab File: V5552.D  
 Acq: 28 Jul 2022 5:34 pm



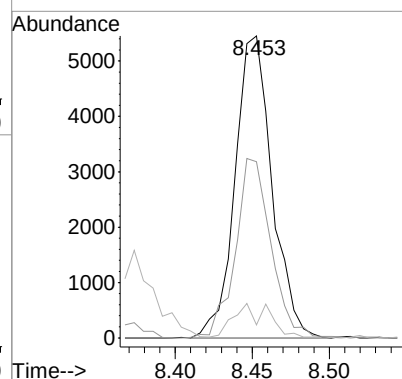
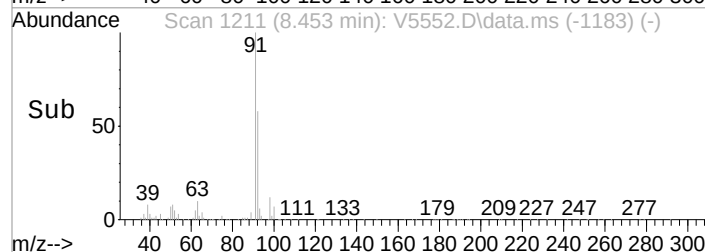
Tgt Ion: 88 Resp: 941  
 Ion Ratio Lower Upper  
 88 100  
 58 57.7 49.7 89.7

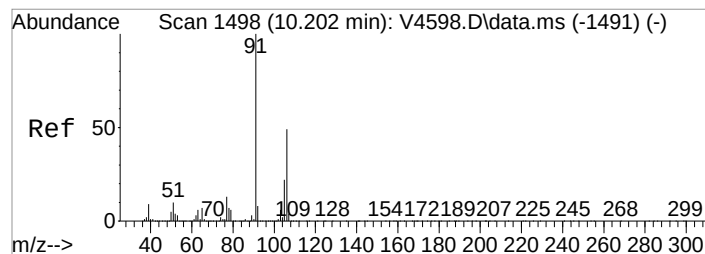


#65  
 Toluene  
 Concen: 0.42 ug/L  
 RT: 8.453 min Scan# 1211  
 Delta R.T. -0.000 min  
 Lab File: V5552.D  
 Acq: 28 Jul 2022 5:34 pm

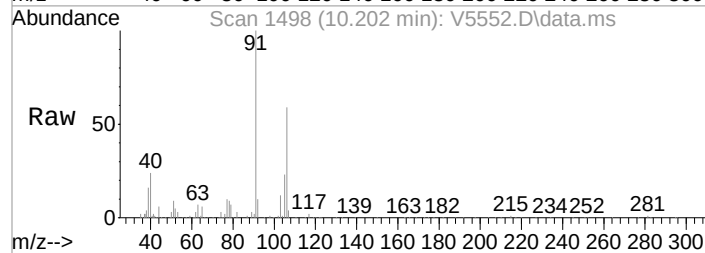


Tgt Ion: 91 Resp: 9098  
 Ion Ratio Lower Upper  
 91 100  
 92 58.4 38.2 78.2  
 65 4.3 0.0 31.2

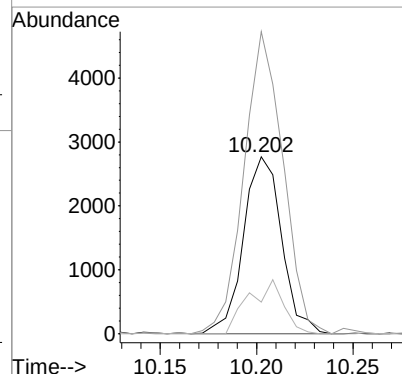
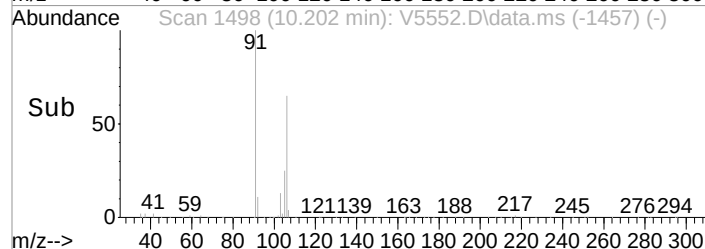




#82  
 (m+p)Xylene  
 Concen: 0.43 ug/L  
 RT: 10.202 min Scan# 1498  
 Delta R.T. -0.000 min  
 Lab File: V5552.D  
 Acq: 28 Jul 2022 5:34 pm



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 106   | Resp: | 3821   |
| Ion Ratio | Lower | Upper |        |
| 106       | 100   |       |        |
| 91        | 170.6 | 183.3 | 223.3# |
| 77        | 17.8  | 6.8   | 46.8   |





Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5553.D  
 Acq On : 28 Jul 2022 5:56 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-007|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 21 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:36:18 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

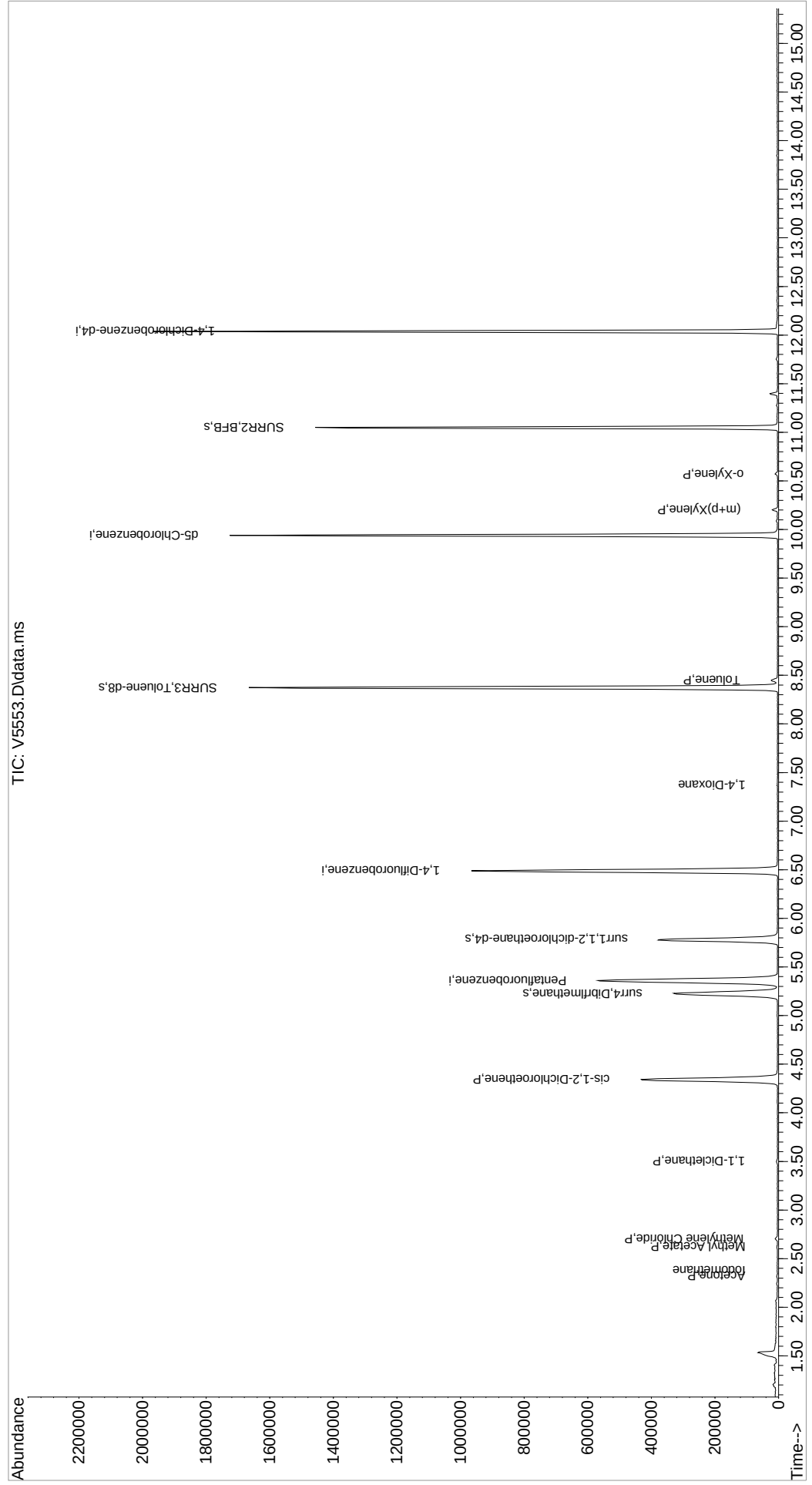
| Compound                      | R.T.   | QIon           | Response | Conc       | Units    | Dev(Min) |
|-------------------------------|--------|----------------|----------|------------|----------|----------|
| Internal Standards            |        |                |          |            |          |          |
| 1) Pentafluorobenzene         | 5.362  | 168            | 577176   | 50.00      | ug/L     | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.490  | 114            | 884402   | 50.00      | ug/L     | 0.00     |
| 70) d5-Chlorobenzene          | 9.940  | 117            | 793479   | 50.00      | ug/L     | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.037 | 152            | 387395   | 50.00      | ug/L     | 0.00     |
| System Monitoring Compounds   |        |                |          |            |          |          |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 277559   | 48.82      | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =          | 97.64%   |          |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 324487   | 48.80      | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =          | 97.60%   |          |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1050231  | 49.36      | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =          | 98.72%   |          |
| 69) SURR2,BFB                 | 11.050 | 95             | 370747   | 45.49      | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =          | 90.98%   |          |
| Target Compounds              |        |                |          |            |          |          |
| 5) Bromomethane               | 1.540  | 94             | 677      | Below Cal  | Qvalue # | 63       |
| 15) Acetone                   | 2.320  | 43             | 2248     | 0.91 ug/L  |          | 74       |
| 17) Iodomethane               | 2.381  | 142            | 363      | 2.45 ug/L  |          | 86       |
| 21) Methyl Acetate            | 2.625  | 43             | 1605     | 0.24 ug/L  |          | 94       |
| 22) Methylene Chloride        | 2.704  | 84             | 3021     | 0.61 ug/L  |          | 84       |
| 27) 1,1-Dicethane             | 3.503  | 63             | 2951     | 0.37 ug/L  |          | 89       |
| 33) cis-1,2-Dichloroethene    | 4.344  | 96             | 260641   | 48.28 ug/L |          | 90       |
| 57) 1,4-Dioxane               | 7.368  | 88             | 649      | 4.87 ug/L  | #        | 70       |
| 65) Toluene                   | 8.453  | 91             | 12251    | 0.58 ug/L  |          | 93       |
| 82) (m+p)Xylene               | 10.202 | 106            | 4445     | 0.50 ug/L  | #        | 75       |
| 83) o-Xylene                  | 10.568 | 106            | 1810     | 0.20 ug/L  | #        | 82       |

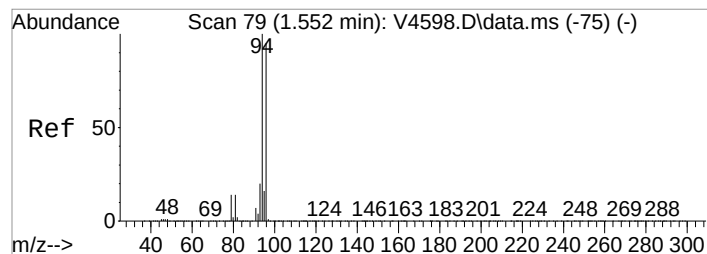
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
 Data File : V5553.D  
 Acq On : 28 Jul 2022 5:56 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-007|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 21 Sample Multiplier: 1

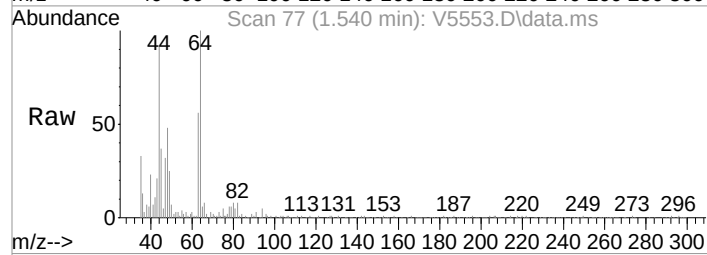
Inst : MSV0A14

Quant Time: Jul 29 15:36:18 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 Qlast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

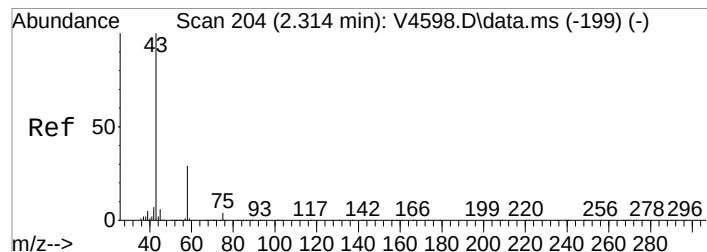
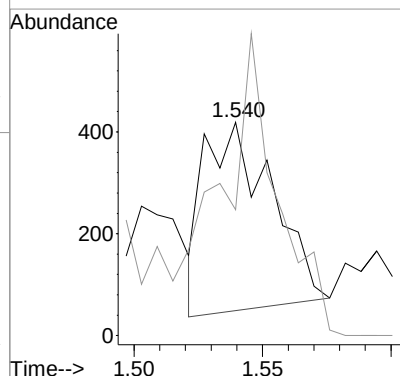
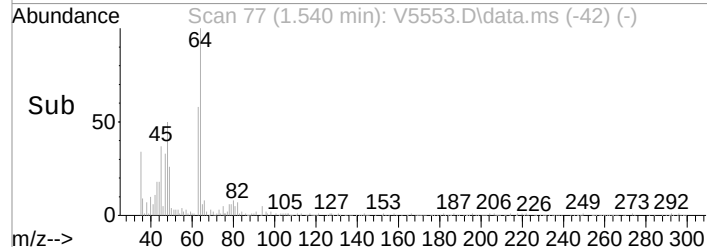




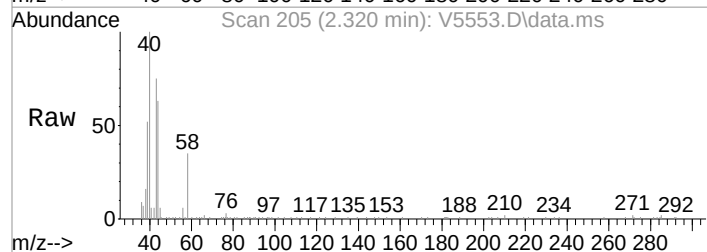
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.540 min Scan# 77  
 Delta R.T. -0.011 min  
 Lab File: V5553.D  
 Acq: 28 Jul 2022 5:56 pm



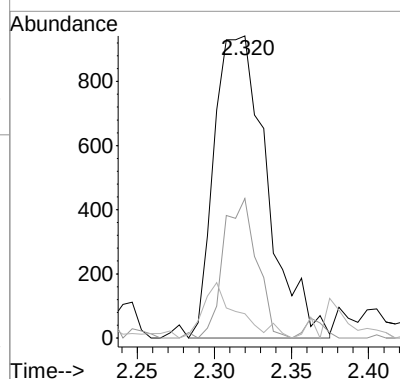
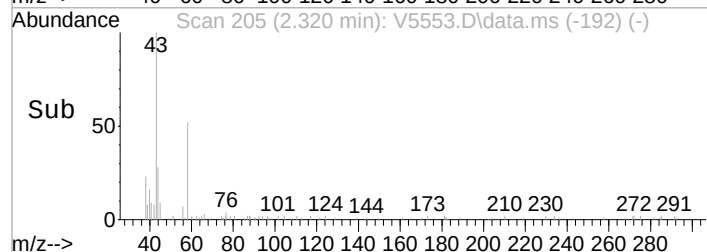
Tgt Ion: 94 Resp: 677  
 Ion Ratio Lower Upper  
 94 100  
 96 58.9 75.2 115.2#

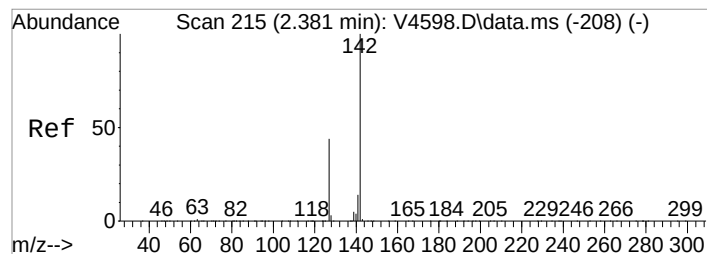


#15  
 Acetone  
 Concen: 0.91 ug/L  
 RT: 2.320 min Scan# 205  
 Delta R.T. 0.006 min  
 Lab File: V5553.D  
 Acq: 28 Jul 2022 5:56 pm



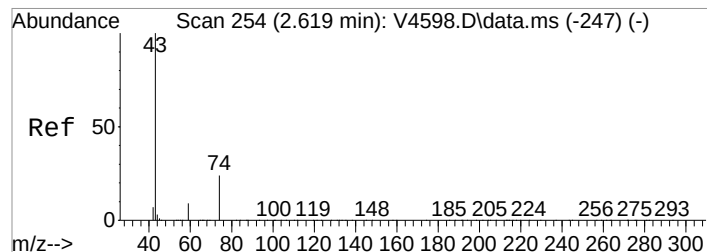
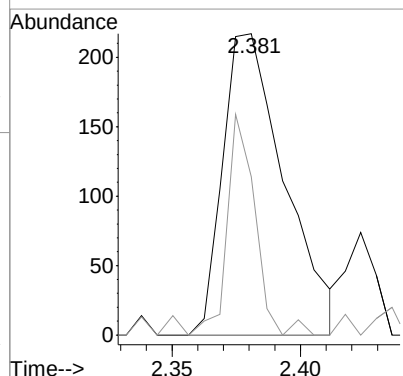
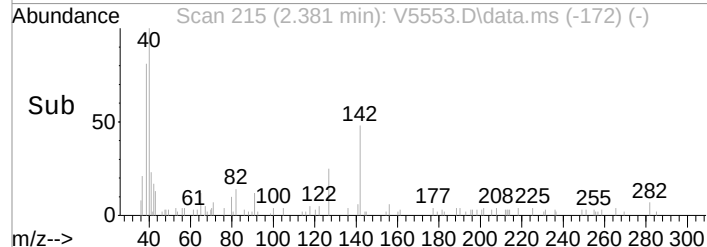
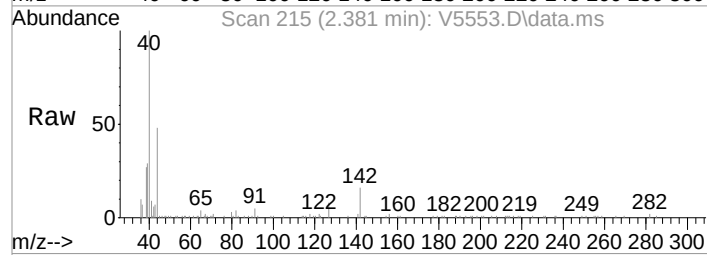
Tgt Ion: 43 Resp: 2248  
 Ion Ratio Lower Upper  
 43 100  
 58 46.2 8.9 48.9  
 42 8.1 0.0 27.4





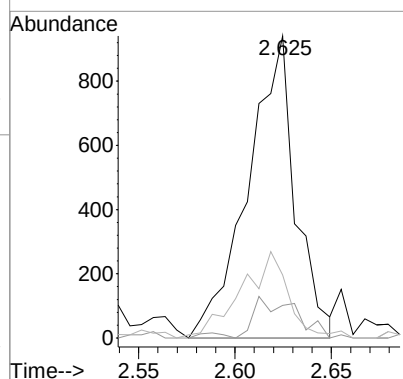
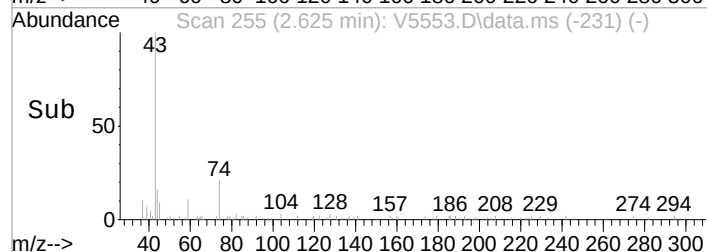
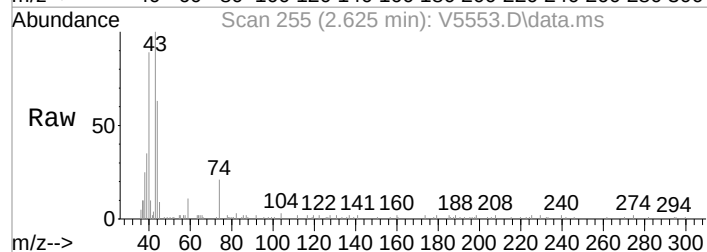
#17  
 Iodomethane  
 Concen: 2.45 ug/L  
 RT: 2.381 min Scan# 215  
 Delta R.T. 0.001 min  
 Lab File: V5553.D  
 Acq: 28 Jul 2022 5:56 pm

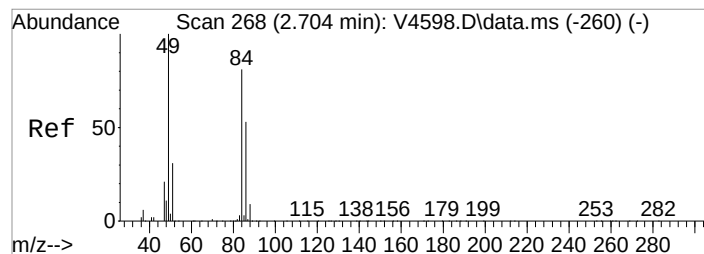
Tgt Ion: 142 Resp: 363  
 Ion Ratio Lower Upper  
 142 100  
 127 52.5 23.6 63.6



#21  
 Methyl Acetate  
 Concen: 0.24 ug/L  
 RT: 2.625 min Scan# 255  
 Delta R.T. 0.006 min  
 Lab File: V5553.D  
 Acq: 28 Jul 2022 5:56 pm

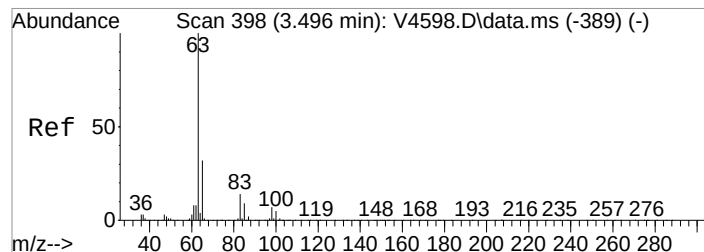
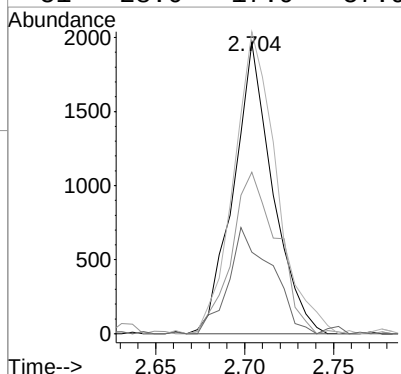
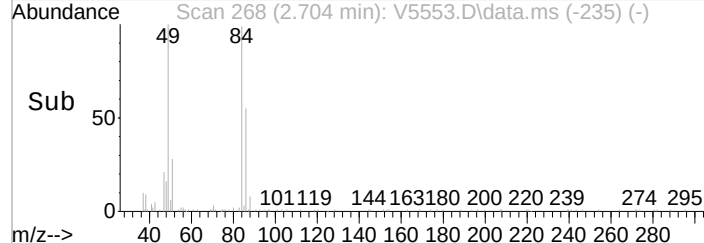
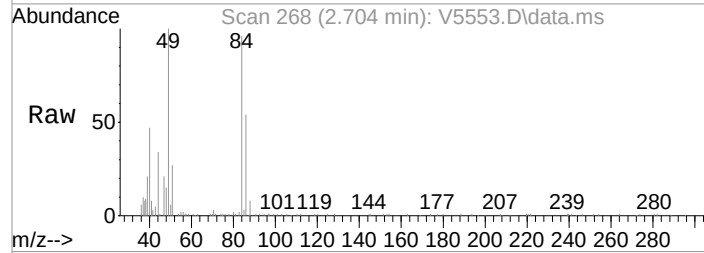
Tgt Ion: 43 Resp: 1605  
 Ion Ratio Lower Upper  
 43 100  
 59 10.8 0.0 28.8  
 74 20.8 3.9 43.9





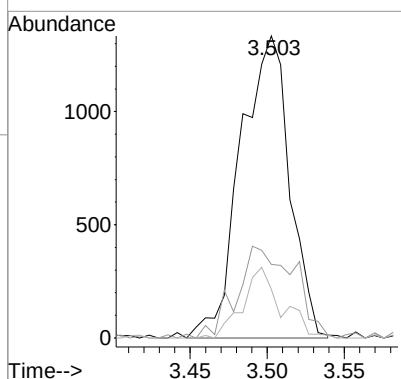
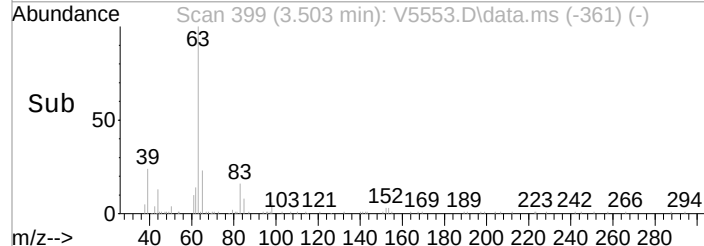
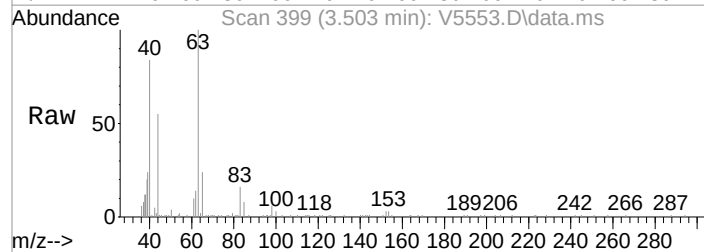
#22  
 Methylene Chloride  
 Concen: 0.61 ug/L  
 RT: 2.704 min Scan# 268  
 Delta R.T. 0.000 min  
 Lab File: V5553.D  
 Acq: 28 Jul 2022 5:56 pm

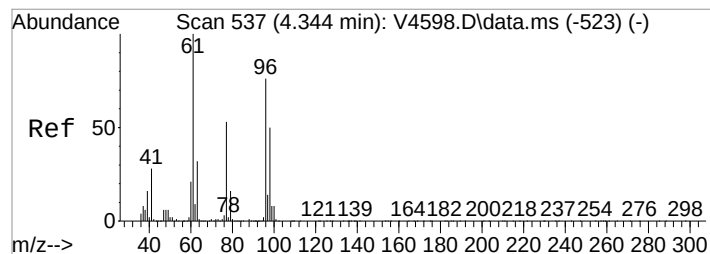
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 84    | Resp: | 3021  |
| Ion Ratio |       | Lower | Upper |
| 84        | 100   |       |       |
| 86        | 55.5  | 45.1  | 85.1  |
| 49        | 103.7 | 103.1 | 143.1 |
| 51        | 28.0  | 17.9  | 57.9  |



#27  
 1,1-Dichloroethane  
 Concen: 0.37 ug/L  
 RT: 3.503 min Scan# 399  
 Delta R.T. 0.006 min  
 Lab File: V5553.D  
 Acq: 28 Jul 2022 5:56 pm

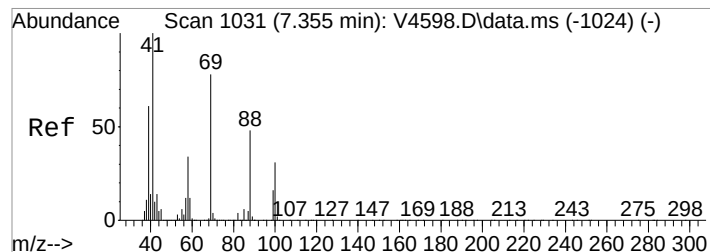
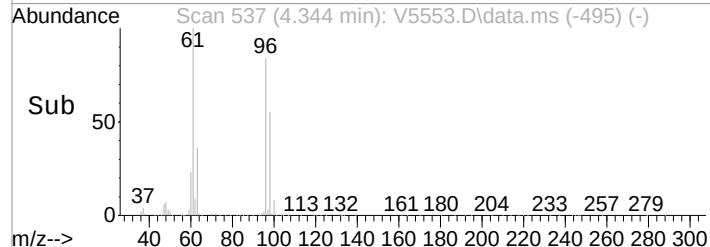
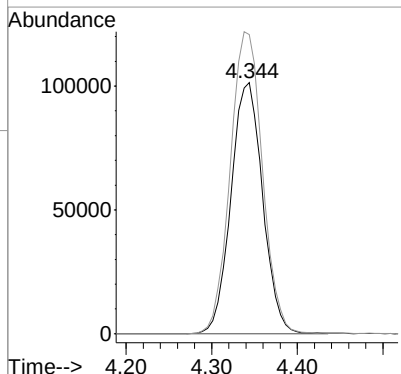
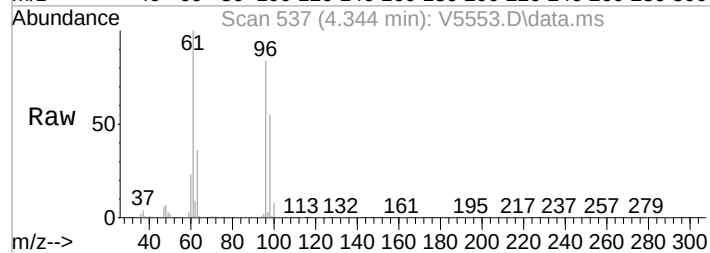
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 63   | Resp: | 2951  |
| Ion Ratio |      | Lower | Upper |
| 63        | 100  |       |       |
| 65        | 24.4 | 12.2  | 52.2  |
| 83        | 16.0 | 0.0   | 33.8  |





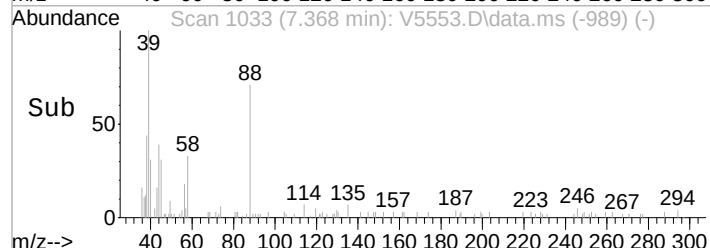
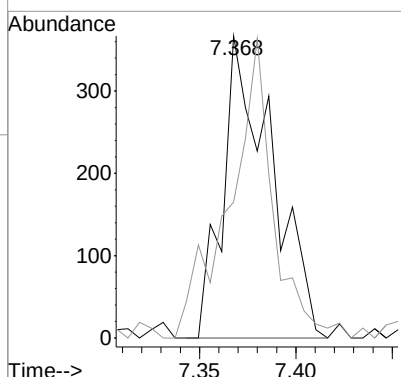
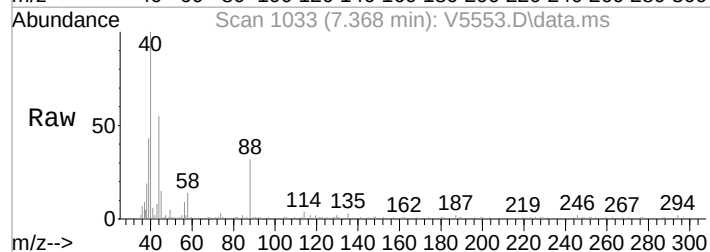
#33  
cis-1,2-Dichloroethene  
Concen: 48.28 ug/L  
RT: 4.344 min Scan# 537  
Delta R.T. 0.000 min  
Lab File: V5553.D  
Acq: 28 Jul 2022 5:56 pm

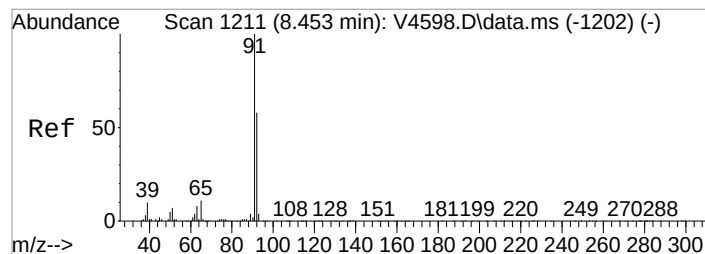
Tgt Ion: 96 Resp: 260641  
Ion Ratio Lower Upper  
96 100  
61 119.1 111.0 151.0



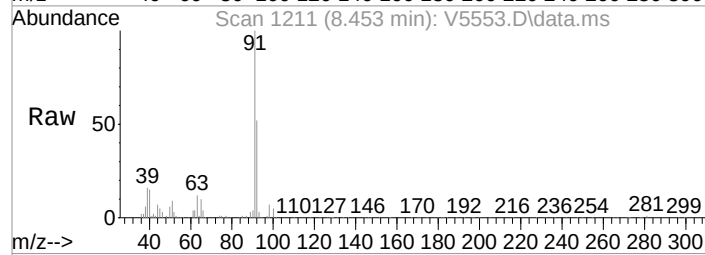
#57  
1,4-Dioxane  
Concen: 4.87 ug/L  
RT: 7.368 min Scan# 1033  
Delta R.T. 0.012 min  
Lab File: V5553.D  
Acq: 28 Jul 2022 5:56 pm

Tgt Ion: 88 Resp: 649  
Ion Ratio Lower Upper  
88 100  
58 45.0 49.7 89.7#

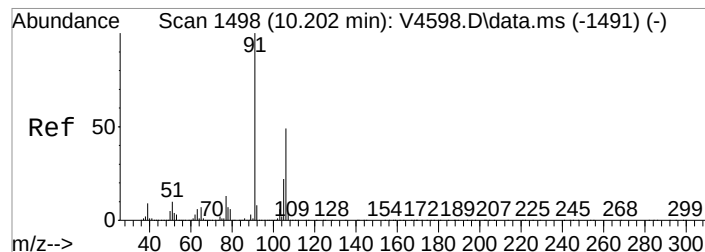
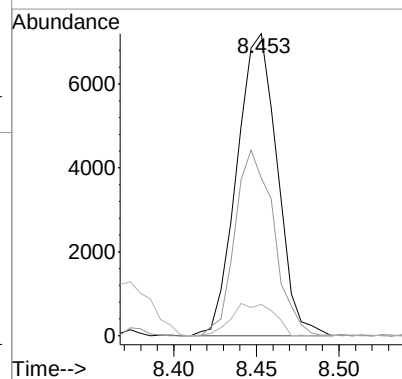
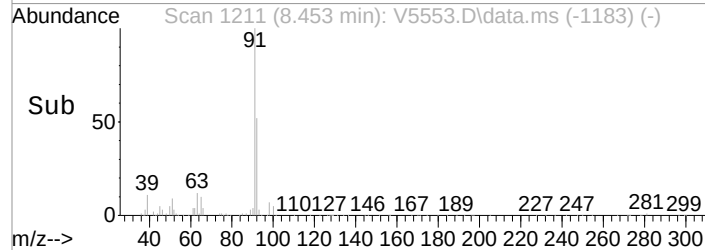




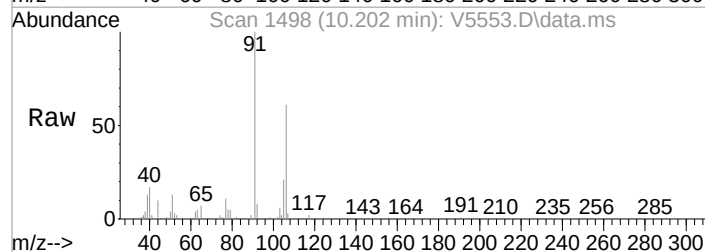
#65  
 Toluene  
 Concen: 0.58 ug/L  
 RT: 8.453 min Scan# 1211  
 Delta R.T. 0.000 min  
 Lab File: V5553.D  
 Acq: 28 Jul 2022 5:56 pm



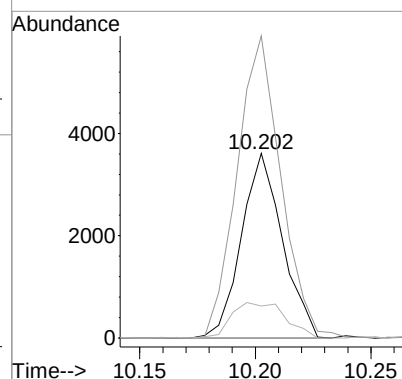
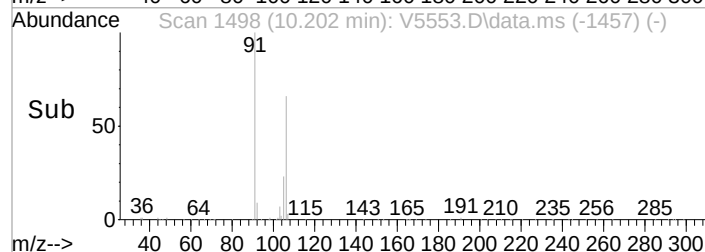
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 91   | Resp: | 12251 |
| Ion Ratio |      | Lower | Upper |
| 91        | 100  |       |       |
| 92        | 52.3 | 38.2  | 78.2  |
| 65        | 10.3 | 0.0   | 31.2  |

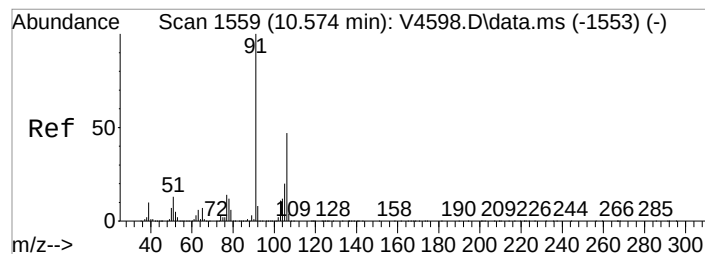


#82  
 (m+p)Xylene  
 Concen: 0.50 ug/L  
 RT: 10.202 min Scan# 1498  
 Delta R.T. 0.000 min  
 Lab File: V5553.D  
 Acq: 28 Jul 2022 5:56 pm

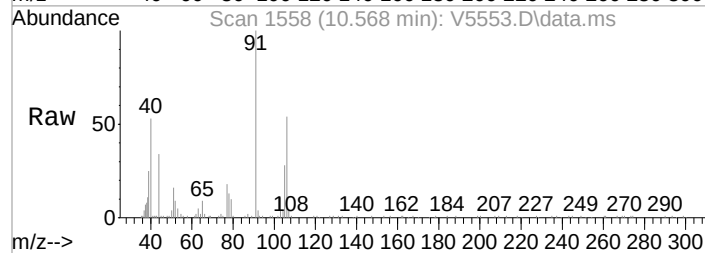


|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 106   | Resp: | 4445   |
| Ion Ratio |       | Lower | Upper  |
| 106       | 100   |       |        |
| 91        | 163.7 | 183.3 | 223.3# |
| 77        | 17.3  | 6.8   | 46.8   |

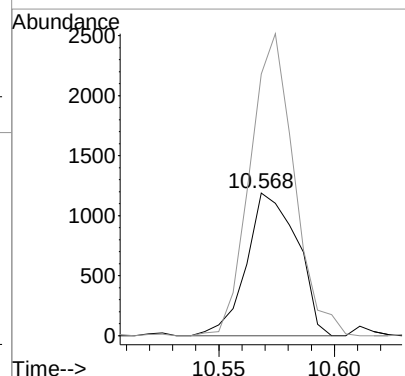
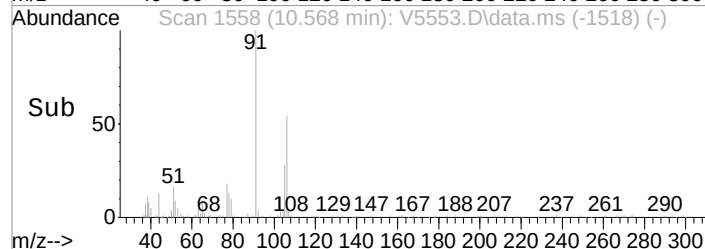




#83  
 o-Xylene  
 Concen: 0.20 ug/L  
 RT: 10.568 min Scan# 1558  
 Delta R.T. -0.006 min  
 Lab File: V5553.D  
 Acq: 28 Jul 2022 5:56 pm



Tgt Ion: 106 Resp: 1810  
 Ion Ratio Lower Upper  
 106 100  
 91 183.7 192.1 232.1#





Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5554.D  
 Acq On : 28 Jul 2022 6:18 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-008|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 22 Sample Multiplier: 1

Inst : MSVOA14

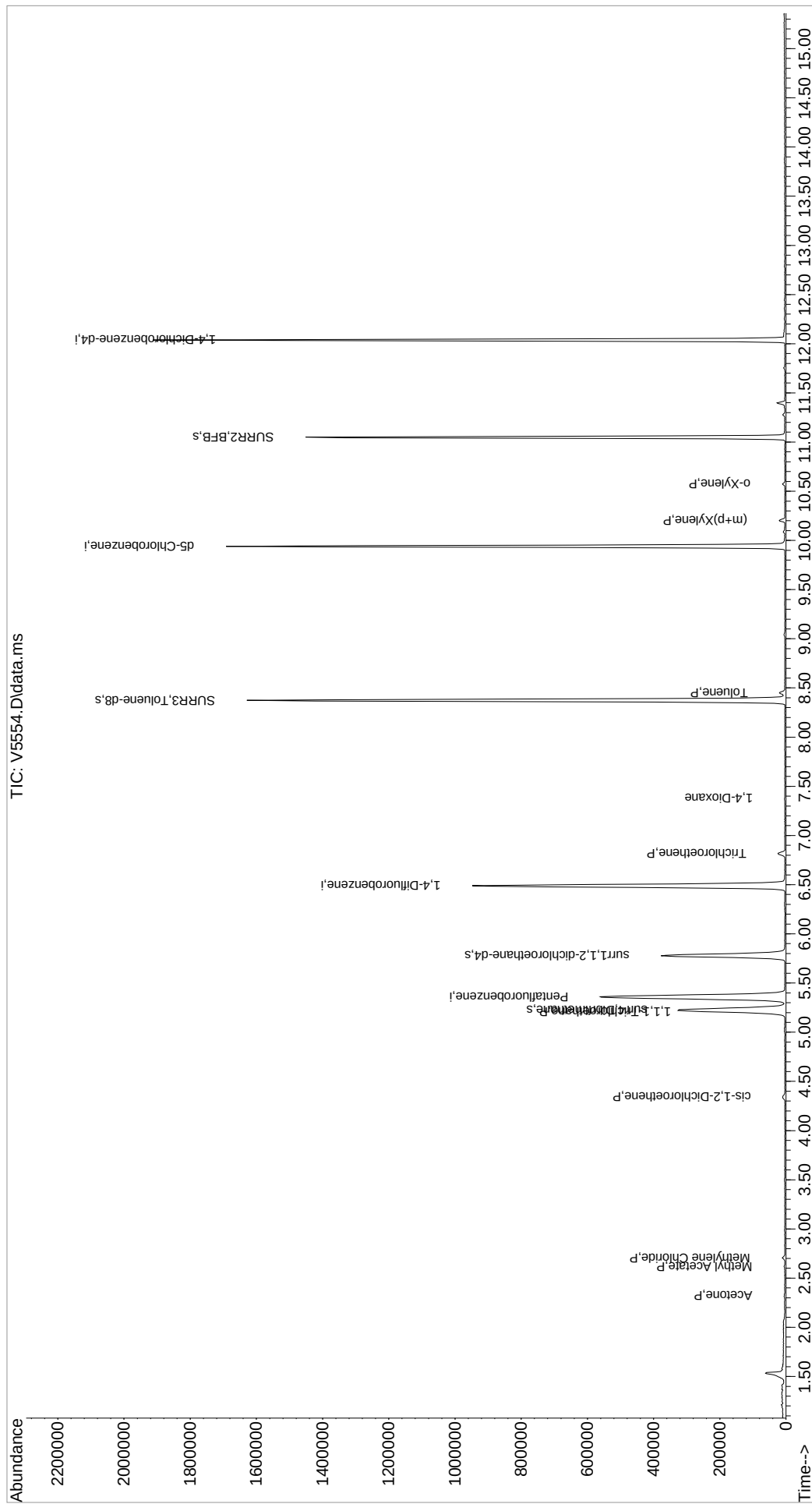
Quant Time: Jul 29 15:37:55 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

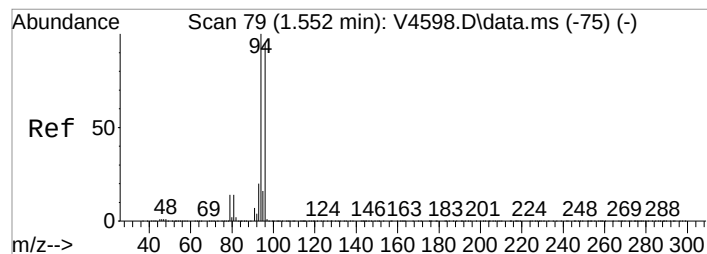
| Compound                      | R.T.           | QIon | Response   | Conc        | Units | Dev(Min)  |
|-------------------------------|----------------|------|------------|-------------|-------|-----------|
| Internal Standards            |                |      |            |             |       |           |
| 1) Pentafluorobenzene         | 5.362          | 168  | 572926     | 50.00       | ug/L  | 0.00      |
| 42) 1,4-Difluorobenzene       | 6.490          | 114  | 875495     | 50.00       | ug/L  | 0.00      |
| 70) d5-Chlorobenzene          | 9.940          | 117  | 780210     | 50.00       | ug/L  | 0.00      |
| 90) 1,4-Dichlorobenzene-d4    | 12.038         | 152  | 378181     | 50.00       | ug/L  | 0.00      |
| System Monitoring Compounds   |                |      |            |             |       |           |
| 44) surr4,Dibrflmethane       | 5.228          | 113  | 270631     | 48.09       | ug/L  | 0.00      |
| Spiked Amount 50.000          | Range 80 - 116 |      | Recovery = | 96.18%      |       |           |
| 47) surr1,1,2-dichloroetha... | 5.777          | 65   | 318012     | 48.31       | ug/L  | 0.00      |
| Spiked Amount 50.000          | Range 73 - 125 |      | Recovery = | 96.62%      |       |           |
| 64) SURR3,Toluene-d8          | 8.374          | 98   | 1025548    | 48.69       | ug/L  | 0.00      |
| Spiked Amount 50.000          | Range 87 - 121 |      | Recovery = | 97.38%      |       |           |
| 69) SURR2,BFB                 | 11.050         | 95   | 367999     | 45.61       | ug/L  | 0.00      |
| Spiked Amount 50.000          | Range 85 - 122 |      | Recovery = | 91.22%      |       |           |
| Target Compounds              |                |      |            |             |       |           |
| 5) Bromomethane               | 1.546          | 94   | 441        | Below Cal   |       | Qvalue 84 |
| 15) Acetone                   | 2.320          | 43   | 2125       | 0.87 ug/L   |       | 80        |
| 21) Methyl Acetate            | 2.619          | 43   | 1704m      | 0.26 ug/L   |       |           |
| 22) Methylene Chloride        | 2.704          | 84   | 2982       | 0.61 ug/L   |       | 87        |
| 33) cis-1,2-Dichloroethene    | 4.344          | 96   | 3674       | 0.69 ug/L # |       | 66        |
| 40) 1,1,1-Trichloroethane     | 5.210          | 97   | 6008       | 0.82 ug/L   |       | 87        |
| 53) Trichloroethene           | 6.819          | 130  | 8461       | 1.55 ug/L   |       | 93        |
| 57) 1,4-Dioxane               | 7.380          | 88   | 716        | 5.43 ug/L   |       | 83        |
| 65) Toluene                   | 8.447          | 91   | 10474      | 0.50 ug/L   |       | 97        |
| 82) (m+p)Xylene               | 10.203         | 106  | 4607       | 0.52 ug/L # |       | 75        |
| 83) o-Xylene                  | 10.574         | 106  | 1833       | 0.21 ug/L # |       | 70        |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
 Data File : V5554.D  
 Acq On : 28 Jul 2022 6:18 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-008|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 22 Sample Multiplier: 1  
 Inst : MSV0A14

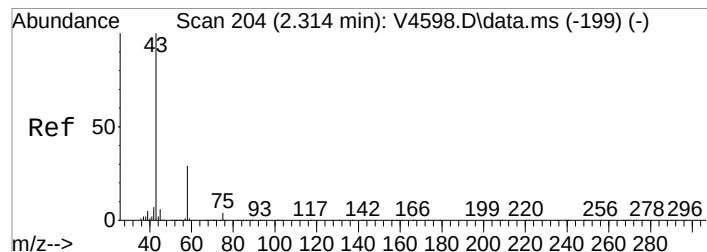
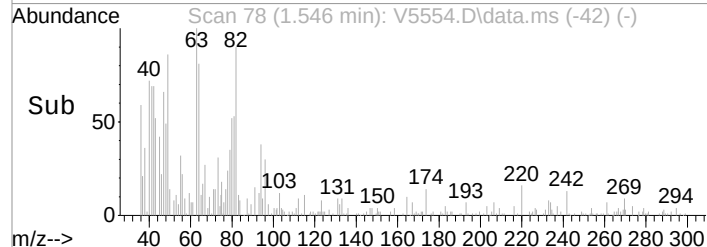
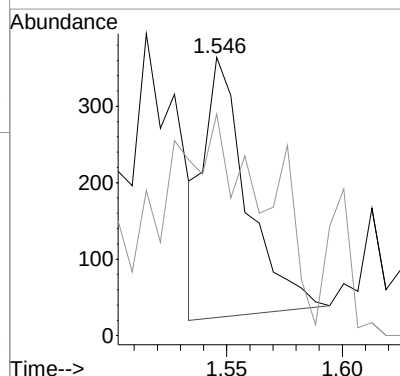
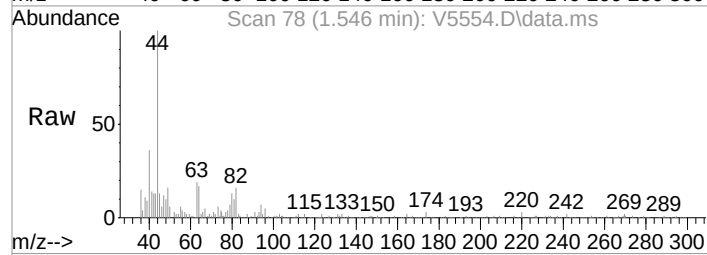
Quant Time: Jul 29 15:37:55 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 Qlast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration





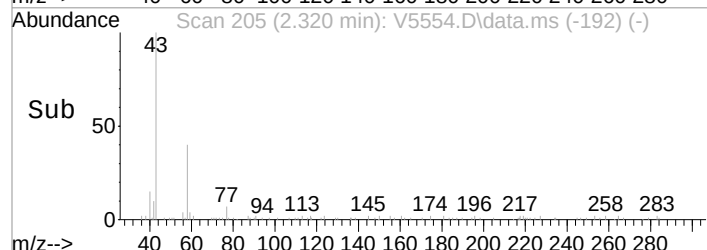
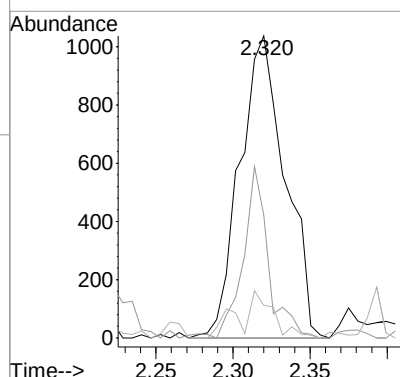
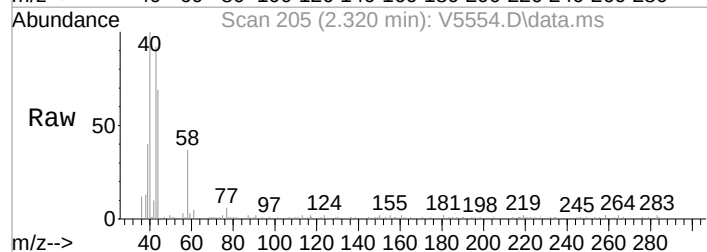
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.546 min Scan# 78  
 Delta R.T. -0.005 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

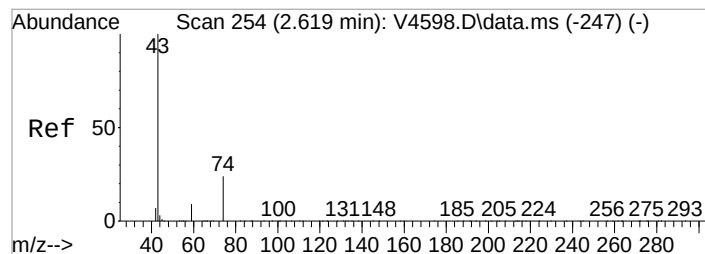
Tgt Ion: 94 Resp: 441  
 Ion Ratio Lower Upper  
 94 100  
 96 79.7 75.2 115.2



#15  
 Acetone  
 Concen: 0.87 ug/L  
 RT: 2.320 min Scan# 205  
 Delta R.T. 0.006 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

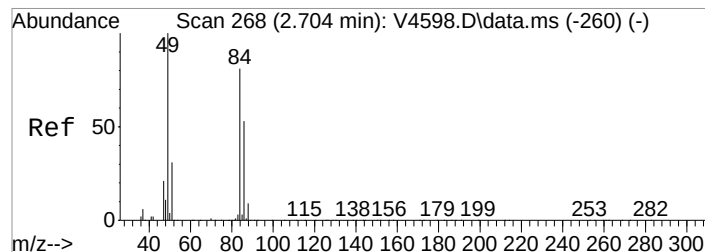
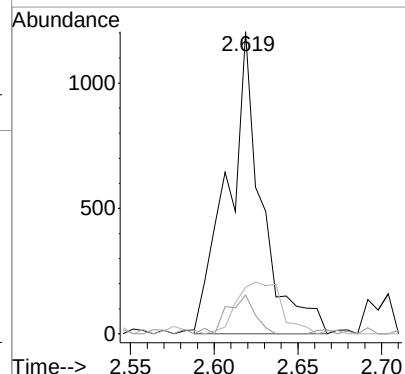
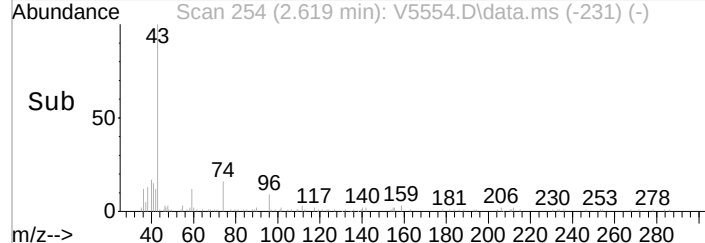
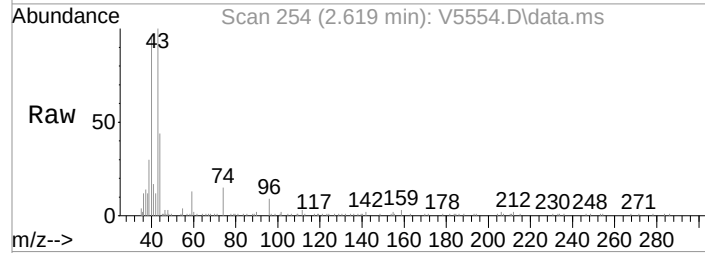
Tgt Ion: 43 Resp: 2125  
 Ion Ratio Lower Upper  
 43 100  
 58 40.7 8.9 48.9  
 42 10.8 0.0 27.4





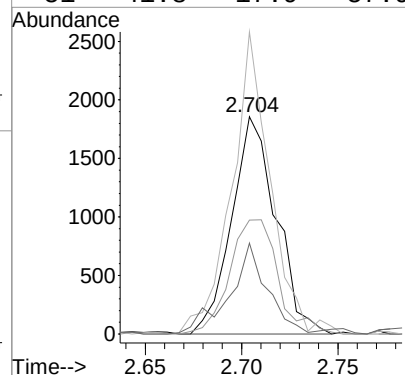
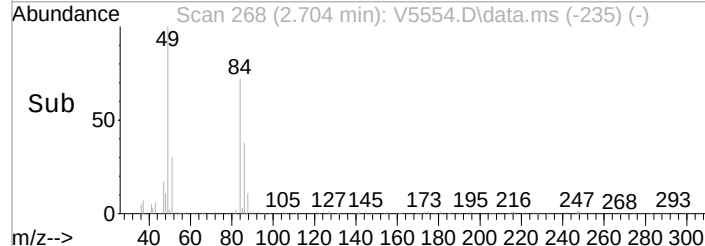
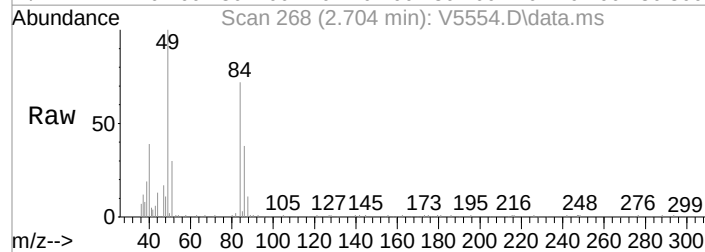
#21  
 Methyl Acetate  
 Concen: 0.26 ug/L m  
 RT: 2.619 min Scan# 254  
 Delta R.T. 0.000 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

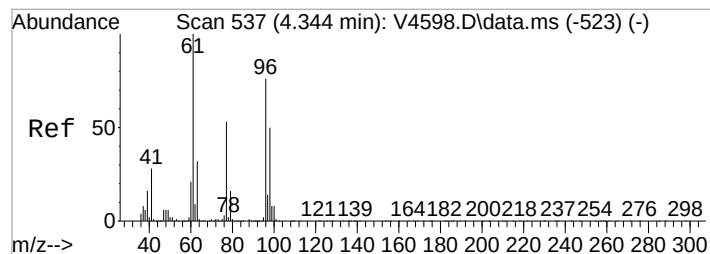
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 43   | Resp: | 1704  |
| Ion Ratio |      | Lower | Upper |
| 43        | 100  |       |       |
| 59        | 12.8 | 0.0   | 28.8  |
| 74        | 15.4 | 3.9   | 43.9  |



#22  
 Methylene Chloride  
 Concen: 0.61 ug/L  
 RT: 2.704 min Scan# 268  
 Delta R.T. 0.000 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

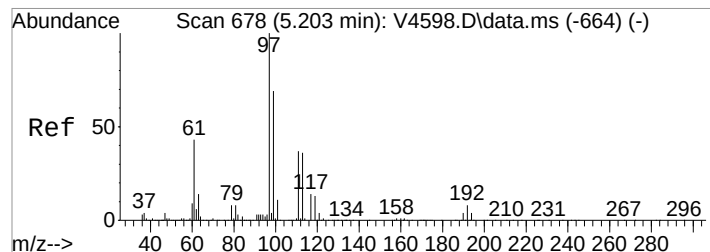
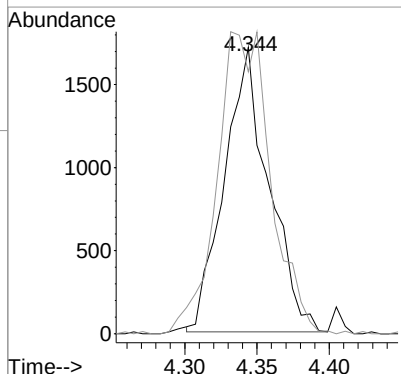
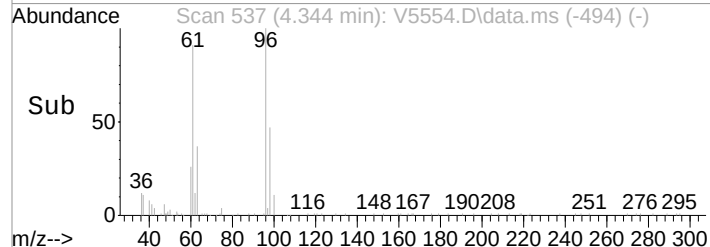
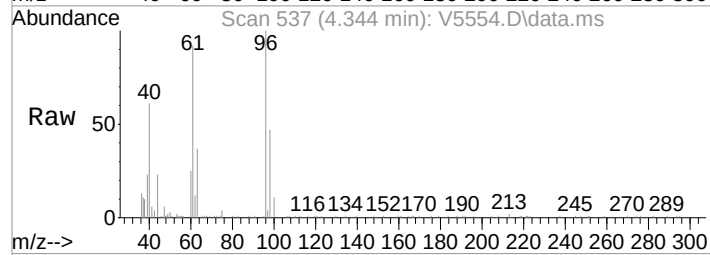
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 84    | Resp: | 2982  |
| Ion Ratio |       | Lower | Upper |
| 84        | 100   |       |       |
| 86        | 52.4  | 45.1  | 85.1  |
| 49        | 139.1 | 103.1 | 143.1 |
| 51        | 41.8  | 17.9  | 57.9  |





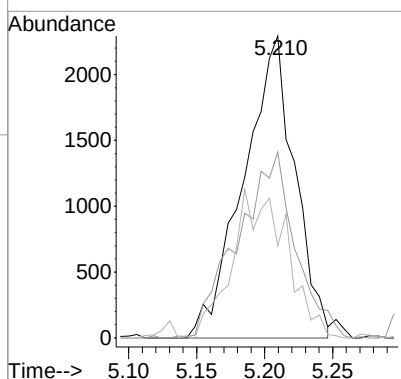
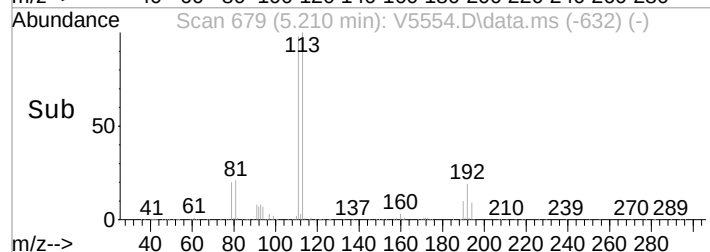
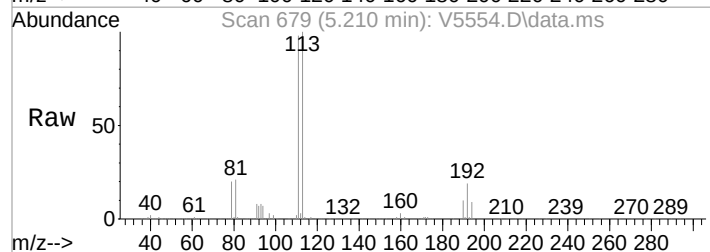
#33  
 cis-1,2-Dichloroethene  
 Concen: 0.69 ug/L  
 RT: 4.344 min Scan# 537  
 Delta R.T. 0.000 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

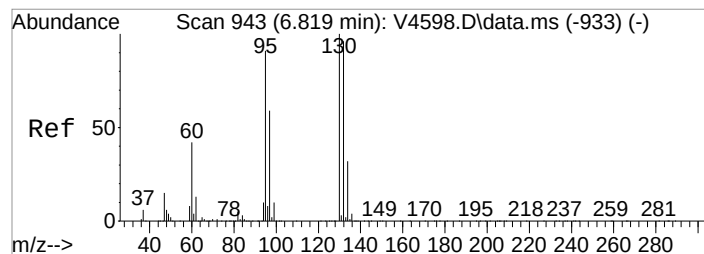
Tgt Ion: 96 Resp: 3674  
 Ion Ratio Lower Upper  
 96 100  
 61 91.6 111.0 151.0#



#40  
 1,1,1-Trichloroethane  
 Concen: 0.82 ug/L  
 RT: 5.210 min Scan# 679  
 Delta R.T. 0.006 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

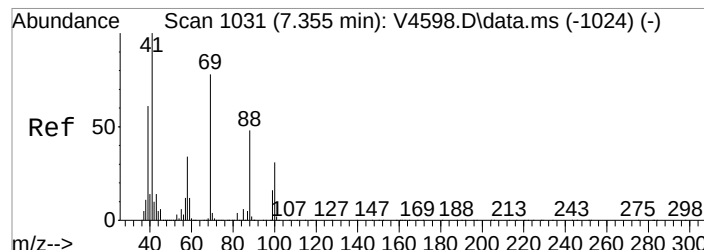
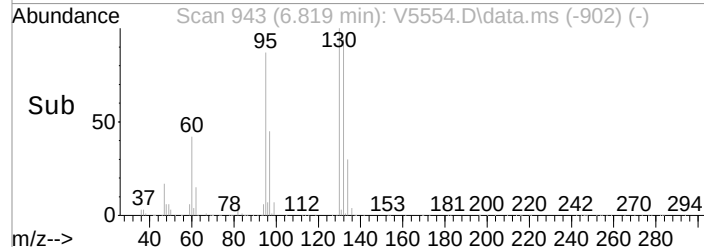
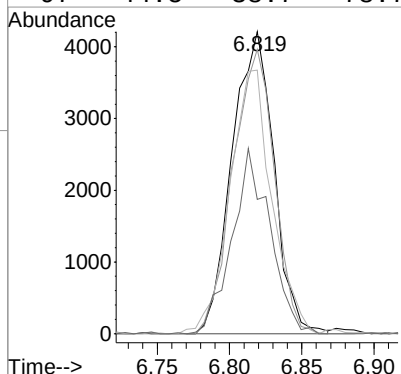
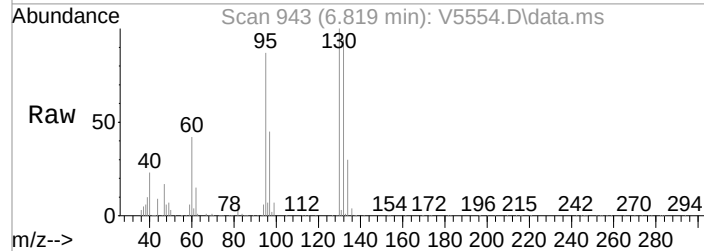
Tgt Ion: 97 Resp: 6008  
 Ion Ratio Lower Upper  
 97 100  
 99 61.5 48.8 88.8  
 61 30.5 23.4 63.4





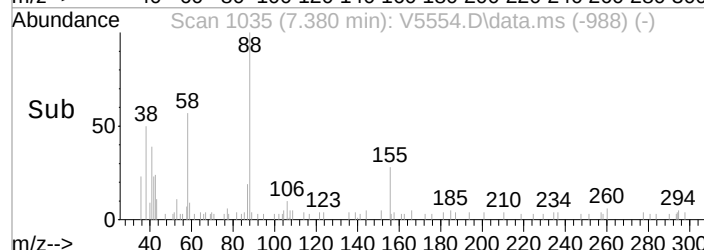
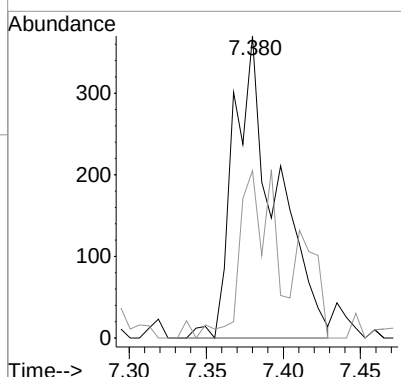
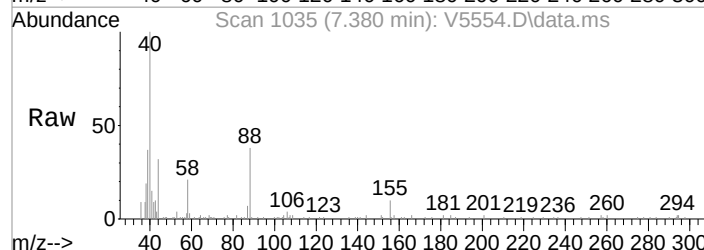
#53  
 Trichloroethene  
 Concen: 1.55 ug/L  
 RT: 6.819 min Scan# 943  
 Delta R.T. 0.000 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

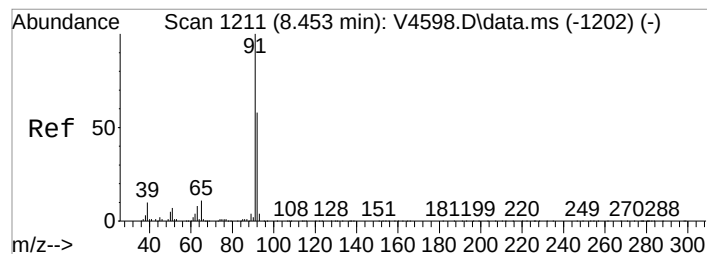
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 130   | Resp: | 8461  |
| Ion Ratio | Lower | Upper |       |
| 130       | 100   |       |       |
| 132       | 94.2  | 76.3  | 116.3 |
| 95        | 87.2  | 70.5  | 110.5 |
| 97        | 44.5  | 38.7  | 78.7  |



#57  
 1,4-Dioxane  
 Concen: 5.43 ug/L  
 RT: 7.380 min Scan# 1035  
 Delta R.T. 0.025 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

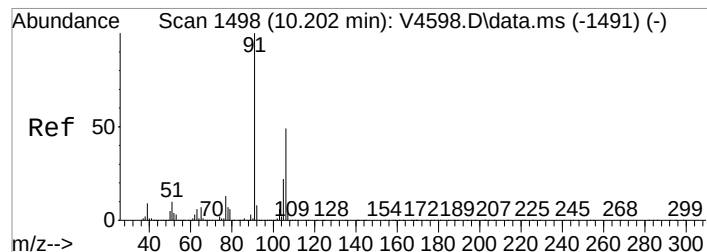
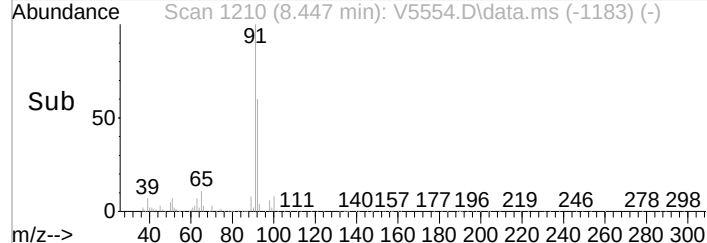
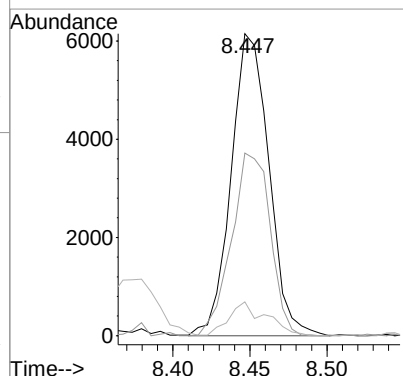
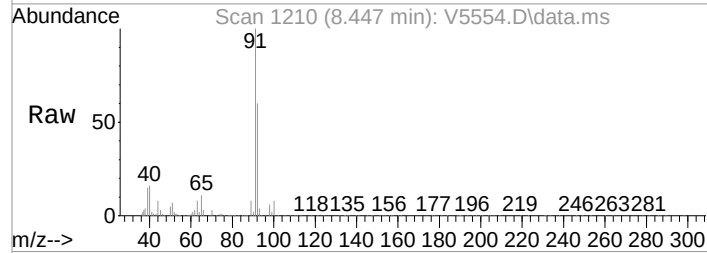
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 88    | Resp: | 716  |
| Ion Ratio | Lower | Upper |      |
| 88        | 100   |       |      |
| 58        | 55.4  | 49.7  | 89.7 |





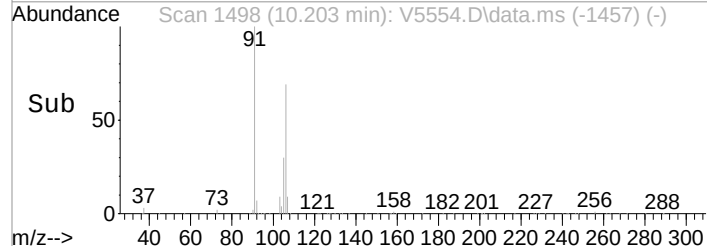
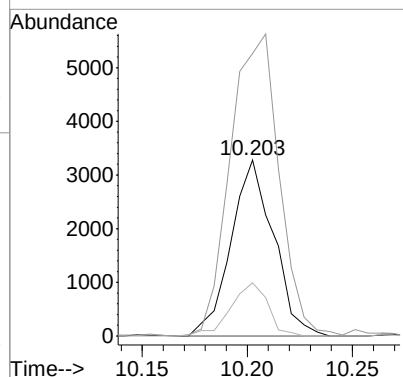
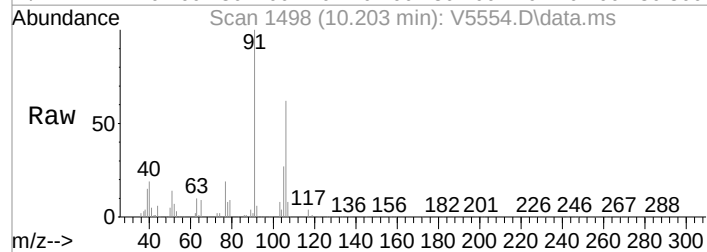
#65  
 Toluene  
 Concen: 0.50 ug/L  
 RT: 8.447 min Scan# 1210  
 Delta R.T. -0.006 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

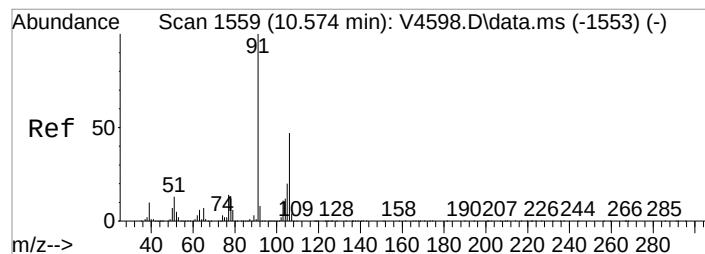
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 91   | Resp: | 10474 |
| Ion Ratio |      | Lower | Upper |
| 91        | 100  |       |       |
| 92        | 60.5 | 38.2  | 78.2  |
| 65        | 11.2 | 0.0   | 31.2  |



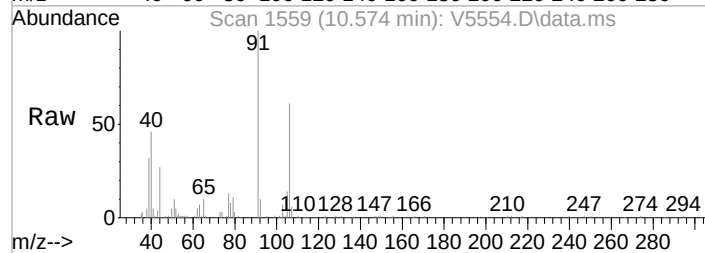
#82  
 (m+p)Xylene  
 Concen: 0.52 ug/L  
 RT: 10.203 min Scan# 1498  
 Delta R.T. 0.000 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 106   | Resp: | 4607   |
| Ion Ratio |       | Lower | Upper  |
| 106       | 100   |       |        |
| 91        | 160.6 | 183.3 | 223.3# |
| 77        | 30.1  | 6.8   | 46.8   |

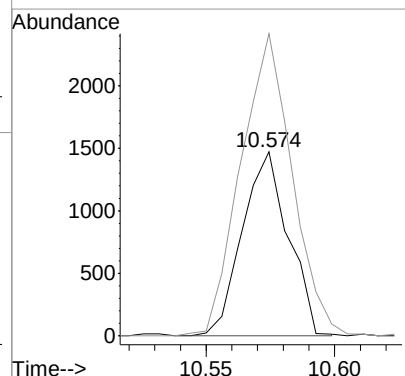
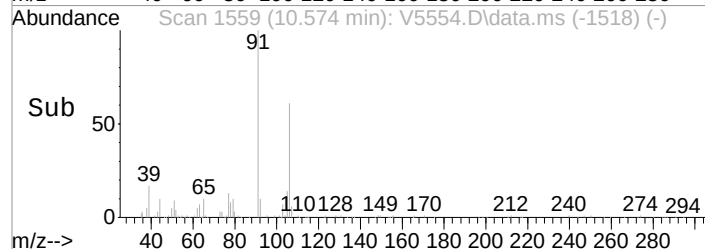




#83  
 o-Xylene  
 Concen: 0.21 ug/L  
 RT: 10.574 min Scan# 1559  
 Delta R.T. 0.000 min  
 Lab File: V5554.D  
 Acq: 28 Jul 2022 6:18 pm



Tgt Ion: 106 Resp: 1833  
 Ion Ratio Lower Upper  
 106 100  
 91 164.3 192.1 232.1#





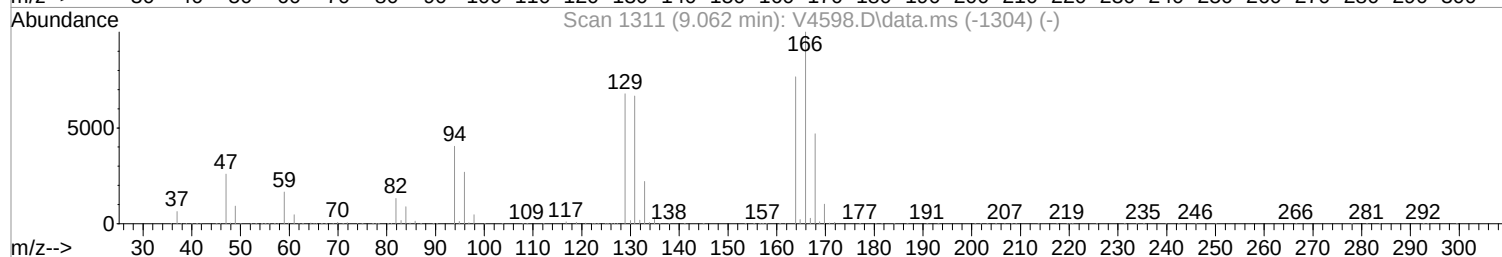
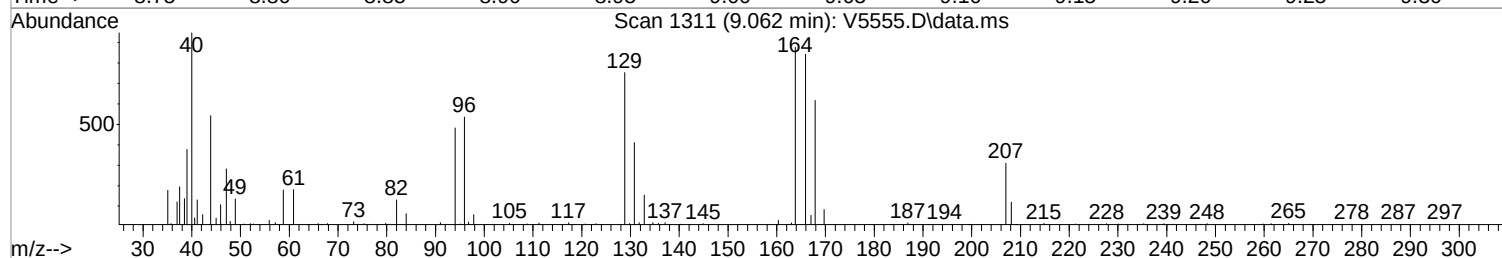
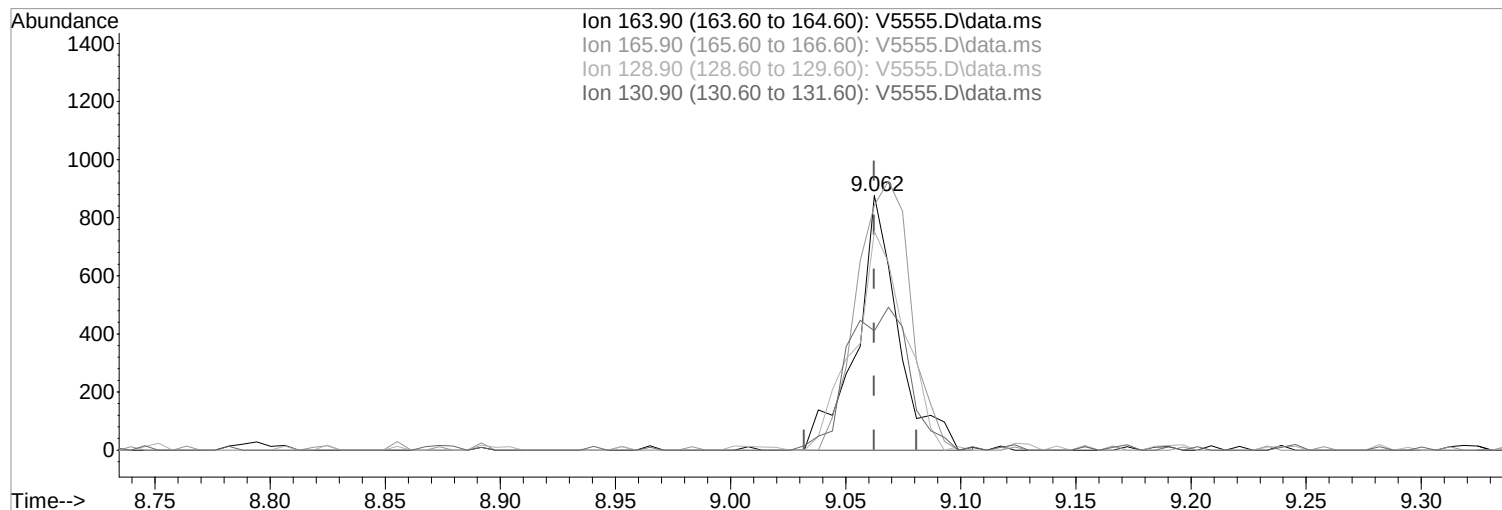
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5555.D  
Acq On : 28 Jul 2022 6:41 pm  
Operator : F.NAEGLER  
Sample : R2206604-009|1.0  
Misc : EAE 19519 T4  
ALS Vial : 23 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:46:34 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5555.D\data.ms

(71) Tetrachloroethene (P)

9.062min (+0.000) 0.26 ug/L m

response 1110

Ion Exp% Act%

163.90 100 100

165.90 130.50 96.23#

128.90 88.50 85.96

130.90 87.00 46.92#

Manual Integration:

After

Poor integration.

07/29/22

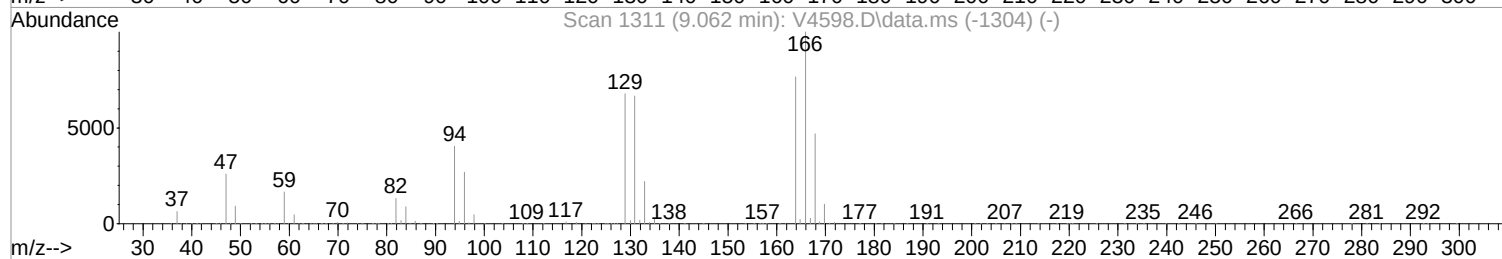
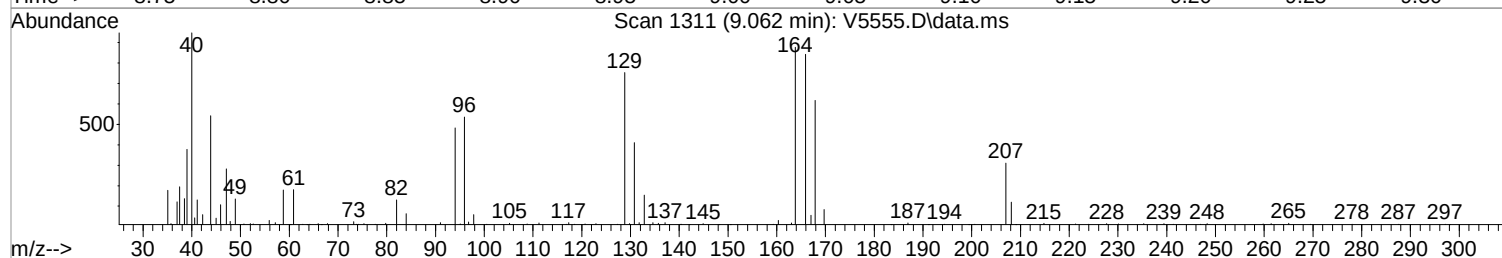
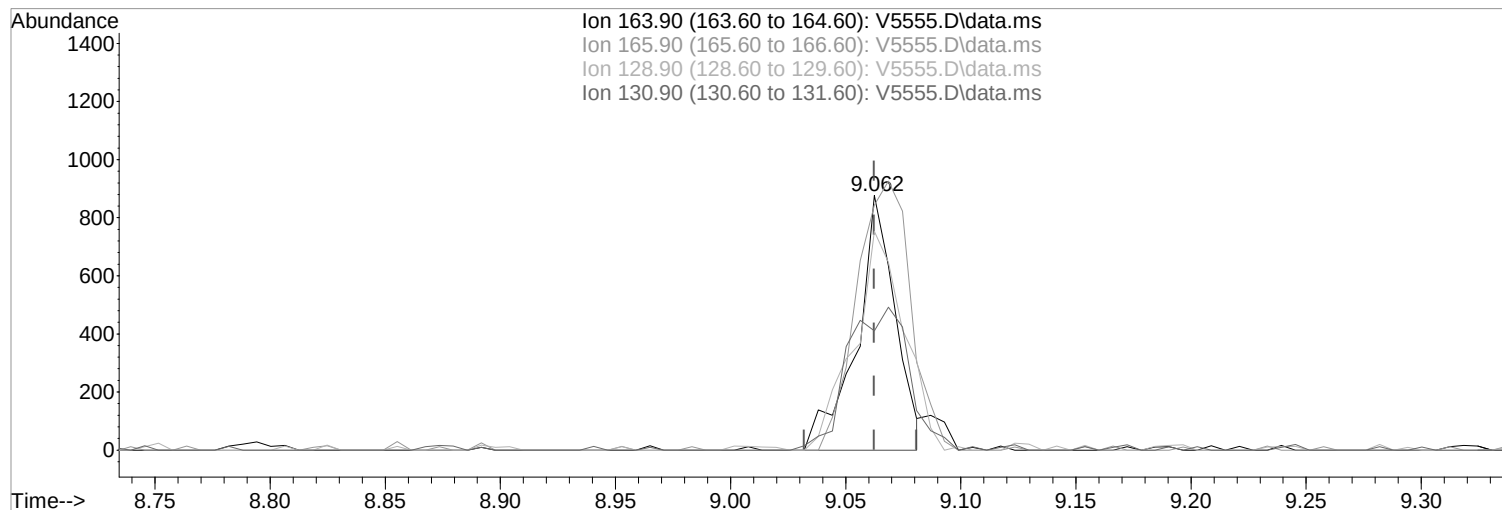
## Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5555.D  
Acq On : 28 Jul 2022 6:41 pm  
Operator : F.NAEGLER  
Sample : R2206604-009|1.0  
Misc : EAE 19519 T4  
ALS Vial : 23 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:46:34 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5555.D\data.ms

(71) Tetrachloroethene (P)

Manual Integration:

9.062min (+0.000) 0.24 ug/L

Before

response 1028

| Ion | Exp% | Act% |
|-----|------|------|
|-----|------|------|

07/29/22

|        |     |     |
|--------|-----|-----|
| 163.90 | 100 | 100 |
|--------|-----|-----|

|        |        |        |
|--------|--------|--------|
| 165.90 | 130.50 | 96.23# |
|--------|--------|--------|

|        |       |       |
|--------|-------|-------|
| 128.90 | 88.50 | 85.96 |
|--------|-------|-------|

|        |       |        |
|--------|-------|--------|
| 130.90 | 87.00 | 46.92# |
|--------|-------|--------|

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5555.D  
 Acq On : 28 Jul 2022 6:41 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-009|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 23 Sample Multiplier: 1

Inst : MSVOA14

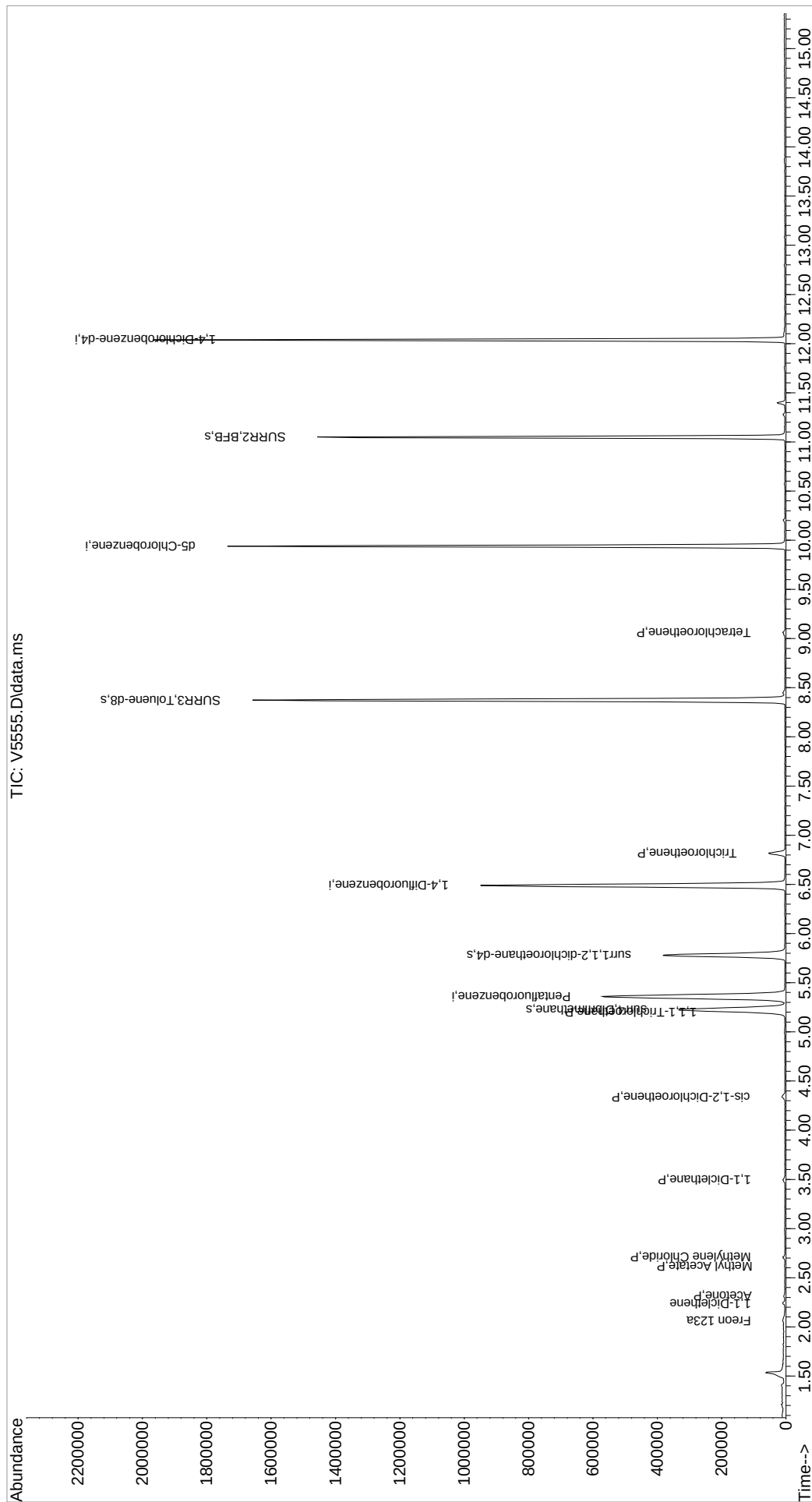
Quant Time: Jul 29 15:39:29 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

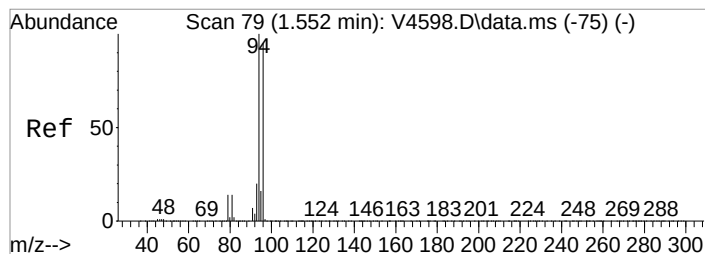
| Compound                      | R.T.   | QIon           | Response | Conc      | Units  | Dev(Min)  |
|-------------------------------|--------|----------------|----------|-----------|--------|-----------|
| Internal Standards            |        |                |          |           |        |           |
| 1) Pentafluorobenzene         | 5.362  | 168            | 581431   | 50.00     | ug/L   | 0.00      |
| 42) 1,4-Difluorobenzene       | 6.490  | 114            | 884742   | 50.00     | ug/L   | 0.00      |
| 70) d5-Chlorobenzene          | 9.940  | 117            | 783631   | 50.00     | ug/L   | 0.00      |
| 90) 1,4-Dichlorobenzene-d4    | 12.038 | 152            | 382039   | 50.00     | ug/L   | 0.00      |
| System Monitoring Compounds   |        |                |          |           |        |           |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 271126   | 47.67     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =         | 95.34% |           |
| 47) surr1,1,2-dichloroetha... | 5.777  | 65             | 325580   | 48.95     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =         | 97.90% |           |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1041981  | 48.96     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =         | 97.92% |           |
| 69) SURR2,BFB                 | 11.050 | 95             | 364495   | 44.70     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =         | 89.40% |           |
| Target Compounds              |        |                |          |           |        |           |
| 5) Bromomethane               | 1.546  | 94             | 539      | Below Cal |        | Qvalue 90 |
| 10) Freon 123a                | 2.064  | 67             | 1073     | 0.22 ug/L |        | 94        |
| 13) 1,1-Dicethene             | 2.241  | 96             | 1201     | 0.30 ug/L |        | 94        |
| 15) Acetone                   | 2.314  | 43             | 3378     | 1.36 ug/L |        | 85        |
| 21) Methyl Acetate            | 2.613  | 43             | 1468     | 0.22 ug/L |        | 89        |
| 22) Methylene Chloride        | 2.710  | 84             | 2150     | 0.43 ug/L |        | 93        |
| 27) 1,1-Dicethane             | 3.496  | 63             | 5810     | 0.72 ug/L |        | 90        |
| 33) cis-1,2-Dichloroethene    | 4.338  | 96             | 5541     | 1.02 ug/L |        | 90        |
| 40) 1,1,1-Trichloroethane     | 5.203  | 97             | 11274    | 1.52 ug/L |        | 87        |
| 53) Trichloroethene           | 6.819  | 130            | 18953    | 3.44 ug/L |        | 96        |
| 71) Tetrachloroethene         | 9.062  | 164            | 1110m    | 0.26 ug/L |        |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
Data File : V5555.D  
Acq On : 28 Jul 2022 6:41 pm  
Operator : F.NAEGLER  
Sample : R2206604-009|1.0  
Misc : EAE 19519 T4  
ALS Vial : 23 Sample Multiplier: 1  
Inst : MSV0A14

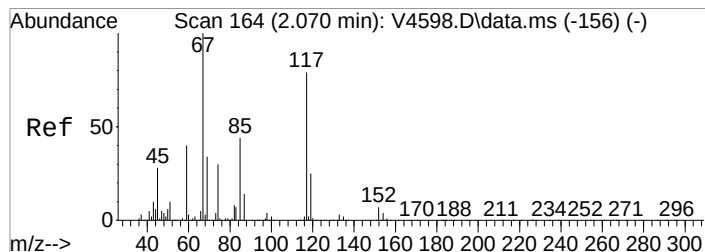
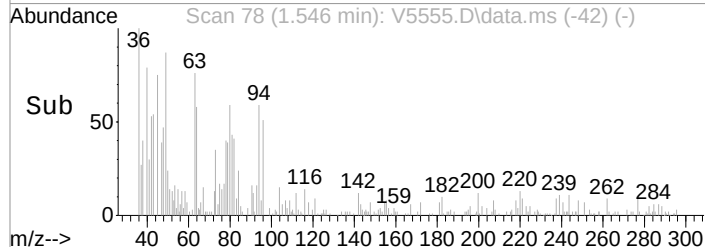
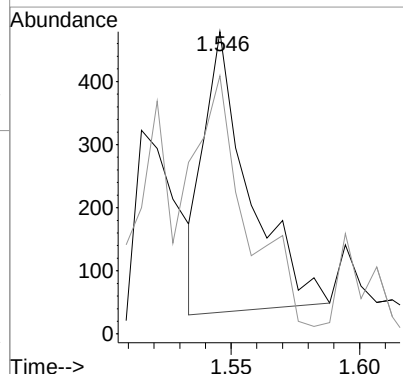
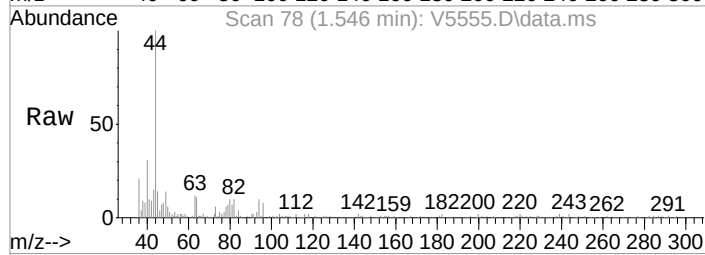
Quant Time: Jul 29 15:39:29 2022  
Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration





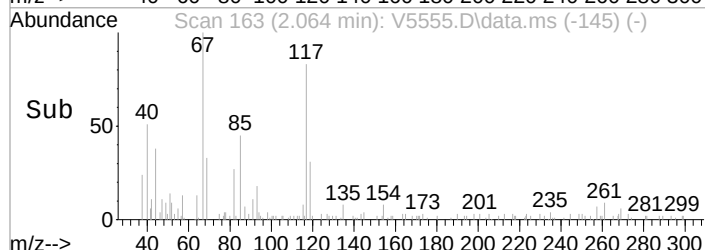
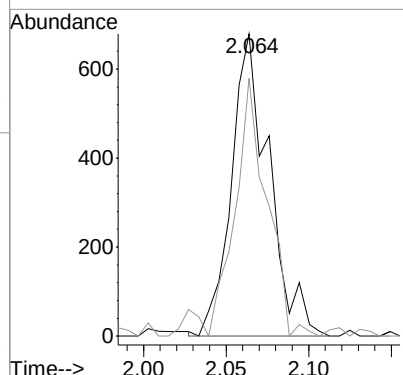
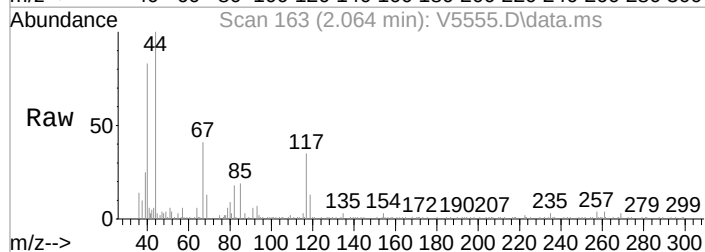
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.546 min Scan# 78  
 Delta R.T. -0.005 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

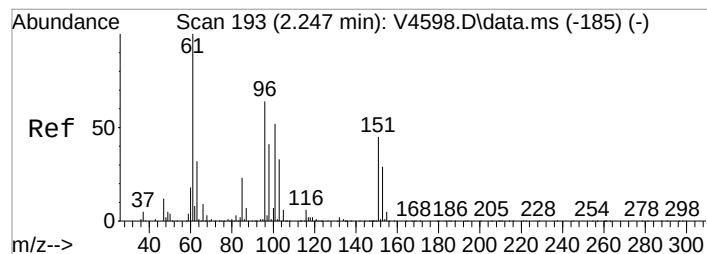
Tgt Ion: 94 Resp: 539  
 Ion Ratio Lower Upper  
 94 100  
 96 85.4 75.2 115.2



#10  
 Freon 123a  
 Concen: 0.22 ug/L  
 RT: 2.064 min Scan# 163  
 Delta R.T. -0.006 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

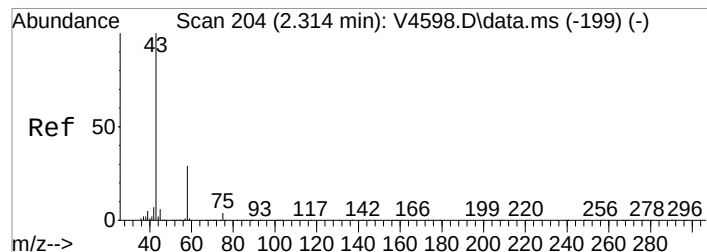
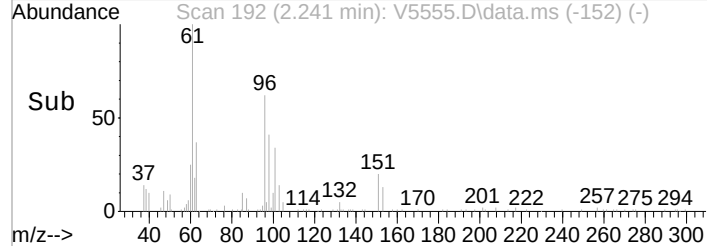
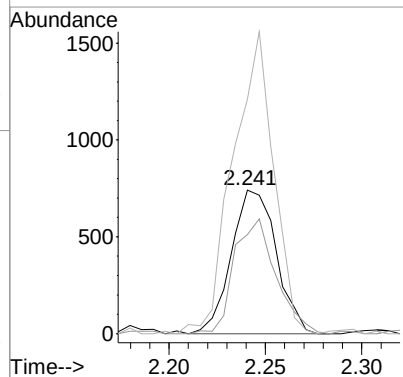
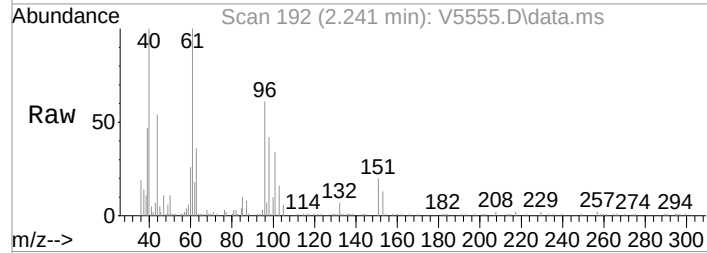
Tgt Ion: 67 Resp: 1073  
 Ion Ratio Lower Upper  
 67 100  
 117 85.3 60.0 100.0





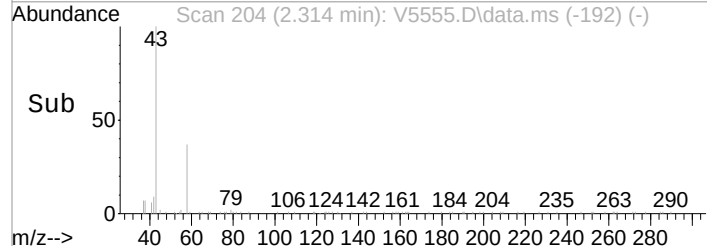
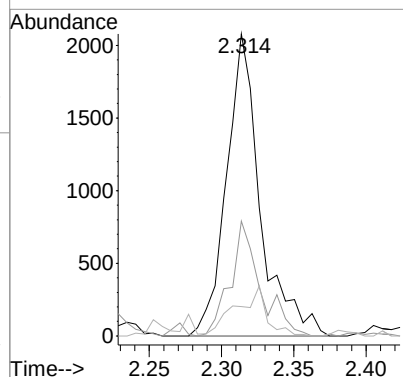
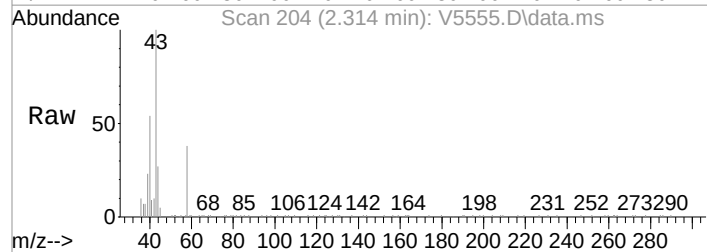
#13  
 1,1-Dicloroethene  
 Concen: 0.30 ug/L  
 RT: 2.241 min Scan# 192  
 Delta R.T. -0.006 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

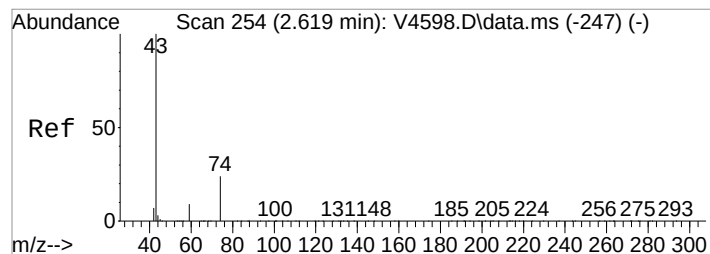
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 96    | Resp: | 1201  |
| Ion Ratio | Lower | Upper |       |
| 96        | 100   |       |       |
| 98        | 69.0  | 43.5  | 83.5  |
| 61        | 163.3 | 135.2 | 175.2 |



#15  
 Acetone  
 Concen: 1.36 ug/L  
 RT: 2.314 min Scan# 204  
 Delta R.T. 0.000 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

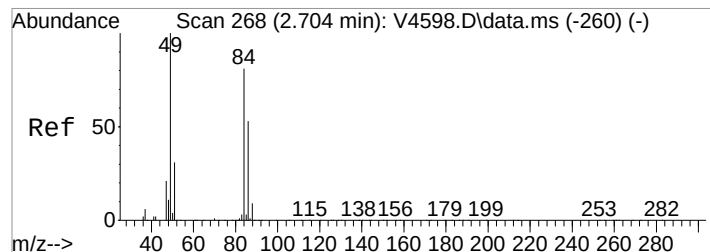
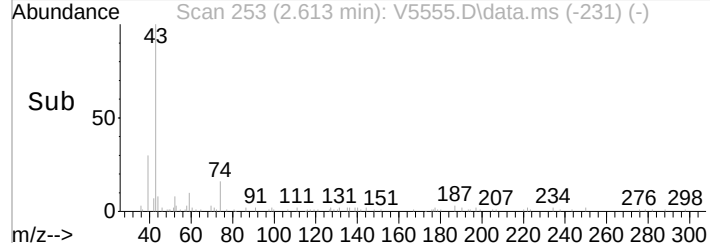
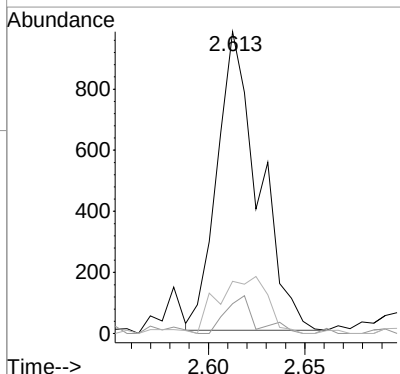
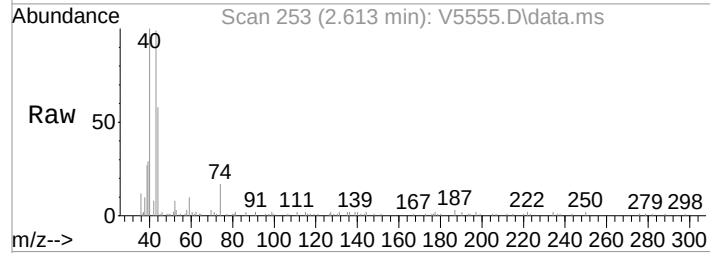
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 43    | Resp: | 3378 |
| Ion Ratio | Lower | Upper |      |
| 43        | 100   |       |      |
| 58        | 38.0  | 8.9   | 48.9 |
| 42        | 9.8   | 0.0   | 27.4 |





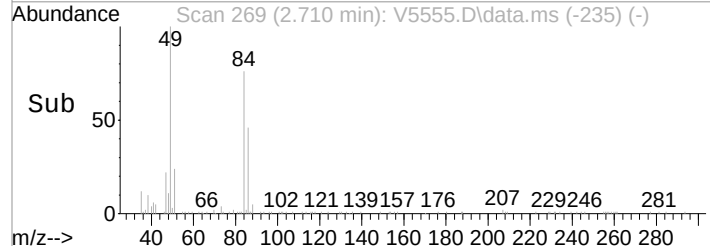
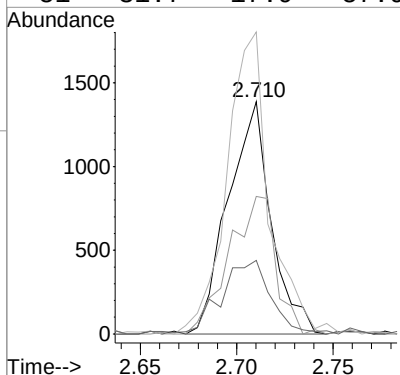
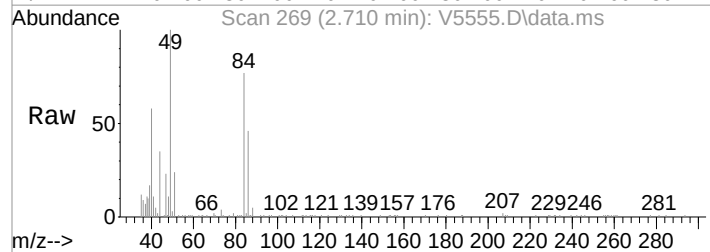
#21  
 Methyl Acetate  
 Concen: 0.22 ug/L  
 RT: 2.613 min Scan# 253  
 Delta R.T. -0.006 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

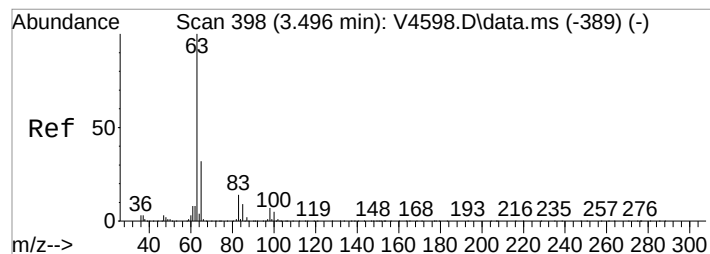
|             |             |
|-------------|-------------|
| Tgt Ion: 43 | Resp: 1468  |
| Ion Ratio   | Lower Upper |
| 43 100      |             |
| 59 9.9      | 0.0 28.8    |
| 74 17.3     | 3.9 43.9    |



#22  
 Methylene Chloride  
 Concen: 0.43 ug/L  
 RT: 2.710 min Scan# 269  
 Delta R.T. 0.006 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

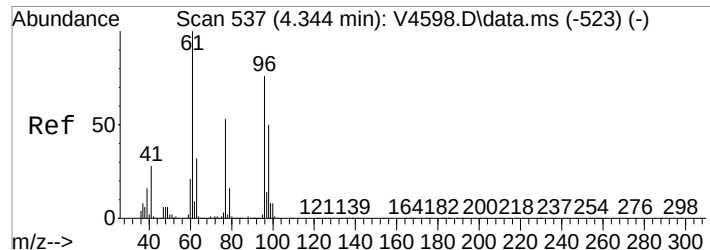
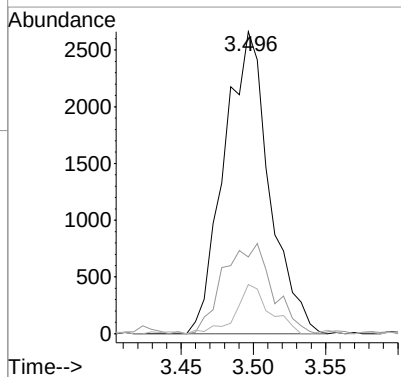
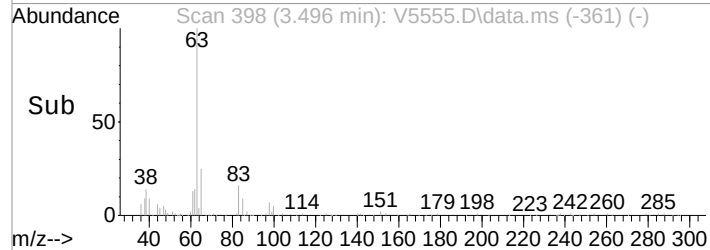
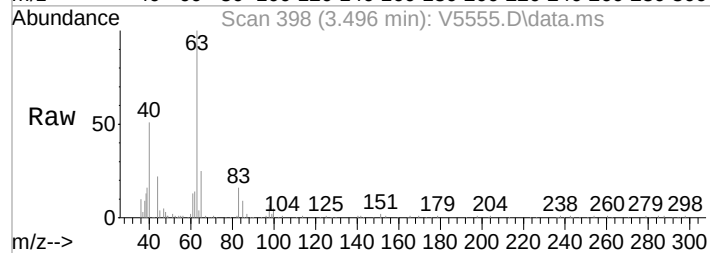
|             |             |
|-------------|-------------|
| Tgt Ion: 84 | Resp: 2150  |
| Ion Ratio   | Lower Upper |
| 84 100      |             |
| 86 59.2     | 45.1 85.1   |
| 49 130.0    | 103.1 143.1 |
| 51 31.7     | 17.9 57.9   |





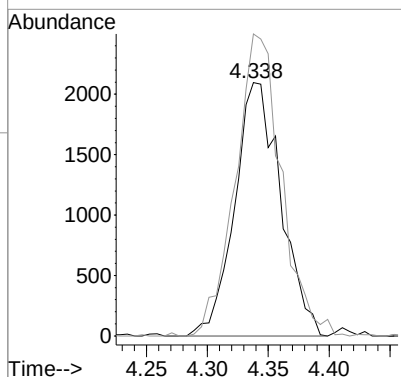
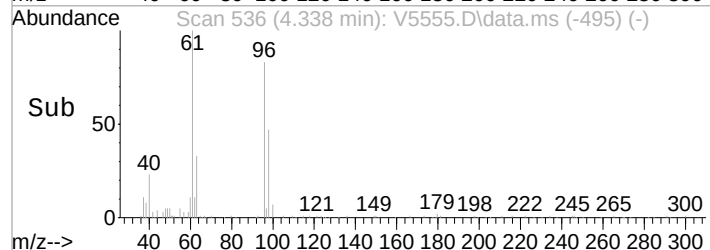
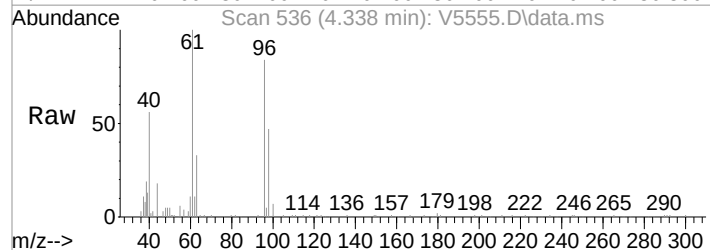
#27  
 1,1-Dicloroethane  
 Concen: 0.72 ug/L  
 RT: 3.496 min Scan# 398  
 Delta R.T. 0.000 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

Tgt Ion: 63 Resp: 5810  
 Ion Ratio Lower Upper  
 63 100  
 65 25.4 12.2 52.2  
 83 16.3 0.0 33.8

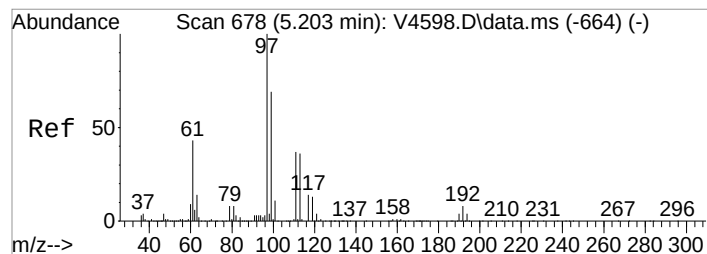


#33  
 cis-1,2-Dichloroethene  
 Concen: 1.02 ug/L  
 RT: 4.338 min Scan# 536  
 Delta R.T. -0.006 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

Tgt Ion: 96 Resp: 5541  
 Ion Ratio Lower Upper  
 96 100  
 61 119.2 111.0 151.0

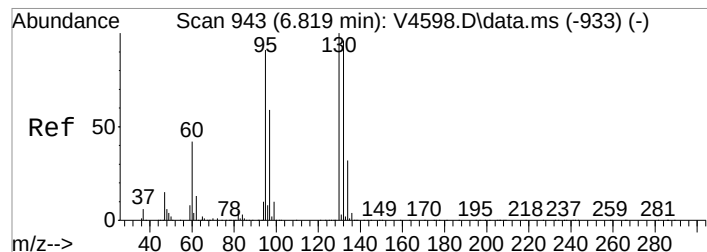
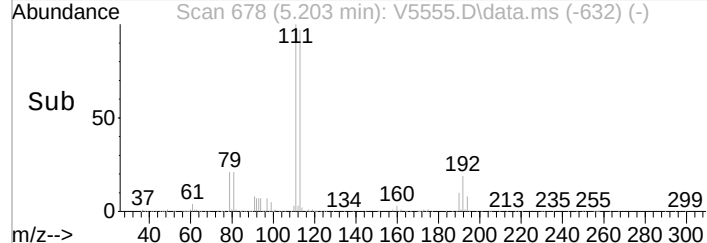
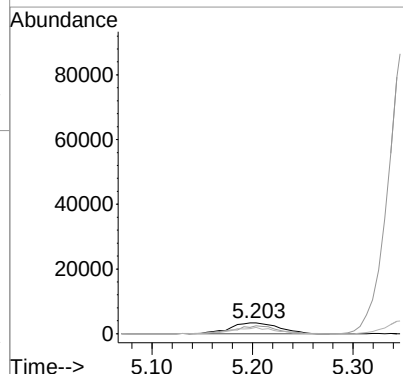
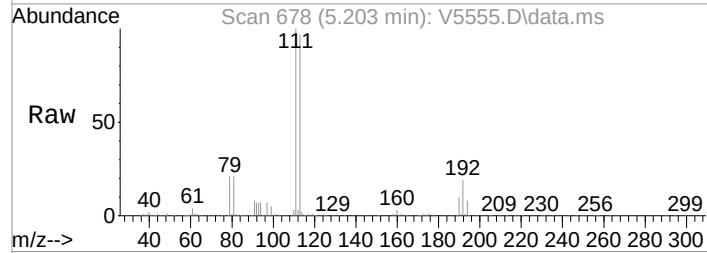






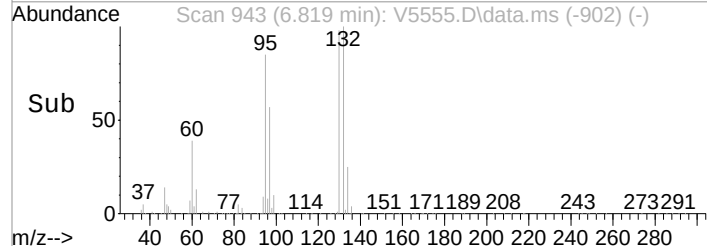
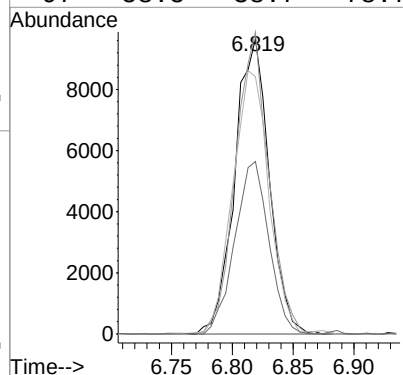
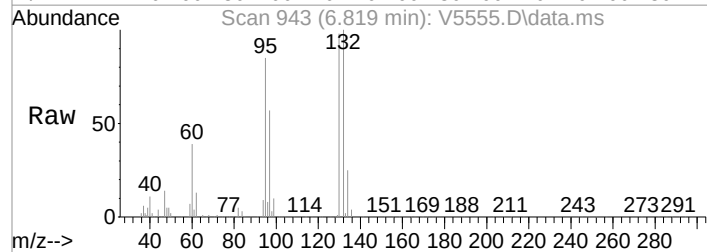
#40  
 1,1,1-Trichloroethane  
 Concen: 1.52 ug/L  
 RT: 5.203 min Scan# 678  
 Delta R.T. 0.000 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

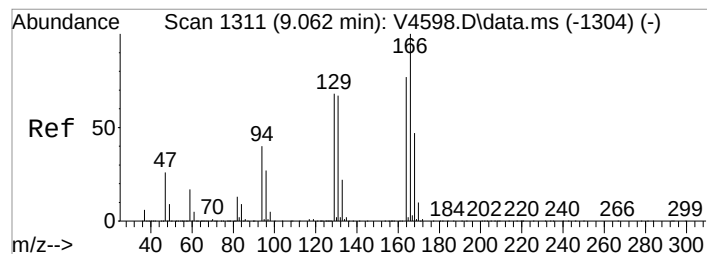
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 97   | Resp: | 11274 |
| Ion Ratio |      | Lower | Upper |
| 97        | 100  |       |       |
| 99        | 74.3 | 48.8  | 88.8  |
| 61        | 57.9 | 23.4  | 63.4  |



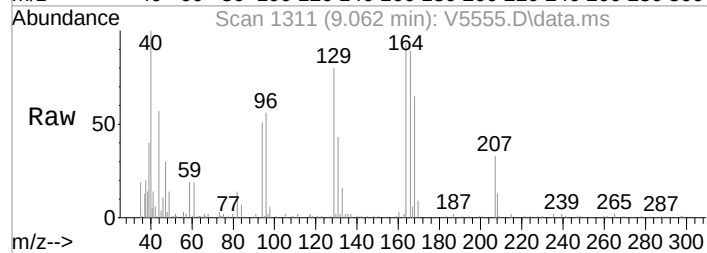
#53  
 Trichloroethene  
 Concen: 3.44 ug/L  
 RT: 6.819 min Scan# 943  
 Delta R.T. 0.000 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 130   | Resp: | 18953 |
| Ion Ratio |       | Lower | Upper |
| 130       | 100   |       |       |
| 132       | 102.4 | 76.3  | 116.3 |
| 95        | 87.2  | 70.5  | 110.5 |
| 97        | 58.5  | 38.7  | 78.7  |

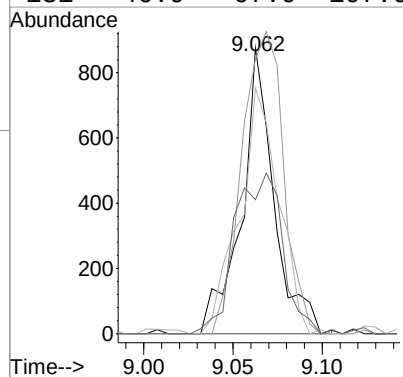
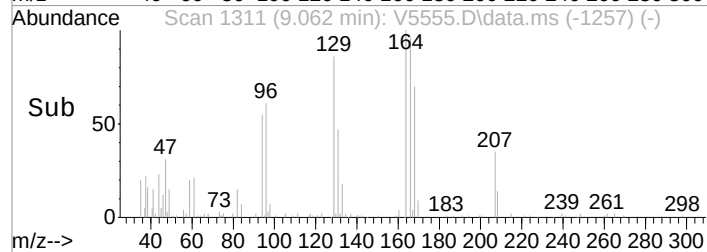




#71  
 Tetrachloroethene  
 Concen: 0.26 ug/L m  
 RT: 9.062 min Scan# 1311  
 Delta R.T. 0.000 min  
 Lab File: V5555.D  
 Acq: 28 Jul 2022 6:41 pm



| Tgt Ion   | 164   | Resp: | 1110   |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 164       | 100   |       |        |
| 166       | 96.2  | 110.5 | 150.5# |
| 129       | 86.0  | 68.5  | 108.5  |
| 131       | 46.9  | 67.0  | 107.0# |



Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5547.D  
 Acq On : 28 Jul 2022 3:43 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-010|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 15 Sample Multiplier: 1

Inst : MSVOA14

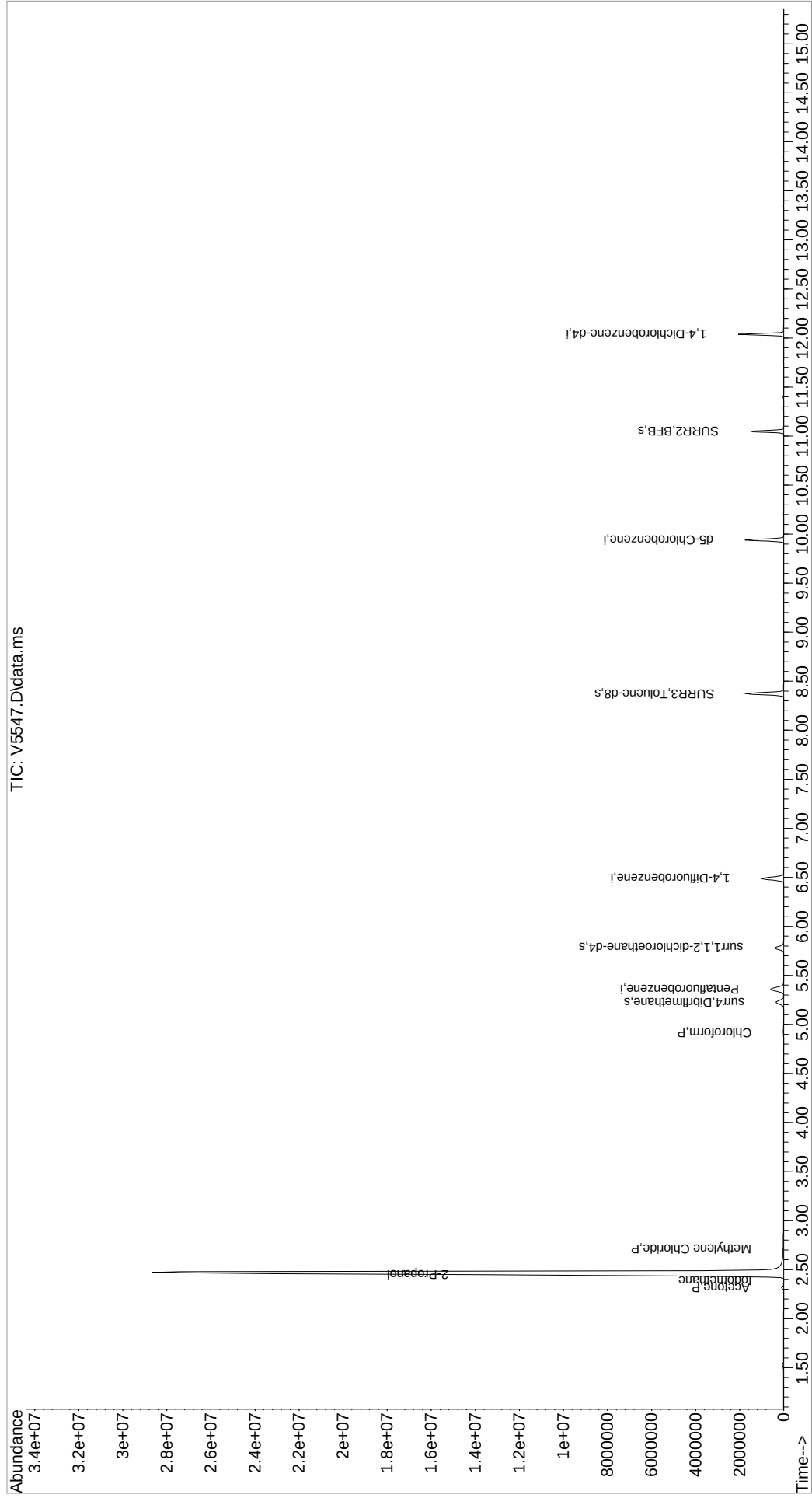
Quant Time: Jul 29 15:26:01 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

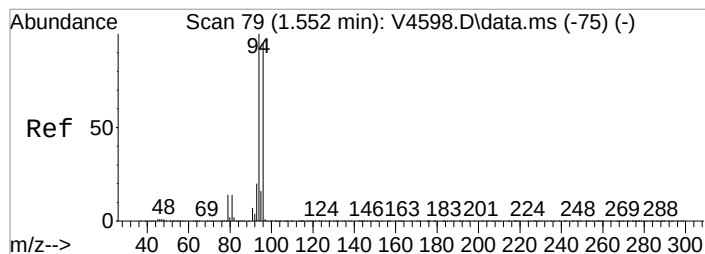
| Compound                      | R.T.   | QIon           | Response | Conc      | Units  | Dev(Min) |
|-------------------------------|--------|----------------|----------|-----------|--------|----------|
| Internal Standards            |        |                |          |           |        |          |
| 1) Pentafluorobenzene         | 5.362  | 168            | 611949   | 50.00     | ug/L   | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.490  | 114            | 926870   | 50.00     | ug/L   | 0.00     |
| 70) d5-Chlorobenzene          | 9.940  | 117            | 815668   | 50.00     | ug/L   | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.037 | 152            | 400219   | 50.00     | ug/L   | 0.00     |
| System Monitoring Compounds   |        |                |          |           |        |          |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 287179   | 48.20     | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =         | 96.40% |          |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 334610   | 48.02     | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =         | 96.04% |          |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1074236  | 48.18     | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =         | 96.36% |          |
| 69) SURR2,BFB                 | 11.050 | 95             | 381336   | 44.64     | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =         | 89.28% |          |
| Target Compounds              |        |                |          |           |        |          |
| 5) Bromomethane               | 1.552  | 94             | 366      | Below Cal | #      | 59       |
| 15) Acetone                   | 2.314  | 43             | 102595   | 39.24     | ug/L   | 96       |
| 16) 2-Propanol                | 2.448  | 45             | 27249418 | 44473.77  | ug/L   | 97       |
| 17) Iodomethane               | 2.387  | 142            | 400      | 2.45      | ug/L   | 69       |
| 22) Methylene Chloride        | 2.710  | 84             | 3138     | 0.60      | ug/L   | 88       |
| 39) Chloroform                | 4.917  | 83             | 21558    | 2.35      | ug/L   | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
 Data File : V5547.D  
 Acq On : 28 Jul 2022 3:43 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-010|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 15 Sample Multiplier: 1  
 Inst : MSV0A14

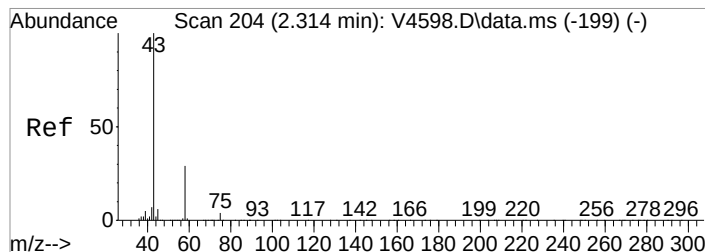
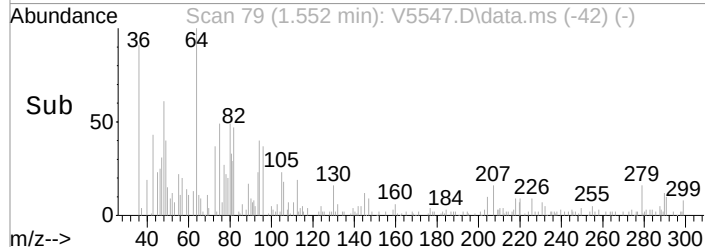
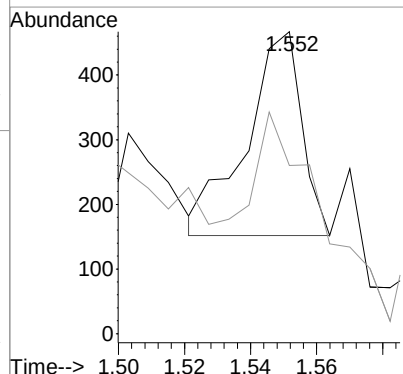
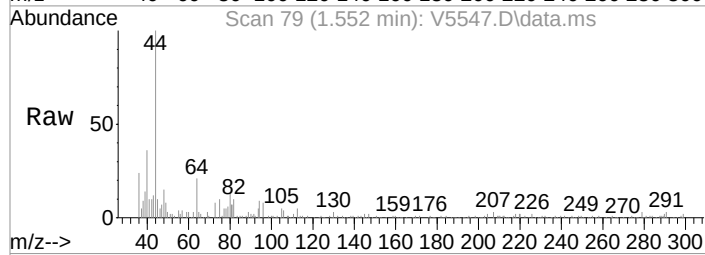
Quant Time: Jul 29 15:26:01 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 Qlast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration





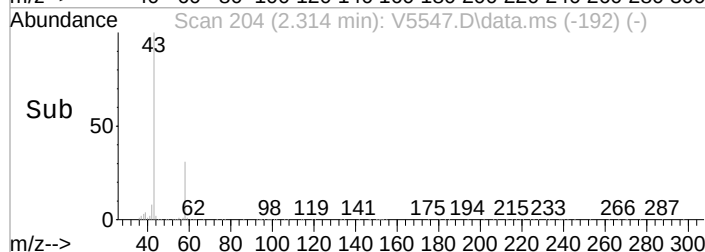
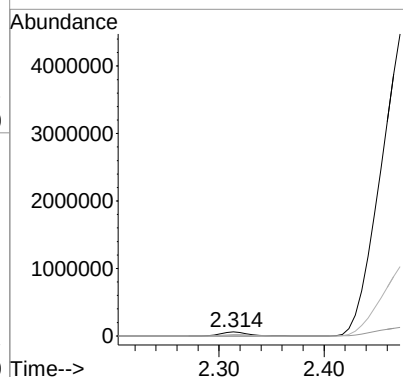
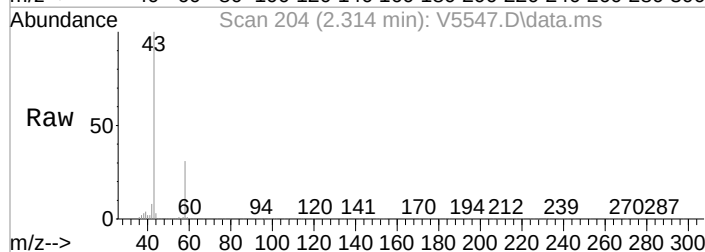
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.552 min Scan# 79  
 Delta R.T. 0.001 min  
 Lab File: V5547.D  
 Acq: 28 Jul 2022 3:43 pm

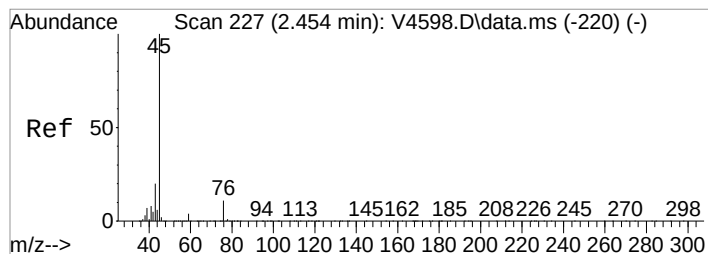
Tgt Ion: 94 Resp: 366  
 Ion Ratio Lower Upper  
 94 100  
 96 55.7 75.2 115.2#



#15  
 Acetone  
 Concen: 39.24 ug/L  
 RT: 2.314 min Scan# 204  
 Delta R.T. 0.000 min  
 Lab File: V5547.D  
 Acq: 28 Jul 2022 3:43 pm

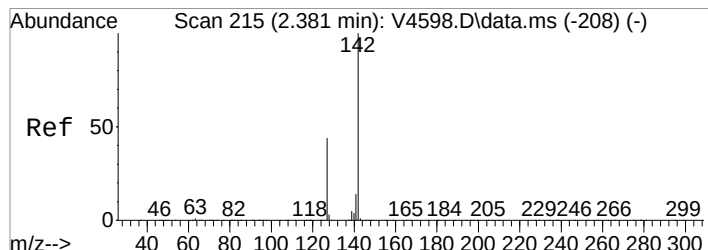
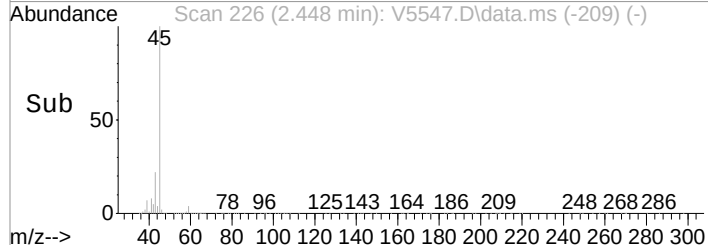
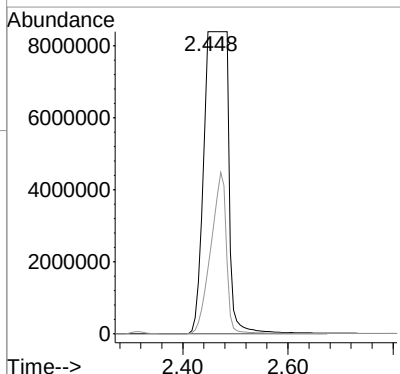
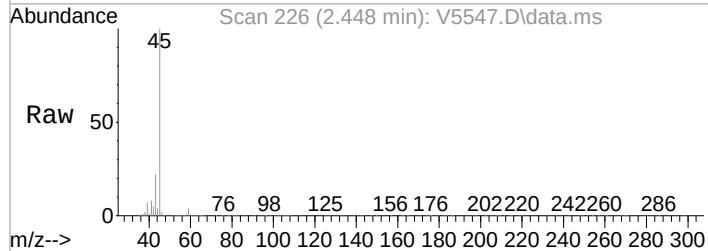
Tgt Ion: 43 Resp: 102595  
 Ion Ratio Lower Upper  
 43 100  
 58 31.4 8.9 48.9  
 42 8.0 0.0 27.4





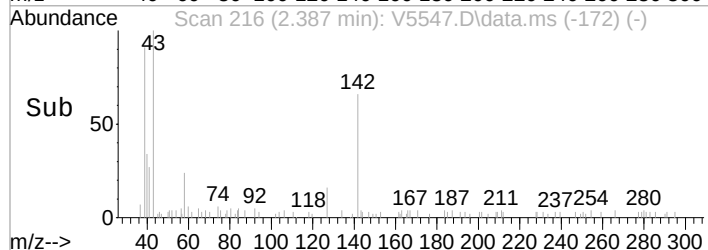
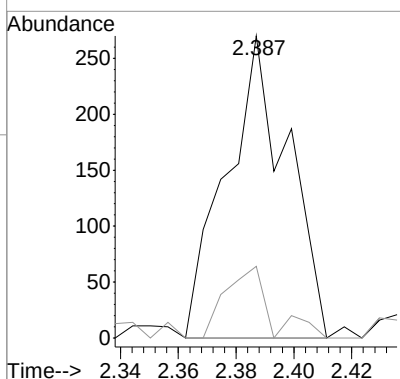
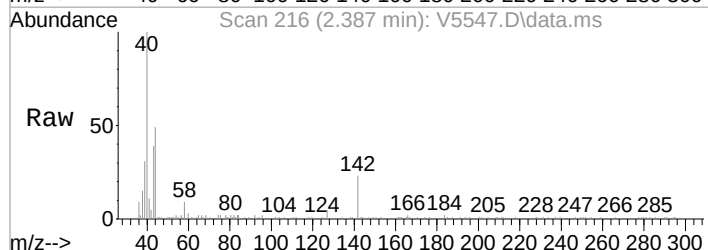
#16  
 2-Propanol  
 Concen: 44473.77 ug/L  
 RT: 2.448 min Scan# 226  
 Delta R.T. -0.006 min  
 Lab File: V5547.D  
 Acq: 28 Jul 2022 3:43 pm

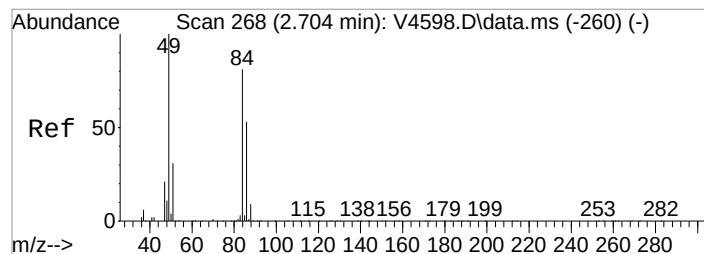
Tgt Ion: 45 Resp: 27249418  
 Ion Ratio Lower Upper  
 45 100  
 43 21.6 0.1 40.1



#17  
 Iodomethane  
 Concen: 2.45 ug/L  
 RT: 2.387 min Scan# 216  
 Delta R.T. 0.007 min  
 Lab File: V5547.D  
 Acq: 28 Jul 2022 3:43 pm

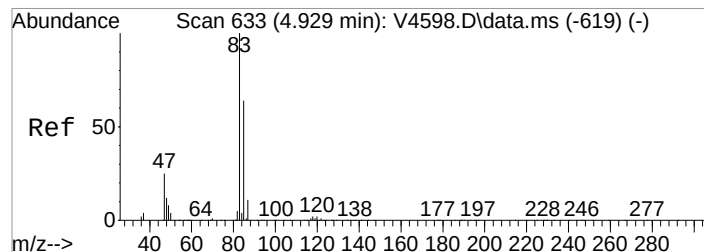
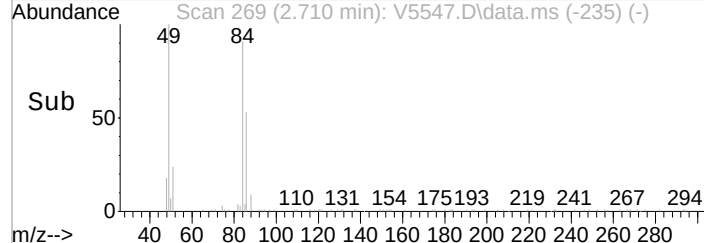
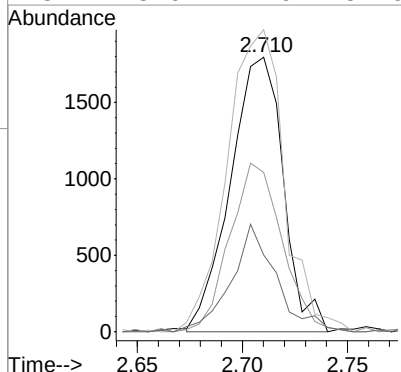
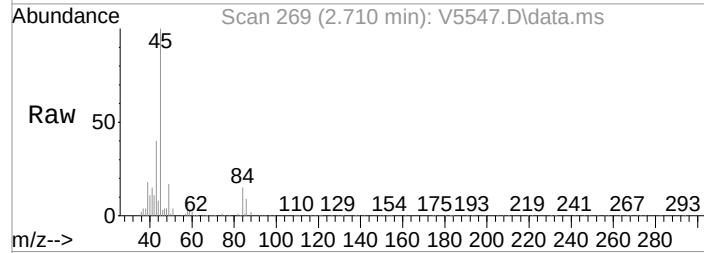
Tgt Ion: 142 Resp: 400  
 Ion Ratio Lower Upper  
 142 100  
 127 23.7 23.6 63.6





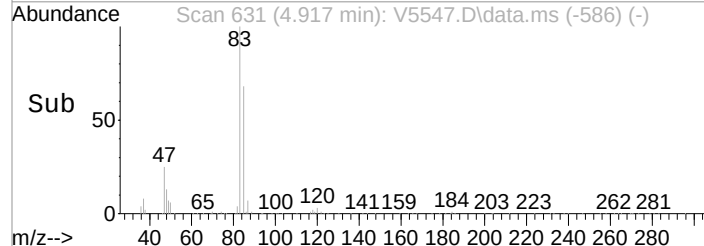
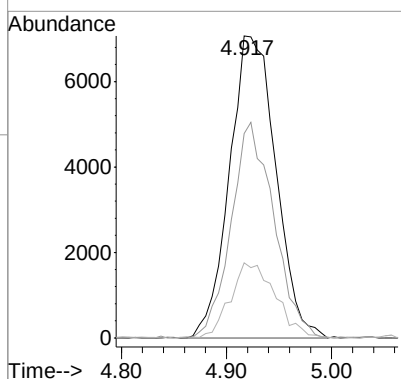
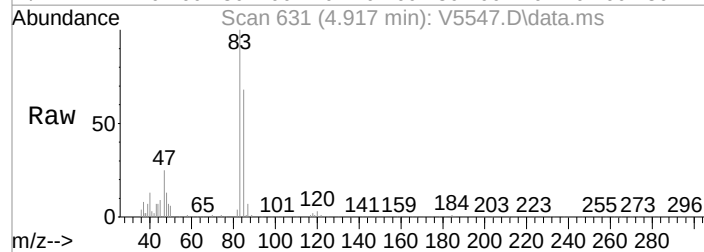
#22  
 Methylene Chloride  
 Concen: 0.60 ug/L  
 RT: 2.710 min Scan# 269  
 Delta R.T. 0.006 min  
 Lab File: V5547.D  
 Acq: 28 Jul 2022 3:43 pm

|             |             |
|-------------|-------------|
| Tgt Ion: 84 | Resp: 3138  |
| Ion Ratio   | Lower Upper |
| 84 100      |             |
| 86 58.0     | 45.1 85.1   |
| 49 110.0    | 103.1 143.1 |
| 51 28.0     | 17.9 57.9   |



#39  
 Chloroform  
 Concen: 2.35 ug/L  
 RT: 4.917 min Scan# 631  
 Delta R.T. -0.012 min  
 Lab File: V5547.D  
 Acq: 28 Jul 2022 3:43 pm

|             |             |
|-------------|-------------|
| Tgt Ion: 83 | Resp: 21558 |
| Ion Ratio   | Lower Upper |
| 83 100      |             |
| 85 67.6     | 44.1 84.1   |
| 47 24.9     | 5.2 45.2    |



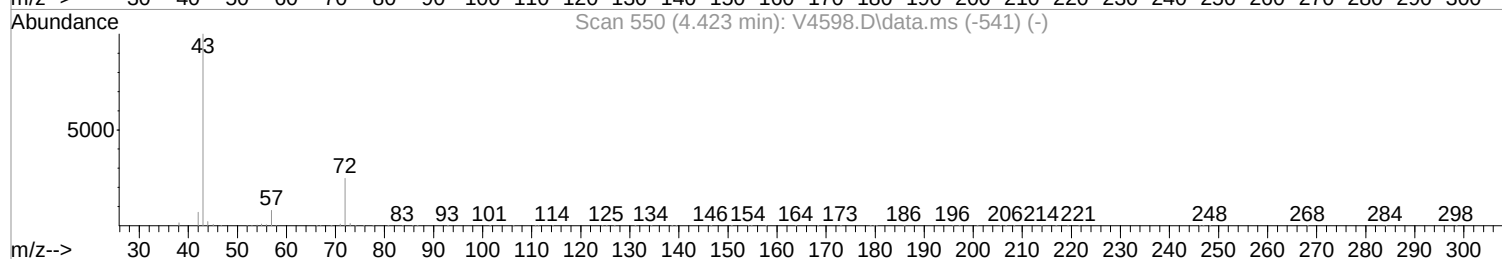
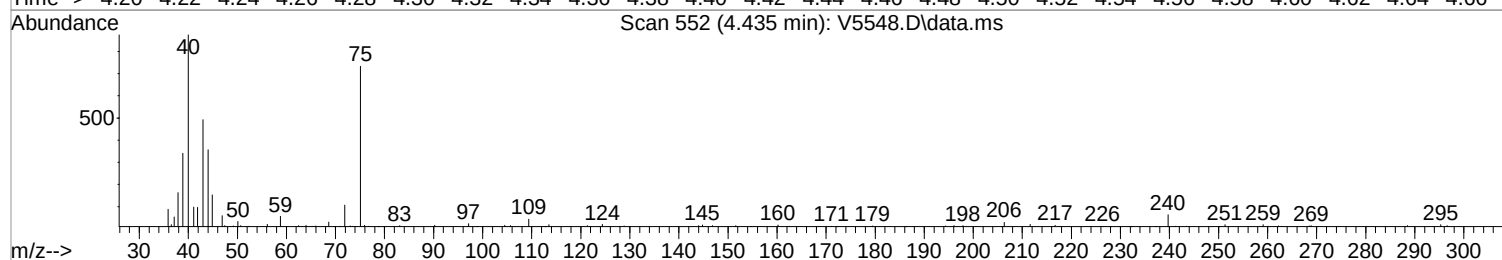
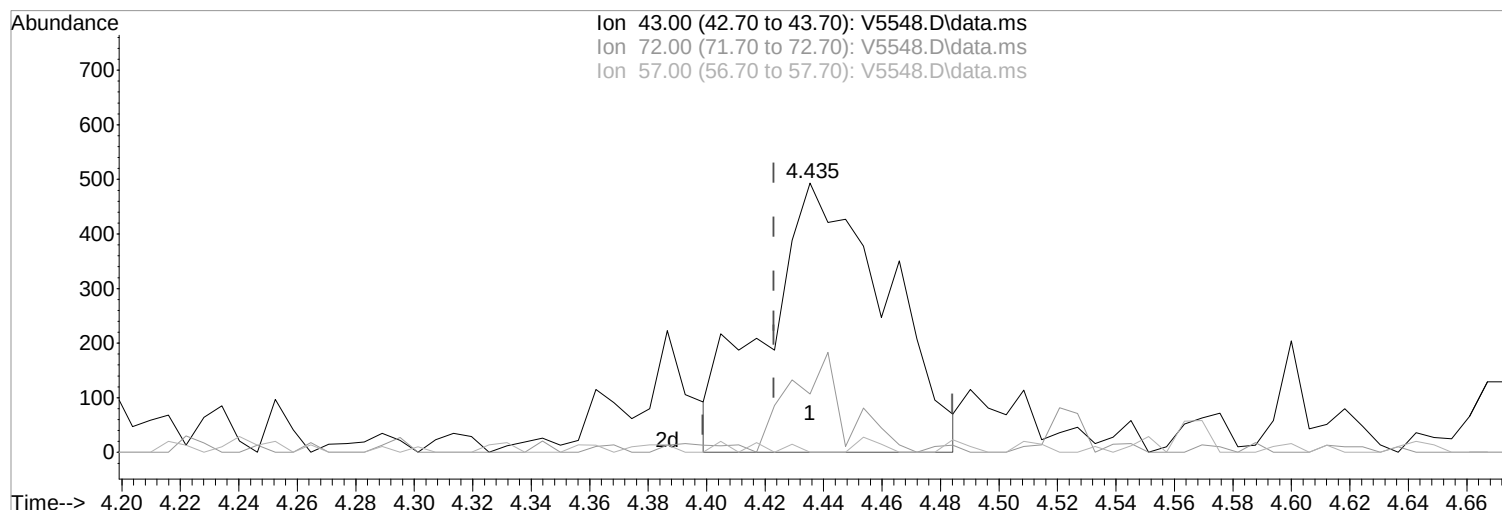
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5548.D  
Acq On : 28 Jul 2022 4:05 pm  
Operator : F.NAEGLER  
Sample : R2206604-011|1.0  
Misc : EAE 19519 T4  
ALS Vial : 16 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:44:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5548.D\data.ms

(34) 2-Butanone (P)

4.435min (+0.012) 0.37 ug/L m

response 1419

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 43.00 | 100   | 100   |
| 72.00 | 25.00 | 21.70 |
| 57.00 | 8.10  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/29/22



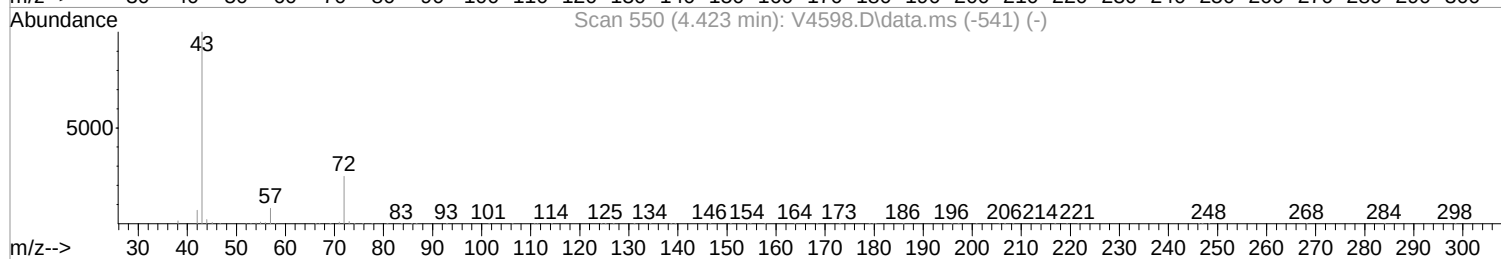
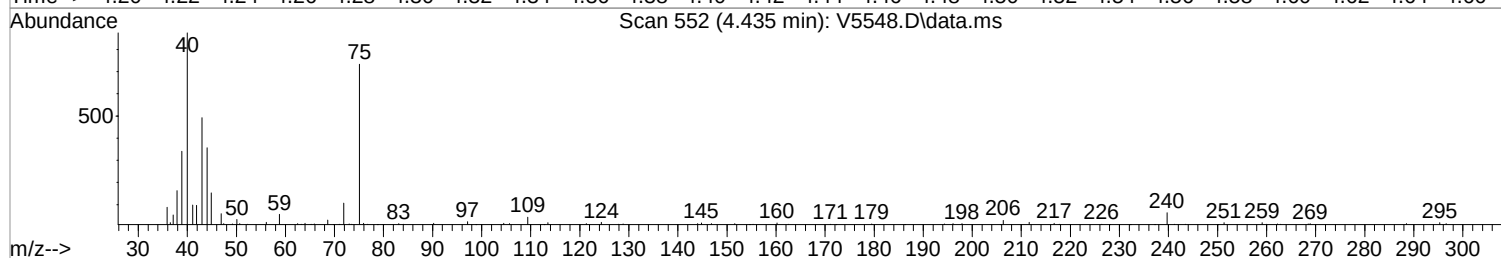
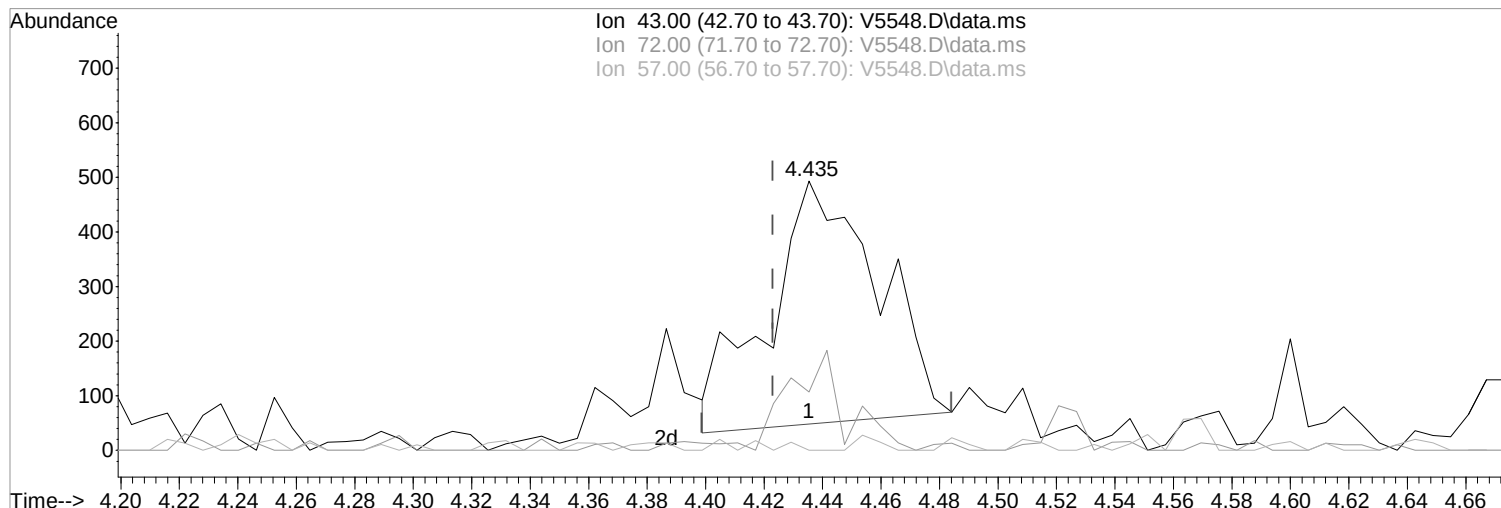
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5548.D  
Acq On : 28 Jul 2022 4:05 pm  
Operator : F.NAEGLER  
Sample : R2206604-011|1.0  
Misc : EAE 19519 T4  
ALS Vial : 16 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:44:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5548.D\data.ms

(34) 2-Butanone (P)

Manual Integration:

4.435min (+0.012) 0.31 ug/L

Before

response 1158

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 43.00 | 100   | 100   |
| 72.00 | 25.00 | 21.70 |
| 57.00 | 8.10  | 0.00  |
| 0.00  | 0.00  | 0.00  |

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5548.D  
 Acq On : 28 Jul 2022 4:05 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-011|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 16 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:28:18 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

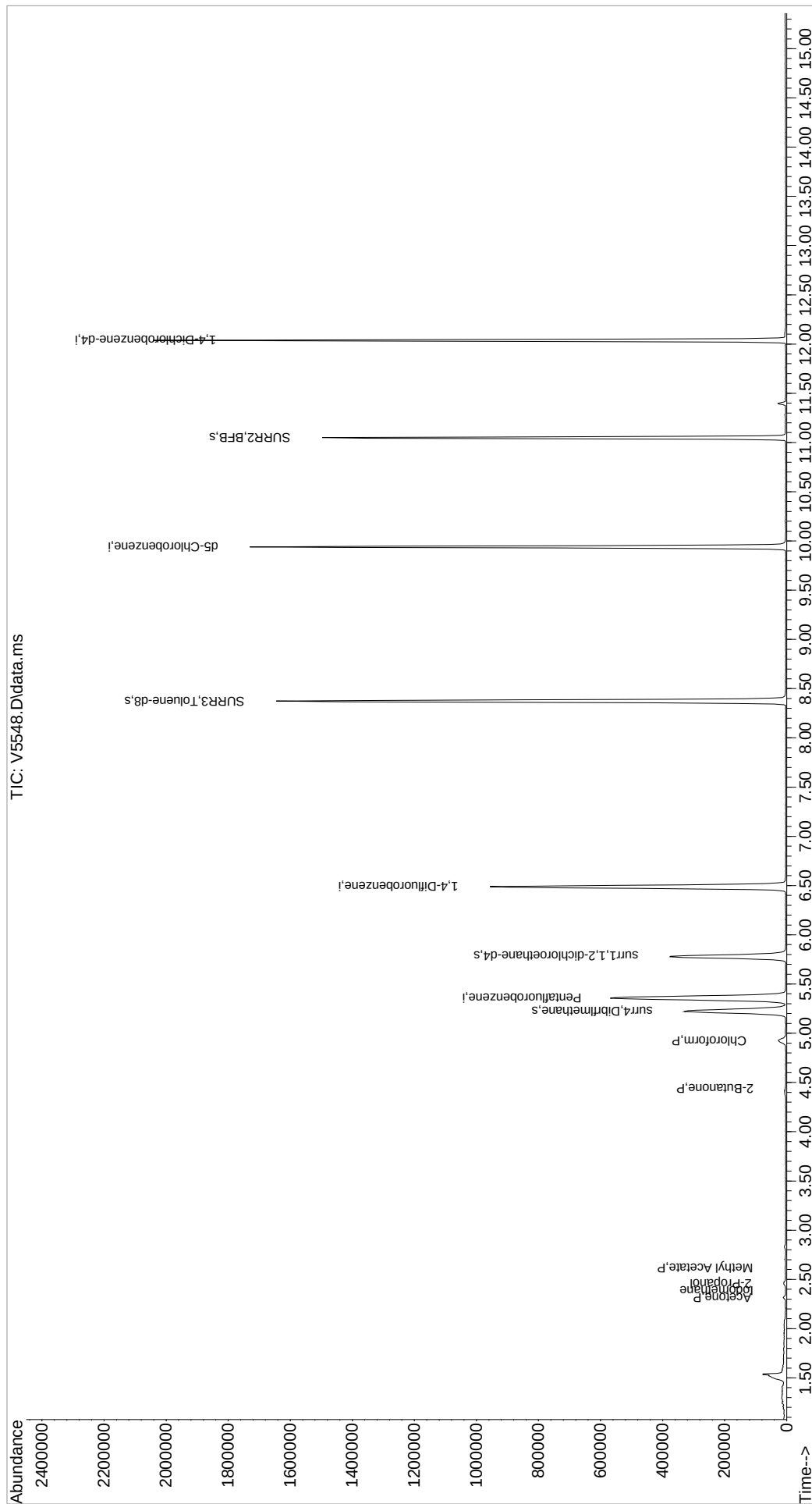
| Compound                      | R.T.           | QIon | Response   | Conc      | Units    | Dev(Min) |
|-------------------------------|----------------|------|------------|-----------|----------|----------|
| -----                         |                |      |            |           |          |          |
| Internal Standards            |                |      |            |           |          |          |
| 1) Pentafluorobenzene         | 5.362          | 168  | 582608     | 50.00     | ug/L     | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.490          | 114  | 891662     | 50.00     | ug/L     | 0.00     |
| 70) d5-Chlorobenzene          | 9.940          | 117  | 786896     | 50.00     | ug/L     | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.038         | 152  | 388641     | 50.00     | ug/L     | 0.00     |
|                               |                |      |            |           |          |          |
| System Monitoring Compounds   |                |      |            |           |          |          |
| 44) surr4,Dibrflmethane       | 5.222          | 113  | 275169     | 48.01     | ug/L     | 0.00     |
| Spiked Amount 50.000          | Range 80 - 116 |      | Recovery = | 96.02%    |          |          |
| 47) surr1,1,2-dichloroetha... | 5.783          | 65   | 325261     | 48.52     | ug/L     | 0.00     |
| Spiked Amount 50.000          | Range 73 - 125 |      | Recovery = | 97.04%    |          |          |
| 64) SURR3,Toluene-d8          | 8.374          | 98   | 1045956    | 48.76     | ug/L     | 0.00     |
| Spiked Amount 50.000          | Range 87 - 121 |      | Recovery = | 97.52%    |          |          |
| 69) SURR2,BFB                 | 11.050         | 95   | 375112     | 45.65     | ug/L     | 0.00     |
| Spiked Amount 50.000          | Range 85 - 122 |      | Recovery = | 91.30%    |          |          |
|                               |                |      |            |           |          |          |
| Target Compounds              |                |      |            |           |          |          |
| 5) Bromomethane               | 1.546          | 94   | 537        | Below Cal | Qvalue # | 75       |
| 15) Acetone                   | 2.314          | 43   | 8202       | 3.29      | ug/L     | 95       |
| 16) 2-Propanol                | 2.460          | 45   | 9184       | 15.74     | ug/L     | 64       |
| 17) Iodomethane               | 2.387          | 142  | 363        | 2.45      | ug/L     | 74       |
| 21) Methyl Acetate            | 2.613          | 43   | 1945       | 0.29      | ug/L     | 84       |
| 34) 2-Butanone                | 4.435          | 43   | 1419m      | 0.37      | ug/L     |          |
| 39) Chloroform                | 4.923          | 83   | 26757      | 3.07      | ug/L     | 97       |
| -----                         |                |      |            |           |          |          |

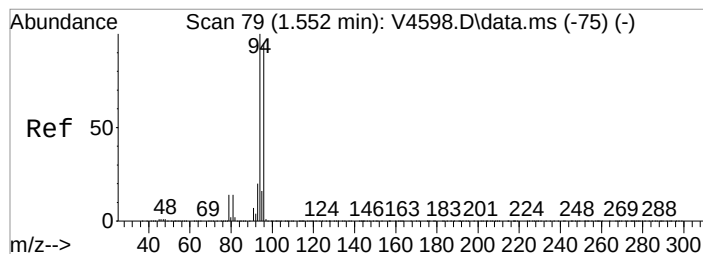
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
 Data File : V5548.D  
 Acq On : 28 Jul 2022 4:05 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-011|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 16 Sample Multiplier: 1

Inst : MSV0A14

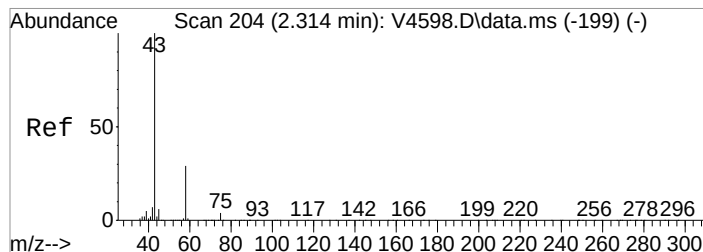
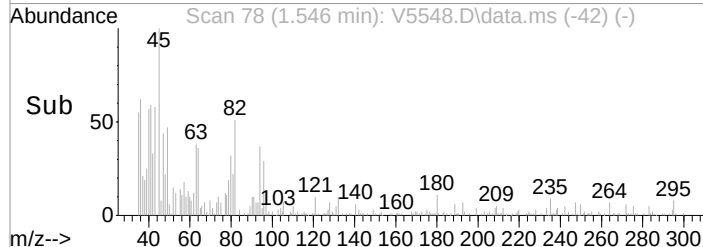
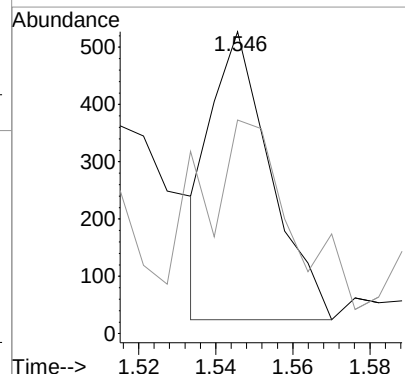
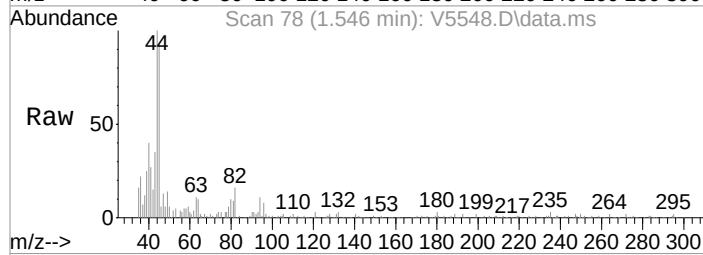
Quant Time: Jul 29 15:28:18 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration





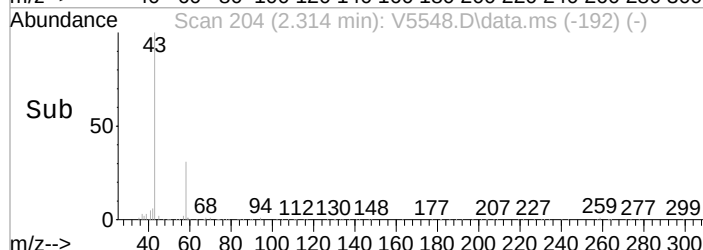
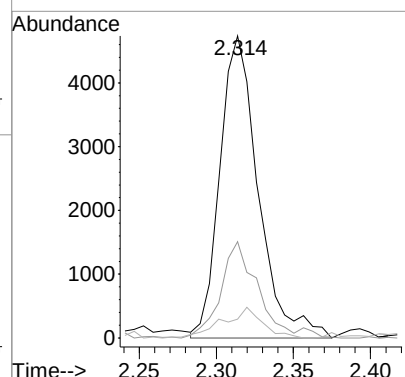
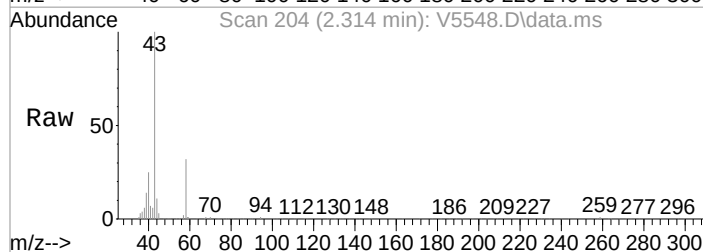
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.546 min Scan# 78  
 Delta R.T. -0.005 min  
 Lab File: V5548.D  
 Acq: 28 Jul 2022 4:05 pm

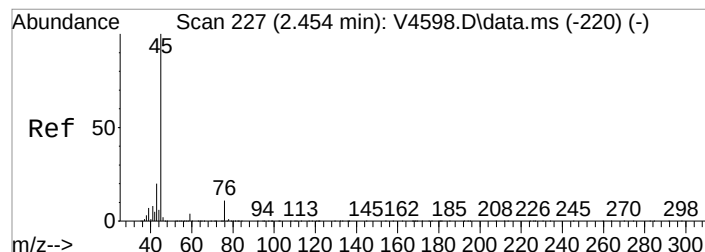
Tgt Ion: 94 Resp: 537  
 Ion Ratio Lower Upper  
 94 100  
 96 70.8 75.2 115.2#



#15  
 Acetone  
 Concen: 3.29 ug/L  
 RT: 2.314 min Scan# 204  
 Delta R.T. 0.000 min  
 Lab File: V5548.D  
 Acq: 28 Jul 2022 4:05 pm

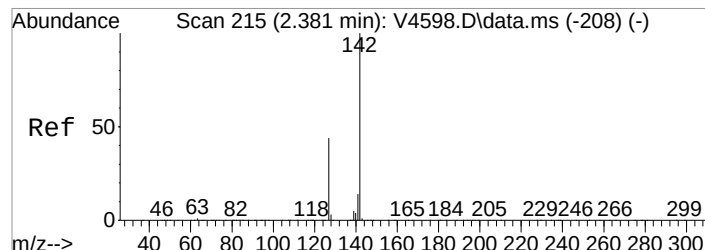
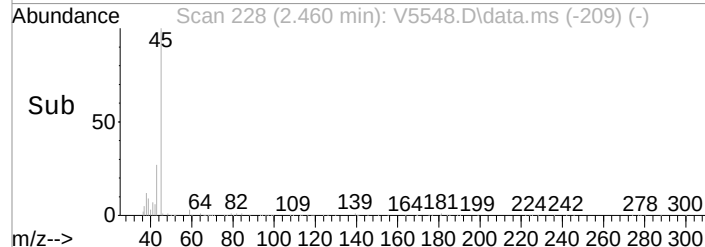
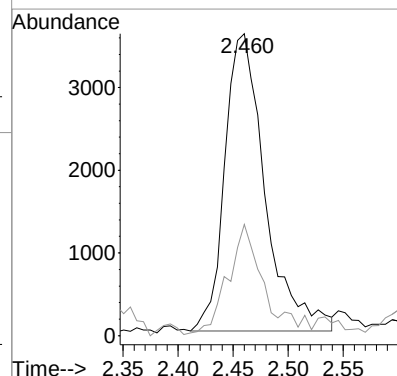
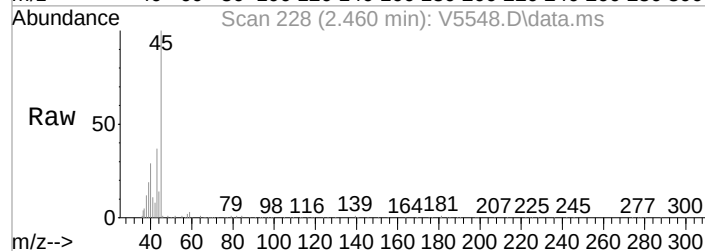
Tgt Ion: 43 Resp: 8202  
 Ion Ratio Lower Upper  
 43 100  
 58 31.8 8.9 48.9  
 42 6.2 0.0 27.4





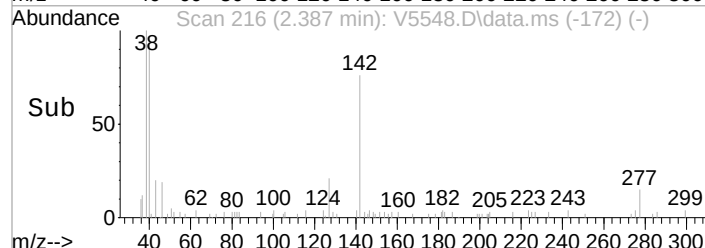
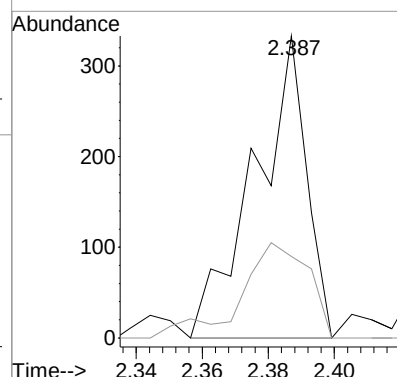
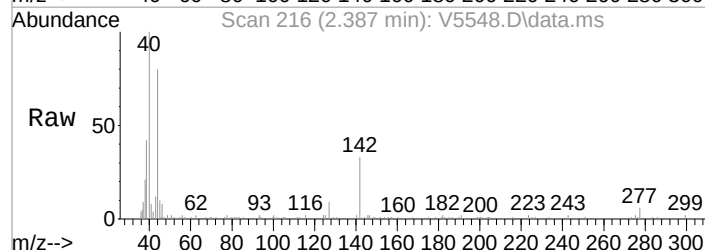
#16  
 2-Propanol  
 Concen: 15.74 ug/L  
 RT: 2.460 min Scan# 228  
 Delta R.T. 0.006 min  
 Lab File: V5548.D  
 Acq: 28 Jul 2022 4:05 pm

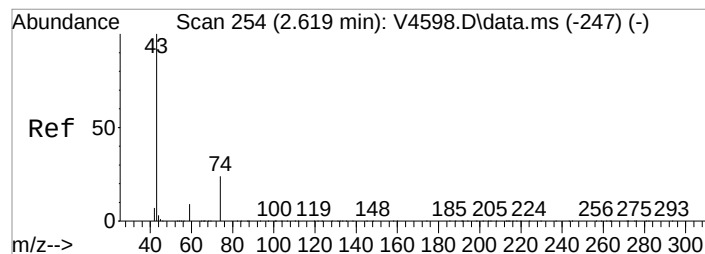
Tgt Ion: 45 Resp: 9184  
 Ion Ratio Lower Upper  
 45 100  
 43 36.8 0.1 40.1



#17  
 Iodomethane  
 Concen: 2.45 ug/L  
 RT: 2.387 min Scan# 216  
 Delta R.T. 0.007 min  
 Lab File: V5548.D  
 Acq: 28 Jul 2022 4:05 pm

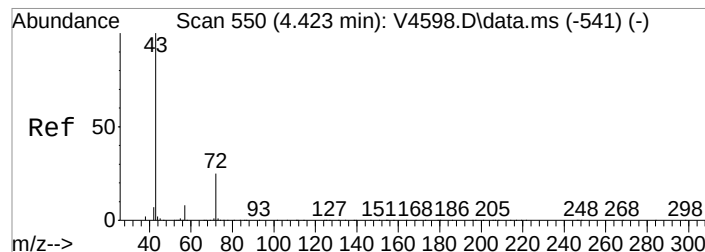
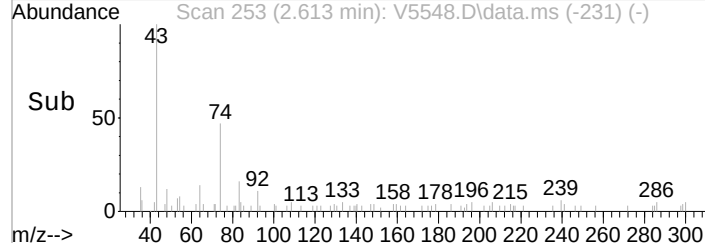
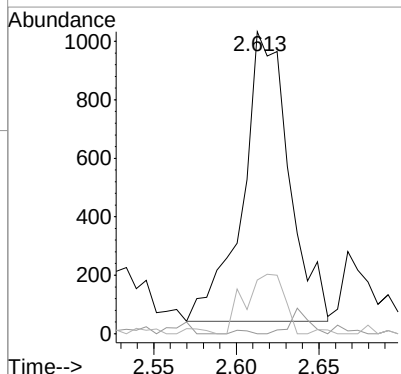
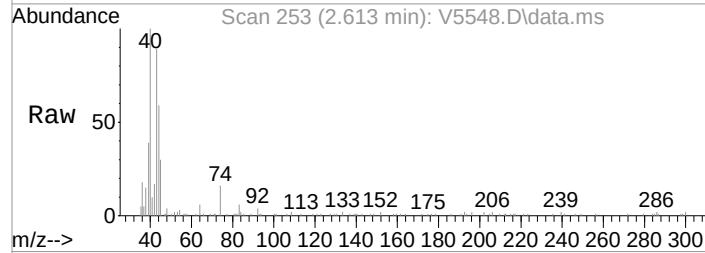
Tgt Ion: 142 Resp: 363  
 Ion Ratio Lower Upper  
 142 100  
 127 27.0 23.6 63.6





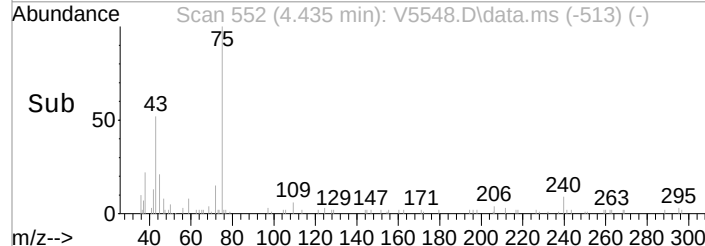
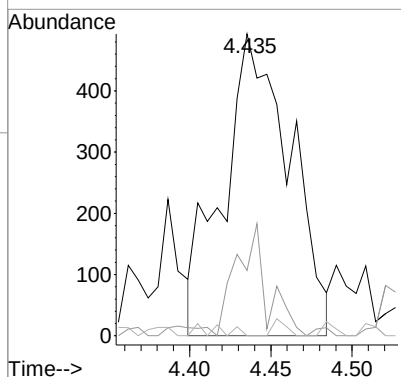
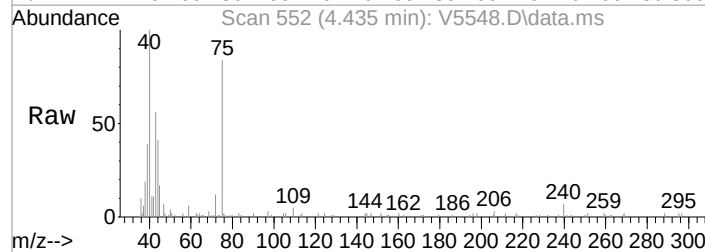
#21  
 Methyl Acetate  
 Concen: 0.29 ug/L  
 RT: 2.613 min Scan# 253  
 Delta R.T. -0.006 min  
 Lab File: V5548.D  
 Acq: 28 Jul 2022 4:05 pm

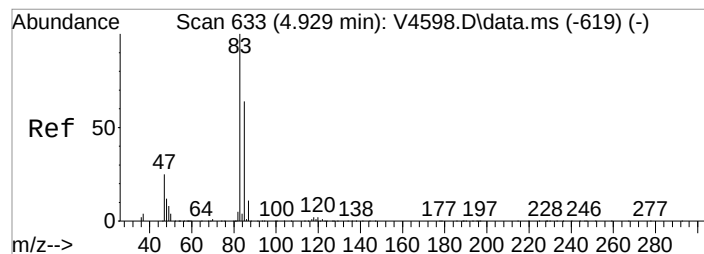
|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 43   | Resp: | 1945  |
| Ion Ratio |      | Lower | Upper |
| 43        | 100  |       |       |
| 59        | 0.0  | 0.0   | 28.8  |
| 74        | 17.8 | 3.9   | 43.9  |



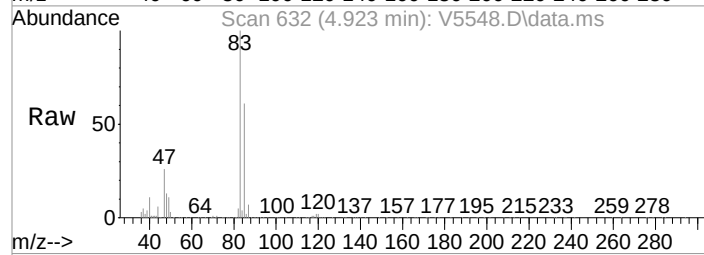
#34  
 2-Butanone  
 Concen: 0.37 ug/L m  
 RT: 4.435 min Scan# 552  
 Delta R.T. 0.012 min  
 Lab File: V5548.D  
 Acq: 28 Jul 2022 4:05 pm

|           |      |       |       |
|-----------|------|-------|-------|
| Tgt Ion:  | 43   | Resp: | 1419  |
| Ion Ratio |      | Lower | Upper |
| 43        | 100  |       |       |
| 72        | 21.7 | 5.0   | 45.0  |
| 57        | 0.0  | 0.0   | 28.1  |

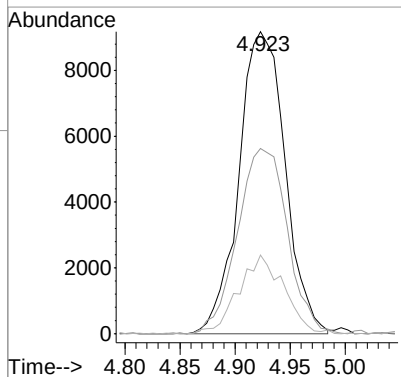
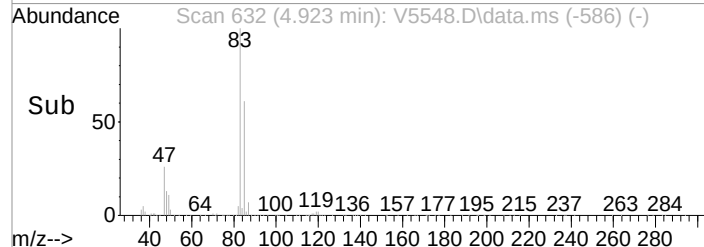




#39  
 Chloroform  
 Concen: 3.07 ug/L  
 RT: 4.923 min Scan# 632  
 Delta R.T. -0.006 min  
 Lab File: V5548.D  
 Acq: 28 Jul 2022 4:05 pm



| Tgt Ion | Ratio | Resp  | Lower | Upper |
|---------|-------|-------|-------|-------|
| 83      | 100   | 26757 |       |       |
| 85      | 61.3  | 44.1  | 84.1  |       |
| 47      | 26.0  | 5.2   | 45.2  |       |



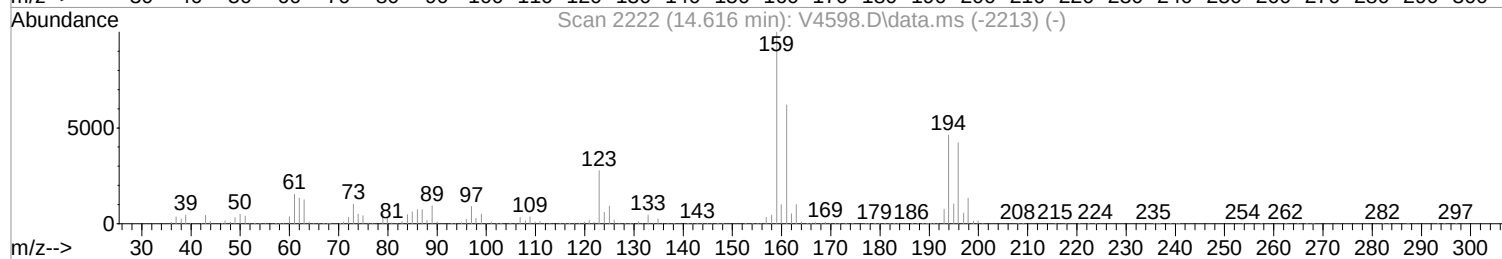
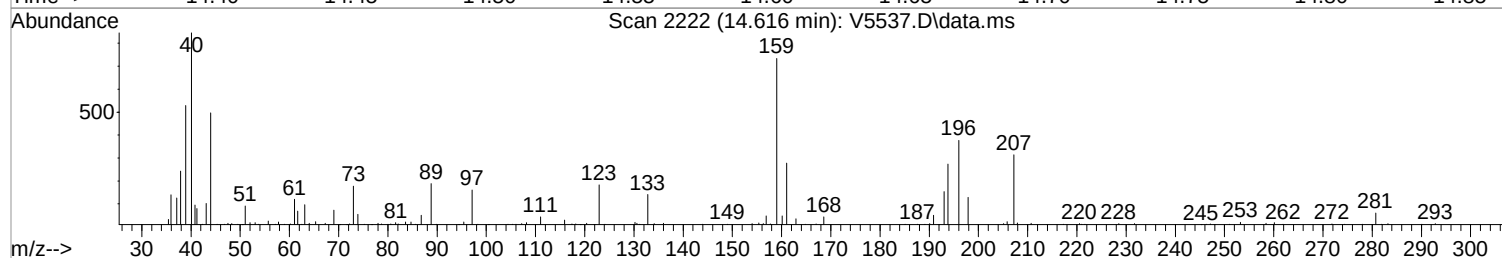
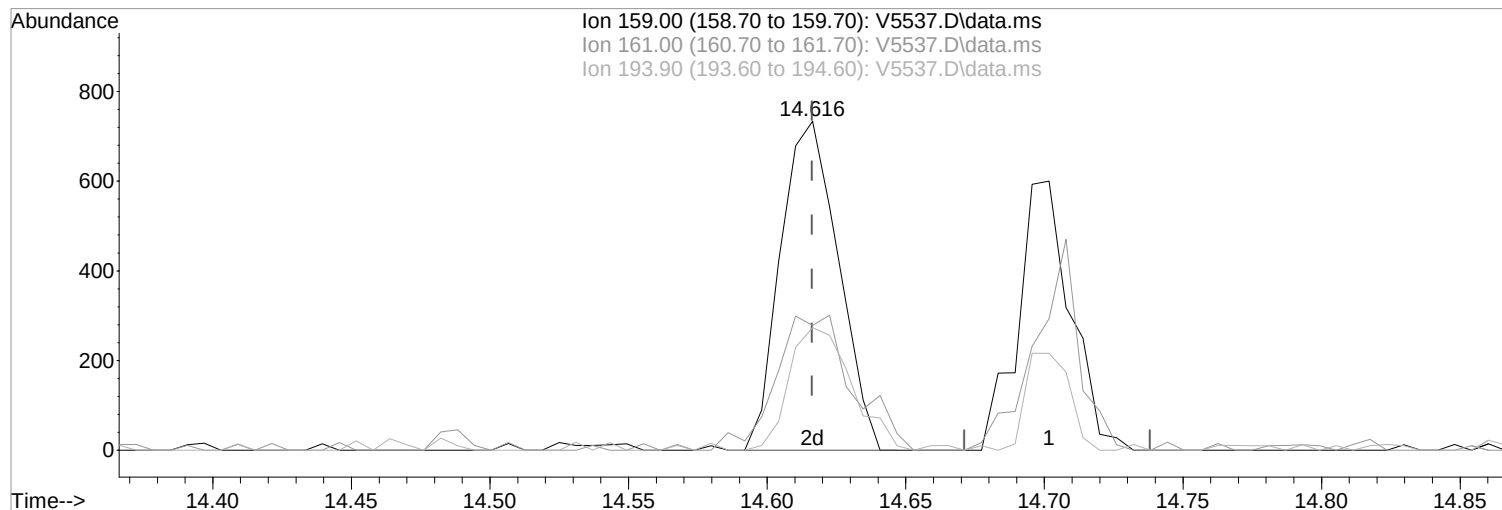
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5537.D  
Acq On : 28 Jul 2022 12:01 pm  
Operator : F.NAEGLER  
Sample : MBLK-FP  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 12:17:46 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5537.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.616min (+0.000) 0.20 ug/L m

response 1063

| Ion    | Exp%  | Act%   |
|--------|-------|--------|
| 159.00 | 100   | 100    |
| 161.00 | 61.90 | 37.87# |
| 193.90 | 46.20 | 37.19  |
| 0.00   | 0.00  | 0.00   |

Manual Integration:

After

Wrong peak selected.

07/29/22



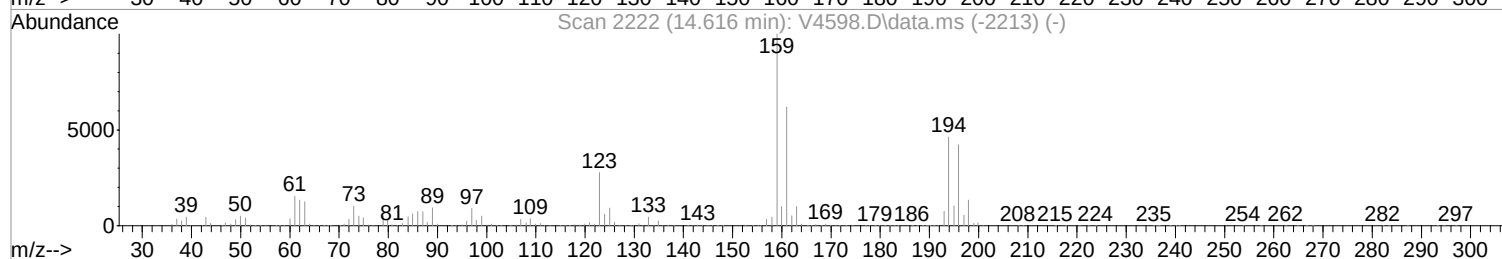
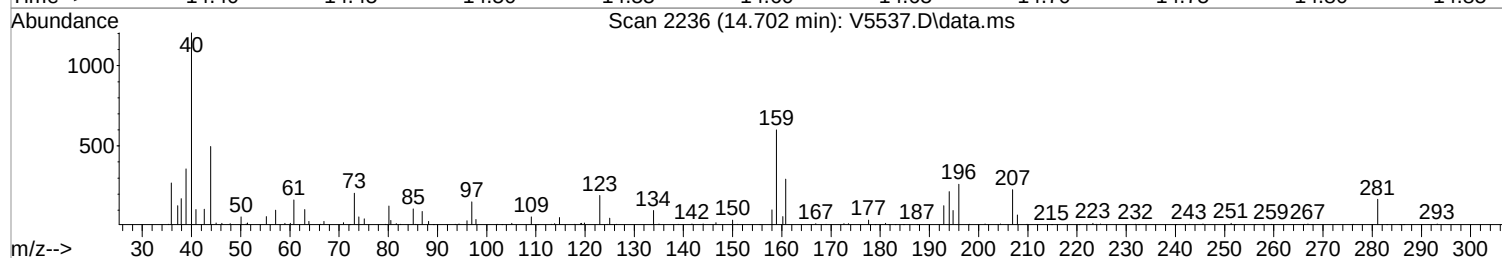
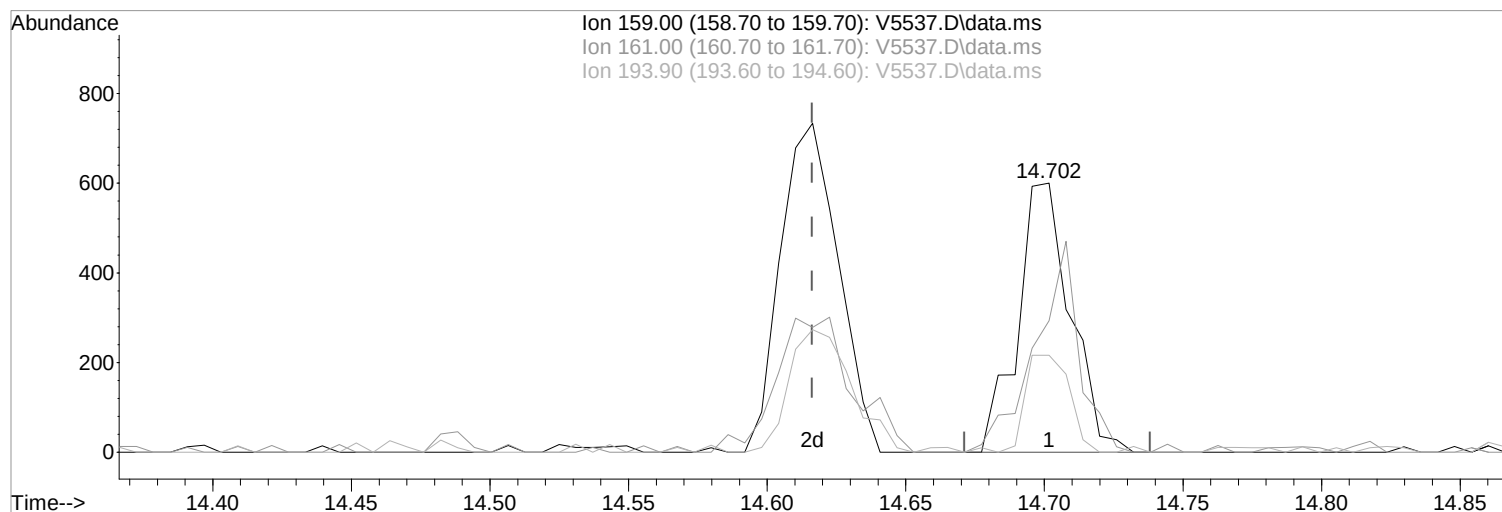
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5537.D  
Acq On : 28 Jul 2022 12:01 pm  
Operator : F.NAEGLER  
Sample : MBLK-FP  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 12:17:46 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5537.D\data.ms

(118) 2,4,5-Trichlorotoluene

Manual Integration:

14.702min (+0.085) 0.15 ug/L

Before

response 794

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 159.00 | 100   | 100   |
| 161.00 | 61.90 | 48.83 |
| 193.90 | 46.20 | 36.00 |
| 0.00   | 0.00  | 0.00  |

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5537.D  
 Acq On : 28 Jul 2022 12:01 pm  
 Operator : F.NAEGLER  
 Sample : MBLK-FP  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA14

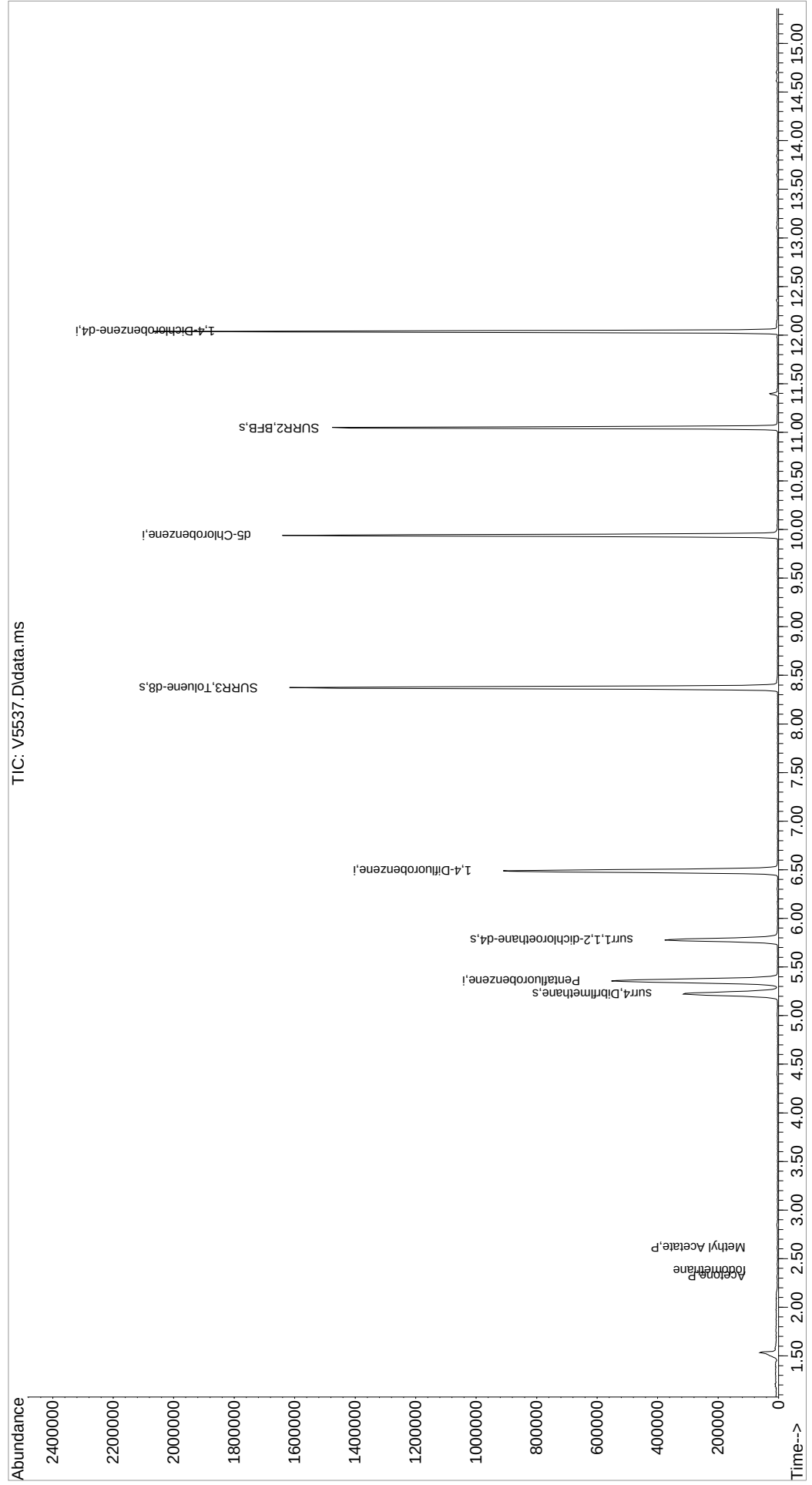
Quant Time: Jul 29 15:08:11 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

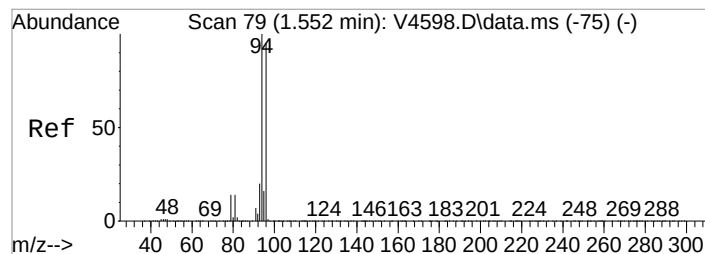
| Compound                      | R.T.   | QIon           | Response | Conc      | Units  | Dev(Min)  |
|-------------------------------|--------|----------------|----------|-----------|--------|-----------|
| Internal Standards            |        |                |          |           |        |           |
| 1) Pentafluorobenzene         | 5.356  | 168            | 558845   | 50.00     | ug/L   | 0.00      |
| 42) 1,4-Difluorobenzene       | 6.490  | 114            | 865287   | 50.00     | ug/L   | 0.00      |
| 70) d5-Chlorobenzene          | 9.940  | 117            | 772684   | 50.00     | ug/L   | 0.00      |
| 90) 1,4-Dichlorobenzene-d4    | 12.038 | 152            | 399878   | 50.00     | ug/L   | 0.00      |
| System Monitoring Compounds   |        |                |          |           |        |           |
| 44) surr4,Dibrflmethane       | 5.222  | 113            | 263992   | 47.46     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =         | 94.92% |           |
| 47) surr1,1,2-dichloroetha... | 5.777  | 65             | 311154   | 47.83     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =         | 95.66% |           |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1020724  | 49.04     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =         | 98.08% |           |
| 69) SURR2,BFB                 | 11.044 | 95             | 374829   | 47.00     | ug/L   | 0.00      |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =         | 94.00% |           |
| Target Compounds              |        |                |          |           |        |           |
| 5) Bromomethane               | 1.515  | 94             | 759      | Below Cal |        | Qvalue 80 |
| 15) Acetone                   | 2.320  | 43             | 2235     | 0.94 ug/L |        | 87        |
| 17) Iodomethane               | 2.381  | 142            | 383      | 2.46 ug/L | #      | 67        |
| 21) Methyl Acetate            | 2.613  | 43             | 1714     | 0.26 ug/L |        | 83        |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\072822\  
 Data File : V5537.D  
 Acq On : 28 Jul 2022 12:01 pm  
 Operator : F.NAEGLER  
 Sample : MBLK-FP  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1  
 Inst : MSV0A14

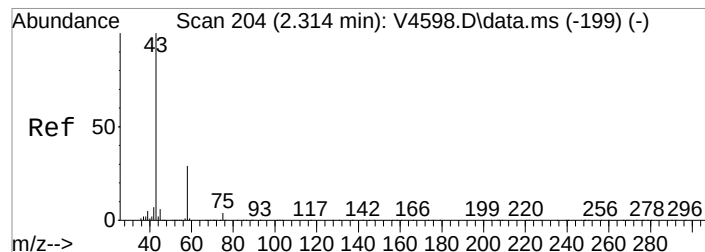
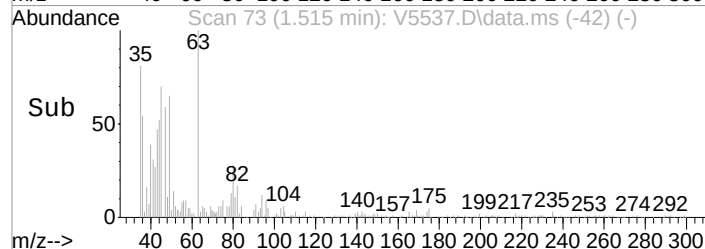
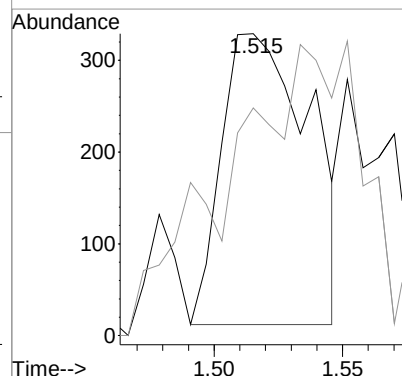
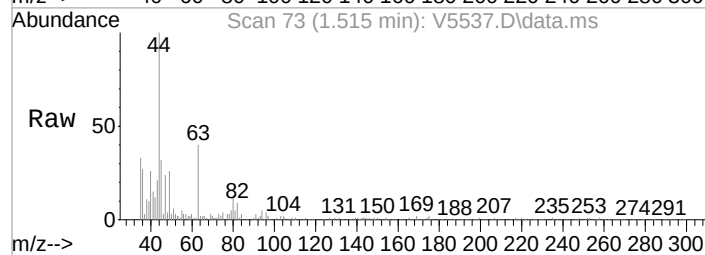
Quant Time: Jul 29 15:08:11 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration





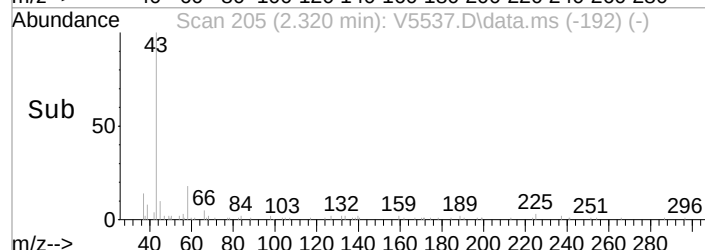
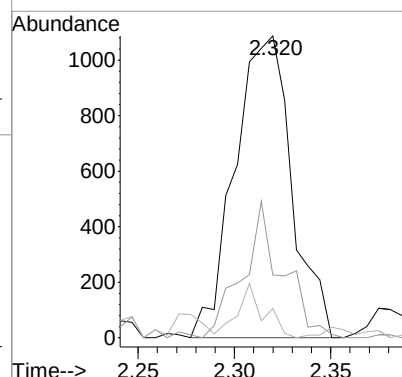
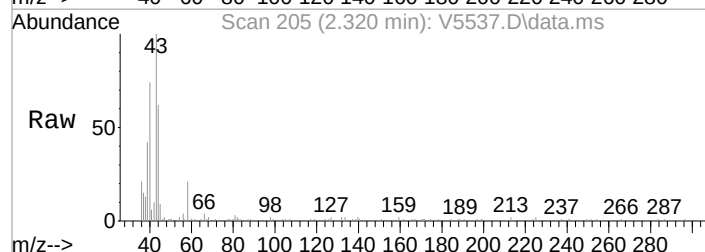
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.515 min Scan# 73  
 Delta R.T. -0.036 min  
 Lab File: V5537.D  
 Acq: 28 Jul 2022 12:01 pm

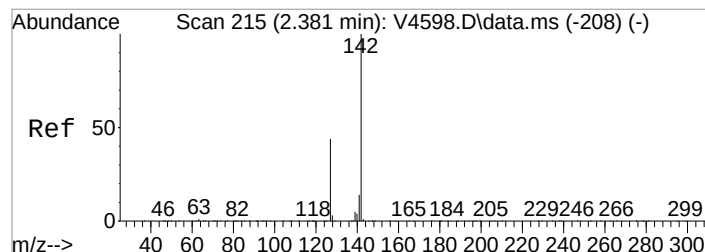
Tgt Ion: 94 Resp: 759  
 Ion Ratio Lower Upper  
 94 100  
 96 75.4 75.2 115.2



#15  
 Acetone  
 Concen: 0.94 ug/L  
 RT: 2.320 min Scan# 205  
 Delta R.T. 0.006 min  
 Lab File: V5537.D  
 Acq: 28 Jul 2022 12:01 pm

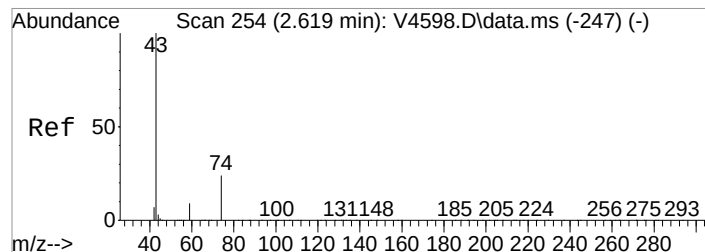
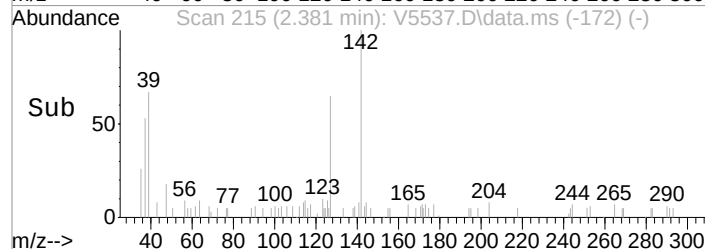
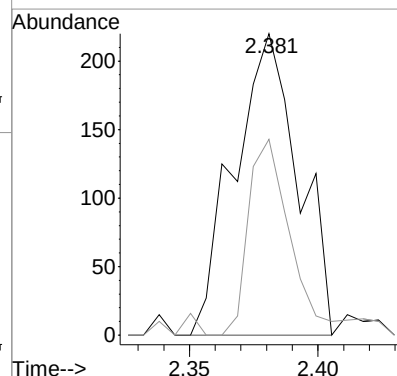
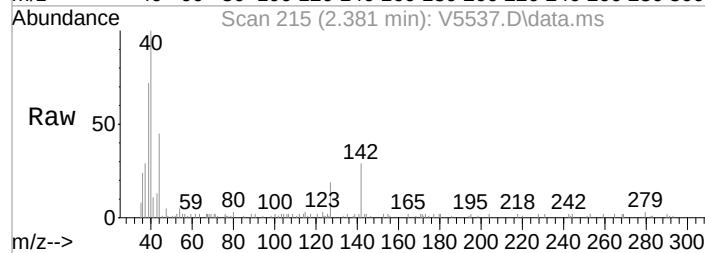
Tgt Ion: 43 Resp: 2235  
 Ion Ratio Lower Upper  
 43 100  
 58 20.8 8.9 48.9  
 42 9.7 0.0 27.4





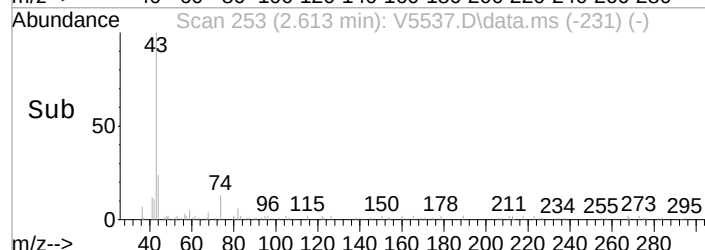
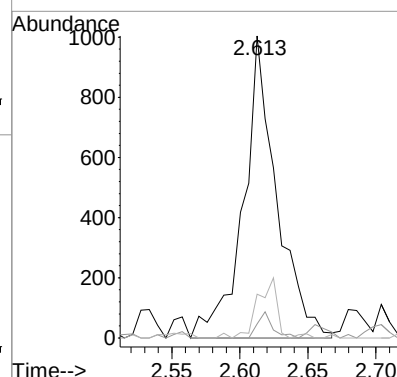
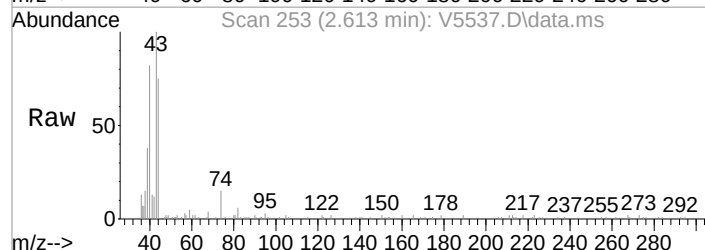
#17  
 Iodomethane  
 Concen: 2.46 ug/L  
 RT: 2.381 min Scan# 215  
 Delta R.T. 0.001 min  
 Lab File: V5537.D  
 Acq: 28 Jul 2022 12:01 pm

Tgt Ion: 142 Resp: 383  
 Ion Ratio Lower Upper  
 142 100  
 127 65.0 23.6 63.6#



#21  
 Methyl Acetate  
 Concen: 0.26 ug/L  
 RT: 2.613 min Scan# 253  
 Delta R.T. -0.006 min  
 Lab File: V5537.D  
 Acq: 28 Jul 2022 12:01 pm

Tgt Ion: 43 Resp: 1714  
 Ion Ratio Lower Upper  
 43 100  
 59 4.7 0.0 28.8  
 74 14.5 3.9 43.9



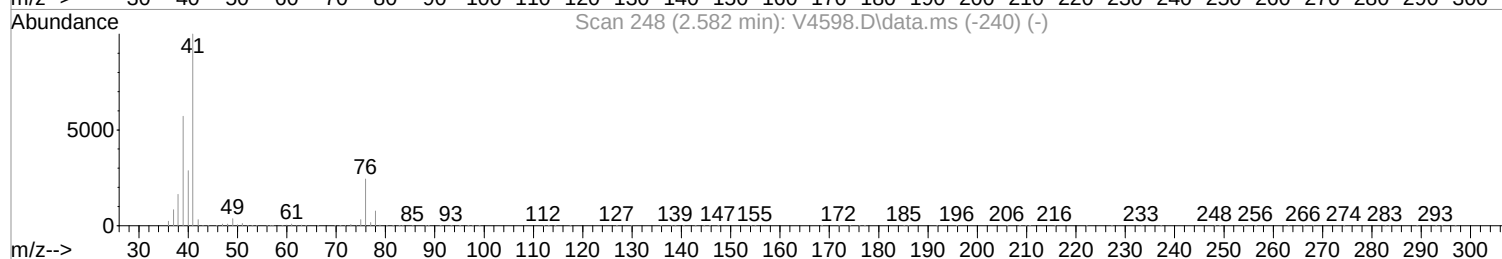
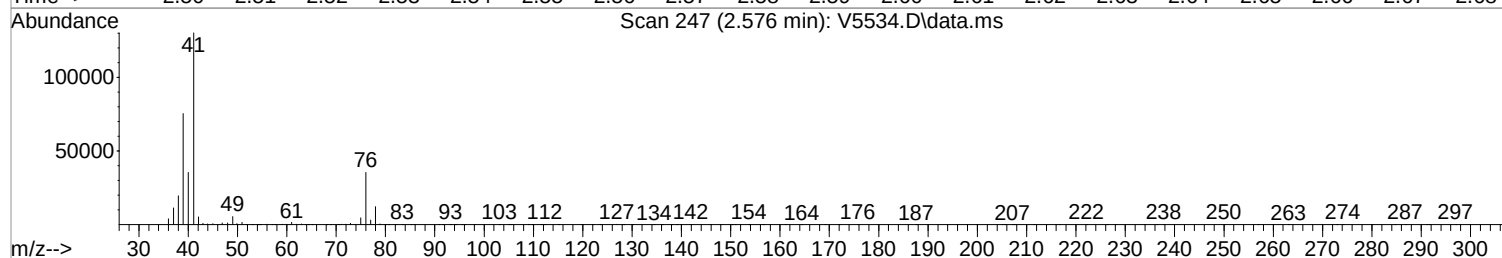
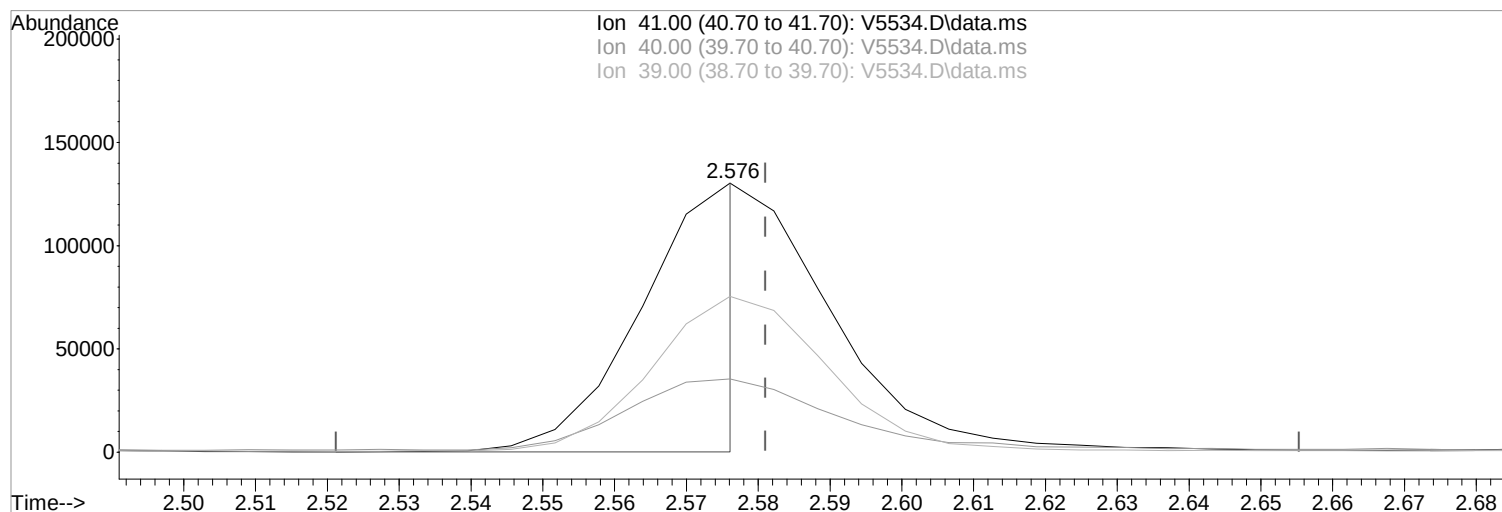
# Quantitation Report (Qedit)

1st *FU* 07/28/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5534.D  
Acq On : 28 Jul 2022 10:40 am  
Operator : F.NAEGLER  
Sample : LCS-FP  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:56:34 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5534.D\data.ms

(19) Acetonitrile

2.576min (-0.005) 94.21 ug/L m

response 132635

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 27.30 |
| 39.00 | 57.20 | 57.94 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/28/22

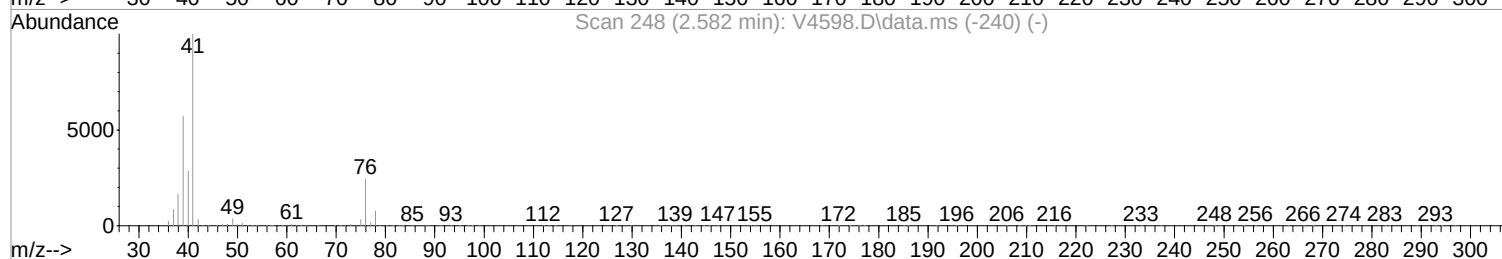
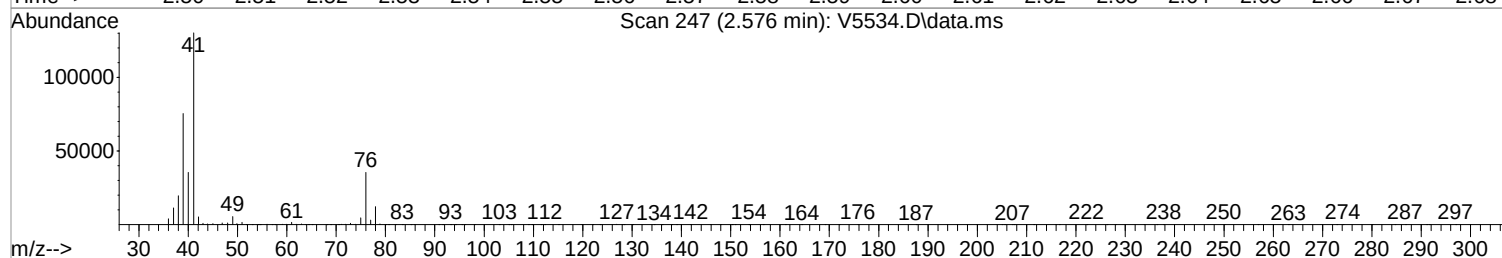
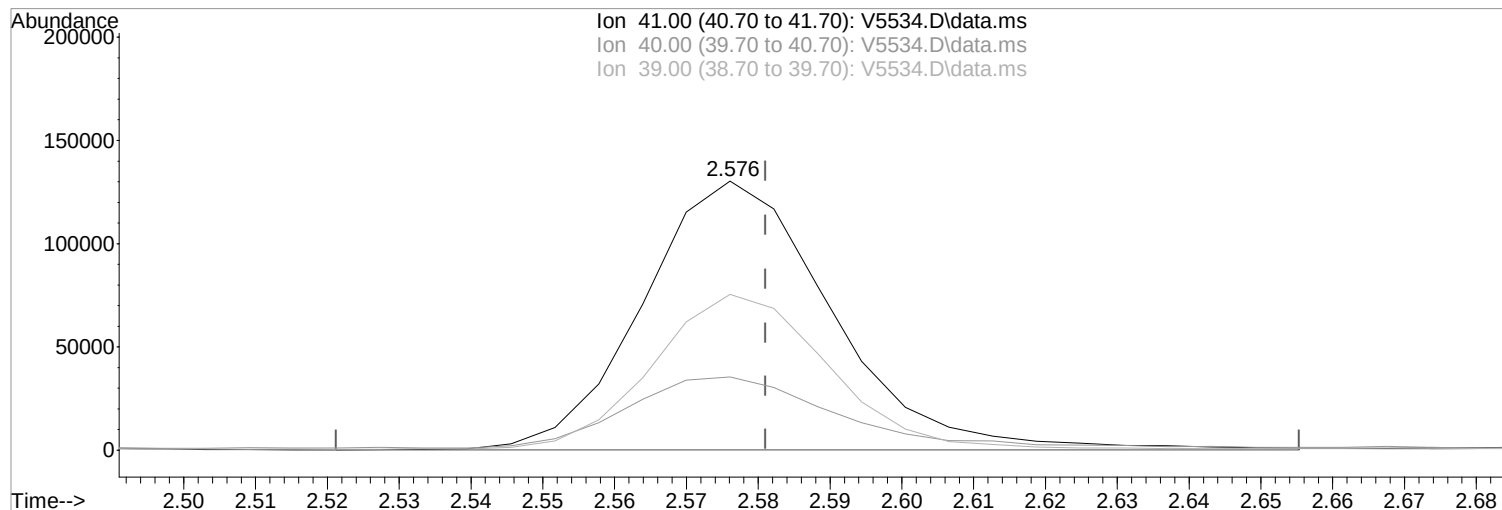
# Quantitation Report (Qedit)

1st *FU* 07/28/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5534.D  
Acq On : 28 Jul 2022 10:40 am  
Operator : F.NAEGLER  
Sample : LCS-FP  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:56:34 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5534.D\data.ms

(19) Acetonitrile

Manual Integration:

2.576min (-0.005) 170.08 ug/L

Before

response 239452

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 27.30 |
| 39.00 | 57.20 | 57.94 |
| 0.00  | 0.00  | 0.00  |

07/28/22

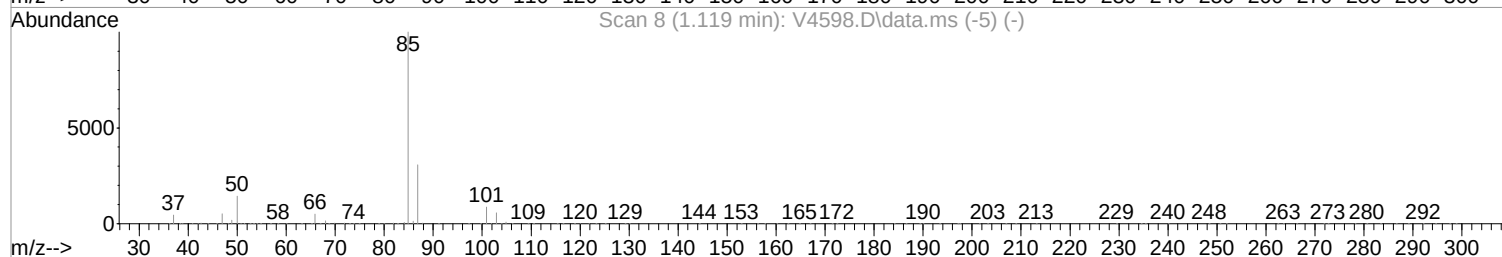
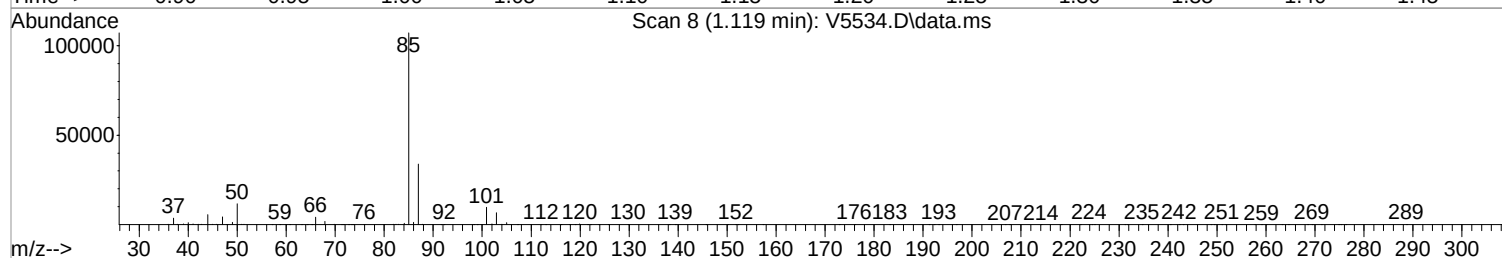
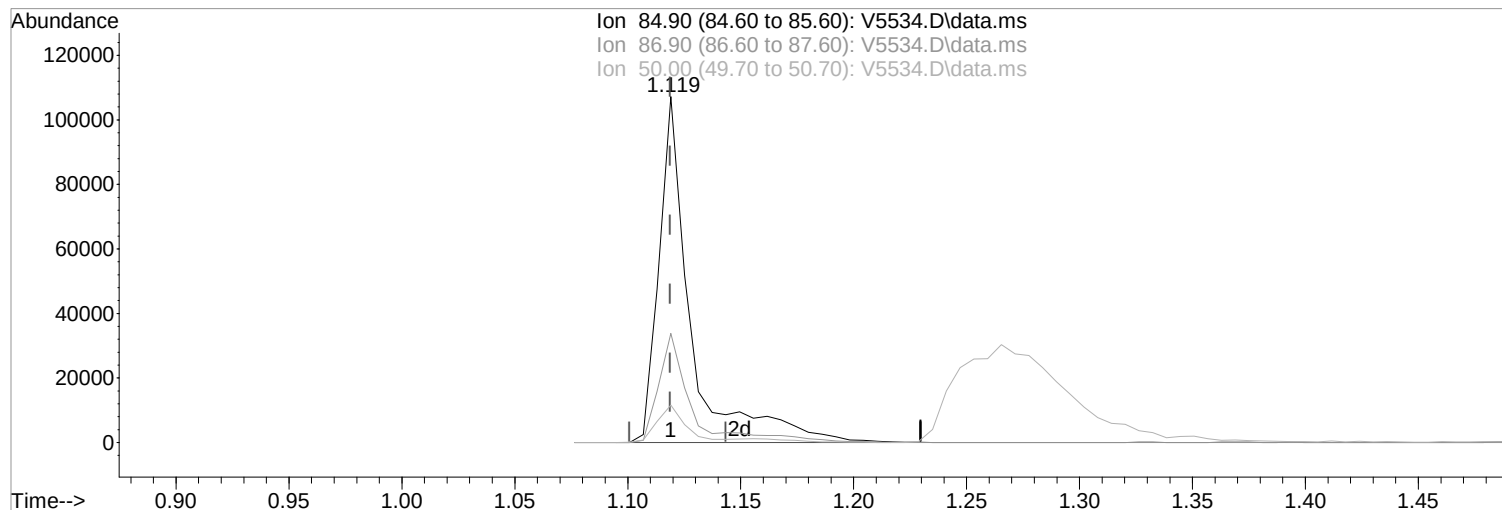
# Quantitation Report (Qedit)

1st *FU* 07/28/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5534.D  
Acq On : 28 Jul 2022 10:40 am  
Operator : F.NAEGLER  
Sample : LCS-FP  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:56:34 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5534.D\data.ms

(2) Dichlorodifluoromethane (P)

1.119min (+0.000) 19.85 ug/L m

response 106011

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 31.52 |
| 50.00 | 14.40 | 10.84 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

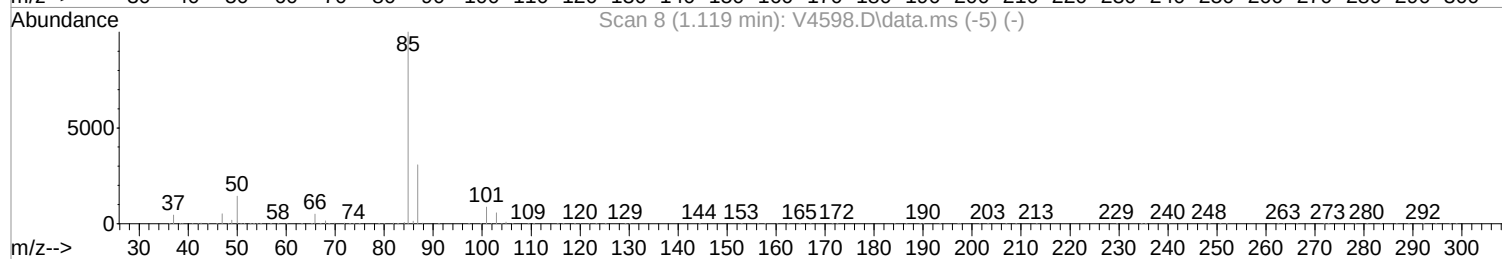
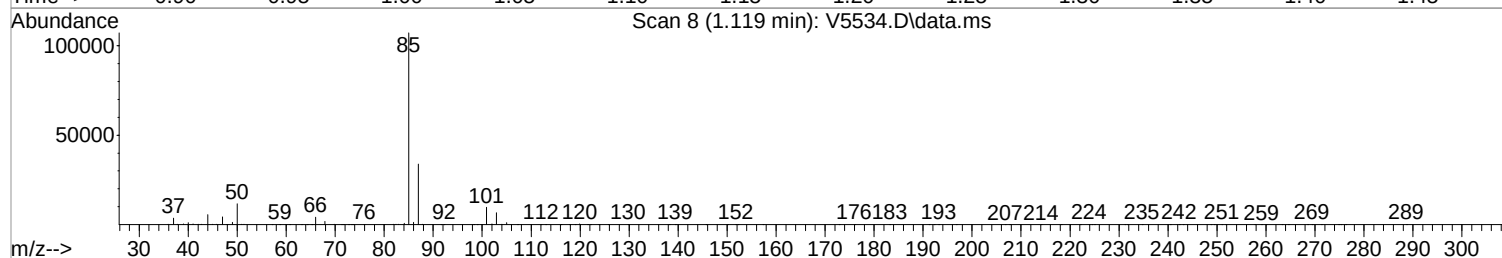
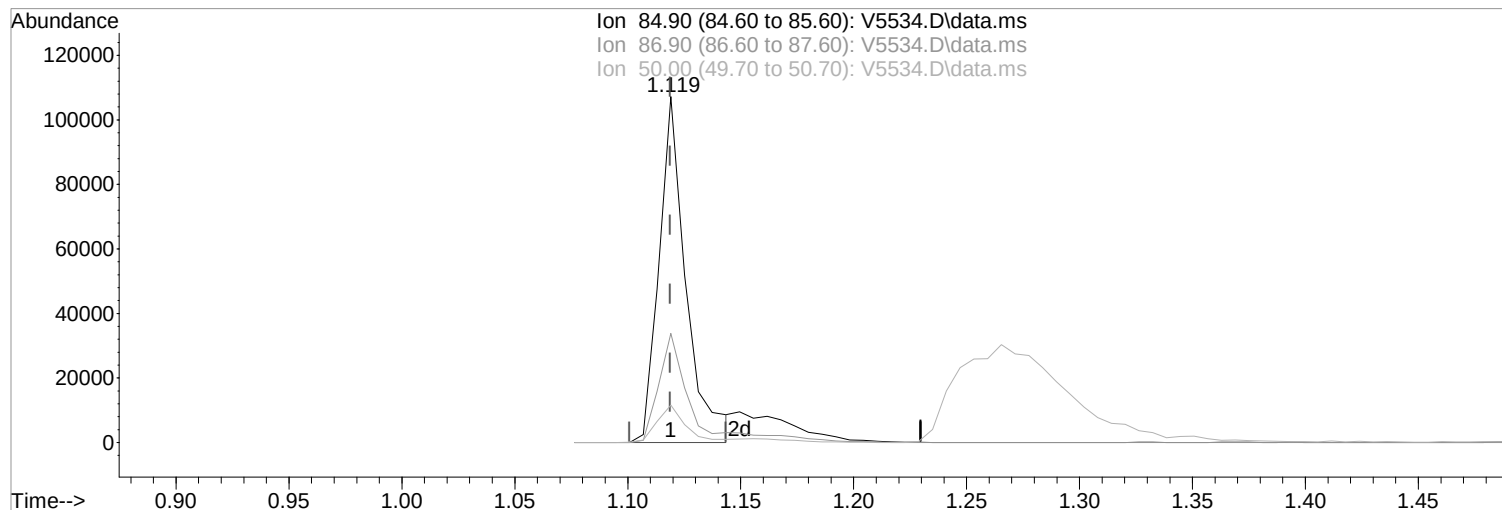
07/28/22



Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5534.D  
Acq On : 28 Jul 2022 10:40 am  
Operator : F.NAEGLER  
Sample : LCS-FP  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:56:34 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5534.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.119min (+0.000) 16.61 ug/L

Before

response 88699

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 31.52 |
| 50.00 | 14.40 | 10.84 |
| 0.00  | 0.00  | 0.00  |

07/28/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5534.D  
 Acq On : 28 Jul 2022 10:40 am  
 Operator : F.NAEGLER  
 Sample : LCS-FP  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:57:06 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|--------|----------|
| Internal Standards            |        |                |          |        |        |          |
| 1) Pentafluorobenzene         | 5.356  | 168            | 578773   | 50.00  | ug/L   | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.484  | 114            | 877657   | 50.00  | ug/L   | 0.00     |
| 70) d5-Chlorobenzene          | 9.941  | 117            | 800068   | 50.00  | ug/L   | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.038 | 152            | 442575   | 50.00  | ug/L   | 0.00     |
| System Monitoring Compounds   |        |                |          |        |        |          |
| 44) surr4,Dibrflmethane       | 5.222  | 113            | 275360   | 48.81  | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =      | 97.62% |          |
| 47) surr1,1,2-dichloroetha... | 5.777  | 65             | 307820   | 46.65  | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =      | 93.30% |          |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1031800  | 48.87  | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =      | 97.74% |          |
| 69) SURR2,BFB                 | 11.050 | 95             | 387643   | 47.92  | ug/L   | 0.00     |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =      | 95.84% |          |
| Target Compounds              |        |                |          |        |        |          |
|                               |        |                |          |        |        | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.119  | 85             | 106011m  | 19.85  | ug/L   |          |
| 3) Chloromethane              | 1.265  | 50             | 100927   | 18.97  | ug/L   | 98       |
| 4) Vinyl Chloride             | 1.326  | 62             | 127534   | 20.34  | ug/L   | 99       |
| 5) Bromomethane               | 1.546  | 94             | 89372    | 21.50  | ug/L   | 94       |
| 6) Chloroethane               | 1.631  | 64             | 77688    | 19.17  | ug/L   | 93       |
| 7) Freon 21                   | 1.777  | 67             | 180769   | 19.03  | ug/L   | 99       |
| 8) Trichlorofluoromethane     | 1.820  | 101            | 171361   | 21.18  | ug/L   | 99       |
| 9) Diethyl Ether              | 2.052  | 59             | 100681   | 24.00  | ug/L   | 98       |
| 10) Freon 123a                | 2.064  | 67             | 126893   | 26.08  | ug/L   | 91       |
| 11) Freon 123                 | 2.119  | 83             | 144988   | 25.43  | ug/L   | 100      |
| 12) Acrolein                  | 2.168  | 56             | 47595    | 39.23  | ug/L   | 98       |
| 13) 1,1-Dicethene             | 2.241  | 96             | 98922    | 25.21  | ug/L   | 96       |
| 14) Freon 113                 | 2.241  | 101            | 98914    | 24.09  | ug/L   | 96       |
| 15) Acetone                   | 2.308  | 43             | 46149    | 18.66  | ug/L   | 92       |
| 16) 2-Propanol                | 2.448  | 45             | 169943   | 293.26 | ug/L   | 93       |
| 17) Iodomethane               | 2.381  | 142            | 134274   | 22.14  | ug/L   | 98       |
| 18) Carbon Disulfide          | 2.430  | 76             | 258089   | 23.45  | ug/L   | 100      |
| 19) Acetonitrile              | 2.576  | 41             | 132635m  | 94.21  | ug/L   |          |
| 20) Allyl Chloride            | 2.576  | 76             | 58549    | 22.92  | ug/L   | # 84     |
| 21) Methyl Acetate            | 2.613  | 43             | 101559   | 15.07  | ug/L   | 99       |
| 22) Methylene Chloride        | 2.704  | 84             | 112923   | 22.90  | ug/L   | 97       |
| 23) TBA                       | 2.850  | 59             | 276987   | 267.43 | ug/L   | 88       |
| 24) Acrylonitrile             | 2.978  | 53             | 277501   | 96.50  | ug/L   | 100      |
| 25) Methyl-t-Butyl Ether      | 2.997  | 73             | 321793   | 20.11  | ug/L   | 100      |
| 26) trans-1,2-Dichloroethene  | 2.985  | 96             | 106832   | 23.39  | ug/L   | 97       |
| 27) 1,1-Dicethane             | 3.497  | 63             | 190163   | 23.84  | ug/L   | 98       |
| 28) Vinyl Acetate             | 3.588  | 86             | 19439    | 20.34  | ug/L   | # 92     |
| 29) DIPE                      | 3.600  | 45             | 303285   | 20.83  | ug/L   | 91       |
| 30) 2-Chloro-1,3-Butadiene    | 3.600  | 53             | 141445   | 21.40  | ug/L   | 100      |
| 31) ETBE                      | 4.125  | 59             | 267145   | 18.68  | ug/L   | 98       |
| 32) 2,2-Dichloropropane       | 4.314  | 77             | 132100   | 19.43  | ug/L   | 100      |
| 33) cis-1,2-Dichloroethene    | 4.338  | 96             | 121390   | 22.42  | ug/L   | 94       |
| 34) 2-Butanone                | 4.417  | 43             | 62965    | 16.72  | ug/L   | 96       |
| 35) Propionitrile             | 4.527  | 54             | 117969   | 93.90  | ug/L   | 97       |
| 36) Bromochloromethane        | 4.740  | 130            | 82956    | 22.08  | ug/L   | 94       |
| 37) Methacrylonitrile         | 4.777  | 67             | 58863    | 19.37  | ug/L   | 95       |
| 38) Tetrahydrofuran           | 4.844  | 42             | 43602    | 17.45  | ug/L   | 97       |
| 39) Chloroform                | 4.917  | 83             | 189838   | 21.92  | ug/L   | 95       |
| 40) 1,1,1-Trichloroethane     | 5.198  | 97             | 153663   | 20.84  | ug/L   | 95       |

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5534.D  
 Acq On : 28 Jul 2022 10:40 am  
 Operator : F.NAEGLER  
 Sample : LCS-FP  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:57:06 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|--------|--------|----------|
| 41) TAME                       | 6.075  | 73   | 289395   | 19.73  | ug/L   | 95       |
| 43) Cyclohexane                | 5.258  | 41   | 88401    | 20.67  | ug/L   | 96       |
| 45) Carbontetrachloride        | 5.472  | 117  | 130095   | 20.82  | ug/L   | 95       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 135583   | 22.16  | ug/L   | 100      |
| 48) Benzene                    | 5.832  | 78   | 408823   | 21.89  | ug/L   | 99       |
| 49) 1,2-Dichloroethane         | 5.899  | 62   | 143744   | 19.45  | ug/L   | 97       |
| 50) Iso-Butyl Alcohol          | 5.905  | 43   | 113801   | 270.78 | ug/L   | 97       |
| 51) n-Heptane                  | 6.307  | 43   | 121915   | 23.39  | ug/L   | 96       |
| 52) 1-Butanol                  | 6.898  | 56   | 187064   | 806.04 | ug/L   | 99       |
| 53) Trichloroethene            | 6.813  | 130  | 121101   | 22.15  | ug/L   | 99       |
| 54) Methylcyclohexane          | 7.039  | 55   | 122354   | 22.06  | ug/L   | 98       |
| 55) 1,2-Dicloropropane         | 7.124  | 63   | 107445   | 21.67  | ug/L   | 99       |
| 56) Dibromomethane             | 7.276  | 93   | 81020    | 21.15  | ug/L   | 92       |
| 57) 1,4-Dioxane                | 7.356  | 88   | 44371    | 335.84 | ug/L   | 92       |
| 58) Methyl Methacrylate        | 7.362  | 69   | 91789    | 18.93  | ug/L   | 94       |
| 59) Bromodichloromethane       | 7.514  | 83   | 140825   | 20.47  | ug/L   | 98       |
| 60) 2-Nitropropane             | 7.837  | 41   | 52208    | 26.38  | ug/L   | 96       |
| 61) 2-Chloroethylvinyl Ether   | 7.935  | 63   | 1769     | 0.72   | ug/L   | 89       |
| 62) cis-1,3-Dichloropropene    | 8.075  | 75   | 167535   | 21.55  | ug/L   | 99       |
| 63) 4-Methyl-2-pentanone       | 8.307  | 43   | 127288   | 16.45  | ug/L   | 100      |
| 65) Toluene                    | 8.447  | 91   | 456043   | 21.93  | ug/L   | 100      |
| 66) trans-1,3-Dichloropropene  | 8.752  | 75   | 145699   | 20.00  | ug/L   | 99       |
| 67) Ethyl Methacrylate         | 8.892  | 69   | 153363   | 18.71  | ug/L   | 95       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 109879   | 20.96  | ug/L   | 99       |
| 71) Tetrachloroethene          | 9.063  | 164  | 96278    | 22.41  | ug/L   | 97       |
| 72) 2-Hexanone                 | 9.264  | 43   | 96039    | 16.54  | ug/L   | 96       |
| 73) 1,3-Dichloropropane        | 9.130  | 76   | 184106   | 20.50  | ug/L   | 95       |
| 74) Dibromochloromethane       | 9.361  | 129  | 114909   | 20.15  | ug/L   | 93       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 180599   | 16.72  | ug/L   | 97       |
| 76) 1,2-Dibromoethane          | 9.459  | 107  | 116794   | 20.04  | ug/L   | 97       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 172587   | 21.63  | ug/L   | 99       |
| 78) Chlorobenzene              | 9.965  | 112  | 299719   | 20.33  | ug/L   | 97       |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 149635   | 21.67  | ug/L   | 98       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 103657   | 19.84  | ug/L   | 96       |
| 81) Ethylbenzene               | 10.087 | 106  | 162602   | 22.06  | ug/L   | 95       |
| 82) (m+p)Xylene                | 10.203 | 106  | 410393   | 45.37  | ug/L   | 96       |
| 83) o-Xylene                   | 10.575 | 106  | 201089   | 22.42  | ug/L   | 89       |
| 84) Styrene                    | 10.593 | 104  | 347362   | 22.57  | ug/L   | 98       |
| 85) Bromoform                  | 10.757 | 173  | 82460    | 19.73  | ug/L   | 99       |
| 86) 2-Chlorobenzotrifluoride   | 10.831 | 180  | 166672   | 21.29  | ug/L   | 99       |
| 87) Isopropylbenzene           | 10.916 | 105  | 510717   | 23.68  | ug/L   | 99       |
| 88) Cyclohexanone              | 11.007 | 55   | 101780   | 73.74  | ug/L   | 99       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 39247    | 15.78  | ug/L   | 86       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 147515   | 17.39  | ug/L   | 98       |
| 92) Bromobenzene               | 11.172 | 156  | 139810   | 19.63  | ug/L   | 100      |
| 93) 1,2,3-Trichloropropane     | 11.227 | 110  | 53400    | 17.90  | ug/L # | 86       |
| 94) n-Propylbenzene            | 11.276 | 91   | 614637   | 22.80  | ug/L   | 98       |
| 95) 2-Chlorotoluene            | 11.343 | 91   | 351775   | 21.52  | ug/L   | 98       |
| 96) 3-Chlorotoluene            | 11.398 | 91   | 356747   | 21.28  | ug/L   | 99       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 408033   | 21.37  | ug/L   | 99       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 433765   | 22.06  | ug/L   | 99       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 368997   | 22.02  | ug/L   | 99       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 435560   | 22.13  | ug/L   | 99       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 137943   | 21.57  | ug/L   | 98       |
| 102) sec-Butylbenzene          | 11.891 | 105  | 541866   | 22.71  | ug/L   | 97       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 470962   | 22.50  | ug/L   | 98       |

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5534.D  
Acq On : 28 Jul 2022 10:40 am  
Operator : F.NAEGLER  
Sample : LCS-FP  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:57:06 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|--------------------------------|--------|------|----------|-------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 271185   | 21.94 | ug/L  | 98       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 273055   | 20.86 | ug/L  | 99       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 127434   | 21.87 | ug/L  | 99       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 138379   | 21.33 | ug/L  | 99       |
| 108) n-Butylbenzene            | 12.355 | 91   | 421757   | 22.70 | ug/L  | 99       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 262922   | 20.75 | ug/L  | 99       |
| 110) 1,2-Dibromo-3-chloropr... | 13.001 | 157  | 38878    | 17.17 | ug/L  | 89       |
| 111) Trielution Dichlorotol... | 13.111 | 125  | 633452   | 61.32 | ug/L  | 98       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 190159   | 20.57 | ug/L  | 98       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 455242   | 40.14 | ug/L  | 99       |
| 114) 1,2,4-Tcbenzene           | 13.647 | 180  | 179330   | 18.14 | ug/L  | 93       |
| 115) Hexachlorobt              | 13.781 | 225  | 82539    | 21.39 | ug/L  | 93       |
| 116) Naphthalen                | 13.842 | 128  | 511213   | 17.46 | ug/L  | 100      |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 172718   | 17.35 | ug/L  | 99       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 123380   | 20.64 | ug/L  | 98       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 104588   | 19.32 | ug/L  | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

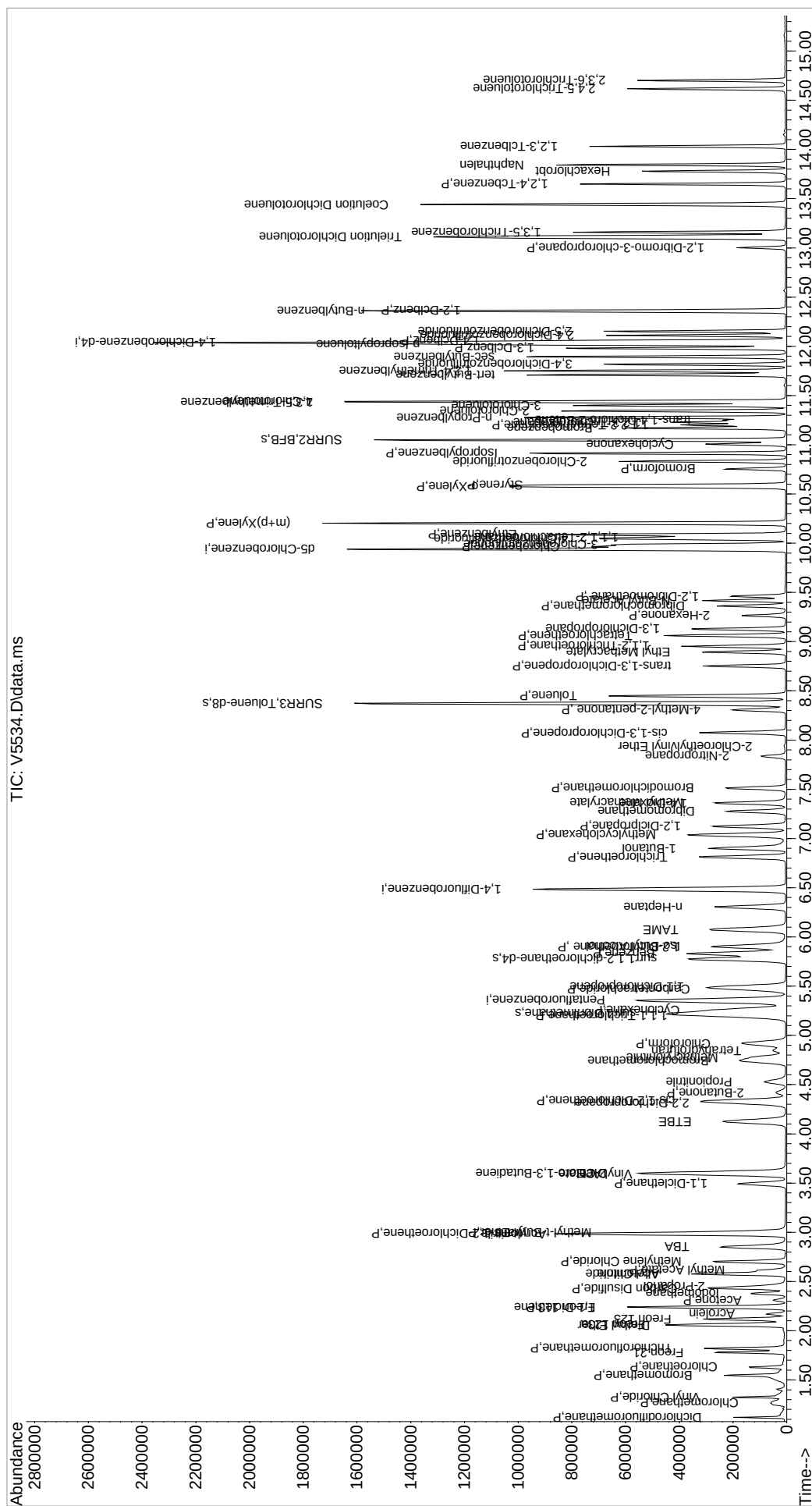
## Quantitation Report (QT Reviewed)

|           |   |                                  |
|-----------|---|----------------------------------|
| Data Path | : | I:\ACQUDATA\MSV0A14\Data\072822\ |
| Data File | : | V5534.D                          |
| Acq On    | : | 28 Jul 2022 10:40 am             |
| Operator  | : | F.NAEGLER                        |
| Sample    | : | LCS-FP                           |
| Misc      | : |                                  |
| ALS Vial  | : | 2 Sample Multiplier: 1           |

Inst : MSV0A14

ALS Vial : 2 Sample Multiplier: 1

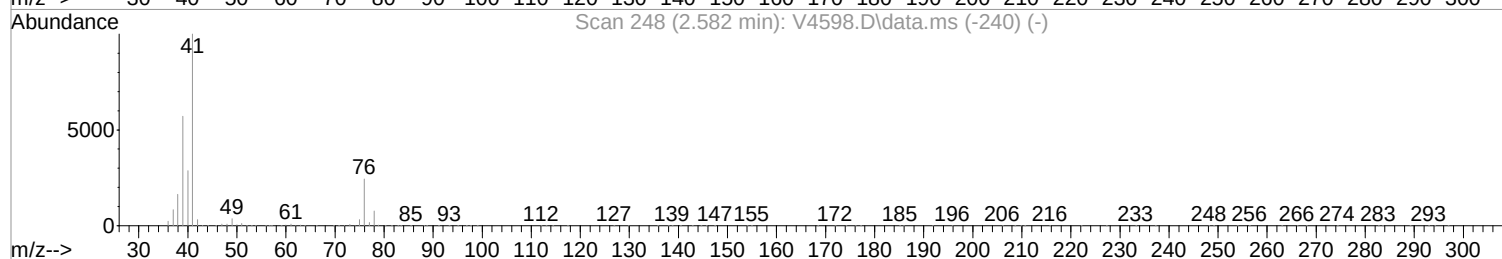
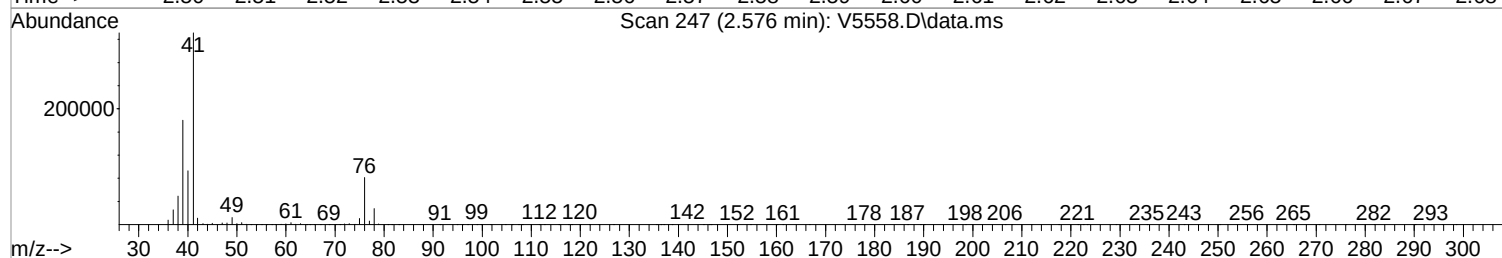
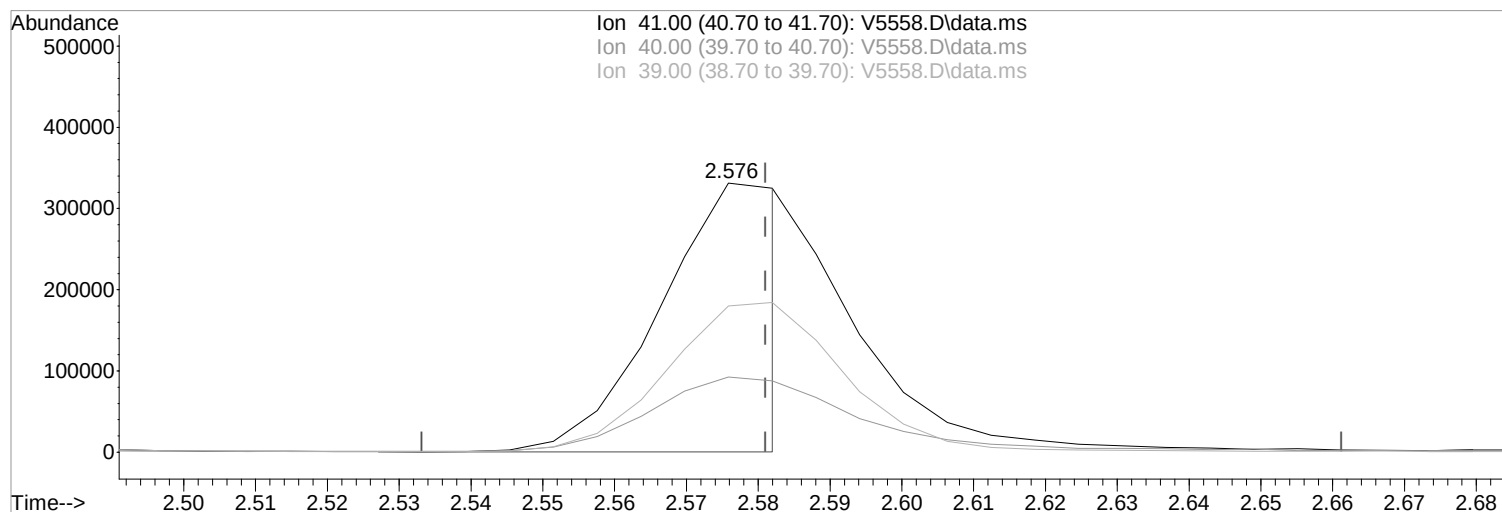
Quant Time: Jul 28 10:57:06 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5558.D  
Acq On : 28 Jul 2022 7:47 pm  
Operator : F.NAEGLER  
Sample : R2206604-008MS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:48 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5558.D\data.ms

(19) Acetonitrile

2.576min (-0.005) 267.27 ug/L m

response 399161

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 28.01 |
| 39.00 | 57.20 | 54.39 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/29/22

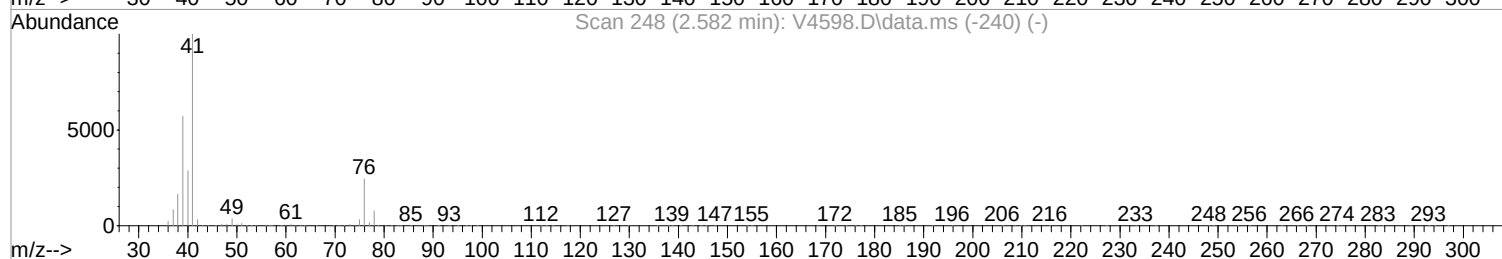
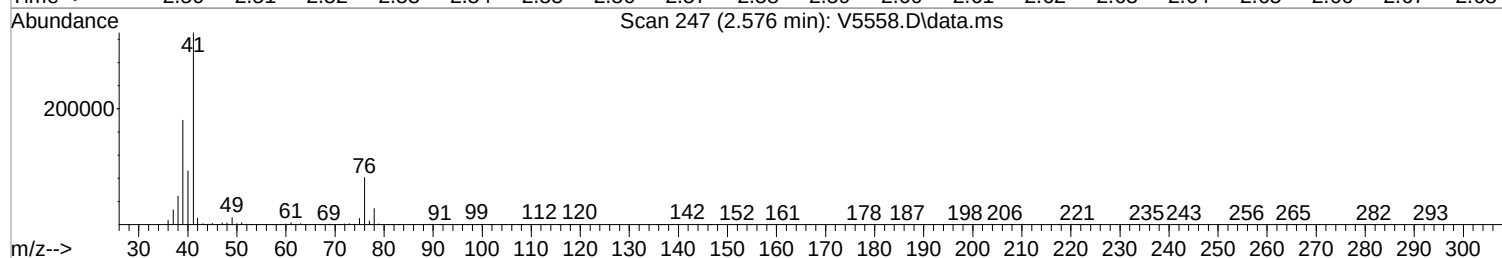
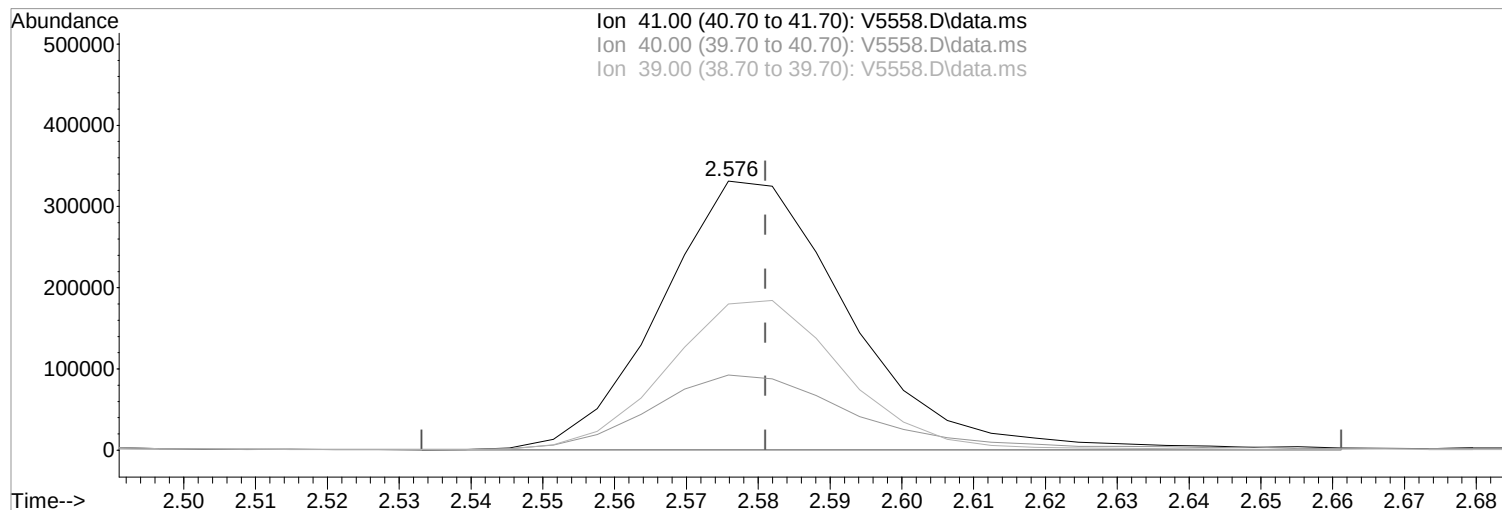
## Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5558.D  
Acq On : 28 Jul 2022 7:47 pm  
Operator : F.NAEGLER  
Sample : R2206604-008MS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:48 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5558.D\data.ms

(19) Acetonitrile

Manual Integration:

2.576min (-0.005) 406.70 ug/L

Before

response 607407

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 28.01 |
| 39.00 | 57.20 | 54.39 |
| 0.00  | 0.00  | 0.00  |

07/29/22

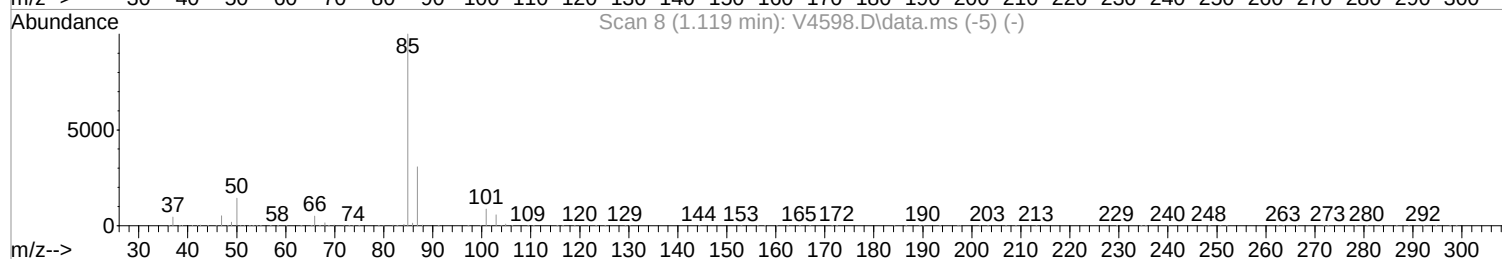
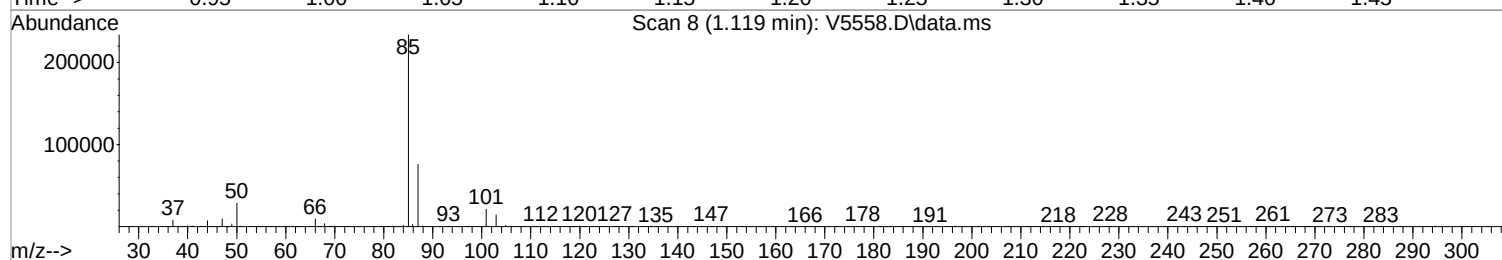
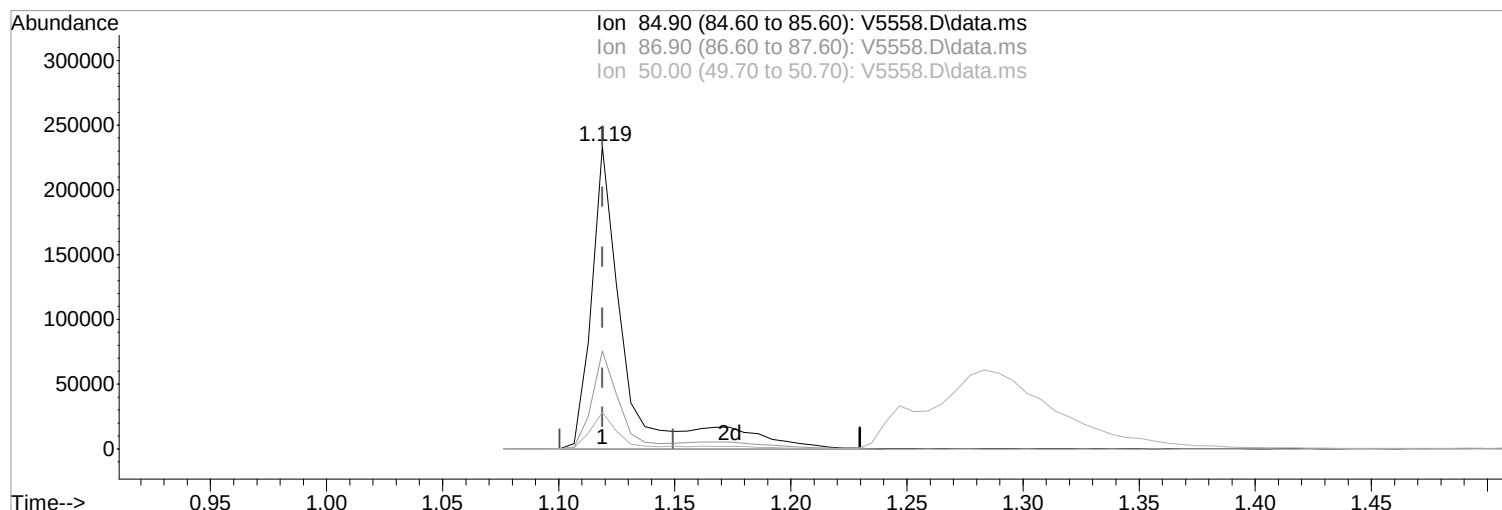
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5558.D  
Acq On : 28 Jul 2022 7:47 pm  
Operator : F.NAEGLER  
Sample : R2206604-008MS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:48 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5558.D\data.ms

(2) Dichlorodifluoromethane (P)

1.119min (-0.000) 41.16 ug/L m

response 233170

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 32.32 |
| 50.00 | 14.40 | 12.12 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/29/22



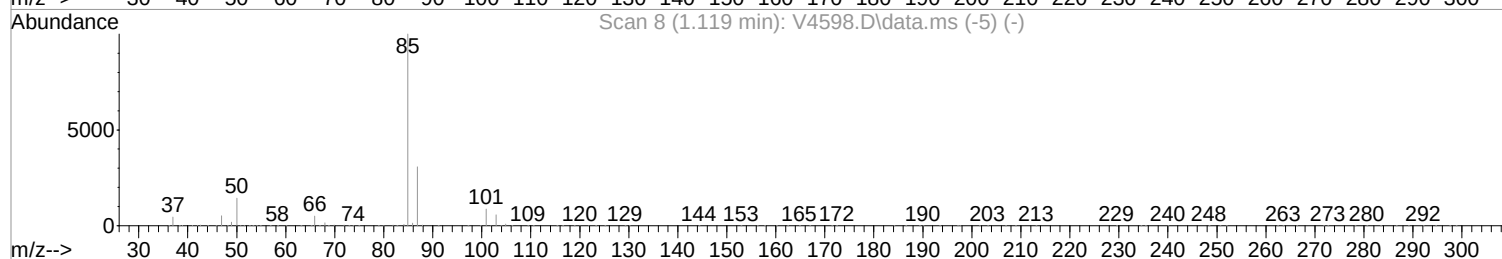
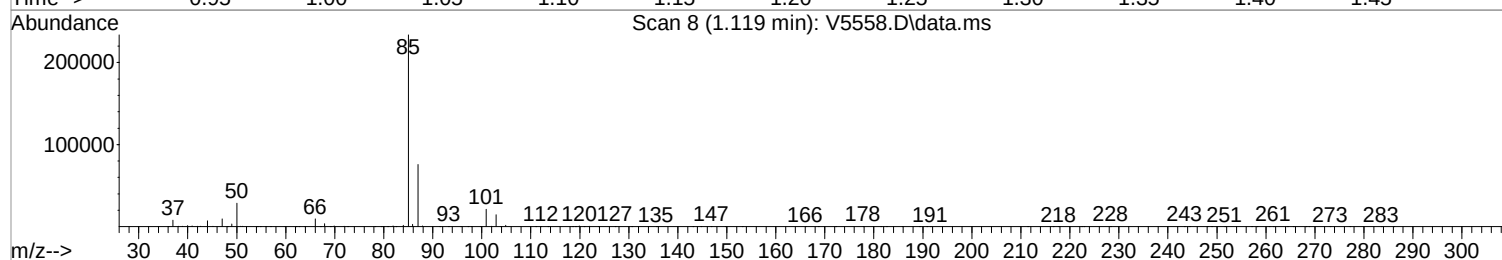
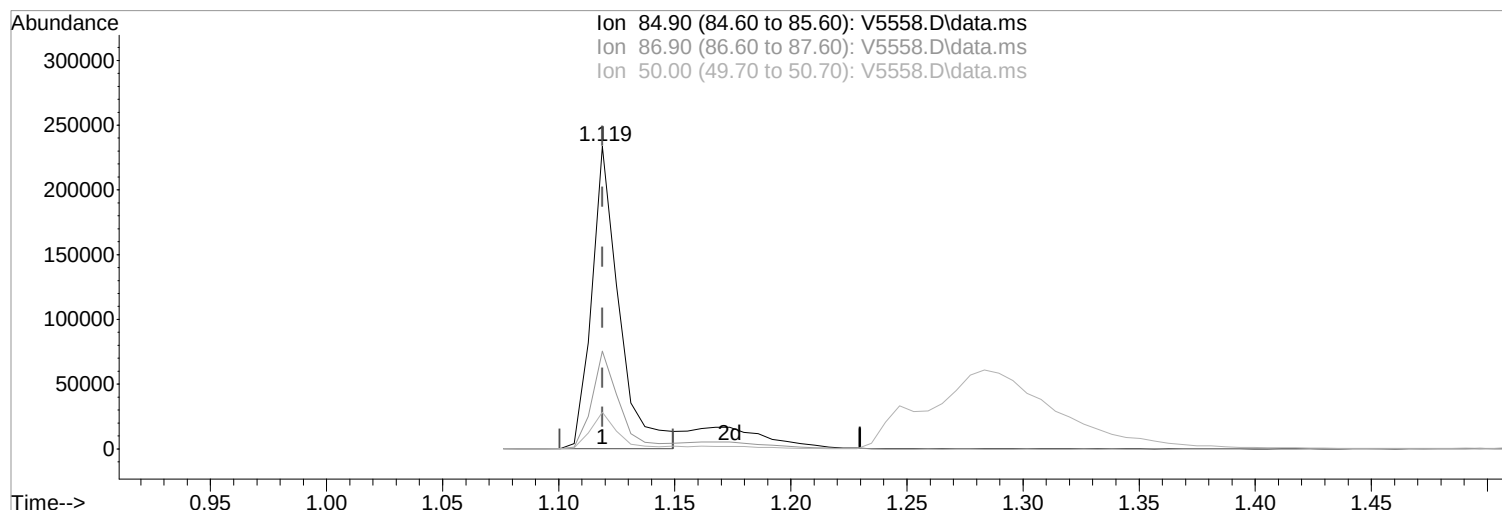
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5558.D  
Acq On : 28 Jul 2022 7:47 pm  
Operator : F.NAEGLER  
Sample : R2206604-008MS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:48 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5558.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.119min (-0.000) 34.03 ug/L

Before

response 192804

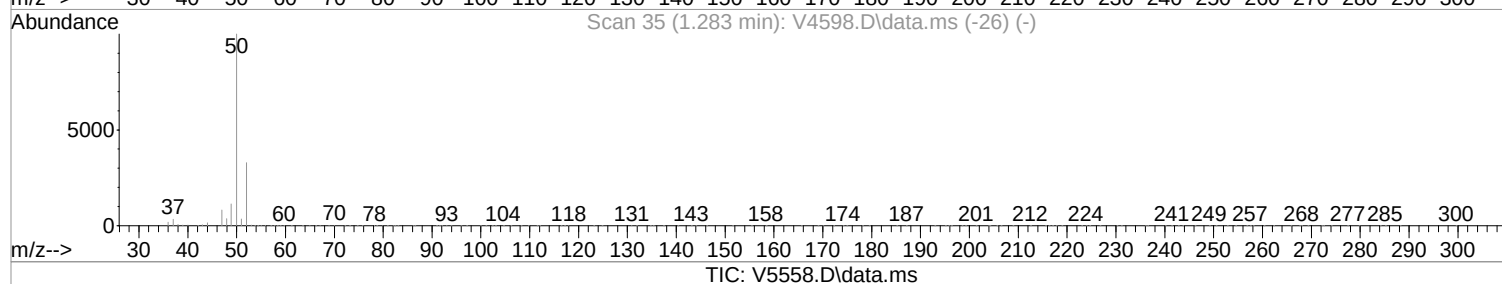
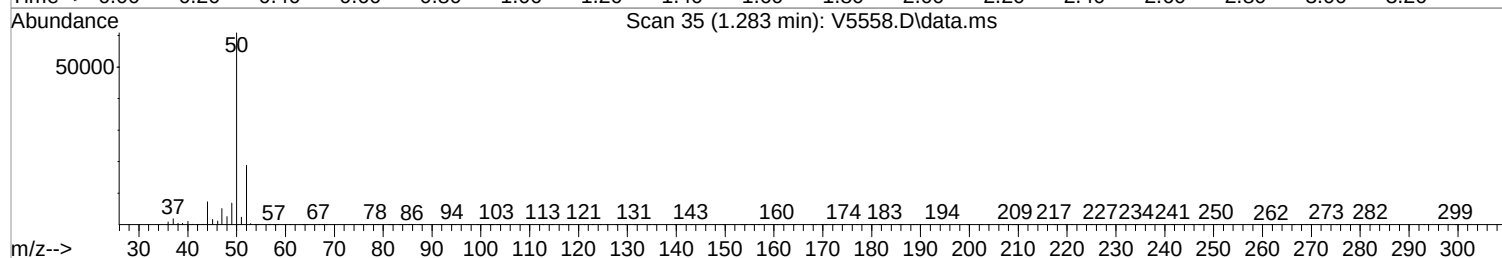
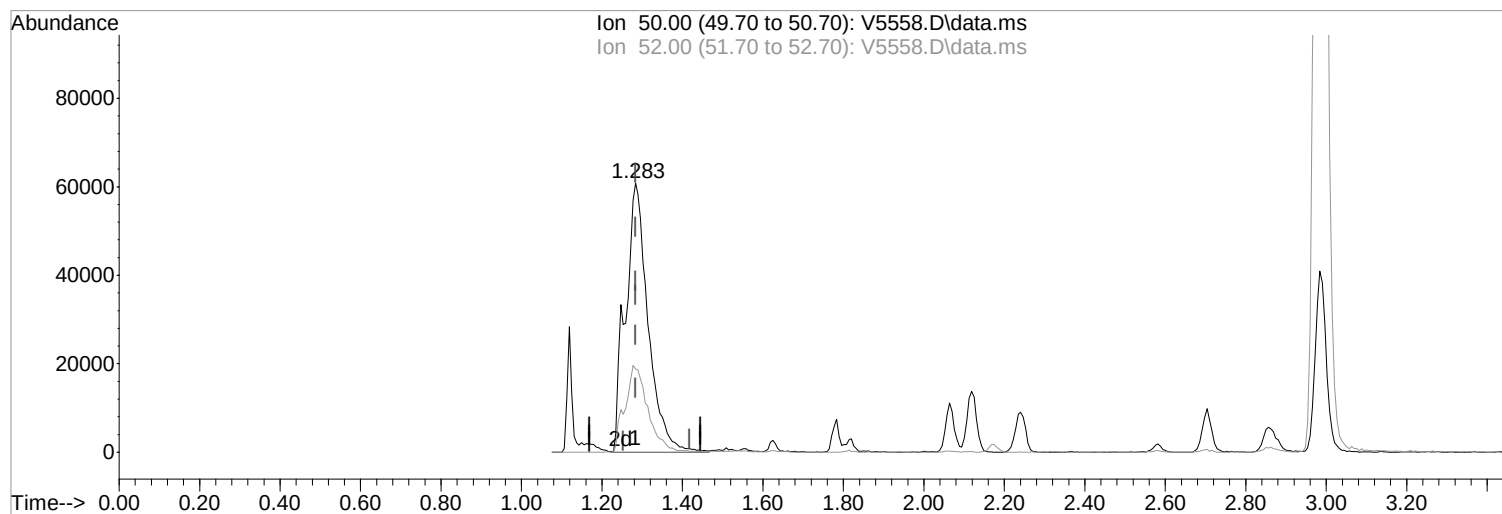
| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 32.32 |
| 50.00 | 14.40 | 12.12 |
| 0.00  | 0.00  | 0.00  |

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5558.D  
Acq On : 28 Jul 2022 7:47 pm  
Operator : F.NAEGLER  
Sample : R2206604-008MS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:48 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



(3) Chloromethane (P)

1.283min (-0.000) 42.17 ug/L m

response 237988

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 30.90 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

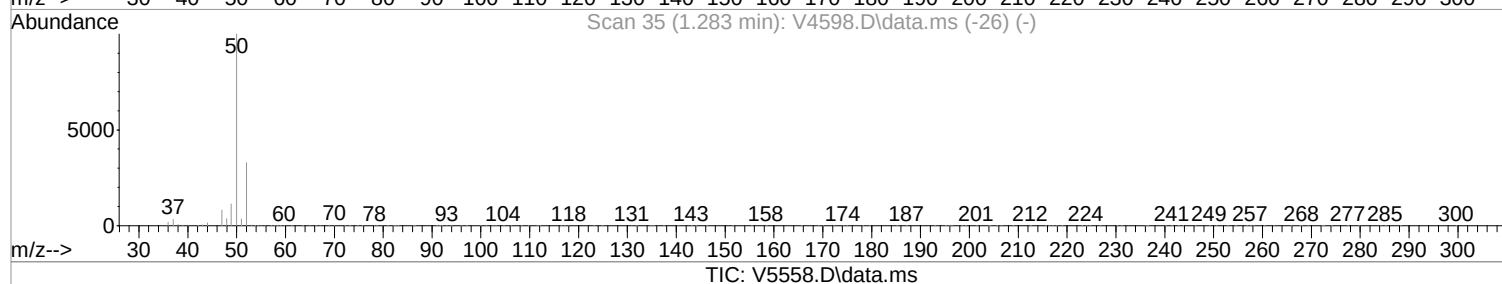
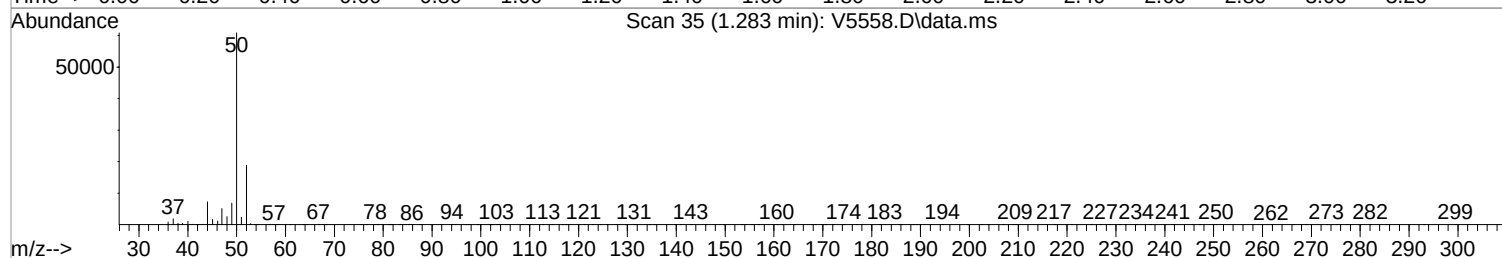
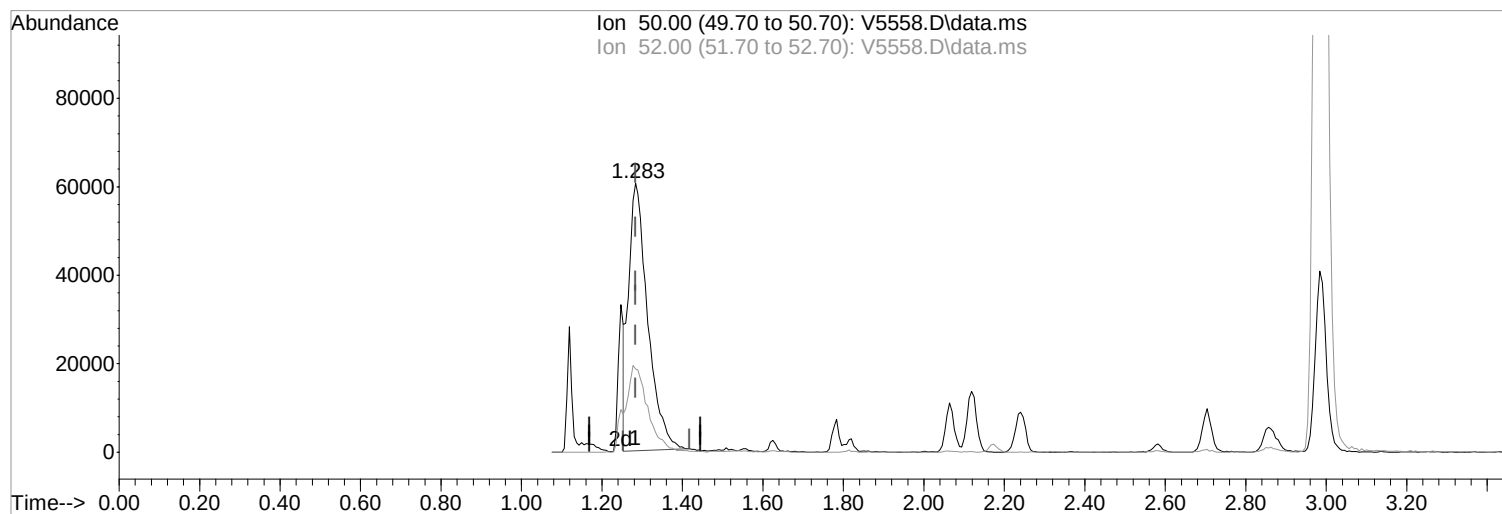
Poor integration.

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5558.D  
Acq On : 28 Jul 2022 7:47 pm  
Operator : F.NAEGLER  
Sample : R2206604-008MS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:48 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



(3) Chloromethane (P)

Manual Integration:

1.283min (-0.000) 35.40 ug/L

Before

response 199751

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 30.90 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5558.D  
 Acq On : 28 Jul 2022 7:47 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-008MS|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:43:57 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 613962   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 938267   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 832473   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.037 | 152  | 446674   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |        |      |
|-------------------------------|--------|----------------|----------|-------|--------|------|
| System Monitoring Compounds   |        |                |          |       |        |      |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 294210   | 48.78 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 97.56% |      |
| 47) surr1,1,2-dichloroetha... | 5.776  | 65             | 334376   | 47.40 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 94.80% |      |
| 64) SURR3,Toluene-d8          | 8.373  | 98             | 1104325  | 48.93 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 97.86% |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 406593   | 47.02 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 94.04% |      |

|                              |       |     |         |        |      |        |
|------------------------------|-------|-----|---------|--------|------|--------|
| Target Compounds             |       |     |         |        |      | Qvalue |
| 2) Dichlorodifluoromethane   | 1.119 | 85  | 233170m | 41.16  | ug/L |        |
| 3) Chloromethane             | 1.283 | 50  | 237988m | 42.17  | ug/L |        |
| 4) Vinyl Chloride            | 1.326 | 62  | 306884  | 46.13  | ug/L | 99     |
| 5) Bromomethane              | 1.546 | 94  | 259887  | 64.61  | ug/L | 98     |
| 6) Chloroethane              | 1.625 | 64  | 190871  | 44.40  | ug/L | 96     |
| 7) Freon 21                  | 1.783 | 67  | 456916  | 45.35  | ug/L | 100    |
| 8) Trichlorofluoromethane    | 1.820 | 101 | 428669  | 49.94  | ug/L | 98     |
| 9) Diethyl Ether             | 2.058 | 59  | 244781  | 55.01  | ug/L | 97     |
| 10) Freon 123a               | 2.064 | 67  | 326524  | 63.25  | ug/L | 92     |
| 11) Freon 123                | 2.119 | 83  | 346341  | 57.25  | ug/L | 98     |
| 12) Acrolein                 | 2.173 | 56  | 122204  | 94.96  | ug/L | 100    |
| 13) 1,1-Dicethene            | 2.241 | 96  | 248449  | 59.69  | ug/L | 95     |
| 14) Freon 113                | 2.241 | 101 | 228691  | 52.50  | ug/L | 99     |
| 15) Acetone                  | 2.314 | 43  | 134607  | 51.31  | ug/L | 97     |
| 16) 2-Propanol               | 2.454 | 45  | 501487  | 815.79 | ug/L | 97     |
| 17) Iodomethane              | 2.381 | 142 | 301001  | 42.91  | ug/L | 98     |
| 18) Carbon Disulfide         | 2.430 | 76  | 624150  | 53.47  | ug/L | 99     |
| 19) Acetonitrile             | 2.576 | 41  | 399161m | 267.27 | ug/L |        |
| 20) Allyl Chloride           | 2.582 | 76  | 143029  | 52.79  | ug/L | # 80   |
| 21) Methyl Acetate           | 2.612 | 43  | 264320  | 36.98  | ug/L | 100    |
| 22) Methylene Chloride       | 2.704 | 84  | 277318  | 53.02  | ug/L | 98     |
| 23) TBA                      | 2.856 | 59  | 868675  | 790.63 | ug/L | 88     |
| 24) Acrylonitrile            | 2.984 | 53  | 763720  | 250.35 | ug/L | 98     |
| 25) Methyl-t-Butyl Ether     | 2.997 | 73  | 789544  | 46.50  | ug/L | 100    |
| 26) trans-1,2-Dichloroethene | 2.984 | 96  | 264485  | 54.59  | ug/L | 94     |
| 27) 1,1-Dicethane            | 3.496 | 63  | 469745  | 55.50  | ug/L | 99     |
| 28) Vinyl Acetate            | 3.588 | 86  | 44863   | 44.25  | ug/L | # 87   |
| 29) DIPE                     | 3.606 | 45  | 777810  | 50.37  | ug/L | 87     |
| 30) 2-Chloro-1,3-Butadiene   | 3.606 | 53  | 365192  | 52.08  | ug/L | 95     |
| 31) ETBE                     | 4.130 | 59  | 667070  | 43.98  | ug/L | 98     |
| 32) 2,2-Dichloropropane      | 4.319 | 77  | 282047  | 39.11  | ug/L | 99     |
| 33) cis-1,2-Dichloroethene   | 4.338 | 96  | 305276  | 53.15  | ug/L | 99     |
| 34) 2-Butanone               | 4.423 | 43  | 180895  | 45.29  | ug/L | 99     |
| 35) Propionitrile            | 4.533 | 54  | 321370  | 241.14 | ug/L | 98     |
| 36) Bromochloromethane       | 4.746 | 130 | 201589  | 50.57  | ug/L | 98     |
| 37) Methacrylonitrile        | 4.783 | 67  | 152865  | 47.42  | ug/L | 95     |
| 38) Tetrahydrofuran          | 4.844 | 42  | 128460  | 48.46  | ug/L | 94     |
| 39) Chloroform               | 4.923 | 83  | 469090  | 51.06  | ug/L | 99     |
| 40) 1,1,1-Trichloroethane    | 5.197 | 97  | 388003  | 49.59  | ug/L | 96     |

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5558.D  
 Acq On : 28 Jul 2022 7:47 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-008MS|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:43:57 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|---------|--------|----------|
| 41) TAME                       | 6.081  | 73   | 720439   | 46.29   | ug/L   | 99       |
| 43) Cyclohexane                | 5.258  | 41   | 226719   | 49.58   | ug/L   | 98       |
| 45) Carbontetrachloride        | 5.478  | 117  | 319487   | 47.83   | ug/L   | 93       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 329657   | 50.41   | ug/L   | 95       |
| 48) Benzene                    | 5.837  | 78   | 1027466  | 51.47   | ug/L   | 100      |
| 49) 1,2-Dichloroethane         | 5.904  | 62   | 360494   | 45.63   | ug/L   | 98       |
| 50) Iso-Butyl Alcohol          | 5.911  | 43   | 365054   | 812.52  | ug/L   | 99       |
| 51) n-Heptane                  | 6.307  | 43   | 250741   | 45.00   | ug/L   | 97       |
| 52) 1-Butanol                  | 6.904  | 56   | 622696   | 2251.64 | ug/L   | 99       |
| 53) Trichloroethene            | 6.813  | 130  | 295873   | 50.63   | ug/L   | 98       |
| 54) Methylcyclohexane          | 7.038  | 55   | 299436   | 50.49   | ug/L   | 98       |
| 55) 1,2-Dicloropropane         | 7.130  | 63   | 267334   | 50.42   | ug/L   | 97       |
| 56) Dibromomethane             | 7.276  | 93   | 199247   | 48.65   | ug/L   | 93       |
| 57) 1,4-Dioxane                | 7.355  | 88   | 121596   | 860.91  | ug/L   | 94       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 238679   | 46.05   | ug/L   | 94       |
| 59) Bromodichloromethane       | 7.514  | 83   | 337985   | 45.95   | ug/L   | 99       |
| 60) 2-Nitropropane             | 7.837  | 41   | 148717   | 70.28   | ug/L   | 93       |
| 61) 2-Chloroethylvinyl Ether   | 7.874  | 63   | 256      | 0.24    | ug/L # | 43       |
| 62) cis-1,3-Dichloropropene    | 8.075  | 75   | 408413   | 49.13   | ug/L   | 98       |
| 63) 4-Methyl-2-pentanone       | 8.306  | 43   | 370179   | 44.76   | ug/L   | 97       |
| 65) Toluene                    | 8.453  | 91   | 1137560  | 51.16   | ug/L   | 98       |
| 66) trans-1,3-Dichloropropene  | 8.751  | 75   | 351374   | 45.13   | ug/L   | 98       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 395033   | 45.07   | ug/L   | 98       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 265771   | 47.42   | ug/L   | 97       |
| 71) Tetrachloroethene          | 9.062  | 164  | 225350   | 50.42   | ug/L   | 99       |
| 72) 2-Hexanone                 | 9.264  | 43   | 281661   | 46.63   | ug/L   | 97       |
| 73) 1,3-Dichloropropane        | 9.129  | 76   | 459504   | 49.18   | ug/L   | 97       |
| 74) Dibromochloromethane       | 9.367  | 129  | 287576   | 48.47   | ug/L   | 100      |
| 75) N-Butyl Acetate            | 9.416  | 43   | 475431   | 42.30   | ug/L   | 97       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 285234   | 47.04   | ug/L   | 100      |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 411647   | 49.57   | ug/L   | 100      |
| 78) Chlorobenzene              | 9.971  | 112  | 736699   | 48.03   | ug/L   | 100      |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 366958   | 51.08   | ug/L   | 98       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 251211   | 46.22   | ug/L   | 97       |
| 81) Ethylbenzene               | 10.087 | 106  | 403292   | 52.59   | ug/L   | 97       |
| 82) (m+p)Xylene                | 10.202 | 106  | 1009976  | 107.32  | ug/L   | 95       |
| 83) o-Xylene                   | 10.574 | 106  | 492165   | 52.73   | ug/L   | 95       |
| 84) Styrene                    | 10.593 | 104  | 825829   | 51.57   | ug/L   | 99       |
| 85) Bromoform                  | 10.757 | 173  | 199584   | 43.92   | ug/L   | 98       |
| 86) 2-Chlorobenzotrifluoride   | 10.830 | 180  | 411603   | 50.52   | ug/L   | 99       |
| 87) Isopropylbenzene           | 10.916 | 105  | 1234904  | 55.02   | ug/L   | 99       |
| 88) Cyclohexanone              | 11.007 | 55   | 300643   | 209.35  | ug/L   | 96       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 91926    | 35.53   | ug/L   | 92       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 418095   | 48.82   | ug/L   | 99       |
| 92) Bromobenzene               | 11.172 | 156  | 330619   | 45.99   | ug/L   | 95       |
| 93) 1,2,3-Trichloropropane     | 11.227 | 110  | 135440   | 44.98   | ug/L   | 93       |
| 94) n-Propylbenzene            | 11.281 | 91   | 1457875  | 53.58   | ug/L   | 99       |
| 95) 2-Chlorotoluene            | 11.342 | 91   | 837291   | 50.76   | ug/L   | 99       |
| 96) 3-Chlorotoluene            | 11.397 | 91   | 880251   | 52.04   | ug/L   | 97       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 971602   | 50.42   | ug/L   | 99       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 1038970  | 52.34   | ug/L   | 98       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 882806   | 52.20   | ug/L   | 98       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 1011992  | 50.94   | ug/L   | 99       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 313148   | 48.53   | ug/L   | 98       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 1280576  | 53.17   | ug/L   | 98       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 1087608  | 51.47   | ug/L   | 99       |

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5558.D  
Acq On : 28 Jul 2022 7:47 pm  
Operator : F.NAEGLER  
Sample : R2206604-008MS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:43:57 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 606762   | 48.64  | ug/L  | 98       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 608453   | 46.06  | ug/L  | 99       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 283665   | 48.23  | ug/L  | 98       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 318224   | 48.59  | ug/L  | 98       |
| 108) n-Butylbenzene            | 12.354 | 91   | 925838   | 49.37  | ug/L  | 99       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 590268   | 46.15  | ug/L  | 99       |
| 110) 1,2-Dibromo-3-chloropr... | 13.007 | 157  | 99062    | 41.51  | ug/L  | 98       |
| 111) Trielution Dichlorotol... | 13.110 | 125  | 1426004  | 136.77 | ug/L  | 99       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 415186   | 44.49  | ug/L  | 98       |
| 113) Coelution Dichlorotoluene | 13.446 | 125  | 1035955  | 90.51  | ug/L  | 95       |
| 114) 1,2,4-Tcbenzene           | 13.653 | 180  | 383658   | 38.45  | ug/L  | 99       |
| 115) Hexachlorobt              | 13.781 | 225  | 166208   | 42.67  | ug/L  | 97       |
| 116) Naphthalen                | 13.848 | 128  | 1210399  | 40.97  | ug/L  | 99       |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 380364   | 37.86  | ug/L  | 99       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 263482   | 43.68  | ug/L  | 99       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 215571   | 39.45  | ug/L  | 99       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

```

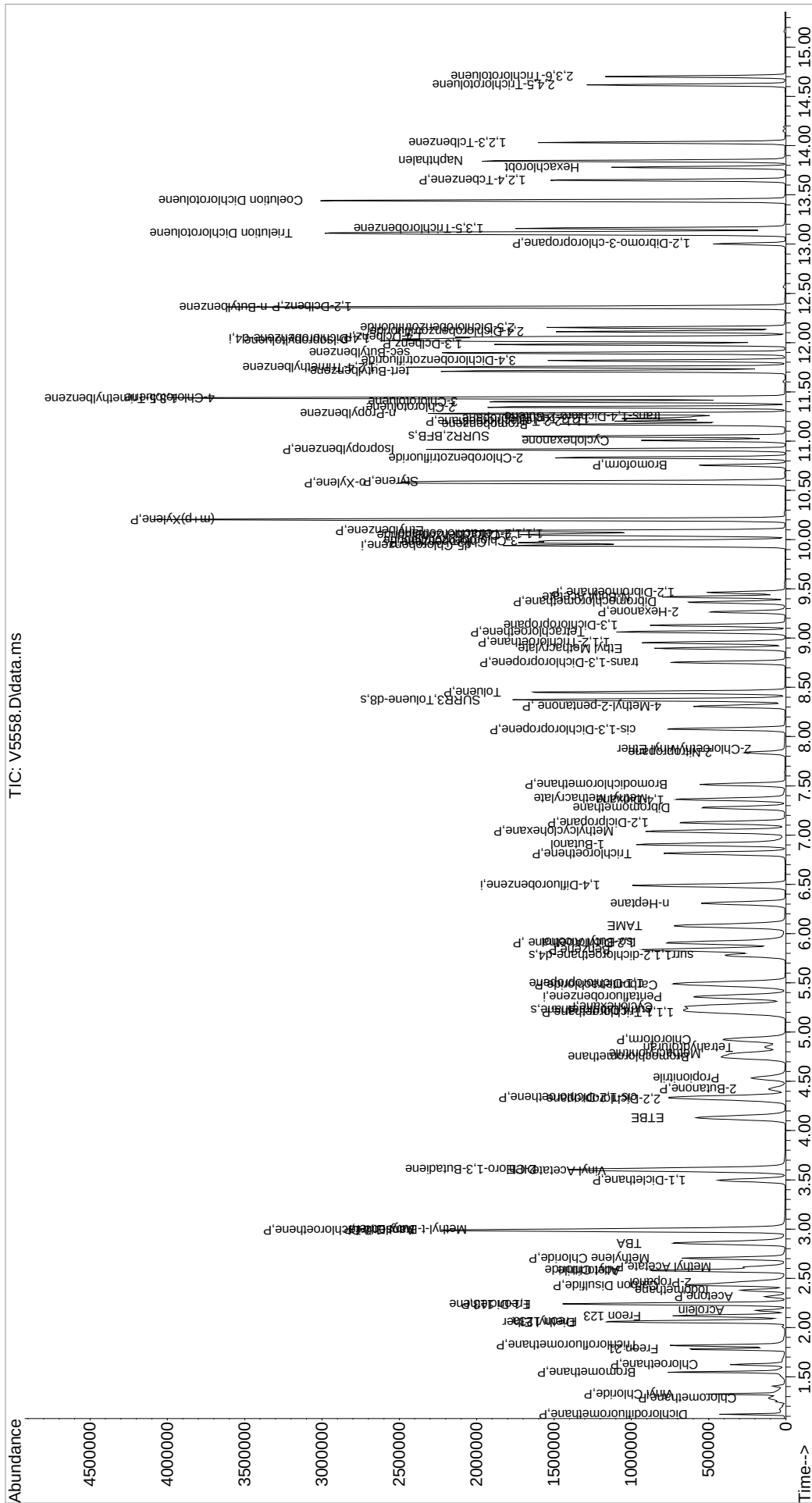
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Data File     : V5558.D
Acq On       : 28 Jul 2022   7:47 pm
Operator      : F.NAEGLER
Sample       : R2206604-008MS|1.0
Misc        : EAE 19519 T4
ALS Vial     : 26   Sample Multiplier: 1

```

Inst : MSV0A14

ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 29 15:43:57 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



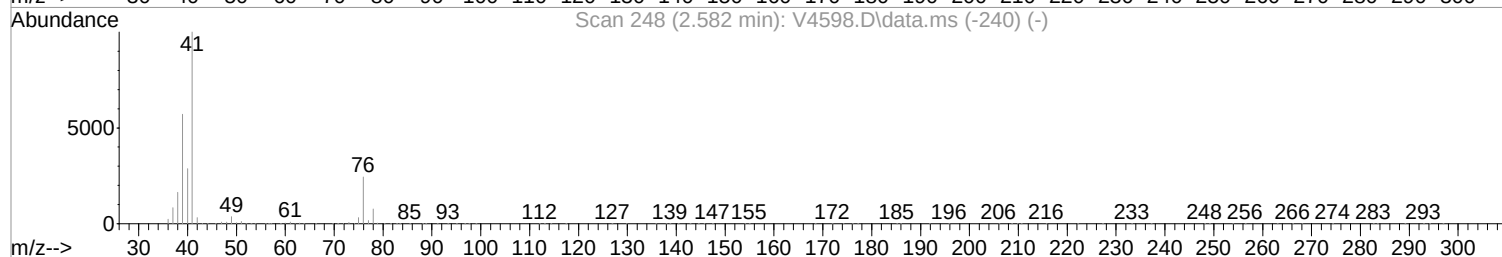
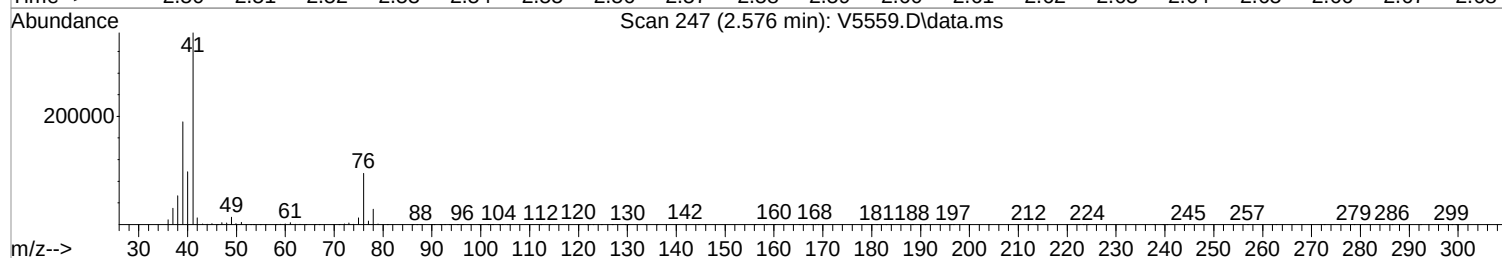
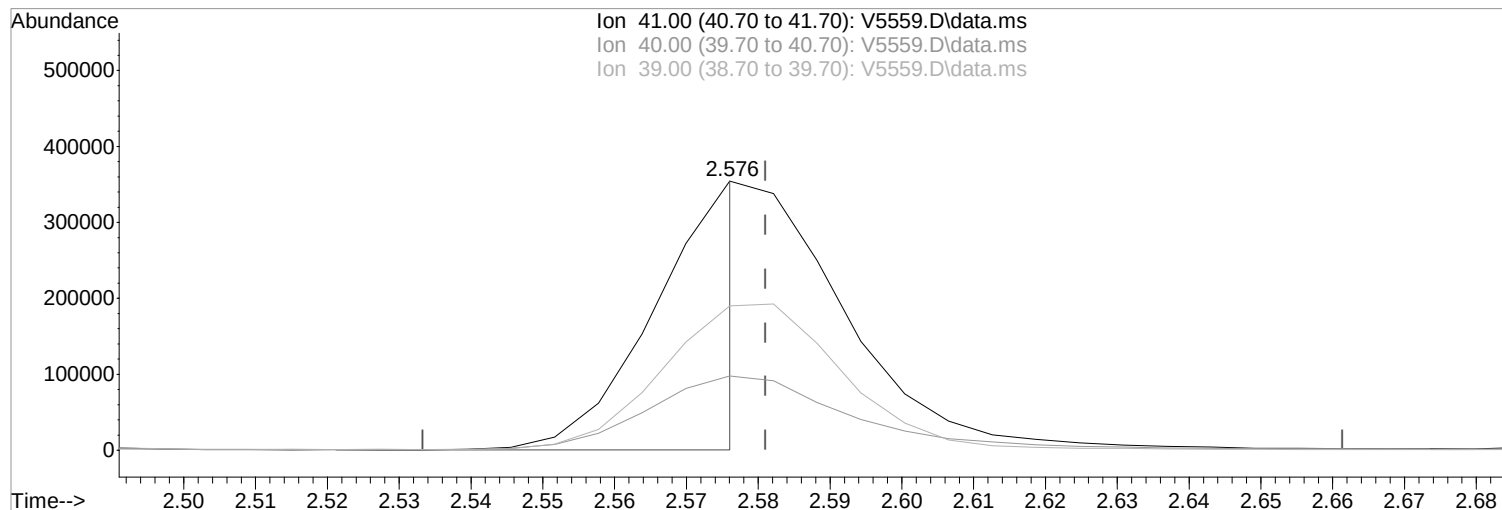
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5559.D  
Acq On : 28 Jul 2022 8:10 pm  
Operator : F.NAEGLER  
Sample : R2206604-008DMS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:59 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5559.D\data.ms

(19) Acetonitrile

2.576min (-0.005) 212.14 ug/L m

response 315163

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 27.61 |
| 39.00 | 57.20 | 53.60 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/29/22



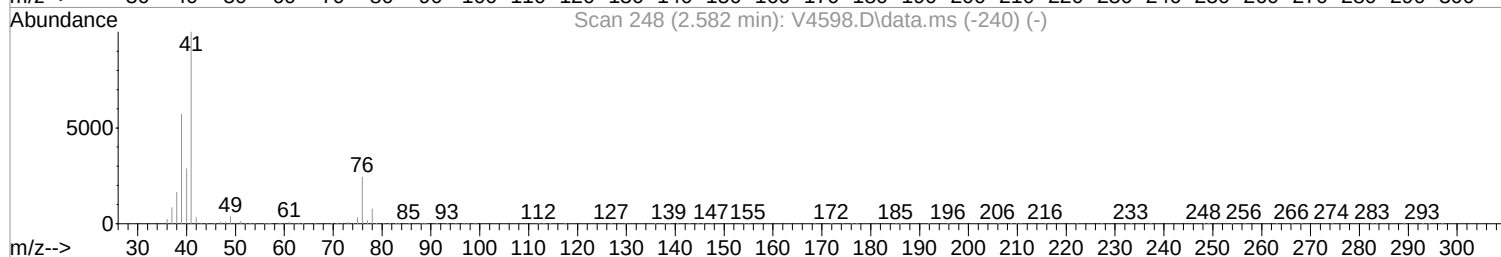
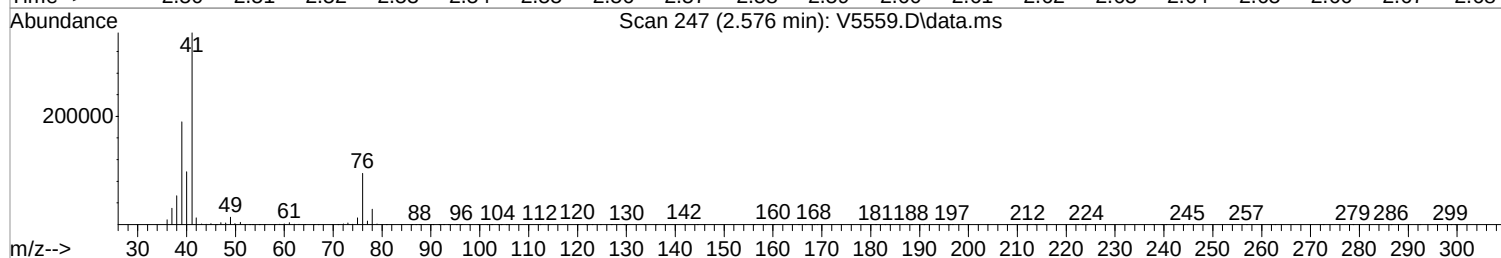
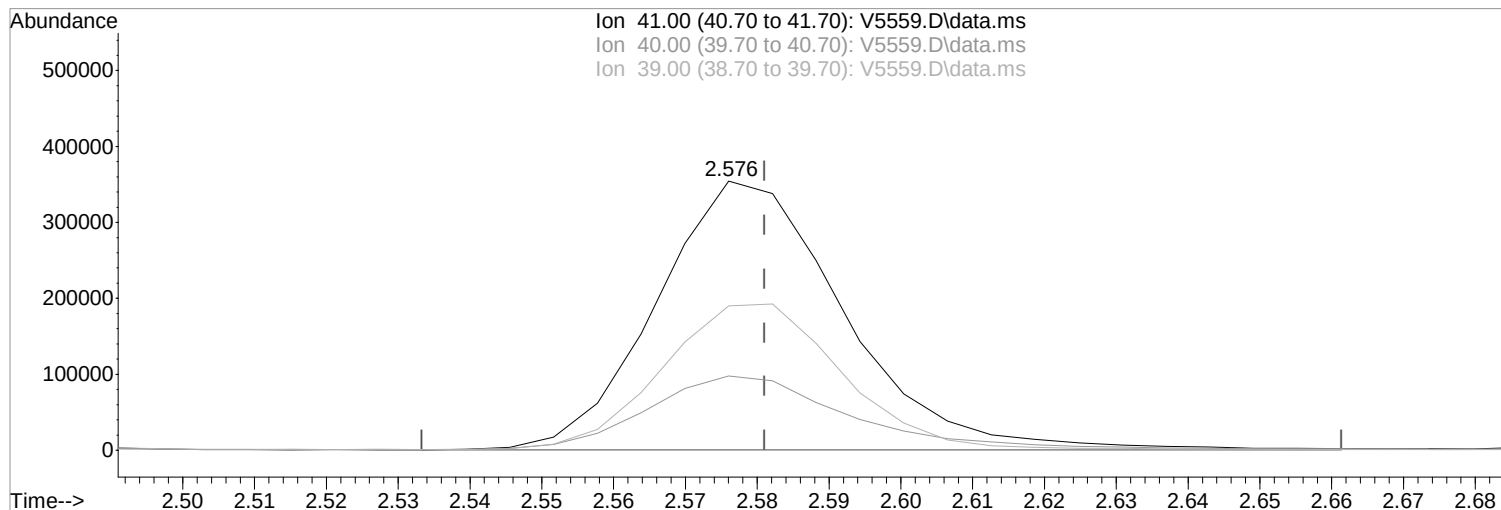
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5559.D  
Acq On : 28 Jul 2022 8:10 pm  
Operator : F.NAEGLER  
Sample : R2206604-008DMS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:59 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5559.D\data.ms

(19) Acetonitrile

Manual Integration:

2.576min (-0.005) 435.21 ug/L

Before

response 646578

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 27.61 |
| 39.00 | 57.20 | 53.60 |
| 0.00  | 0.00  | 0.00  |

07/29/22

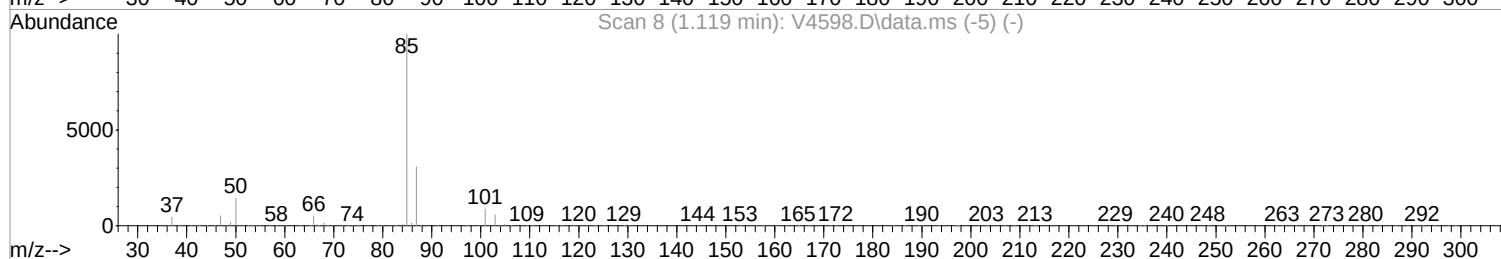
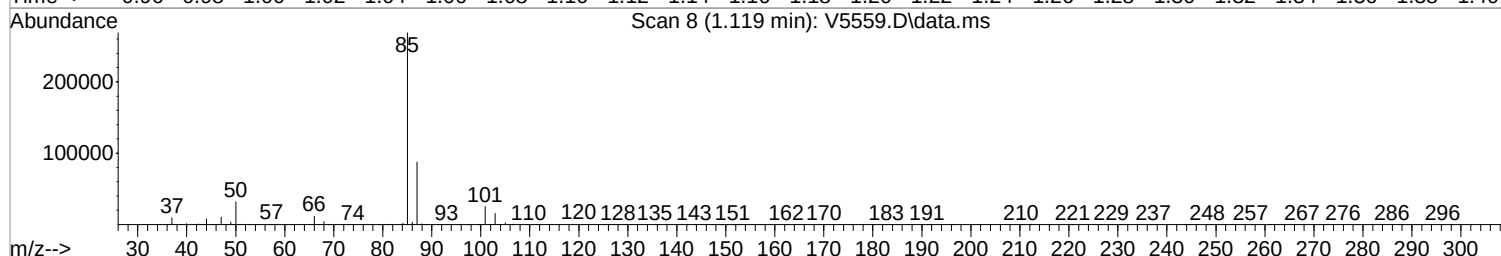
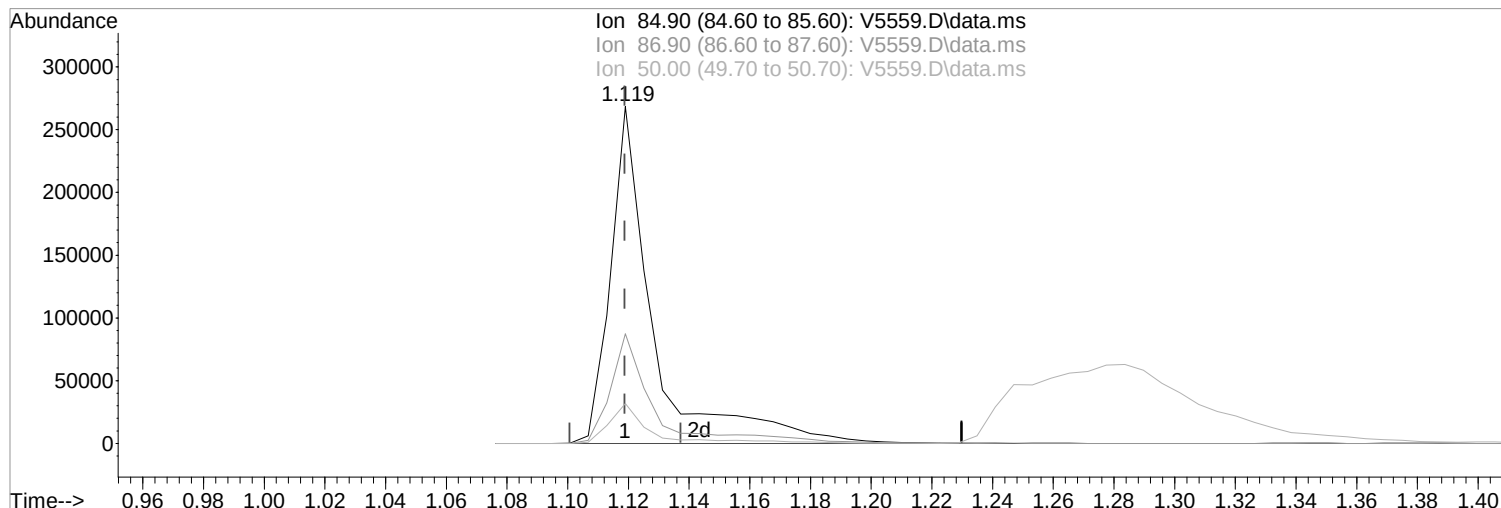
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5559.D  
Acq On : 28 Jul 2022 8:10 pm  
Operator : F.NAEGLER  
Sample : R2206604-008DMS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:59 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5559.D\data.ms

(2) Dichlorodifluoromethane (P)

1.119min (+0.000) 46.78 ug/L m

response 263641

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 32.54 |
| 50.00 | 14.40 | 11.87 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/29/22

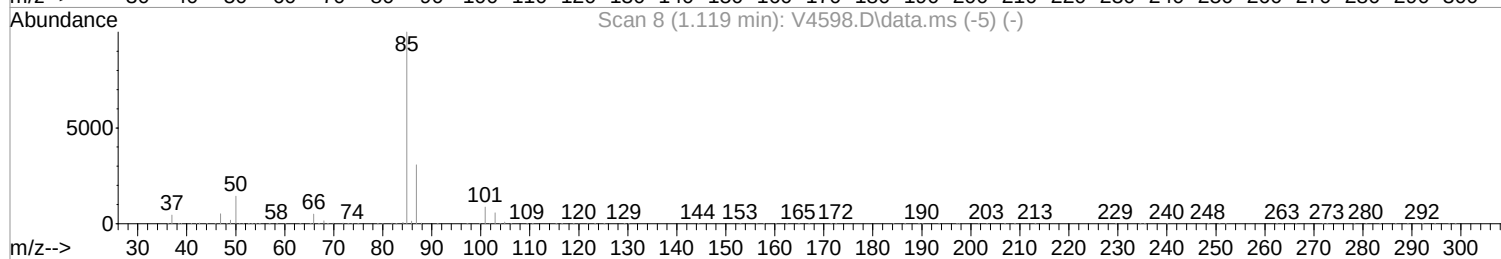
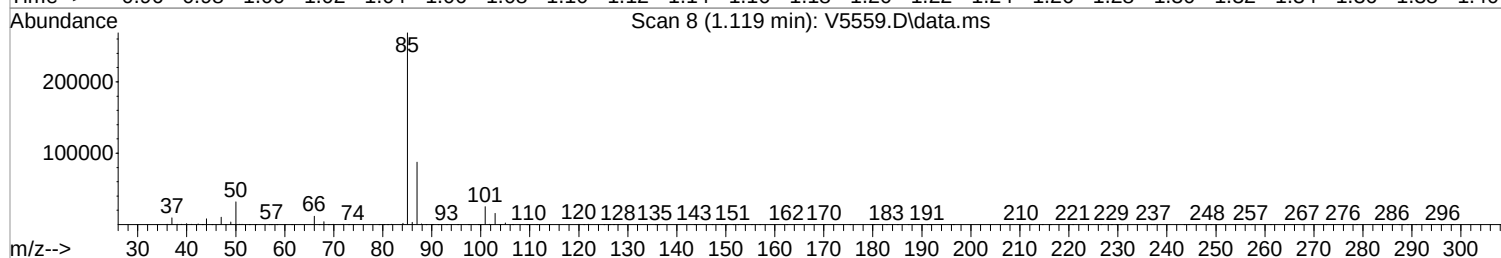
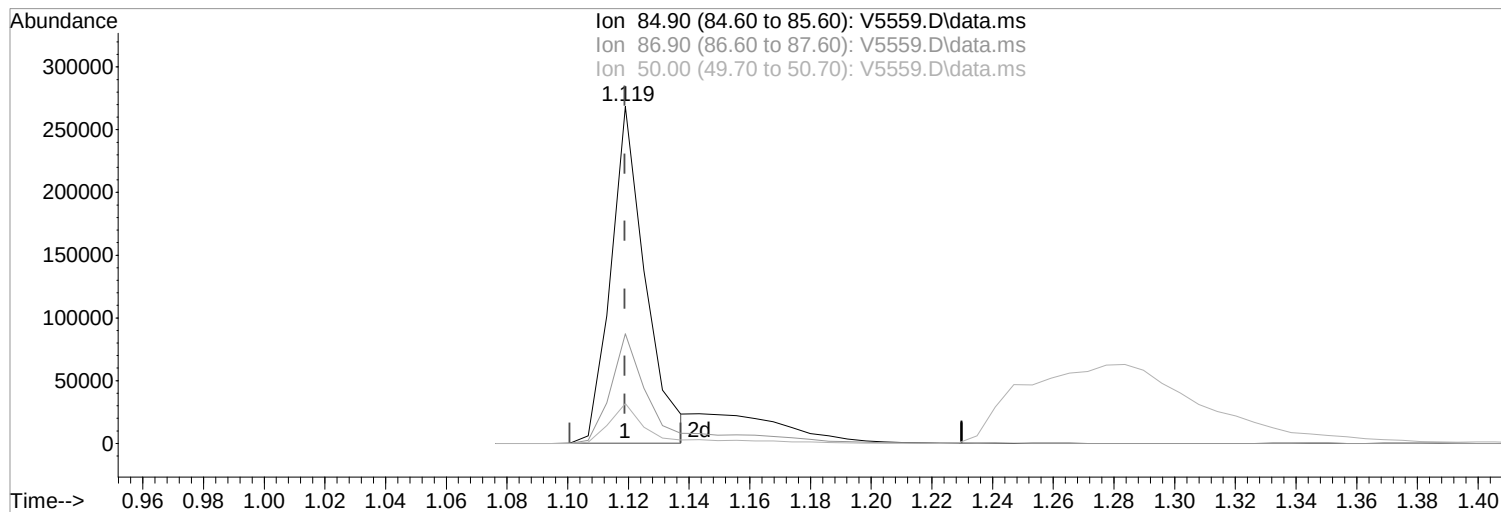
## Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5559.D  
Acq On : 28 Jul 2022 8:10 pm  
Operator : F.NAEGLER  
Sample : R2206604-008DMS|1.0  
Misc : EAE 19519 T4  
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:47:59 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5559.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.119min (+0.000) 37.60 ug/L

Before

response 211896

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 32.54 |
| 50.00 | 14.40 | 11.87 |
| 0.00  | 0.00  | 0.00  |

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5559.D  
 Acq On : 28 Jul 2022 8:10 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-008DMS|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:45:13 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 610745   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 920741   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 826142   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.038 | 152  | 431522   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |         |      |
|-------------------------------|--------|----------------|----------|-------|---------|------|
| System Monitoring Compounds   |        |                |          |       |         |      |
| 44) surr4,Dibrflmethane       | 5.222  | 113            | 297175   | 50.21 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 100.42% |      |
| 47) surr1,1,2-dichloroetha... | 5.777  | 65             | 329836   | 47.65 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 95.30%  |      |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1098195  | 49.58 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 99.16%  |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 401162   | 47.28 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 94.56%  |      |

|                              |       |     |         |        |      |        |
|------------------------------|-------|-----|---------|--------|------|--------|
| Target Compounds             |       |     |         |        |      | Qvalue |
| 2) Dichlorodifluoromethane   | 1.119 | 85  | 263641m | 46.78  | ug/L |        |
| 3) Chloromethane             | 1.284 | 50  | 261054  | 46.50  | ug/L | 97     |
| 4) Vinyl Chloride            | 1.326 | 62  | 332707  | 50.28  | ug/L | 99     |
| 5) Bromomethane              | 1.546 | 94  | 266516  | 66.91  | ug/L | 97     |
| 6) Chloroethane              | 1.625 | 64  | 214254  | 50.10  | ug/L | 98     |
| 7) Freon 21                  | 1.777 | 67  | 477948  | 47.69  | ug/L | 100    |
| 8) Trichlorofluoromethane    | 1.820 | 101 | 455201  | 53.31  | ug/L | 99     |
| 9) Diethyl Ether             | 2.052 | 59  | 255161  | 57.65  | ug/L | 96     |
| 10) Freon 123a               | 2.064 | 67  | 336816  | 65.59  | ug/L | 90     |
| 11) Freon 123                | 2.119 | 83  | 389843  | 64.79  | ug/L | 98     |
| 12) Acrolein                 | 2.174 | 56  | 128621  | 100.47 | ug/L | 100    |
| 13) 1,1-Dicethene            | 2.241 | 96  | 268658  | 64.88  | ug/L | 98     |
| 14) Freon 113                | 2.241 | 101 | 248962  | 57.46  | ug/L | 100    |
| 15) Acetone                  | 2.314 | 43  | 137563  | 52.72  | ug/L | 96     |
| 16) 2-Propanol               | 2.454 | 45  | 521761  | 853.24 | ug/L | 95     |
| 17) Iodomethane              | 2.381 | 142 | 374357  | 52.39  | ug/L | 95     |
| 18) Carbon Disulfide         | 2.430 | 76  | 690089  | 59.43  | ug/L | 100    |
| 19) Acetonitrile             | 2.576 | 41  | 315163m | 212.14 | ug/L |        |
| 20) Allyl Chloride           | 2.582 | 76  | 158498  | 58.81  | ug/L | # 75   |
| 21) Methyl Acetate           | 2.613 | 43  | 261641  | 36.80  | ug/L | 98     |
| 22) Methylene Chloride       | 2.704 | 84  | 295973  | 56.89  | ug/L | 96     |
| 23) TBA                      | 2.856 | 59  | 888124  | 812.59 | ug/L | 90     |
| 24) Acrylonitrile            | 2.984 | 53  | 784556  | 258.54 | ug/L | 97     |
| 25) Methyl-t-Butyl Ether     | 2.997 | 73  | 849082  | 50.27  | ug/L | 99     |
| 26) trans-1,2-Dichloroethene | 2.984 | 96  | 287719  | 59.70  | ug/L | 97     |
| 27) 1,1-Dicethane            | 3.497 | 63  | 500391  | 59.44  | ug/L | 99     |
| 28) Vinyl Acetate            | 3.588 | 86  | 47078   | 46.68  | ug/L | 96     |
| 29) DIPE                     | 3.600 | 45  | 811114  | 52.80  | ug/L | 99     |
| 30) 2-Chloro-1,3-Butadiene   | 3.606 | 53  | 391252  | 56.09  | ug/L | 98     |
| 31) ETBE                     | 4.131 | 59  | 701057  | 46.46  | ug/L | 98     |
| 32) 2,2-Dichloropropane      | 4.320 | 77  | 303339  | 42.28  | ug/L | 98     |
| 33) cis-1,2-Dichloroethene   | 4.338 | 96  | 323766  | 56.67  | ug/L | 98     |
| 34) 2-Butanone               | 4.417 | 43  | 189798  | 47.77  | ug/L | 96     |
| 35) Propionitrile            | 4.533 | 54  | 325451  | 245.49 | ug/L | 99     |
| 36) Bromochloromethane       | 4.740 | 130 | 216590  | 54.62  | ug/L | 93     |
| 37) Methacrylonitrile        | 4.783 | 67  | 160979  | 50.20  | ug/L | 94     |
| 38) Tetrahydrofuran          | 4.844 | 42  | 128691  | 48.80  | ug/L | 100    |
| 39) Chloroform               | 4.923 | 83  | 500215  | 54.74  | ug/L | 99     |
| 40) 1,1,1-Trichloroethane    | 5.204 | 97  | 415505  | 53.39  | ug/L | 96     |

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5559.D  
 Acq On : 28 Jul 2022 8:10 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-008DMS|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:45:13 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 41) TAME                       | 6.075  | 73   | 761338   | 49.18   | ug/L  | 100      |
| 43) Cyclohexane                | 5.265  | 41   | 232399   | 51.79   | ug/L  | 93       |
| 45) Carbontetrachloride        | 5.478  | 117  | 348189   | 53.11   | ug/L  | 95       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 352922   | 54.99   | ug/L  | 96       |
| 48) Benzene                    | 5.838  | 78   | 1101519  | 56.23   | ug/L  | 99       |
| 49) 1,2-Dichloroethane         | 5.899  | 62   | 382235   | 49.31   | ug/L  | 99       |
| 50) Iso-Butyl Alcohol          | 5.911  | 43   | 371916   | 843.55  | ug/L  | 95       |
| 51) n-Heptane                  | 6.307  | 43   | 263198   | 48.14   | ug/L  | 96       |
| 52) 1-Butanol                  | 6.904  | 56   | 624431   | 2294.19 | ug/L  | 99       |
| 53) Trichloroethene            | 6.819  | 130  | 315339   | 54.99   | ug/L  | 99       |
| 54) Methylcyclohexane          | 7.039  | 55   | 304813   | 52.38   | ug/L  | 94       |
| 55) 1,2-Dichloropropane        | 7.124  | 63   | 282450   | 54.29   | ug/L  | 96       |
| 56) Dibromomethane             | 7.276  | 93   | 207869   | 51.72   | ug/L  | 92       |
| 57) 1,4-Dioxane                | 7.356  | 88   | 122885   | 886.59  | ug/L  | 94       |
| 58) Methyl Methacrylate        | 7.362  | 69   | 257818   | 50.69   | ug/L  | 94       |
| 59) Bromodichloromethane       | 7.514  | 83   | 364270   | 50.47   | ug/L  | 99       |
| 60) 2-Nitropropane             | 7.837  | 41   | 154246   | 74.28   | ug/L  | 90       |
| 62) cis-1,3-Dichloropropene    | 8.081  | 75   | 437528   | 53.64   | ug/L  | 99       |
| 63) 4-Methyl-2-pentanone       | 8.307  | 43   | 383008   | 47.19   | ug/L  | 96       |
| 65) Toluene                    | 8.453  | 91   | 1222733  | 56.04   | ug/L  | 100      |
| 66) trans-1,3-Dichloropropene  | 8.752  | 75   | 383145   | 50.14   | ug/L  | 98       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 424329   | 49.33   | ug/L  | 94       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 281946   | 51.26   | ug/L  | 98       |
| 71) Tetrachloroethene          | 9.063  | 164  | 240166   | 54.15   | ug/L  | 98       |
| 72) 2-Hexanone                 | 9.264  | 43   | 286607   | 47.81   | ug/L  | 97       |
| 73) 1,3-Dichloropropane        | 9.130  | 76   | 486872   | 52.51   | ug/L  | 97       |
| 74) Dibromochloromethane       | 9.367  | 129  | 304551   | 51.72   | ug/L  | 96       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 468655   | 42.01   | ug/L  | 97       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 303119   | 50.37   | ug/L  | 99       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 428928   | 52.05   | ug/L  | 100      |
| 78) Chlorobenzene              | 9.965  | 112  | 774289   | 50.87   | ug/L  | 97       |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 379977   | 53.30   | ug/L  | 99       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 271195   | 50.28   | ug/L  | 96       |
| 81) Ethylbenzene               | 10.087 | 106  | 423886   | 55.69   | ug/L  | 98       |
| 82) (m+p)Xylene                | 10.203 | 106  | 1066132  | 114.16  | ug/L  | 97       |
| 83) o-Xylene                   | 10.574 | 106  | 520140   | 56.15   | ug/L  | 96       |
| 84) Styrene                    | 10.593 | 104  | 862869   | 54.30   | ug/L  | 97       |
| 85) Bromoform                  | 10.757 | 173  | 220394   | 48.50   | ug/L  | 99       |
| 86) 2-Chlorobenzotrifluoride   | 10.831 | 180  | 424364   | 52.49   | ug/L  | 97       |
| 87) Isopropylbenzene           | 10.916 | 105  | 1295788  | 58.17   | ug/L  | 99       |
| 88) Cyclohexanone              | 11.007 | 55   | 307594   | 215.83  | ug/L  | 95       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 99085    | 38.59   | ug/L  | 91       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 433397   | 52.39   | ug/L  | 98       |
| 92) Bromobenzene               | 11.172 | 156  | 349899   | 50.38   | ug/L  | 96       |
| 93) 1,2,3-Trichloropropane     | 11.233 | 110  | 142320   | 48.93   | ug/L  | 99       |
| 94) n-Propylbenzene            | 11.282 | 91   | 1536654  | 58.46   | ug/L  | 99       |
| 95) 2-Chlorotoluene            | 11.343 | 91   | 878745   | 55.14   | ug/L  | 99       |
| 96) 3-Chlorotoluene            | 11.397 | 91   | 904008   | 55.32   | ug/L  | 96       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 1012736  | 54.40   | ug/L  | 98       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 1079935  | 56.32   | ug/L  | 99       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 928375   | 56.82   | ug/L  | 100      |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 1060460  | 55.26   | ug/L  | 98       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 320453   | 51.40   | ug/L  | 99       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 1343462  | 57.74   | ug/L  | 99       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 1132212  | 55.47   | ug/L  | 99       |
| 104) 1,3-Dichlorobenzene       | 11.983 | 146  | 641563   | 53.23   | ug/L  | 99       |

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5559.D  
 Acq On : 28 Jul 2022 8:10 pm  
 Operator : F.NAEGLER  
 Sample : R2206604-008DMS|1.0  
 Misc : EAE 19519 T4  
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 15:45:13 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 105) 1,4-Dclbenz               | 12.056 | 146  | 648556   | 50.82  | ug/L  | 99       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 290052   | 51.04  | ug/L  | 99       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 323229   | 51.09  | ug/L  | 99       |
| 108) n-Butylbenzene            | 12.355 | 91   | 976295   | 53.89  | ug/L  | 98       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 629299   | 50.93  | ug/L  | 99       |
| 110) 1,2-Dibromo-3-chloropr... | 13.007 | 157  | 103178   | 44.52  | ug/L  | 93       |
| 111) Trielution Dichlorotol... | 13.117 | 125  | 1502298  | 149.14 | ug/L  | 100      |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 431233   | 47.83  | ug/L  | 98       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 1086918  | 98.29  | ug/L  | 98       |
| 114) 1,2,4-Tcbenzene           | 13.653 | 180  | 409051   | 42.43  | ug/L  | 100      |
| 115) Hexachlorobt              | 13.781 | 225  | 178974   | 47.56  | ug/L  | 98       |
| 116) Naphthalen                | 13.848 | 128  | 1315425  | 46.09  | ug/L  | 100      |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 409497   | 42.19  | ug/L  | 98       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 286128   | 49.10  | ug/L  | 99       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 245515   | 46.50  | ug/L  | 98       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

```

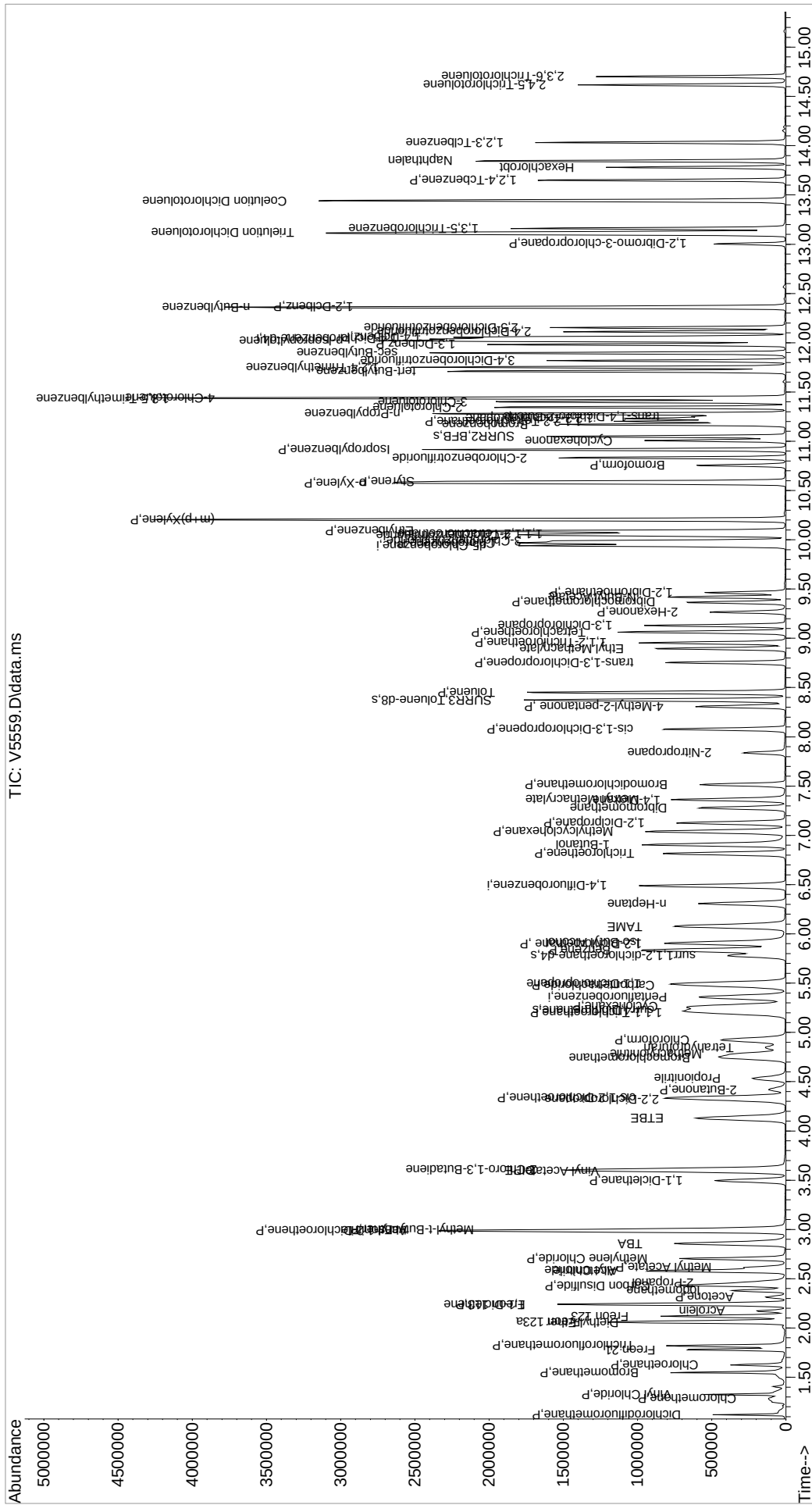
Data Path      : I:\ACQUDATA\MSV0A14\Data\072822\
Data File     : V5559.D
Acq On       : 28 Jul 2022   8:10 pm
Operator      : F.NAEGLER
Sample       : R2206604-008DMS|1.0
Misc        : EAE 19519 T4
ALS Vial     : 27   Sample Multiplier: 1

```

Inst : MSV0A14

ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 29 15:45:13 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration





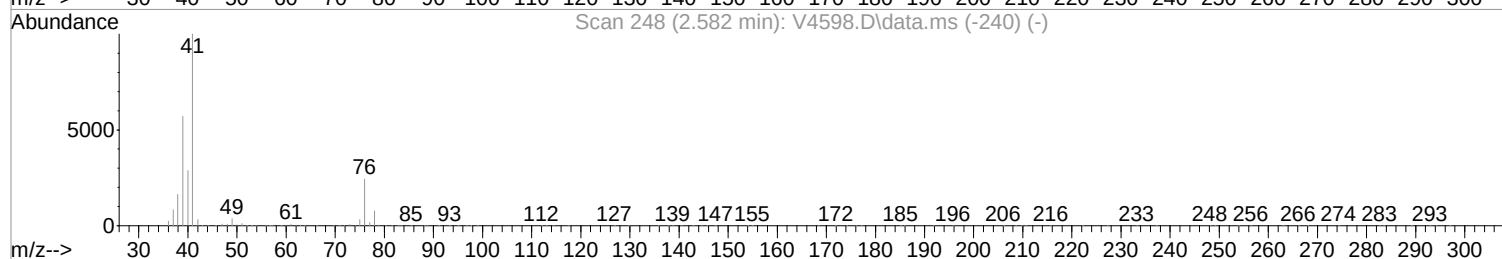
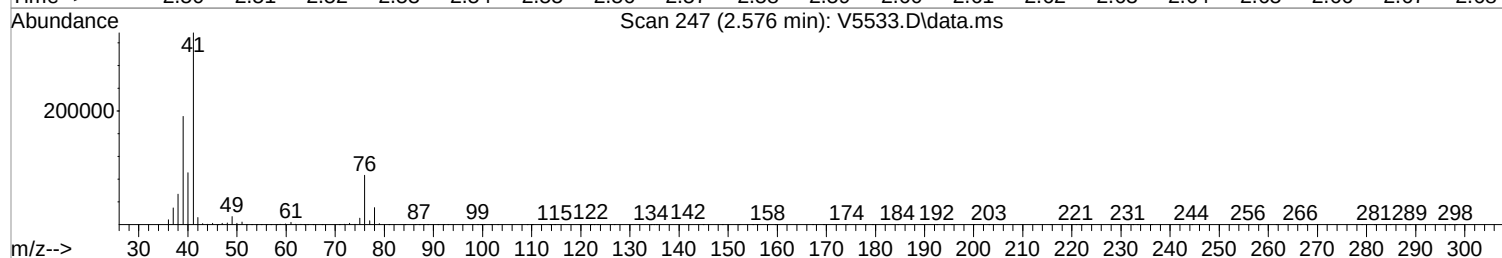
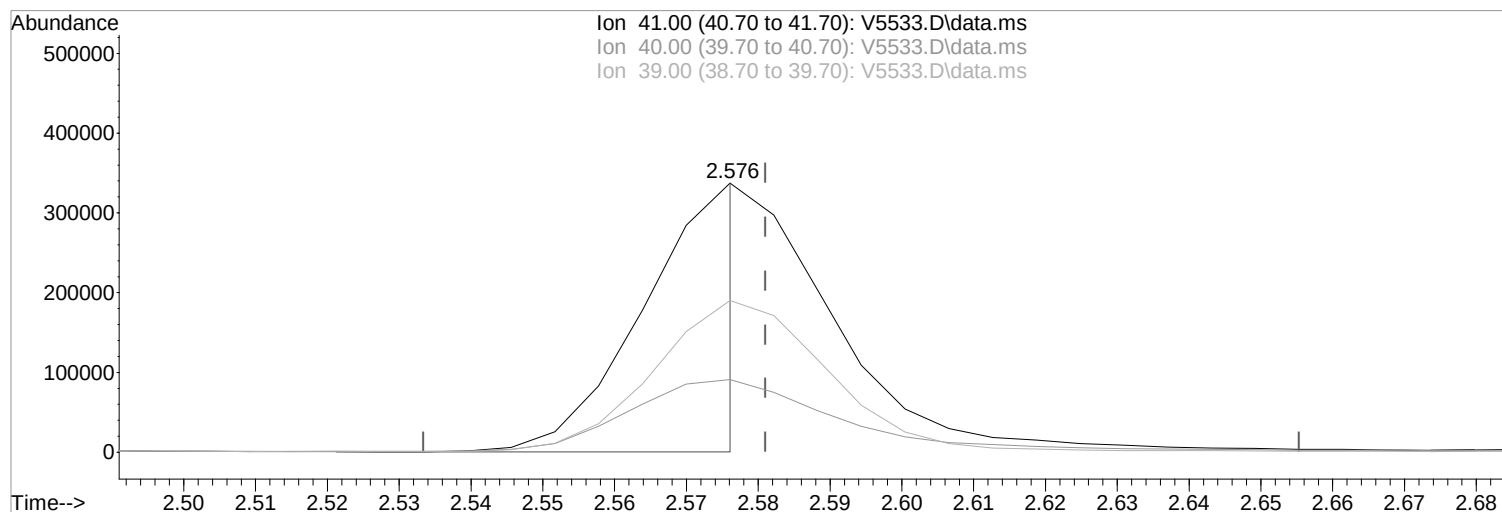
# Quantitation Report (Qedit)

1st *FU* 07/28/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5533.D  
Acq On : 28 Jul 2022 10:06 am  
Operator : F.NAEGLER  
Sample : CCV  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5533.D\data.ms

(19) Acetonitrile

2.576min (-0.005) 231.25 ug/L m

response 333713

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 27.00 |
| 39.00 | 57.20 | 56.42 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/28/22



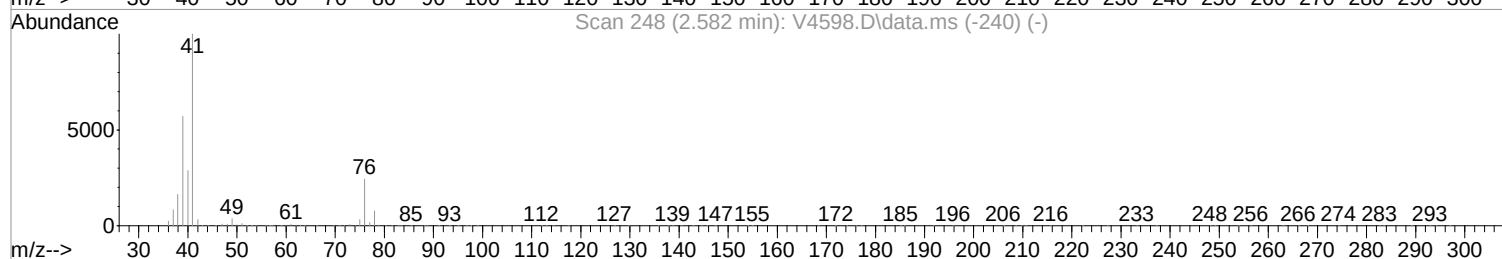
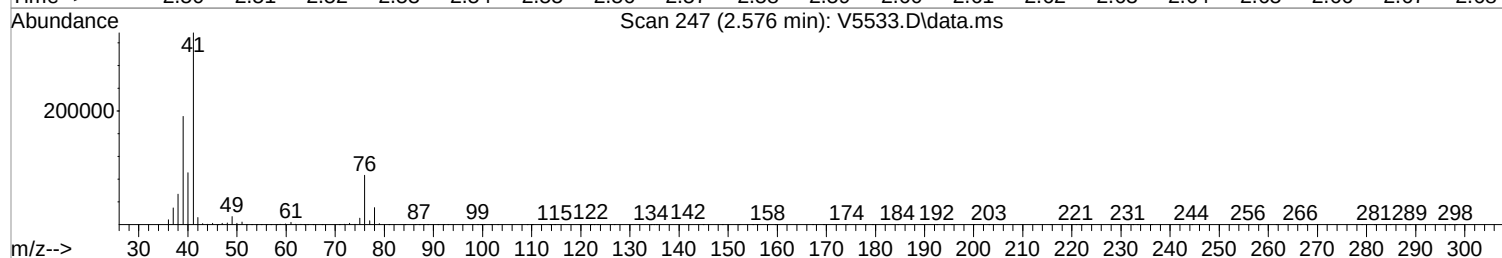
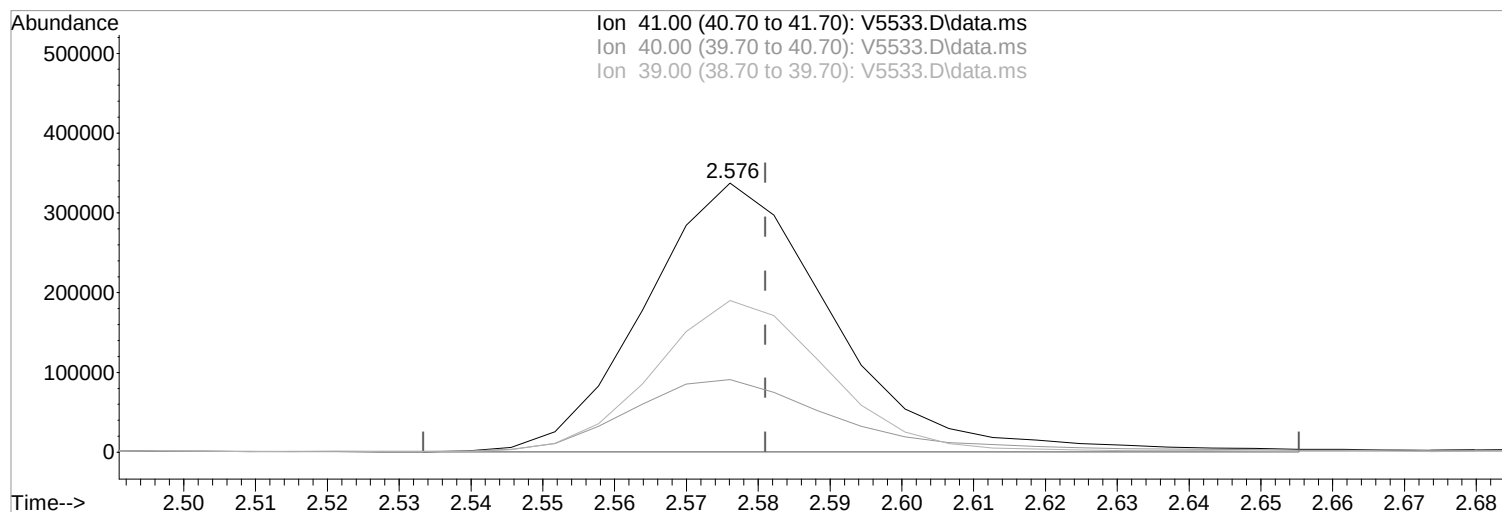
## Quantitation Report (Qedit)

1st *FU* 07/28/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5533.D  
Acq On : 28 Jul 2022 10:06 am  
Operator : F.NAEGLER  
Sample : CCV  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5533.D\data.ms

(19) Acetonitrile

Manual Integration:

2.576min (-0.005) 424.18 ug/L

Before

response 612133

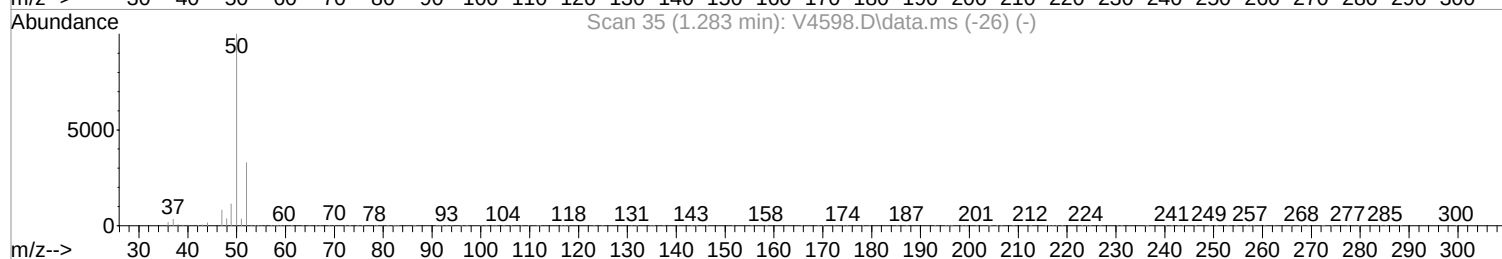
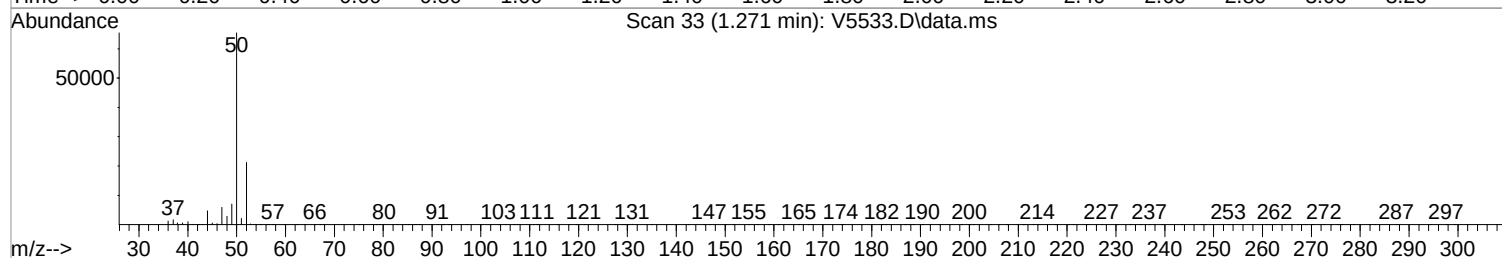
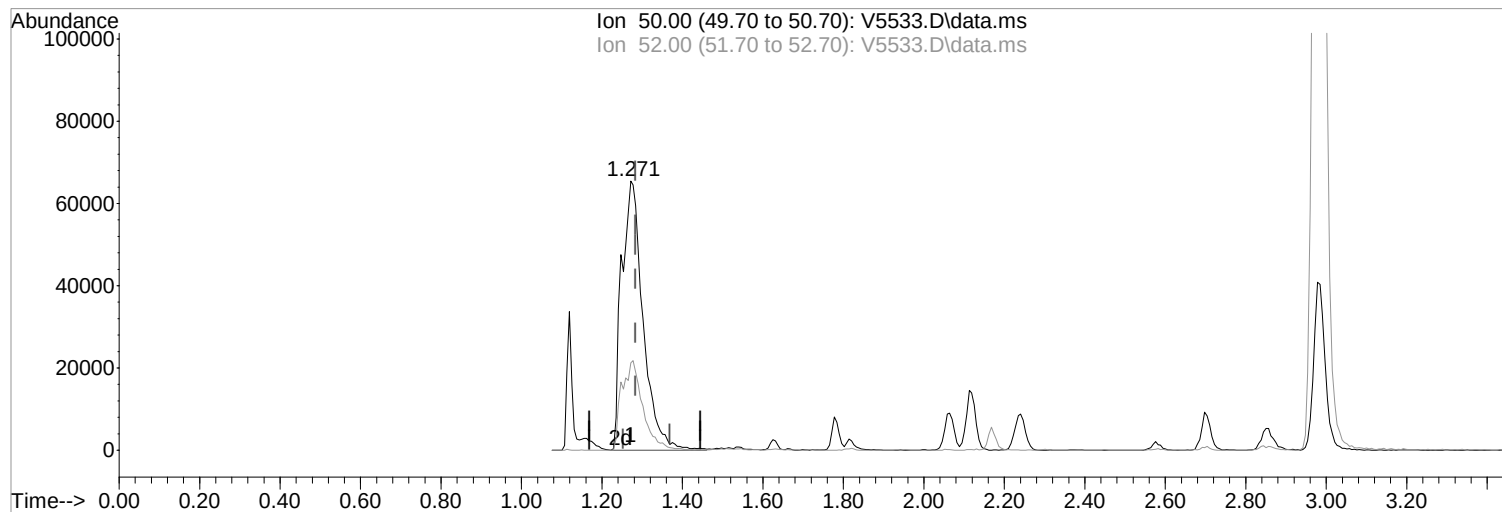
| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 27.00 |
| 39.00 | 57.20 | 56.42 |
| 0.00  | 0.00  | 0.00  |

07/28/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5533.D  
Acq On : 28 Jul 2022 10:06 am  
Operator : F.NAEGLER  
Sample : CCV  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5533.D\data.ms

(3) Chloromethane (P)

1.271min (-0.012) 44.29 ug/L m

response 241484

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 32.47 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

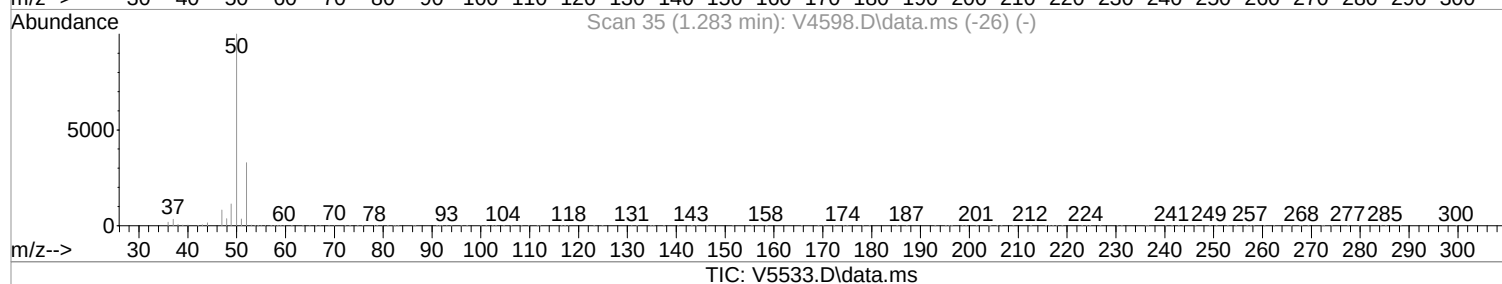
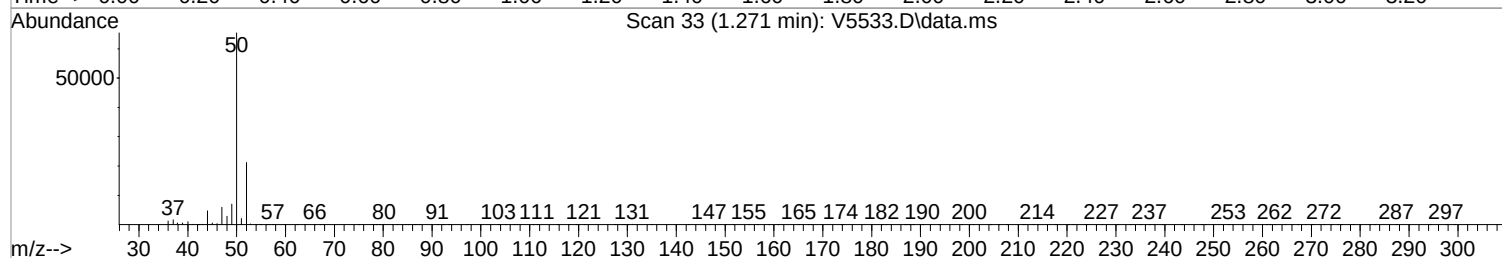
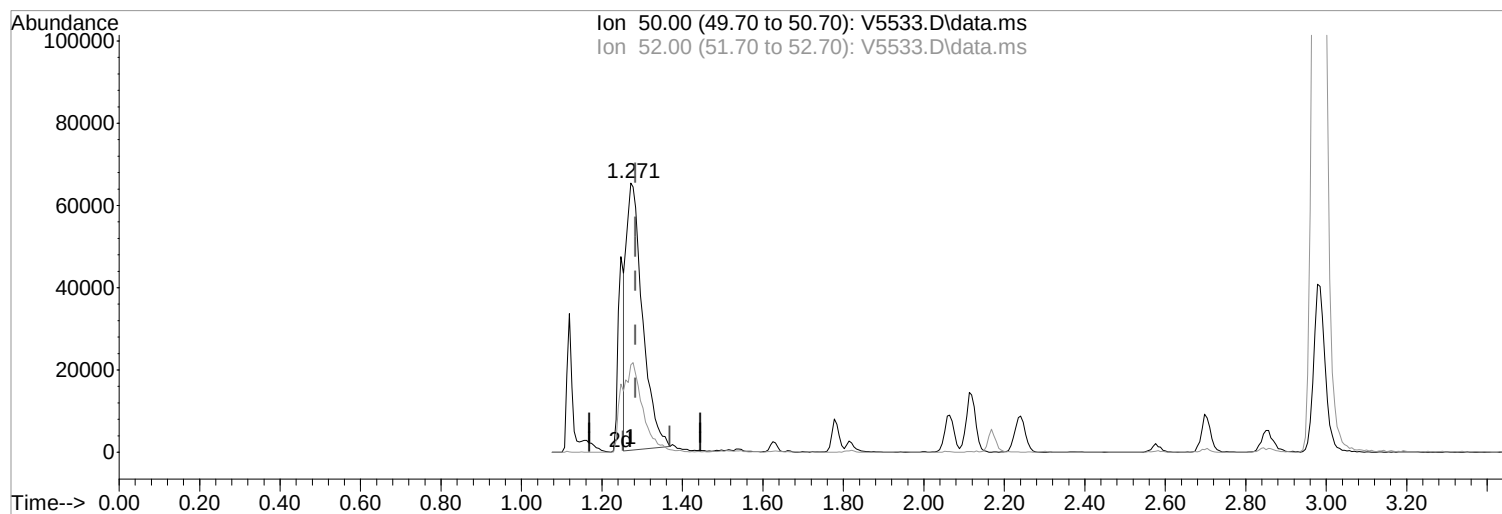
Poor integration.

07/28/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5533.D  
Acq On : 28 Jul 2022 10:06 am  
Operator : F.NAEGLER  
Sample : CCV  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



(3) Chloromethane (P)

Manual Integration:

1.271min (-0.012) 33.51 ug/L

Before

response 182736

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 32.47 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

07/28/22

## Evaluate Continuing Calibration Report

1st *FJ* 07/28/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5533.D  
 Acq On : 28 Jul 2022 10:06 am  
 Operator : F.NAEGLER  
 Sample : CCV  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:42 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                    | Amount   | Calc.   | %Dev  | Area% | Dev(min) |
|------|-----------------------------|----------|---------|-------|-------|----------|
| 1 i  | Pentafluorobenzene          | 50.000   | 50.000  | 0.0   | 91    | 0.00     |
| 2 P  | Dichlorodifluoromethane     | 50.000   | 52.881  | -5.8  | 91    | 0.00     |
| 3 P  | Chloromethane               | 50.000   | 44.285  | 11.4  | 86    | -0.01    |
| 4 P  | Vinyl Chloride              | 50.000   | 54.852  | -9.7  | 96    | 0.00     |
| 5 P  | Bromomethane                | 50.000   | 58.551  | -17.1 | 109   | 0.00     |
| 6 P  | Chloroethane                | 50.000   | 55.103  | -10.2 | 97    | 0.00     |
| 7    | Freon 21                    | 50.000   | 54.849  | -9.7  | 96    | 0.00     |
| 8 P  | Trichlorofluoromethane      | 50.000   | 53.255  | -6.5  | 93    | 0.00     |
| 9    | Diethyl Ether               | 50.000   | 52.473  | -4.9  | 98    | 0.00     |
| 10   | Freon 123a                  | 50.000   | 57.322  | -14.6 | 100   | 0.00     |
| 11   | Freon 123                   | 50.000   | 56.694  | -13.4 | 95    | 0.00     |
| 12   | Acrolein                    | 250.000  | 282.735 | -13.1 | 100   | 0.00     |
| 13   | 1,1-Dicethene               | 50.000   | 57.619  | -15.2 | 98    | 0.00     |
| 14 P | Freon 113                   | 50.000   | 58.799  | -17.6 | 103   | 0.00     |
| 15 P | Acetone                     | 50.000   | 58.222  | -16.4 | 105   | 0.00     |
| 16   | 2-Propanol                  | 1000.000 | 771.613 | 22.8# | 67    | 0.00     |
| 17   | Iodomethane                 | 50.000   | 53.828  | -7.7  | 90    | 0.00     |
| 18 P | Carbon Disulfide            | 50.000   | 57.495  | -15.0 | 99    | 0.00     |
| 19   | Acetonitrile                | 250.000  | 231.249 | 7.5   | 84    | 0.00     |
| 20   | Allyl Chloride              | 50.000   | 55.768  | -11.5 | 100   | 0.00     |
| 21 P | Methyl Acetate              | 50.000   | 46.568  | 6.9   | 86    | 0.00     |
| 22 P | Methylene Chloride          | 50.000   | 55.653  | -11.3 | 100   | 0.00     |
| 23   | TBA                         | 1000.000 | 741.632 | 25.8# | 64    | 0.00     |
| 24   | Acrylonitrile               | 250.000  | 257.598 | -3.0  | 91    | 0.00     |
| 25 P | Methyl-t-Butyl Ether        | 50.000   | 50.318  | -0.6  | 91    | -0.01    |
| 26 P | trans-1,2-Dichloroethene    | 50.000   | 56.969  | -13.9 | 98    | 0.00     |
| 27 P | 1,1-Dicethane               | 50.000   | 55.626  | -11.3 | 98    | 0.00     |
| 28   | Vinyl Acetate               | 50.000   | 48.412  | 3.2   | 83    | 0.00     |
| 29   | DIPE                        | 50.000   | 48.368  | 3.3   | 90    | 0.00     |
| 30   | 2-Chloro-1,3-Butadiene      | 50.000   | 51.699  | -3.4  | 90    | 0.00     |
| 31   | ETBE                        | 50.000   | 47.052  | 5.9   | 86    | 0.00     |
| 32   | 2,2-Dichloropropane         | 50.000   | 47.171  | 5.7   | 83    | 0.00     |
| 33 P | cis-1,2-Dichloroethene      | 50.000   | 55.378  | -10.8 | 99    | 0.00     |
| 34 P | 2-Butanone                  | 50.000   | 49.181  | 1.6   | 87    | -0.01    |
| 35   | Propionitrile               | 250.000  | 243.198 | 2.7   | 89    | 0.00     |
| 36   | Bromochloromethane          | 50.000   | 53.447  | -6.9  | 96    | 0.00     |
| 37   | Methacrylonitrile           | 50.000   | 50.417  | -0.8  | 90    | 0.00     |
| 38   | Tetrahydrofuran             | 50.000   | 46.711  | 6.6   | 86    | -0.02    |
| 39 P | Chloroform                  | 50.000   | 53.149  | -6.3  | 96    | -0.01    |
| 40 P | 1,1,1-Trichloroethane       | 50.000   | 50.460  | -0.9  | 91    | 0.00     |
| 41   | TAME                        | 50.000   | 47.636  | 4.7   | 87    | 0.00     |
| 42 i | 1,4-Difluorobenzene         | 50.000   | 50.000  | 0.0   | 96    | 0.00     |
| 43 P | Cyclohexane                 | 50.000   | 51.025  | -2.0  | 93    | 0.00     |
| 44 s | surr4,Dibrflmethane         | 50.000   | 48.110  | 3.8   | 91    | 0.00     |
| 45 P | Carbontetrachloride         | 50.000   | 49.997  | 0.0   | 90    | 0.00     |
| 46   | 1,1-Dichloropropene         | 50.000   | 53.908  | -7.8  | 99    | 0.00     |
| 47 s | surr1,1,2-dichloroethane-d4 | 50.000   | 46.806  | 6.4   | 90    | 0.00     |
| 48 P | Benzene                     | 50.000   | 53.373  | -6.7  | 97    | 0.00     |
| 49 P | 1,2-Dichloroethane          | 50.000   | 49.003  | 2.0   | 94    | 0.00     |
| 50   | Iso-Butyl Alcohol           | 1000.000 | 771.117 | 22.9# | 70    | 0.00     |
| 51   | n-Heptane                   | 50.000   | 58.119  | -16.2 | 114   | 0.00     |

## Evaluate Continuing Calibration Report

1st *FU* 07/28/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5533.D  
 Acq On : 28 Jul 2022 10:06 am  
 Operator : F.NAEGLER  
 Sample : CCV  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:42 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                    | Amount   | Calc.    | %Dev  | Area% | Dev(min) |
|------|-----------------------------|----------|----------|-------|-------|----------|
| 52   | 1-Butanol                   | 2500.000 | 2075.405 | 17.0  | 69    | 0.00     |
| 53 P | Trichloroethene             | 50.000   | 52.640   | -5.3  | 97    | 0.00     |
| 54 P | Methylcyclohexane           | 50.000   | 54.434   | -8.9  | 98    | 0.00     |
| 55 P | 1,2-Dichloropropane         | 50.000   | 52.383   | -4.8  | 99    | 0.00     |
| 56   | Dibromomethane              | 50.000   | 50.367   | -0.7  | 96    | 0.00     |
| 57   | 1,4-Dioxane                 | 1000.000 | 866.596  | 13.3  | 80    | 0.00     |
| 58   | Methyl Methacrylate         | 50.000   | 47.975   | 4.0   | 86    | 0.00     |
| 59 P | Bromodichloromethane        | 50.000   | 50.582   | -1.2  | 93    | 0.00     |
| 60   | 2-Nitropropane              | 100.000  | 77.699   | 22.3# | 70    | 0.00     |
| 61   | 2-Chloroethylvinyl Ether    | 50.000   | 39.792   | 20.4# | 69    | 0.00     |
| 62 P | cis-1,3-Dichloropropene     | 50.000   | 52.114   | -4.2  | 94    | 0.00     |
| 63 P | 4-Methyl-2-pentanone        | 50.000   | 43.561   | 12.9  | 81    | 0.00     |
| 64 s | SURR3, Toluene-d8           | 50.000   | 48.588   | 2.8   | 94    | 0.00     |
| 65 P | Toluene                     | 50.000   | 53.760   | -7.5  | 99    | 0.00     |
| 66 P | trans-1,3-Dichloropropene   | 50.000   | 48.826   | 2.3   | 89    | 0.00     |
| 67   | Ethyl Methacrylate          | 50.000   | 48.329   | 3.3   | 86    | 0.00     |
| 68 P | 1,1,2-Trichloroethane       | 50.000   | 51.130   | -2.3  | 95    | 0.00     |
| 69 s | SURR2, BFB                  | 50.000   | 47.706   | 4.6   | 91    | 0.00     |
| 70 i | d5-Chlorobenzene            | 50.000   | 50.000   | 0.0   | 99    | 0.00     |
| 71 P | Tetrachloroethene           | 50.000   | 53.517   | -7.0  | 100   | 0.00     |
| 72 P | 2-Hexanone                  | 50.000   | 43.979   | 12.0  | 82    | 0.00     |
| 73   | 1,3-Dichloropropane         | 50.000   | 51.437   | -2.9  | 100   | 0.00     |
| 74 P | Dibromochloromethane        | 50.000   | 52.279   | -4.6  | 94    | 0.00     |
| 75   | N-Butyl Acetate             | 50.000   | 45.692   | 8.6   | 84    | 0.00     |
| 76 P | 1,2-Dibromoethane           | 50.000   | 50.120   | -0.2  | 93    | 0.00     |
| 77   | 3-Chlorobenzotrifluoride    | 50.000   | 49.691   | 0.6   | 94    | 0.00     |
| 78 P | Chlorobenzene               | 50.000   | 51.669   | -3.3  | 98    | 0.00     |
| 79   | 4-Chlorobenzotrifluoride    | 50.000   | 51.691   | -3.4  | 97    | 0.00     |
| 80   | 1,1,1,2-Tetrachloroethane   | 50.000   | 50.376   | -0.8  | 92    | 0.00     |
| 81 P | Ethylbenzene                | 50.000   | 54.435   | -8.9  | 103   | 0.00     |
| 82 P | (m+p)Xylene                 | 100.000  | 110.766  | -10.8 | 103   | 0.00     |
| 83 P | o-Xylene                    | 50.000   | 54.251   | -8.5  | 102   | 0.00     |
| 84 P | Styrene                     | 50.000   | 53.646   | -7.3  | 98    | 0.00     |
| 85 P | Bromoform                   | 50.000   | 47.750   | 4.5   | 86    | 0.00     |
| 86   | 2-Chlorobenzotrifluoride    | 50.000   | 49.865   | 0.3   | 93    | 0.00     |
| 87 P | Isopropylbenzene            | 50.000   | 54.919   | -9.8  | 103   | 0.00     |
| 88   | Cyclohexanone               | 1000.000 | 824.055  | 17.6  | 73    | 0.00     |
| 89   | trans-1,4-Dichloro-2-Butene | 50.000   | 42.055   | 15.9  | 76    | 0.00     |
| 90 i | 1,4-Dichlorobenzene-d4      | 50.000   | 50.000   | 0.0   | 96    | 0.00     |
| 91 P | 1,1,2,2-Tetrachloroethane   | 50.000   | 47.366   | 5.3   | 87    | 0.00     |
| 92   | Bromobenzene                | 50.000   | 50.368   | -0.7  | 96    | 0.00     |
| 93   | 1,2,3-Trichloropropane      | 50.000   | 45.475   | 9.0   | 88    | 0.00     |
| 94   | n-Propylbenzene             | 50.000   | 55.339   | -10.7 | 103   | 0.00     |
| 95   | 2-Chlorotoluene             | 50.000   | 52.981   | -6.0  | 101   | 0.00     |
| 96   | 3-Chlorotoluene             | 50.000   | 50.956   | -1.9  | 98    | 0.00     |
| 97   | 4-Chlorotoluene             | 50.000   | 52.368   | -4.7  | 99    | 0.00     |
| 98   | 1,3,5-Trimethylbenzene      | 50.000   | 55.089   | -10.2 | 104   | 0.00     |
| 99   | tert-Butylbenzene           | 50.000   | 53.206   | -6.4  | 101   | 0.00     |
| 100  | 1,2,4-Trimethylbenzene      | 50.000   | 53.780   | -7.6  | 100   | 0.00     |
| 101  | 3,4-Dichlorobenzotrifluorid | 50.000   | 51.096   | -2.2  | 95    | 0.00     |

## Evaluate Continuing Calibration Report

1st *FU* 07/28/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5533.D  
 Acq On : 28 Jul 2022 10:06 am  
 Operator : F.NAEGLER  
 Sample : CCV  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:42 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                    | Amount  | Calc.   | %Dev  | Area% | Dev(min) |
|-------|-----------------------------|---------|---------|-------|-------|----------|
| 102   | sec-Butylbenzene            | 50.000  | 55.575  | -11.2 | 104   | 0.00     |
| 103   | p-Isopropyltoluene          | 50.000  | 55.456  | -10.9 | 103   | 0.00     |
| 104 P | 1,3-Dclbenz                 | 50.000  | 51.573  | -3.1  | 97    | 0.00     |
| 105 P | 1,4-Dclbenz                 | 50.000  | 49.624  | 0.8   | 98    | 0.00     |
| 106   | 2,4-Dichlorobenzotrifluorid | 50.000  | 50.467  | -0.9  | 92    | 0.00     |
| 107   | 2,5-Dichlorobenzotrifluorid | 50.000  | 49.463  | 1.1   | 90    | 0.00     |
| 108   | n-Butylbenzene              | 50.000  | 55.312  | -10.6 | 103   | 0.00     |
| 109 P | 1,2-Dclbenz                 | 50.000  | 49.431  | 1.1   | 93    | 0.00     |
| 110 P | 1,2-Dibromo-3-chloropropane | 50.000  | 42.321  | 15.4  | 72    | 0.00     |
| 111   | Trielution Dichlorotoluene  | 150.000 | 142.176 | 5.2   | 90    | 0.00     |
| 112   | 1,3,5-Trichlorobenzene      | 50.000  | 47.084  | 5.8   | 88    | 0.00     |
| 113   | Coelution Dichlorotoluene   | 100.000 | 94.036  | 6.0   | 88    | 0.00     |
| 114 P | 1,2,4-Tcbenzene             | 50.000  | 46.327  | 7.3   | 86    | 0.00     |
| 115   | Hexachlorobt                | 50.000  | 50.583  | -1.2  | 95    | 0.00     |
| 116   | Naphthalen                  | 50.000  | 45.264  | 9.5   | 80    | 0.00     |
| 117   | 1,2,3-Tclbenzene            | 50.000  | 45.703  | 8.6   | 83    | 0.00     |
| 118   | 2,4,5-Trichlorotoluene      | 50.000  | 49.566  | 0.9   | 90    | 0.00     |
| 119   | 2,3,6-Trichlorotoluene      | 50.000  | 46.965  | 6.1   | 81    | 0.00     |

(# ) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5533.D  
 Acq On : 28 Jul 2022 10:06 am  
 Operator : F.NAEGLER  
 Sample : CCV  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:42 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                      | R.T.     | QIon  | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|----------|-------|----------|--------|--------|----------|
| -----                         |          |       |          |        |        |          |
| Internal Standards            |          |       |          |        |        |          |
| 1) Pentafluorobenzene         | 5.356    | 168   | 593242   | 50.00  | ug/L   | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.484    | 114   | 915258   | 50.00  | ug/L   | 0.00     |
| 70) d5-Chlorobenzene          | 9.940    | 117   | 838138   | 50.00  | ug/L   | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.038   | 152   | 460479   | 50.00  | ug/L   | 0.00     |
|                               |          |       |          |        |        |          |
| System Monitoring Compounds   |          |       |          |        |        |          |
| 44) surr4,Dibrflmethane       | 5.222    | 113   | 283047   | 48.11  | ug/L   | 0.00     |
| Spiked Amount 50.000          | Range 80 | - 116 | Recovery | =      | 96.22% |          |
| 47) surr1,1,2-dichloroetha... | 5.777    | 65    | 322080   | 46.81  | ug/L   | 0.00     |
| Spiked Amount 50.000          | Range 73 | - 125 | Recovery | =      | 93.62% |          |
| 64) SURR3,Toluene-d8          | 8.374    | 98    | 1069811  | 48.59  | ug/L   | 0.00     |
| Spiked Amount 50.000          | Range 87 | - 121 | Recovery | =      | 97.18% |          |
| 69) SURR2,BFB                 | 11.050   | 95    | 402405   | 47.71  | ug/L   | 0.00     |
| Spiked Amount 50.000          | Range 85 | - 122 | Recovery | =      | 95.42% |          |
|                               |          |       |          |        |        |          |
| Target Compounds              |          |       |          |        |        | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.119    | 85    | 289467   | 52.88  | ug/L   | 98       |
| 3) Chloromethane              | 1.271    | 50    | 241484m  | 44.29  | ug/L   |          |
| 4) Vinyl Chloride             | 1.326    | 62    | 352564   | 54.85  | ug/L   | 98       |
| 5) Bromomethane               | 1.546    | 94    | 230365   | 58.55  | ug/L   | 98       |
| 6) Chloroethane               | 1.625    | 64    | 228909   | 55.10  | ug/L   | 98       |
| 7) Freon 21                   | 1.777    | 67    | 533927   | 54.85  | ug/L   | 100      |
| 8) Trichlorofluoromethane     | 1.820    | 101   | 441737   | 53.26  | ug/L   | 99       |
| 9) Diethyl Ether              | 2.052    | 59    | 225602   | 52.47  | ug/L   | 98       |
| 10) Freon 123a                | 2.064    | 67    | 285917   | 57.32  | ug/L   | 96       |
| 11) Freon 123                 | 2.119    | 83    | 331376   | 56.69  | ug/L   | 97       |
| 12) Acrolein                  | 2.168    | 56    | 351565   | 282.73 | ug/L   | 99       |
| 13) 1,1-Dicethene             | 2.241    | 96    | 231752   | 57.62  | ug/L   | 99       |
| 14) Freon 113                 | 2.241    | 101   | 247465   | 58.80  | ug/L   | 99       |
| 15) Acetone                   | 2.308    | 43    | 147576   | 58.22  | ug/L   | 94       |
| 16) 2-Propanol                | 2.448    | 45    | 458321   | 771.61 | ug/L   | 95       |
| 17) Iodomethane               | 2.375    | 142   | 374862   | 53.83  | ug/L   | 98       |
| 18) Carbon Disulfide          | 2.430    | 76    | 648526   | 57.49  | ug/L   | 99       |
| 19) Acetonitrile              | 2.576    | 41    | 333713m  | 231.25 | ug/L   |          |
| 20) Allyl Chloride            | 2.576    | 76    | 146001   | 55.77  | ug/L   | # 91     |
| 21) Methyl Acetate            | 2.613    | 43    | 321587   | 46.57  | ug/L   | 98       |
| 22) Methylene Chloride        | 2.704    | 84    | 281253   | 55.65  | ug/L   | 98       |
| 23) TBA                       | 2.850    | 59    | 787345   | 741.63 | ug/L   | 92       |
| 24) Acrylonitrile             | 2.985    | 53    | 759301   | 257.60 | ug/L   | 100      |
| 25) Methyl-t-Butyl Ether      | 2.991    | 73    | 825492   | 50.32  | ug/L   | 99       |
| 26) trans-1,2-Dichloroethene  | 2.985    | 96    | 266694   | 56.97  | ug/L   | 97       |
| 27) 1,1-Dicethane             | 3.491    | 63    | 454889   | 55.63  | ug/L   | 98       |
| 28) Vinyl Acetate             | 3.588    | 86    | 47428    | 48.41  | ug/L   | # 87     |
| 29) DIPE                      | 3.600    | 45    | 721687   | 48.37  | ug/L   | 94       |
| 30) 2-Chloro-1,3-Butadiene    | 3.606    | 53    | 350315   | 51.70  | ug/L   | 92       |
| 31) ETBE                      | 4.125    | 59    | 689651   | 47.05  | ug/L   | 98       |
| 32) 2,2-Dichloropropane       | 4.320    | 77    | 328704   | 47.17  | ug/L   | 98       |
| 33) cis-1,2-Dichloroethene    | 4.338    | 96    | 307312   | 55.38  | ug/L   | 99       |
| 34) 2-Butanone                | 4.411    | 43    | 189788   | 49.18  | ug/L   | 98       |
| 35) Propionitrile             | 4.527    | 54    | 313169   | 243.20 | ug/L   | 95       |
| 36) Bromochloromethane        | 4.740    | 130   | 205855   | 53.45  | ug/L   | 98       |
| 37) Methacrylonitrile         | 4.777    | 67    | 157037   | 50.42  | ug/L   | 97       |
| 38) Tetrahydrofuran           | 4.838    | 42    | 119646   | 46.71  | ug/L   | 94       |
| 39) Chloroform                | 4.917    | 83    | 471796   | 53.15  | ug/L   | 99       |
| 40) 1,1,1-Trichloroethane     | 5.197    | 97    | 381451   | 50.46  | ug/L   | 92       |



Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5533.D  
 Acq On : 28 Jul 2022 10:06 am  
 Operator : F.NAEGLER  
 Sample : CCV  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:42 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 41) TAME                       | 6.075  | 73   | 716306   | 47.64   | ug/L  | 97       |
| 43) Cyclohexane                | 5.258  | 41   | 227592   | 51.03   | ug/L  | 92       |
| 45) Carbontetrachloride        | 5.472  | 117  | 325802   | 50.00   | ug/L  | 92       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 343911   | 53.91   | ug/L  | 94       |
| 48) Benzene                    | 5.832  | 78   | 1039317  | 53.37   | ug/L  | 99       |
| 49) 1,2-Dichloroethane         | 5.899  | 62   | 377617   | 49.00   | ug/L  | 98       |
| 50) Iso-Butyl Alcohol          | 5.905  | 43   | 337958   | 771.12  | ug/L  | 98       |
| 51) n-Heptane                  | 6.307  | 43   | 315887   | 58.12   | ug/L  | 96       |
| 52) 1-Butanol                  | 6.898  | 56   | 553097   | 2075.40 | ug/L  | 95       |
| 53) Trichloroethene            | 6.813  | 130  | 300076   | 52.64   | ug/L  | 97       |
| 54) Methylcyclohexane          | 7.039  | 55   | 314889   | 54.43   | ug/L  | 98       |
| 55) 1,2-Dicloropropane         | 7.124  | 63   | 270910   | 52.38   | ug/L  | 97       |
| 56) Dibromomethane             | 7.276  | 93   | 201209   | 50.37   | ug/L  | 96       |
| 57) 1,4-Dioxane                | 7.350  | 88   | 119398   | 866.60  | ug/L  | 92       |
| 58) Methyl Methacrylate        | 7.362  | 69   | 242540   | 47.98   | ug/L  | 98       |
| 59) Bromodichloromethane       | 7.514  | 83   | 362917   | 50.58   | ug/L  | 99       |
| 60) 2-Nitropropane             | 7.837  | 41   | 160378   | 77.70   | ug/L  | 90       |
| 61) 2-Chloroethylvinyl Ether   | 7.941  | 63   | 141792   | 39.79   | ug/L  | 98       |
| 62) cis-1,3-Dichloropropene    | 8.075  | 75   | 422569   | 52.11   | ug/L  | 99       |
| 63) 4-Methyl-2-pentanone       | 8.307  | 43   | 351461   | 43.56   | ug/L  | 98       |
| 65) Toluene                    | 8.447  | 91   | 1165969  | 53.76   | ug/L  | 99       |
| 66) trans-1,3-Dichloropropene  | 8.752  | 75   | 370849   | 48.83   | ug/L  | 98       |
| 67) Ethyl Methacrylate         | 8.892  | 69   | 413225   | 48.33   | ug/L  | 100      |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 279535   | 51.13   | ug/L  | 98       |
| 71) Tetrachloroethene          | 9.063  | 164  | 240813   | 53.52   | ug/L  | 99       |
| 72) 2-Hexanone                 | 9.264  | 43   | 267459   | 43.98   | ug/L  | 97       |
| 73) 1,3-Dichloropropane        | 9.130  | 76   | 483869   | 51.44   | ug/L  | 96       |
| 74) Dibromochloromethane       | 9.361  | 129  | 312288   | 52.28   | ug/L  | 97       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 517103   | 45.69   | ug/L  | 98       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 306005   | 50.12   | ug/L  | 98       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 415431   | 49.69   | ug/L  | 97       |
| 78) Chlorobenzene              | 9.965  | 112  | 797875   | 51.67   | ug/L  | 97       |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 373857   | 51.69   | ug/L  | 99       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 275658   | 50.38   | ug/L  | 98       |
| 81) Ethylbenzene               | 10.087 | 106  | 420317   | 54.43   | ug/L  | 97       |
| 82) (m+p)Xylene                | 10.203 | 106  | 1049491  | 110.77  | ug/L  | 96       |
| 83) o-Xylene                   | 10.575 | 106  | 509804   | 54.25   | ug/L  | 93       |
| 84) Styrene                    | 10.593 | 104  | 864854   | 53.65   | ug/L  | 98       |
| 85) Bromoform                  | 10.757 | 173  | 219867   | 47.75   | ug/L  | 98       |
| 86) 2-Chlorobenzotrifluoride   | 10.831 | 180  | 409022   | 49.87   | ug/L  | 99       |
| 87) Isopropylbenzene           | 10.916 | 105  | 1241054  | 54.92   | ug/L  | 100      |
| 88) Cyclohexanone              | 11.007 | 55   | 1191488  | 824.05  | ug/L  | 96       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 109542   | 42.06   | ug/L  | 95       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 418140   | 47.37   | ug/L  | 99       |
| 92) Bromobenzene               | 11.172 | 156  | 373298   | 50.37   | ug/L  | 99       |
| 93) 1,2,3-Trichloropropane     | 11.227 | 110  | 141149   | 45.48   | ug/L  | 94       |
| 94) n-Propylbenzene            | 11.276 | 91   | 1552201  | 55.34   | ug/L  | 98       |
| 95) 2-Chlorotoluene            | 11.343 | 91   | 900986   | 52.98   | ug/L  | 98       |
| 96) 3-Chlorotoluene            | 11.398 | 91   | 888623   | 50.96   | ug/L  | 97       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 1040286  | 52.37   | ug/L  | 98       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 1127229  | 55.09   | ug/L  | 98       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 927628   | 53.21   | ug/L  | 98       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 1101366  | 53.78   | ug/L  | 99       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 339910   | 51.10   | ug/L  | 98       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 1379978  | 55.58   | ug/L  | 99       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 1207949  | 55.46   | ug/L  | 98       |



Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5533.D  
 Acq On : 28 Jul 2022 10:06 am  
 Operator : F.NAEGLER  
 Sample : CCV  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 28 10:55:42 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 663301   | 51.57  | ug/L  | 99       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 675731   | 49.62  | ug/L  | 99       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 306020   | 50.47  | ug/L  | 98       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 333935   | 49.46  | ug/L  | 99       |
| 108) n-Butylbenzene            | 12.355 | 91   | 1069277  | 55.31  | ug/L  | 98       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 651795   | 49.43  | ug/L  | 98       |
| 110) 1,2-Dibromo-3-chloropr... | 13.001 | 157  | 104272   | 42.32  | ug/L  | 91       |
| 111) Trielution Dichlorotol... | 13.111 | 125  | 1528224  | 142.18 | ug/L  | 100      |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 452975   | 47.08  | ug/L  | 99       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 1109611  | 94.04  | ug/L  | 99       |
| 114) 1,2,4-Tcbenzene           | 13.647 | 180  | 476600   | 46.33  | ug/L  | 97       |
| 115) Hexachlorobt              | 13.781 | 225  | 203117   | 50.58  | ug/L  | 100      |
| 116) Naphthalen                | 13.842 | 128  | 1378588  | 45.26  | ug/L  | 100      |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 473374   | 45.70  | ug/L  | 99       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 308220   | 49.57  | ug/L  | 97       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 264588   | 46.96  | ug/L  | 99       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

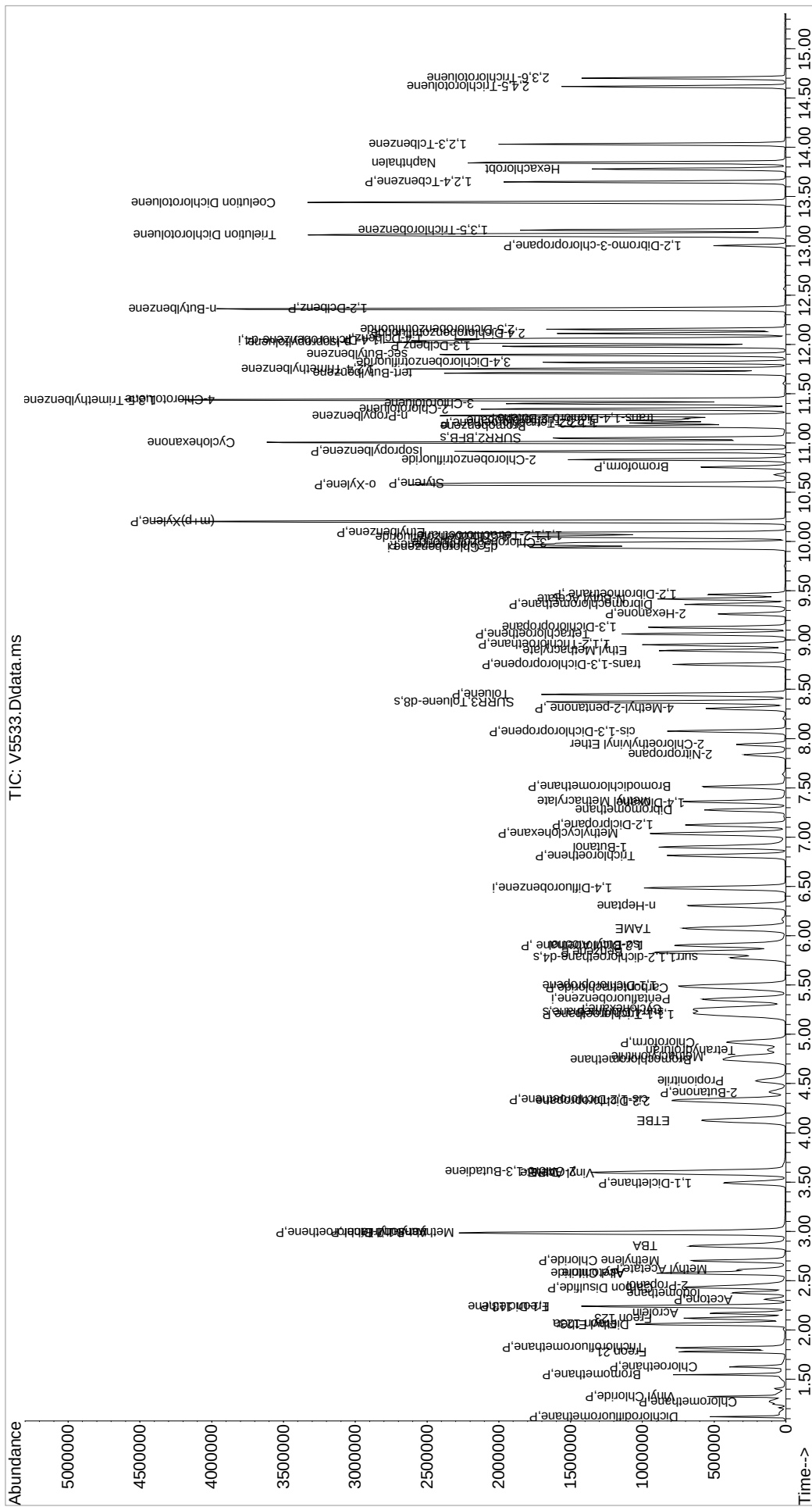
## Quantitation Report (QT Reviewed)

|           |   |                                  |
|-----------|---|----------------------------------|
| Data Path | : | I:\ACQUDATA\MSV0A14\Data\072822\ |
| Data File | : | V5533.D                          |
| Acq On    | : | 28 Jul 2022 10:06 am             |
| Operator  | : | F.NAEGLER                        |
| Sample    | : | CCV                              |
| Misc      | : |                                  |
| ALS Vial  | : | 1 Sample Multiplier: 1           |

Inst : MSV0A14

ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 28 10:55:42 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



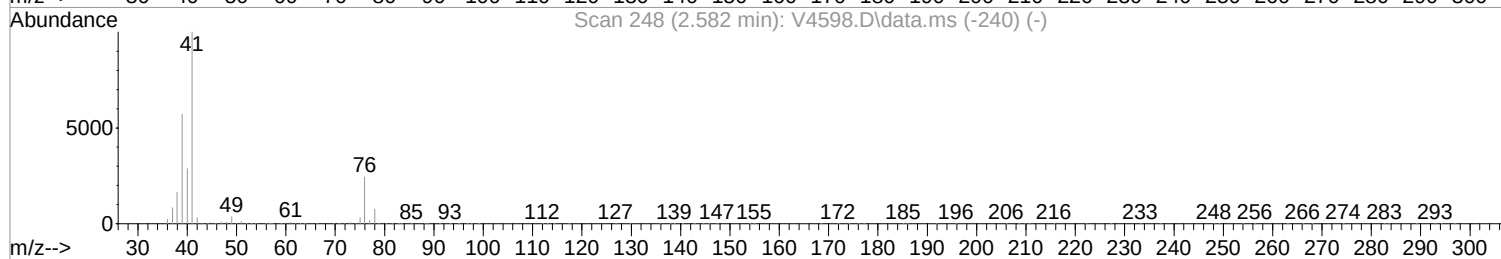
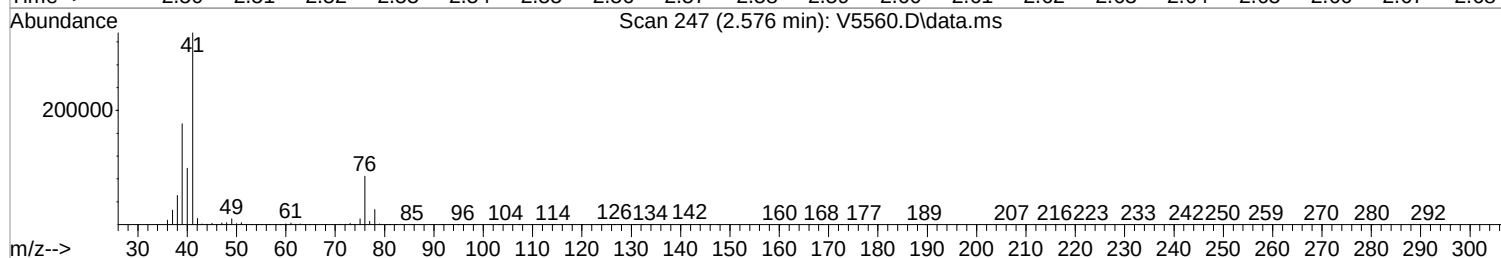
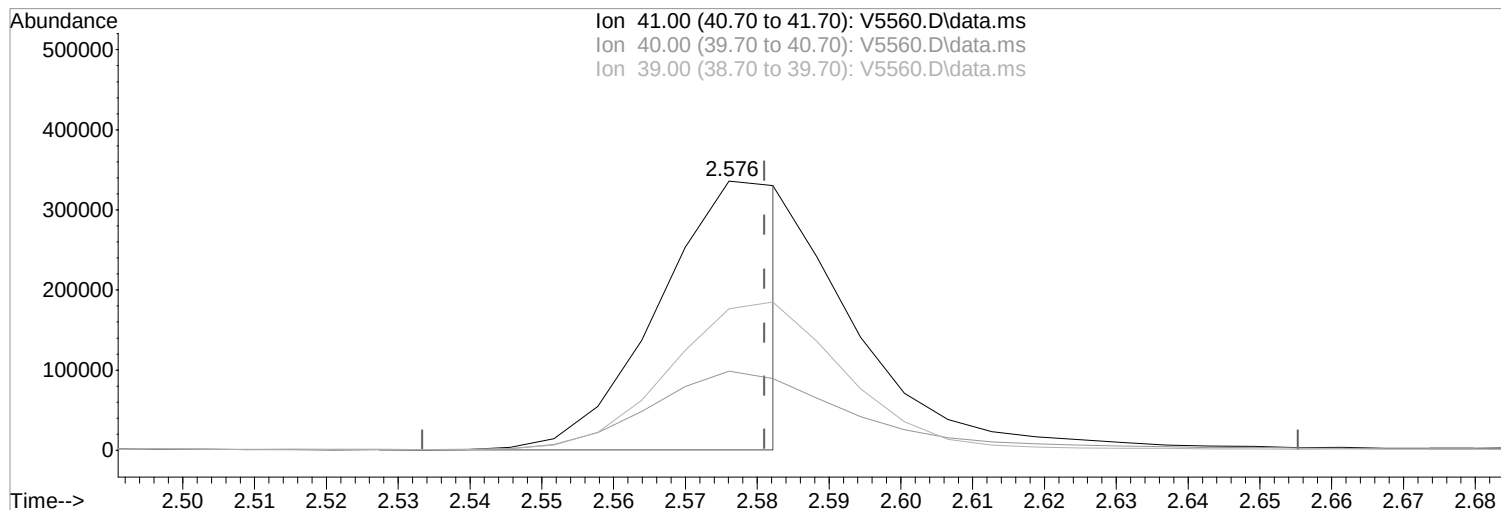
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5560.D  
Acq On : 28 Jul 2022 8:32 pm  
Operator : F.NAEGLER  
Sample : CLOSING CCV (DOD)  
Misc :  
ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5560.D\data.ms

(19) Acetonitrile

2.576min (-0.005) 269.24 ug/L m

response 411894

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 29.40 |
| 39.00 | 57.20 | 52.54 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/29/22

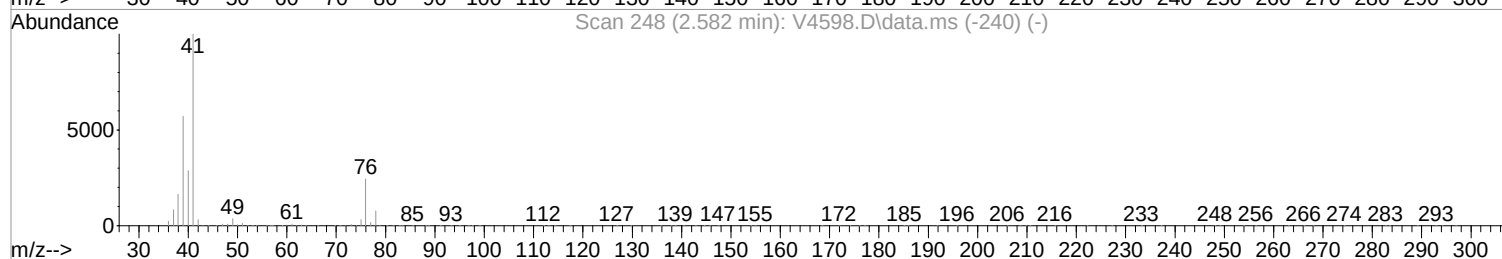
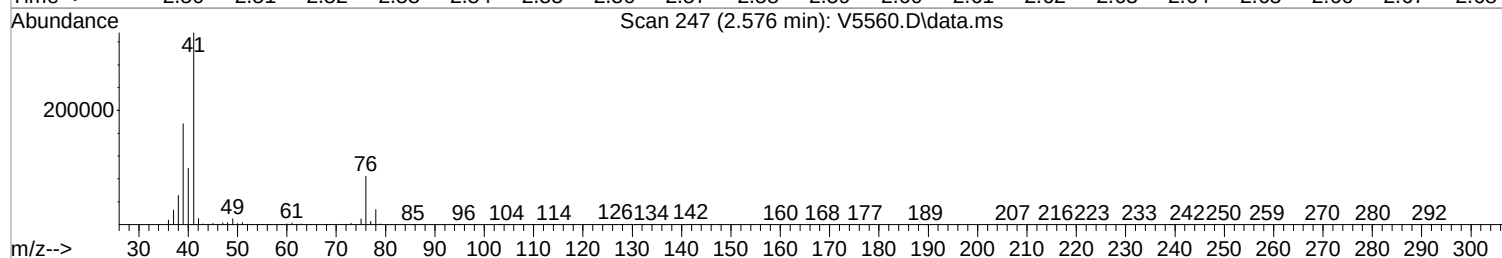
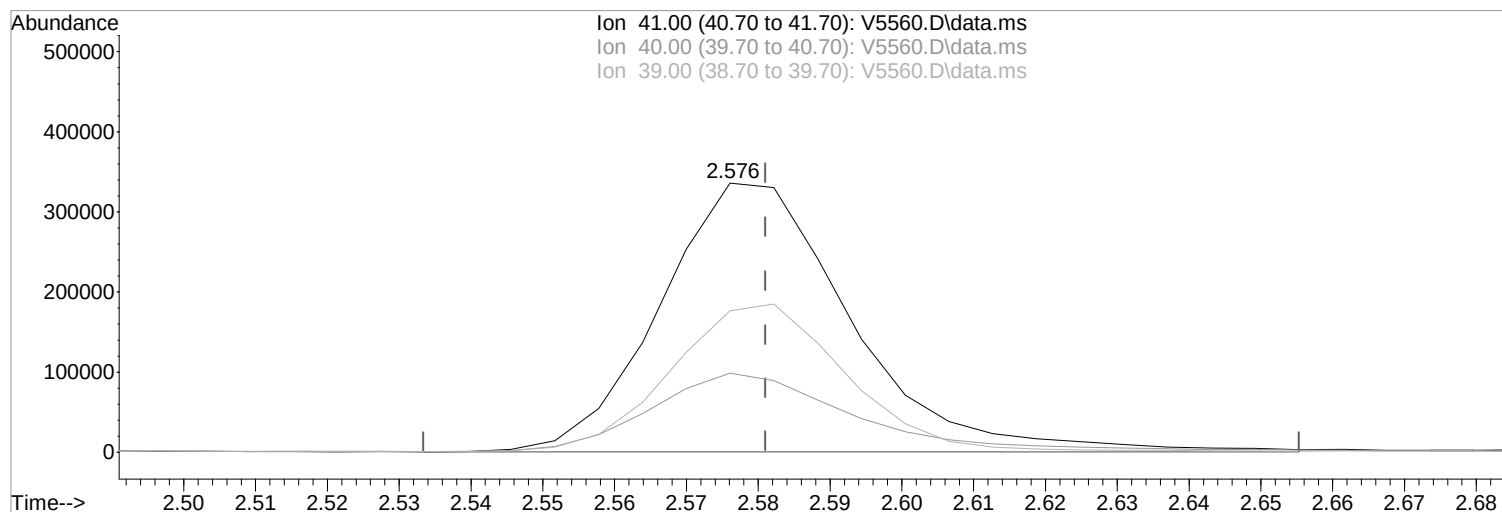
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5560.D  
Acq On : 28 Jul 2022 8:32 pm  
Operator : F.NAEGLER  
Sample : CLOSING CCV (DOD)  
Misc :  
ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5560.D\data.ms

(19) Acetonitrile

Manual Integration:

2.576min (-0.005) 404.87 ug/L

Before

response 619397

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 29.40 |
| 39.00 | 57.20 | 52.54 |
| 0.00  | 0.00  | 0.00  |

07/29/22

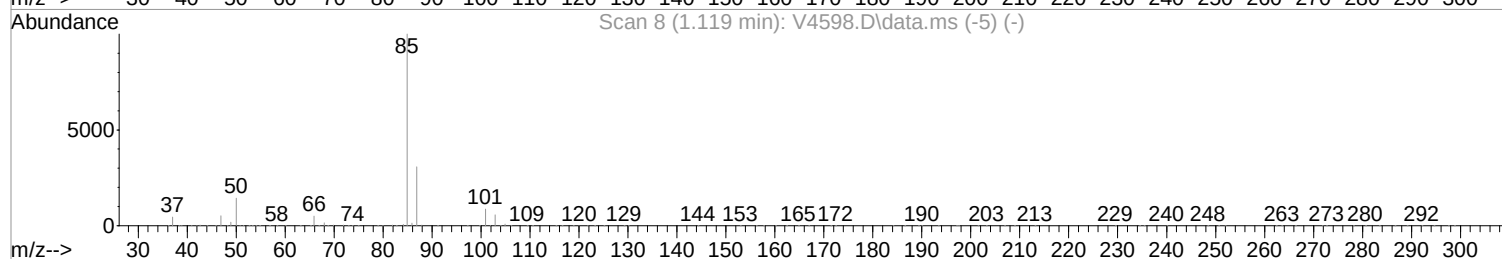
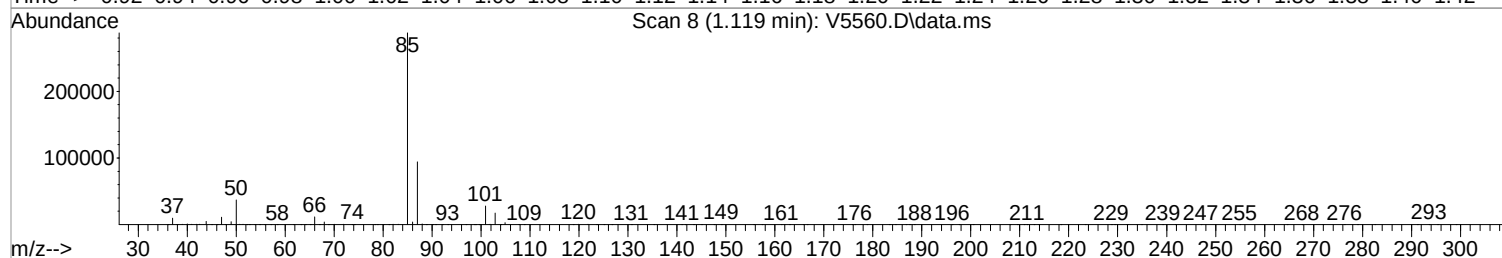
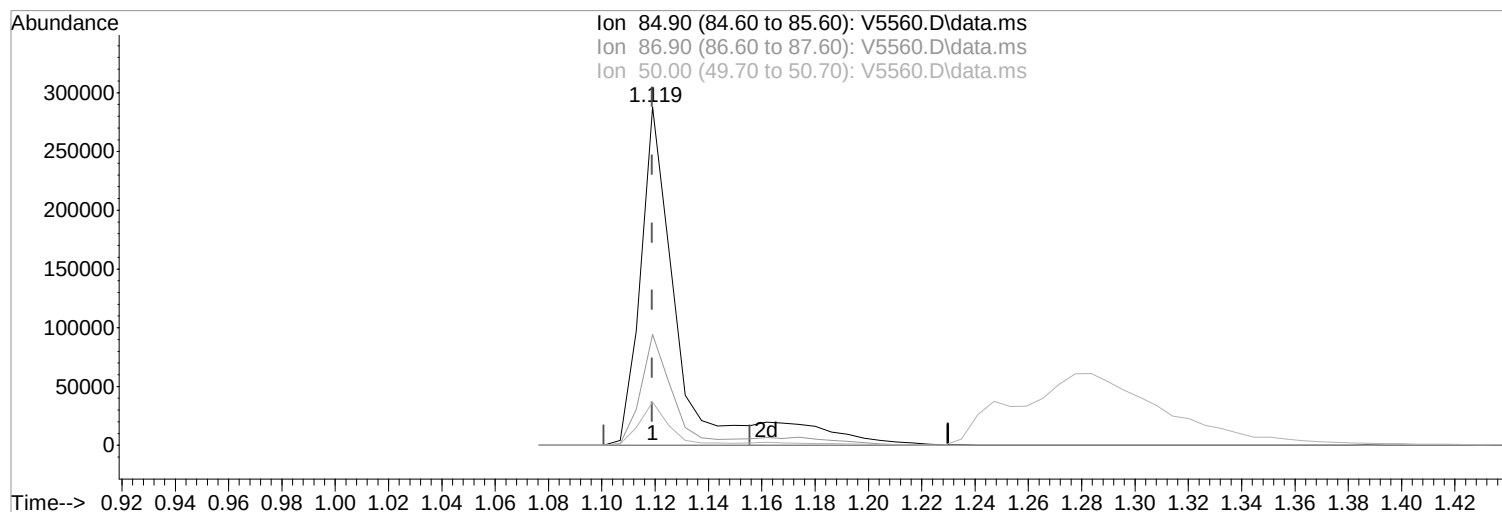
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5560.D  
Acq On : 28 Jul 2022 8:32 pm  
Operator : F.NAEGLER  
Sample : CLOSING CCV (DOD)  
Misc :  
ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5560.D\data.ms

(2) Dichlorodifluoromethane (P)

1.119min (+0.000) 49.08 ug/L m

response 284809

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 32.76 |
| 50.00 | 14.40 | 12.82 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

07/29/22

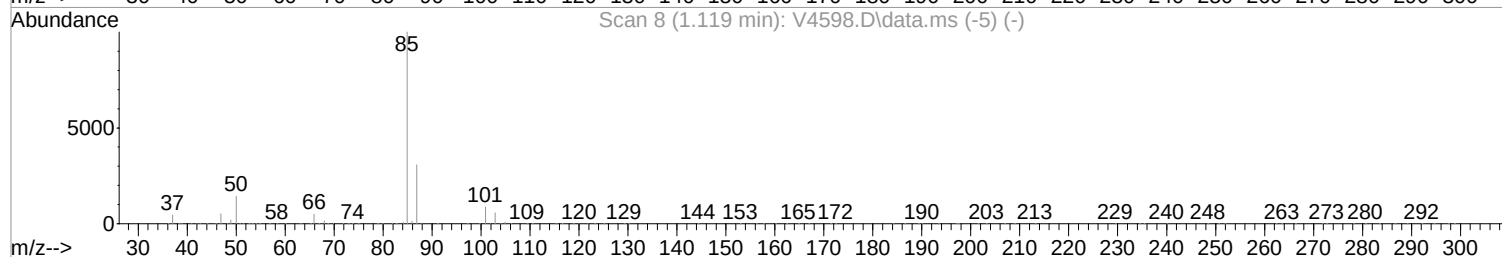
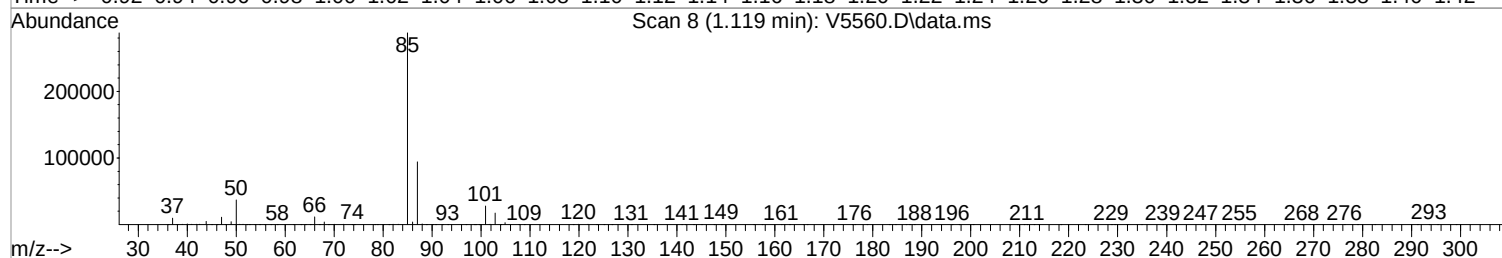
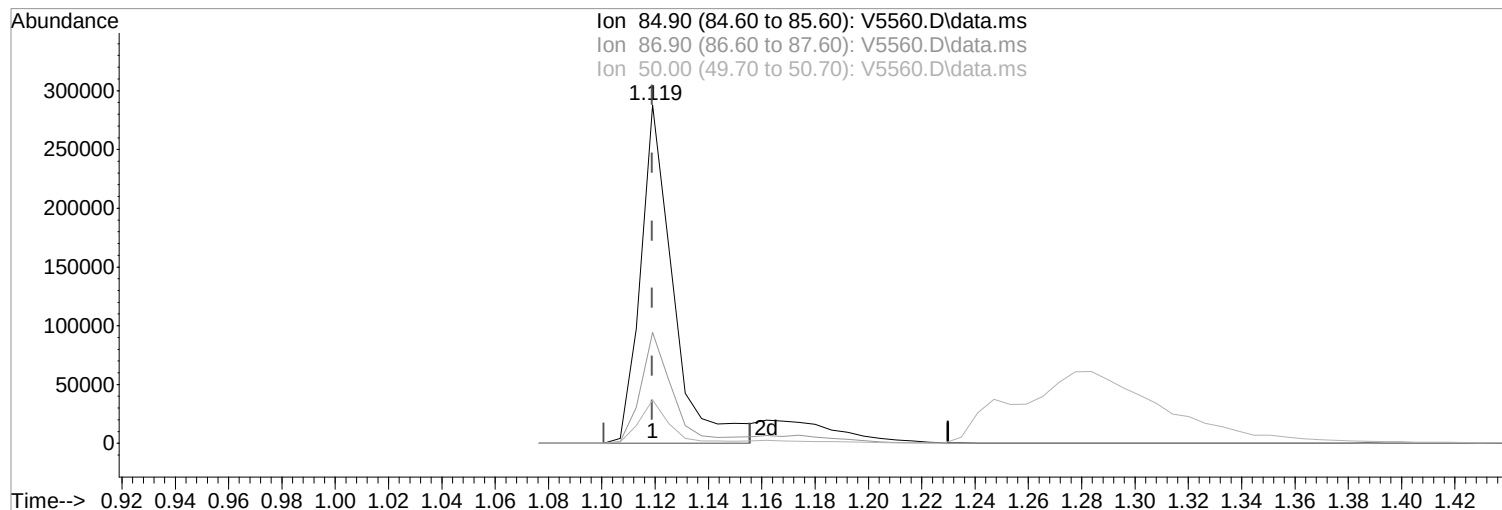
# Quantitation Report (Qedit)

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5560.D  
Acq On : 28 Jul 2022 8:32 pm  
Operator : F.NAEGLER  
Sample : CLOSING CCV (DOD)  
Misc :  
ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V5560.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.119min (+0.000) 42.11 ug/L

Before

response 244366

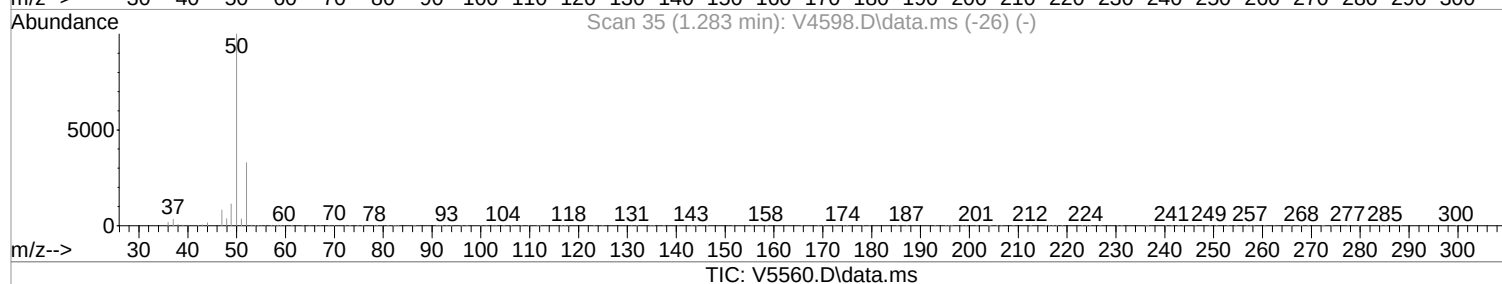
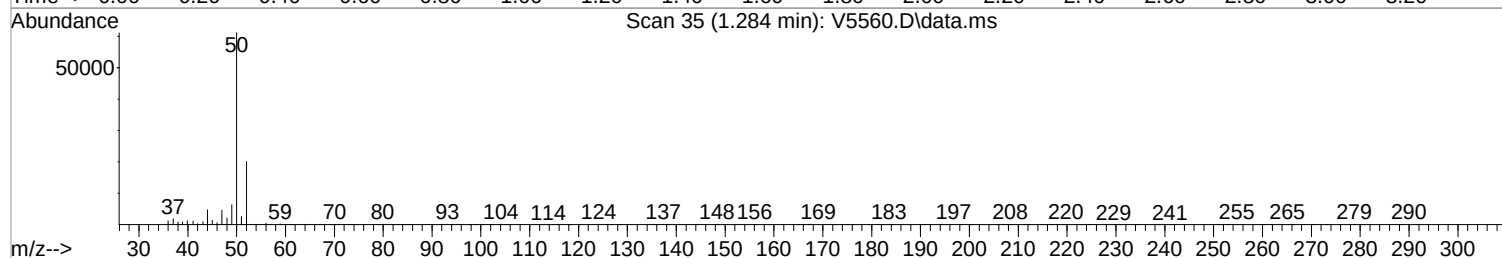
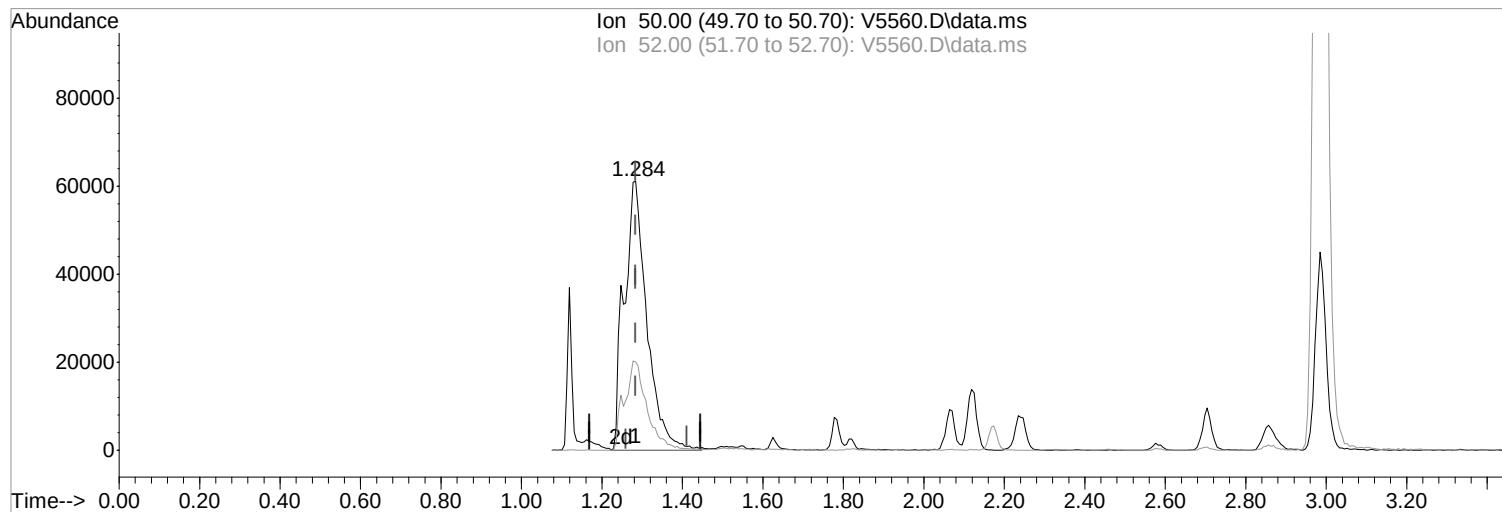
| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 32.76 |
| 50.00 | 14.40 | 12.95 |
| 0.00  | 0.00  | 0.00  |

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5560.D  
Acq On : 28 Jul 2022 8:32 pm  
Operator : F.NAEGLER  
Sample : CLOSING CCV (DOD)  
Misc :  
ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



(3) Chloromethane (P)

1.284min (+0.000) 41.45 ug/L m

response 239635

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 32.83 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

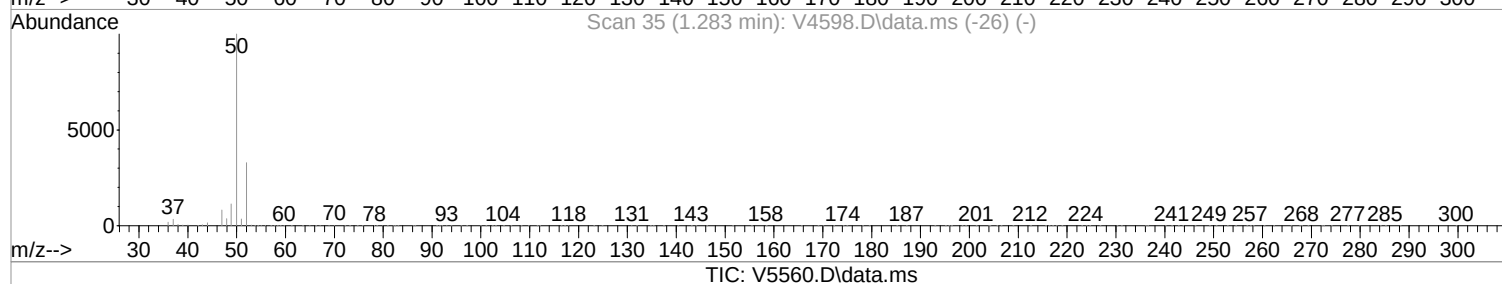
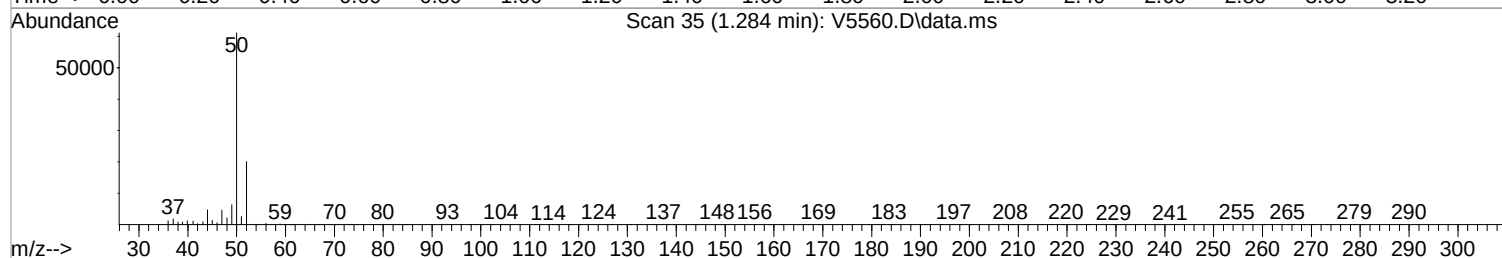
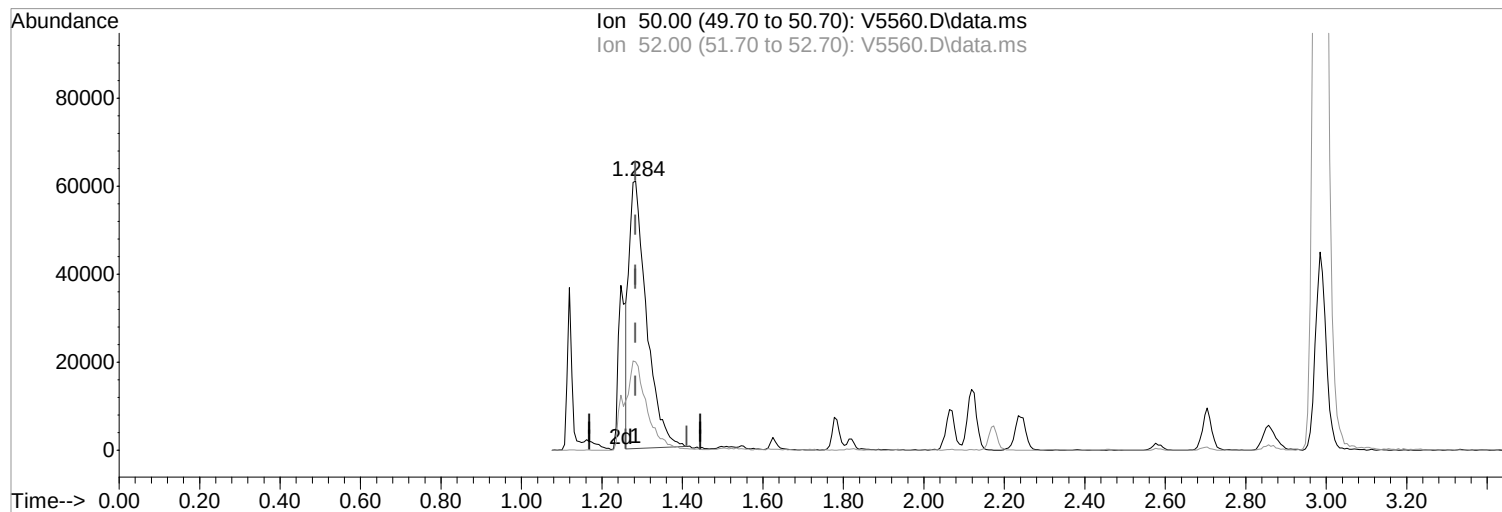
Poor integration.

07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5560.D  
Acq On : 28 Jul 2022 8:32 pm  
Operator : F.NAEGLER  
Sample : CLOSING CCV (DOD)  
Misc :  
ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:14 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



(3) Chloromethane (P)

Manual Integration:

1.284min (+0.000) 31.72 ug/L

Before

response 183348

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 32.83 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

07/29/22



## Evaluate Continuing Calibration Report

1st *FJ* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5560.D  
 Acq On : 28 Jul 2022 8:32 pm  
 Operator : F.NAEGLER  
 Sample : CLOSING CCV (DOD)  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:51 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                    | Amount   | Calc.   | %Dev  | Area% | Dev(min) |
|------|-----------------------------|----------|---------|-------|-------|----------|
| 1 i  | Pentafluorobenzene          | 50.000   | 50.000  | 0.0   | 96    | 0.00     |
| 2 P  | Dichlorodifluoromethane     | 50.000   | 49.079  | 1.8   | 89    | 0.00     |
| 3 P  | Chloromethane               | 50.000   | 41.454  | 17.1  | 85    | 0.00     |
| 4 P  | Vinyl Chloride              | 50.000   | 50.303  | -0.6  | 93    | 0.00     |
| 5 P  | Bromomethane                | 50.000   | 57.134  | -14.3 | 113   | 0.00     |
| 6 P  | Chloroethane                | 50.000   | 48.936  | 2.1   | 91    | 0.00     |
| 7    | Freon 21                    | 50.000   | 50.252  | -0.5  | 93    | 0.00     |
| 8 P  | Trichlorofluoromethane      | 50.000   | 47.029  | 5.9   | 87    | 0.00     |
| 9    | Diethyl Ether               | 50.000   | 52.821  | -5.6  | 104   | 0.00     |
| 10   | Freon 123a                  | 50.000   | 54.446  | -8.9  | 101   | 0.00     |
| 11   | Freon 123                   | 50.000   | 55.284  | -10.6 | 99    | 0.00     |
| 12   | Acrolein                    | 250.000  | 290.627 | -16.3 | 109   | 0.00     |
| 13   | 1,1-Dicethene               | 50.000   | 53.824  | -7.6  | 97    | 0.00     |
| 14 P | Freon 113                   | 50.000   | 49.852  | 0.3   | 92    | 0.00     |
| 15 P | Acetone                     | 50.000   | 49.179  | 1.6   | 94    | 0.00     |
| 16   | 2-Propanol                  | 1000.000 | 857.165 | 14.3  | 79    | 0.00     |
| 17   | Iodomethane                 | 50.000   | 47.539  | 4.9   | 83    | 0.00     |
| 18 P | Carbon Disulfide            | 50.000   | 54.545  | -9.1  | 100   | 0.00     |
| 19   | Acetonitrile                | 250.000  | 269.237 | -7.7  | 103   | 0.00     |
| 20   | Allyl Chloride              | 50.000   | 51.723  | -3.4  | 98    | 0.00     |
| 21 P | Methyl Acetate              | 50.000   | 48.637  | 2.7   | 96    | 0.00     |
| 22 P | Methylene Chloride          | 50.000   | 52.296  | -4.6  | 100   | 0.00     |
| 23   | TBA                         | 1000.000 | 824.993 | 17.5  | 76    | 0.00     |
| 24   | Acrylonitrile               | 250.000  | 260.319 | -4.1  | 98    | 0.00     |
| 25 P | Methyl-t-Butyl Ether        | 50.000   | 49.503  | 1.0   | 95    | 0.00     |
| 26 P | trans-1,2-Dichloroethene    | 50.000   | 52.179  | -4.4  | 95    | 0.00     |
| 27 P | 1,1-Dicethane               | 50.000   | 52.313  | -4.6  | 98    | 0.00     |
| 28   | Vinyl Acetate               | 50.000   | 51.123  | -2.2  | 93    | 0.00     |
| 29   | DIPE                        | 50.000   | 47.677  | 4.6   | 94    | 0.00     |
| 30   | 2-Chloro-1,3-Butadiene      | 50.000   | 48.719  | 2.6   | 90    | 0.00     |
| 31   | ETBE                        | 50.000   | 46.612  | 6.8   | 91    | 0.00     |
| 32   | 2,2-Dichloropropane         | 50.000   | 36.534  | 26.9# | 68    | 0.00     |
| 33 P | cis-1,2-Dichloroethene      | 50.000   | 50.936  | -1.9  | 96    | 0.00     |
| 34 P | 2-Butanone                  | 50.000   | 47.234  | 5.5   | 89    | 0.00     |
| 35   | Propionitrile               | 250.000  | 242.841 | 2.9   | 94    | 0.00     |
| 36   | Bromochloromethane          | 50.000   | 50.949  | -1.9  | 97    | 0.00     |
| 37   | Methacrylonitrile           | 50.000   | 51.208  | -2.4  | 96    | 0.00     |
| 38   | Tetrahydrofuran             | 50.000   | 47.553  | 4.9   | 92    | 0.00     |
| 39 P | Chloroform                  | 50.000   | 49.846  | 0.3   | 95    | 0.00     |
| 40 P | 1,1,1-Trichloroethane       | 50.000   | 45.477  | 9.0   | 87    | 0.00     |
| 41   | TAME                        | 50.000   | 46.334  | 7.3   | 90    | 0.00     |
| 42 i | 1,4-Difluorobenzene         | 50.000   | 50.000  | 0.0   | 100   | 0.00     |
| 43 P | Cyclohexane                 | 50.000   | 47.142  | 5.7   | 89    | 0.00     |
| 44 s | surr4,Dibrflmethane         | 50.000   | 49.516  | 1.0   | 98    | 0.00     |
| 45 P | Carbontetrachloride         | 50.000   | 45.054  | 9.9   | 84    | 0.00     |
| 46   | 1,1-Dichloropropene         | 50.000   | 48.965  | 2.1   | 94    | 0.00     |
| 47 s | surr1,1,2-dichloroethane-d4 | 50.000   | 47.321  | 5.4   | 94    | 0.00     |
| 48 P | Benzene                     | 50.000   | 50.984  | -2.0  | 96    | 0.00     |
| 49 P | 1,2-Dichloroethane          | 50.000   | 48.704  | 2.6   | 97    | 0.00     |
| 50   | Iso-Butyl Alcohol           | 1000.000 | 843.150 | 15.7  | 79    | 0.00     |
| 51   | n-Heptane                   | 50.000   | 41.182  | 17.6  | 83    | 0.00     |

## Evaluate Continuing Calibration Report

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5560.D  
 Acq On : 28 Jul 2022 8:32 pm  
 Operator : F.NAEGLER  
 Sample : CLOSING CCV (DOD)  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:51 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                    | Amount   | Calc.    | %Dev  | Area% | Dev(min) |
|------|-----------------------------|----------|----------|-------|-------|----------|
| 52   | 1-Butanol                   | 2500.000 | 2329.065 | 6.8   | 82    | 0.00     |
| 53 P | Trichloroethene             | 50.000   | 48.360   | 3.3   | 92    | 0.00     |
| 54 P | Methylcyclohexane           | 50.000   | 47.743   | 4.5   | 89    | 0.00     |
| 55 P | 1,2-Dichloropropane         | 50.000   | 51.527   | -3.1  | 101   | 0.00     |
| 56   | Dibromomethane              | 50.000   | 49.009   | 2.0   | 97    | 0.00     |
| 57   | 1,4-Dioxane                 | 1000.000 | 884.807  | 11.5  | 85    | 0.00     |
| 58   | Methyl Methacrylate         | 50.000   | 49.347   | 1.3   | 92    | 0.00     |
| 59 P | Bromodichloromethane        | 50.000   | 47.998   | 4.0   | 92    | 0.00     |
| 60   | 2-Nitropropane              | 100.000  | 77.227   | 22.8# | 72    | 0.00     |
| 61   | 2-Chloroethylvinyl Ether    | 50.000   | 35.728   | 28.5# | 64    | 0.00     |
| 62 P | cis-1,3-Dichloropropene     | 50.000   | 48.870   | 2.3   | 91    | 0.00     |
| 63 P | 4-Methyl-2-pentanone        | 50.000   | 45.009   | 10.0  | 87    | 0.00     |
| 64 s | SURR3, Toluene-d8           | 50.000   | 49.414   | 1.2   | 99    | 0.00     |
| 65 P | Toluene                     | 50.000   | 49.699   | 0.6   | 95    | 0.00     |
| 66 P | trans-1,3-Dichloropropene   | 50.000   | 46.306   | 7.4   | 87    | 0.00     |
| 67   | Ethyl Methacrylate          | 50.000   | 48.195   | 3.6   | 89    | 0.00     |
| 68 P | 1,1,2-Trichloroethane       | 50.000   | 49.975   | 0.0   | 97    | 0.00     |
| 69 s | SURR2, BFB                  | 50.000   | 46.759   | 6.5   | 93    | 0.00     |
| 70 i | d5-Chlorobenzene            | 50.000   | 50.000   | 0.0   | 99    | 0.00     |
| 71 P | Tetrachloroethene           | 50.000   | 47.456   | 5.1   | 90    | 0.00     |
| 72 P | 2-Hexanone                  | 50.000   | 46.223   | 7.6   | 86    | 0.00     |
| 73   | 1,3-Dichloropropane         | 50.000   | 51.573   | -3.1  | 101   | 0.00     |
| 74 P | Dibromochloromethane        | 50.000   | 51.095   | -2.2  | 92    | 0.00     |
| 75   | N-Butyl Acetate             | 50.000   | 48.697   | 2.6   | 90    | 0.00     |
| 76 P | 1,2-Dibromoethane           | 50.000   | 51.134   | -2.3  | 95    | 0.00     |
| 77   | 3-Chlorobenzotrifluoride    | 50.000   | 45.062   | 9.9   | 86    | 0.00     |
| 78 P | Chlorobenzene               | 50.000   | 49.590   | 0.8   | 95    | 0.00     |
| 79   | 4-Chlorobenzotrifluoride    | 50.000   | 46.436   | 7.1   | 87    | 0.00     |
| 80   | 1,1,1,2-Tetrachloroethane   | 50.000   | 48.482   | 3.0   | 89    | 0.00     |
| 81 P | Ethylbenzene                | 50.000   | 50.011   | -0.0  | 95    | 0.00     |
| 82 P | (m+p)Xylene                 | 100.000  | 100.975  | -1.0  | 95    | 0.00     |
| 83 P | o-Xylene                    | 50.000   | 50.143   | -0.3  | 95    | 0.00     |
| 84 P | Styrene                     | 50.000   | 51.257   | -2.5  | 94    | 0.00     |
| 85 P | Bromoform                   | 50.000   | 45.988   | 8.0   | 83    | 0.00     |
| 86   | 2-Chlorobenzotrifluoride    | 50.000   | 47.863   | 4.3   | 90    | 0.00     |
| 87 P | Isopropylbenzene            | 50.000   | 49.048   | 1.9   | 93    | 0.00     |
| 88   | Cyclohexanone               | 1000.000 | 239.023  | 76.1# | 21    | 0.00     |
| 89   | trans-1,4-Dichloro-2-Butene | 50.000   | 40.371   | 19.3  | 74    | 0.00     |
| 90 i | 1,4-Dichlorobenzene-d4      | 50.000   | 50.000   | 0.0   | 92    | 0.00     |
| 91 P | 1,1,2,2-Tetrachloroethane   | 50.000   | 52.346   | -4.7  | 92    | 0.00     |
| 92   | Bromobenzene                | 50.000   | 49.946   | 0.1   | 91    | 0.00     |
| 93   | 1,2,3-Trichloropropane      | 50.000   | 48.340   | 3.3   | 89    | 0.00     |
| 94   | n-Propylbenzene             | 50.000   | 50.719   | -1.4  | 91    | 0.00     |
| 95   | 2-Chlorotoluene             | 50.000   | 50.150   | -0.3  | 92    | 0.00     |
| 96   | 3-Chlorotoluene             | 50.000   | 50.790   | -1.6  | 94    | 0.00     |
| 97   | 4-Chlorotoluene             | 50.000   | 49.558   | 0.9   | 90    | 0.00     |
| 98   | 1,3,5-Trimethylbenzene      | 50.000   | 50.524   | -1.0  | 91    | 0.00     |
| 99   | tert-Butylbenzene           | 50.000   | 49.733   | 0.5   | 91    | 0.00     |
| 100  | 1,2,4-Trimethylbenzene      | 50.000   | 50.617   | -1.2  | 91    | 0.00     |
| 101  | 3,4-Dichlorobenzotrifluorid | 50.000   | 45.903   | 8.2   | 82    | 0.00     |

## Evaluate Continuing Calibration Report

1st *FU* 07/29/22  
2nd *BA* 07/29/22

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5560.D  
 Acq On : 28 Jul 2022 8:32 pm  
 Operator : F.NAEGLER  
 Sample : CLOSING CCV (DOD)  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:51 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                    | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|-------|-----------------------------|---------|---------|------|-------|----------|
| 102   | sec-Butylbenzene            | 50.000  | 50.068  | -0.1 | 90    | 0.00     |
| 103   | p-Isopropyltoluene          | 50.000  | 49.069  | 1.9  | 88    | 0.00     |
| 104 P | 1,3-Dclbenz                 | 50.000  | 49.524  | 1.0  | 89    | 0.00     |
| 105 P | 1,4-Dclbenz                 | 50.000  | 47.509  | 5.0  | 90    | 0.00     |
| 106   | 2,4-Dichlorobenzotrifluorid | 50.000  | 47.130  | 5.7  | 82    | 0.00     |
| 107   | 2,5-Dichlorobenzotrifluorid | 50.000  | 46.032  | 7.9  | 80    | 0.00     |
| 108   | n-Butylbenzene              | 50.000  | 47.783  | 4.4  | 86    | 0.00     |
| 109 P | 1,2-Dclbenz                 | 50.000  | 48.850  | 2.3  | 88    | 0.00     |
| 110 P | 1,2-Dibromo-3-chloropropane | 50.000  | 45.516  | 9.0  | 74    | 0.00     |
| 111   | Trielution Dichlorotoluene  | 150.000 | 138.565 | 7.6  | 84    | 0.00     |
| 112   | 1,3,5-Trichlorobenzene      | 50.000  | 45.687  | 8.6  | 82    | 0.00     |
| 113   | Coelution Dichlorotoluene   | 100.000 | 93.386  | 6.6  | 84    | 0.00     |
| 114 P | 1,2,4-Tcbenzene             | 50.000  | 43.263  | 13.5 | 77    | 0.00     |
| 115   | Hexachlorobt                | 50.000  | 42.295  | 15.4 | 76    | 0.00     |
| 116   | Naphthalen                  | 50.000  | 46.205  | 7.6  | 79    | 0.00     |
| 117   | 1,2,3-Tclbenzene            | 50.000  | 43.608  | 12.8 | 76    | 0.00     |
| 118   | 2,4,5-Trichlorotoluene      | 50.000  | 46.607  | 6.8  | 81    | 0.00     |
| 119   | 2,3,6-Trichlorotoluene      | 50.000  | 44.028  | 11.9 | 73    | 0.00     |

(# ) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5560.D  
 Acq On : 28 Jul 2022 8:32 pm  
 Operator : F.NAEGLER  
 Sample : CLOSING CCV (DOD)  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:51 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 628911   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 948209   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.941  | 117  | 844572   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.038 | 152  | 441708   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |        |      |
|-------------------------------|--------|----------------|----------|-------|--------|------|
| System Monitoring Compounds   |        |                |          |       |        |      |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 301809   | 49.52 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 99.04% |      |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 337349   | 47.32 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 94.64% |      |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1127163  | 49.41 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 98.82% |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 408618   | 46.76 | ug/L   | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 93.52% |      |

|                              |       |     |         |        |        |        |
|------------------------------|-------|-----|---------|--------|--------|--------|
| Target Compounds             |       |     |         |        |        | Qvalue |
| 2) Dichlorodifluoromethane   | 1.119 | 85  | 284809m | 49.08  | ug/L   |        |
| 3) Chloromethane             | 1.284 | 50  | 239635m | 41.45  | ug/L   |        |
| 4) Vinyl Chloride            | 1.326 | 62  | 342769  | 50.30  | ug/L   | 98     |
| 5) Bromomethane              | 1.546 | 94  | 238984  | 57.13  | ug/L   | 95     |
| 6) Chloroethane              | 1.625 | 64  | 215514  | 48.94  | ug/L   | 96     |
| 7) Freon 21                  | 1.784 | 67  | 518581  | 50.25  | ug/L   | 99     |
| 8) Trichlorofluoromethane    | 1.820 | 101 | 413545  | 47.03  | ug/L   | 99     |
| 9) Diethyl Ether             | 2.058 | 59  | 240752  | 52.82  | ug/L   | 96     |
| 10) Freon 123a               | 2.064 | 67  | 287901  | 54.45  | ug/L   | 91     |
| 11) Freon 123                | 2.119 | 83  | 342568  | 55.28  | ug/L   | 99     |
| 12) Acrolein                 | 2.174 | 56  | 383107  | 290.63 | ug/L   | 97     |
| 13) 1,1-Dicethene            | 2.241 | 96  | 229507  | 53.82  | ug/L   | 99     |
| 14) Freon 113                | 2.241 | 101 | 222427  | 49.85  | ug/L   | 99     |
| 15) Acetone                  | 2.314 | 43  | 132151  | 49.18  | ug/L   | 96     |
| 16) 2-Propanol               | 2.454 | 45  | 539749  | 857.17 | ug/L   | 95     |
| 17) Iodomethane              | 2.381 | 142 | 345798  | 47.54  | ug/L   | 96     |
| 18) Carbon Disulfide         | 2.430 | 76  | 652240  | 54.54  | ug/L   | 100    |
| 19) Acetonitrile             | 2.576 | 41  | 411894m | 269.24 | ug/L   |        |
| 20) Allyl Chloride           | 2.582 | 76  | 143555  | 51.72  | ug/L # | 85     |
| 21) Methyl Acetate           | 2.613 | 43  | 356066  | 48.64  | ug/L   | 99     |
| 22) Methylene Chloride       | 2.704 | 84  | 280181  | 52.30  | ug/L   | 98     |
| 23) TBA                      | 2.857 | 59  | 928504  | 824.99 | ug/L   | 92     |
| 24) Acrylonitrile            | 2.985 | 53  | 813456  | 260.32 | ug/L   | 99     |
| 25) Methyl-t-Butyl Ether     | 2.997 | 73  | 860964  | 49.50  | ug/L   | 99     |
| 26) trans-1,2-Dichloroethene | 2.985 | 96  | 258959  | 52.18  | ug/L   | 96     |
| 27) 1,1-Dicethane            | 3.497 | 63  | 453518  | 52.31  | ug/L   | 99     |
| 28) Vinyl Acetate            | 3.588 | 86  | 53095   | 51.12  | ug/L # | 89     |
| 29) DIPE                     | 3.600 | 45  | 754146  | 47.68  | ug/L   | 93     |
| 30) 2-Chloro-1,3-Butadiene   | 3.606 | 53  | 349973  | 48.72  | ug/L   | 96     |
| 31) ETBE                     | 4.131 | 59  | 724270  | 46.61  | ug/L   | 98     |
| 32) 2,2-Dichloropropane      | 4.326 | 77  | 269886  | 36.53  | ug/L   | 96     |
| 33) cis-1,2-Dichloroethene   | 4.344 | 96  | 299655  | 50.94  | ug/L   | 98     |
| 34) 2-Butanone               | 4.423 | 43  | 193234  | 47.23  | ug/L   | 97     |
| 35) Propionitrile            | 4.533 | 54  | 331511  | 242.84 | ug/L   | 99     |
| 36) Bromochloromethane       | 4.746 | 130 | 208033  | 50.95  | ug/L   | 96     |
| 37) Methacrylonitrile        | 4.783 | 67  | 169091  | 51.21  | ug/L   | 94     |
| 38) Tetrahydrofuran          | 4.850 | 42  | 129127  | 47.55  | ug/L   | 88     |
| 39) Chloroform               | 4.923 | 83  | 469077  | 49.85  | ug/L   | 98     |
| 40) 1,1,1-Trichloroethane    | 5.204 | 97  | 364450  | 45.48  | ug/L   | 97     |

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5560.D  
 Acq On : 28 Jul 2022 8:32 pm  
 Operator : F.NAEGLER  
 Sample : CLOSING CCV (DOD)  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:51 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 41) TAME                       | 6.082  | 73   | 738616   | 46.33   | ug/L  | 98       |
| 43) Cyclohexane                | 5.265  | 41   | 217841   | 47.14   | ug/L  | 93       |
| 45) Carbontetrachloride        | 5.472  | 117  | 304163   | 45.05   | ug/L  | 95       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 323627   | 48.97   | ug/L  | 98       |
| 48) Benzene                    | 5.838  | 78   | 1028526  | 50.98   | ug/L  | 99       |
| 49) 1,2-Dichloroethane         | 5.905  | 62   | 388822   | 48.70   | ug/L  | 98       |
| 50) Iso-Butyl Alcohol          | 5.911  | 43   | 382832   | 843.15  | ug/L  | 97       |
| 51) n-Heptane                  | 6.307  | 43   | 231890   | 41.18   | ug/L  | 98       |
| 52) 1-Butanol                  | 6.905  | 56   | 654390   | 2329.07 | ug/L  | 100      |
| 53) Trichloroethene            | 6.819  | 130  | 285601   | 48.36   | ug/L  | 98       |
| 54) Methylcyclohexane          | 7.039  | 55   | 286128   | 47.74   | ug/L  | 99       |
| 55) 1,2-Dichloropropane        | 7.124  | 63   | 276075   | 51.53   | ug/L  | 96       |
| 56) Dibromomethane             | 7.276  | 93   | 202834   | 49.01   | ug/L  | 95       |
| 57) 1,4-Dioxane                | 7.356  | 88   | 126296   | 884.81  | ug/L  | 91       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 258458   | 49.35   | ug/L  | 93       |
| 59) Bromodichloromethane       | 7.514  | 83   | 356773   | 48.00   | ug/L  | 99       |
| 60) 2-Nitropropane             | 7.837  | 41   | 165142   | 77.23   | ug/L  | 96       |
| 61) 2-Chloroethylvinyl Ether   | 7.941  | 63   | 130951   | 35.73   | ug/L  | 100      |
| 62) cis-1,3-Dichloropropene    | 8.075  | 75   | 410531   | 48.87   | ug/L  | 98       |
| 63) 4-Methyl-2-pentanone       | 8.307  | 43   | 376218   | 45.01   | ug/L  | 97       |
| 65) Toluene                    | 8.447  | 91   | 1116692  | 49.70   | ug/L  | 100      |
| 66) trans-1,3-Dichloropropene  | 8.752  | 75   | 364372   | 46.31   | ug/L  | 98       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 426913   | 48.20   | ug/L  | 97       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 283056   | 49.97   | ug/L  | 97       |
| 71) Tetrachloroethene          | 9.063  | 164  | 215178   | 47.46   | ug/L  | 99       |
| 72) 2-Hexanone                 | 9.264  | 43   | 283266   | 46.22   | ug/L  | 98       |
| 73) 1,3-Dichloropropane        | 9.130  | 76   | 488873   | 51.57   | ug/L  | 95       |
| 74) Dibromochloromethane       | 9.367  | 129  | 307561   | 51.10   | ug/L  | 95       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 555345   | 48.70   | ug/L  | 96       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 314592   | 51.13   | ug/L  | 98       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 379617   | 45.06   | ug/L  | 99       |
| 78) Chlorobenzene              | 9.971  | 112  | 771643   | 49.59   | ug/L  | 100      |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 338427   | 46.44   | ug/L  | 99       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 267328   | 48.48   | ug/L  | 98       |
| 81) Ethylbenzene               | 10.087 | 106  | 389120   | 50.01   | ug/L  | 99       |
| 82) (m+p)Xylene                | 10.203 | 106  | 964071   | 100.98  | ug/L  | 96       |
| 83) o-Xylene                   | 10.575 | 106  | 474815   | 50.14   | ug/L  | 94       |
| 84) Styrene                    | 10.593 | 104  | 832682   | 51.26   | ug/L  | 98       |
| 85) Bromoform                  | 10.757 | 173  | 212751   | 45.99   | ug/L  | 97       |
| 86) 2-Chlorobenzotrifluoride   | 10.831 | 180  | 395608   | 47.86   | ug/L  | 99       |
| 87) Isopropylbenzene           | 10.916 | 105  | 1116882  | 49.05   | ug/L  | 99       |
| 88) Cyclohexanone              | 11.007 | 55   | 348253   | 239.02  | ug/L  | 98       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 105963   | 40.37   | ug/L  | 91       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 443268   | 52.35   | ug/L  | 97       |
| 92) Bromobenzene               | 11.172 | 156  | 355082   | 49.95   | ug/L  | 98       |
| 93) 1,2,3-Trichloropropane     | 11.227 | 110  | 143924   | 48.34   | ug/L  | 90       |
| 94) n-Propylbenzene            | 11.276 | 91   | 1364613  | 50.72   | ug/L  | 98       |
| 95) 2-Chlorotoluene            | 11.343 | 91   | 818073   | 50.15   | ug/L  | 98       |
| 96) 3-Chlorotoluene            | 11.398 | 91   | 849617   | 50.79   | ug/L  | 97       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 944334   | 49.56   | ug/L  | 99       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 991688   | 50.52   | ug/L  | 97       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 831731   | 49.73   | ug/L  | 98       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 994336   | 50.62   | ug/L  | 100      |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 292918   | 45.90   | ug/L  | 98       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 1192557  | 50.07   | ug/L  | 98       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 1025257  | 49.07   | ug/L  | 99       |

Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
 Data File : V5560.D  
 Acq On : 28 Jul 2022 8:32 pm  
 Operator : F.NAEGLER  
 Sample : CLOSING CCV (DOD)  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jul 29 08:48:51 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 610980   | 49.52  | ug/L  | 99       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 620566   | 47.51  | ug/L  | 99       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 274136   | 47.13  | ug/L  | 97       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 298102   | 46.03  | ug/L  | 100      |
| 108) n-Butylbenzene            | 12.355 | 91   | 886085   | 47.78  | ug/L  | 99       |
| 109) 1,2-Dclbenz               | 12.361 | 146  | 617875   | 48.85  | ug/L  | 96       |
| 110) 1,2-Dibromo-3-chloropr... | 13.001 | 157  | 108149   | 45.52  | ug/L  | 91       |
| 111) Trielution Dichlorotol... | 13.117 | 125  | 1428700  | 138.57 | ug/L  | 99       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 421620   | 45.69  | ug/L  | 99       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 1057013  | 93.39  | ug/L  | 99       |
| 114) 1,2,4-Tcbenzene           | 13.647 | 180  | 426937   | 43.26  | ug/L  | 95       |
| 115) Hexachlorobt              | 13.781 | 225  | 162911   | 42.29  | ug/L  | 97       |
| 116) Naphthalen                | 13.842 | 128  | 1349881  | 46.20  | ug/L  | 100      |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 433268   | 43.61  | ug/L  | 99       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 278006   | 46.61  | ug/L  | 98       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 237933   | 44.03  | ug/L  | 98       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



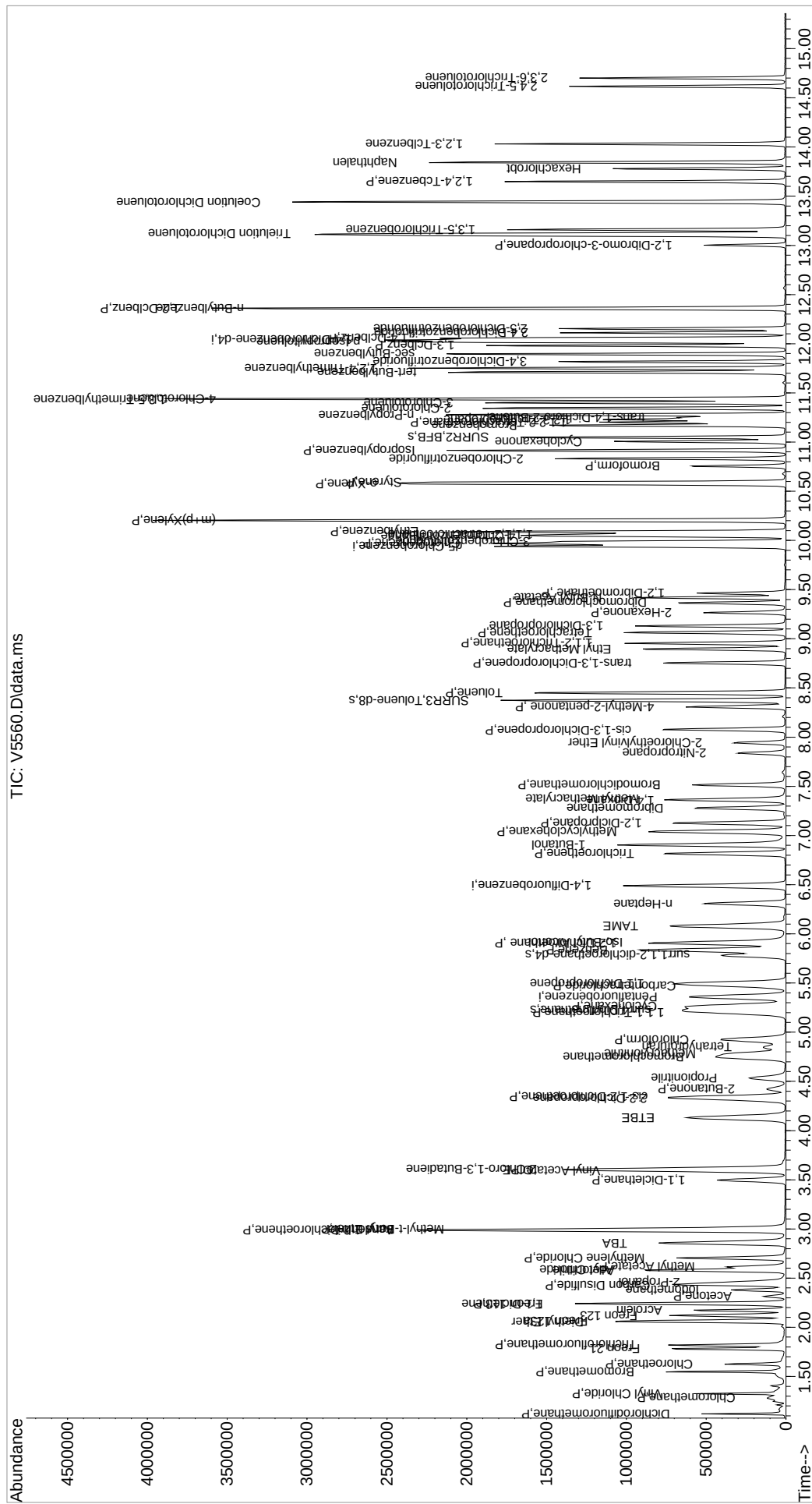
## Quantitation Report (QT Reviewed)

|           |   |   |                                  |
|-----------|---|---|----------------------------------|
| Data Path | : | : | I:\ACQUDATA\MSV0A14\Data\072822\ |
| Data File | : | : | V5560.D                          |
| Acq On    | : | : | 28 Jul 2022 8:32 pm              |
| Operator  | : | : | F.NAEGLER                        |
| Sample    | : | : | CLOSING CCV (DOD)                |
| Misc      | : | : |                                  |
| ALS Vial  | : | : | 28 Sample Multiplier: 1          |

Inst : MSV0A14

ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 29 08:48:51 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration

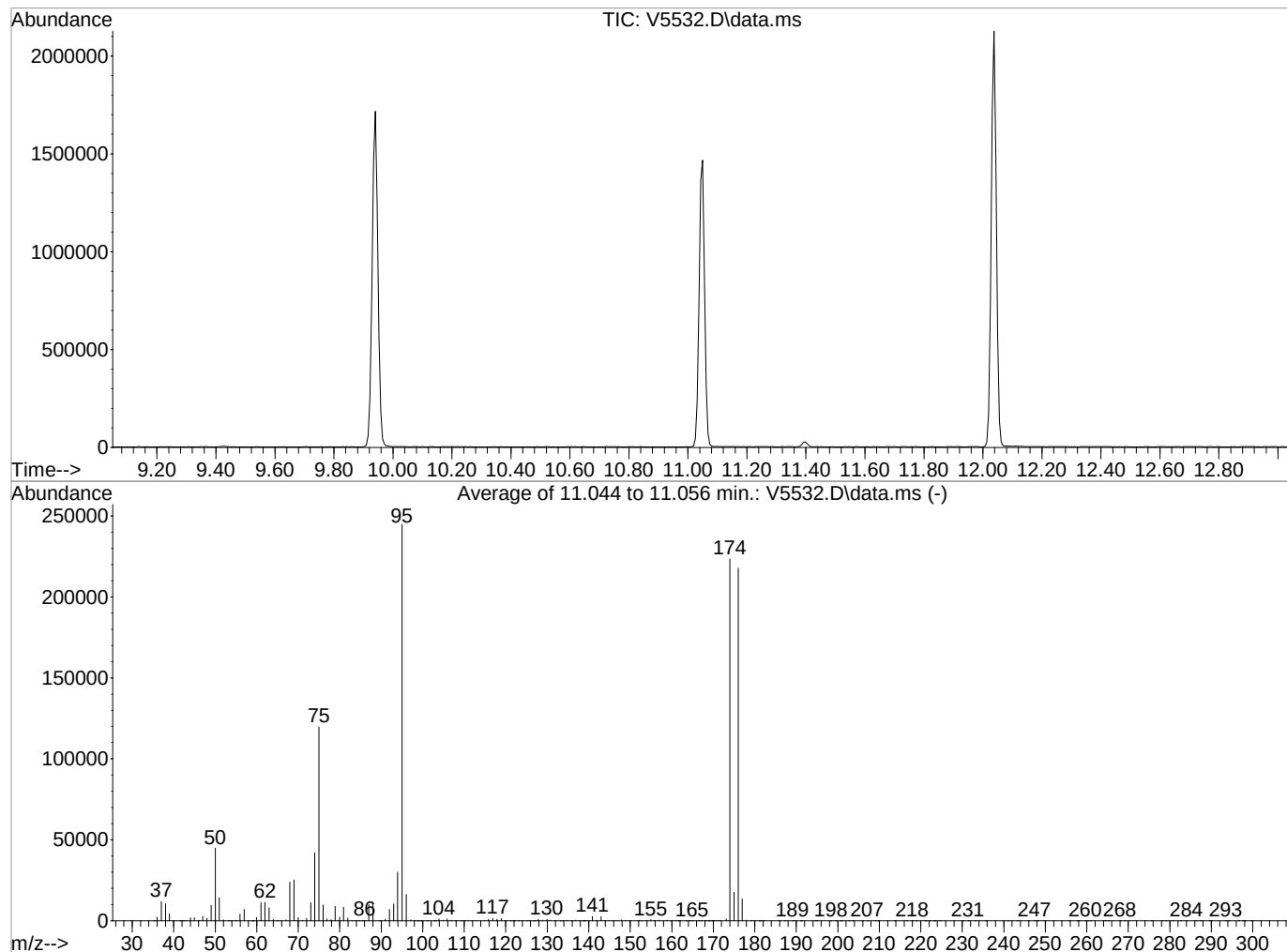


Data Path : I:\ACQUDATA\MSVOA14\Data\072822\  
Data File : V5532.D  
Acq On : 28 Jul 2022 9:23 am  
Operator : F.NAEGLER  
Sample : TUNE  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Integration File: CPD4.P

Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Title : MS#14 - 8260 WATERS 5mL Purge  
Last Update : Mon Jun 13 09:38:11 2022



AutoFind: Scans 1636, 1637, 1638; Background Corrected with Scan 1630

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 18.3      | 44768   | PASS             |
| 75          | 95           | 30           | 60           | 48.9      | 119736  | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 244790  | PASS             |
| 96          | 95           | 5            | 9            | 6.7       | 16313   | PASS             |
| 173         | 174          | 0.00         | 2            | 0.5       | 1195    | PASS             |
| 174         | 95           | 50           | 120          | 91.3      | 223381  | PASS             |
| 175         | 174          | 5            | 9            | 7.9       | 17696   | PASS             |
| 176         | 174          | 95           | 101          | 97.5      | 217792  | PASS             |
| 177         | 176          | 5            | 9            | 6.2       | 13471   | PASS             |



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4605.D  
 Acq On : 10 Jun 2022 6:34 pm  
 Operator : F.NAEGLER  
 Sample : 50 PPB ICV  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:08:03 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 659505   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 958346   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 850450   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.037 | 152  | 478805   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |         |      |
|-------------------------------|--------|----------------|----------|-------|---------|------|
| System Monitoring Compounds   |        |                |          |       |         |      |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 315083   | 51.15 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 102.30% |      |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 363768   | 50.49 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 100.98% |      |
| 64) SURR3,Toluene-d8          | 8.373  | 98             | 1167361  | 50.63 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 101.26% |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 447695   | 50.69 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 101.38% |      |

|                              |       |     |         |         |      |        |
|------------------------------|-------|-----|---------|---------|------|--------|
| Target Compounds             |       |     |         |         |      | Qvalue |
| 2) Dichlorodifluoromethane   | 1.125 | 85  | 235915m | 38.77   | ug/L |        |
| 3) Chloromethane             | 1.283 | 50  | 290926  | 47.99   | ug/L | 97     |
| 4) Vinyl Chloride            | 1.326 | 62  | 293146  | 41.03   | ug/L | 97     |
| 5) Bromomethane              | 1.552 | 94  | 209078  | 46.67   | ug/L | 99     |
| 6) Chloroethane              | 1.625 | 64  | 207863  | 45.01   | ug/L | 94     |
| 7) Freon 21                  | 1.783 | 67  | 506917  | 46.84   | ug/L | 100    |
| 8) Trichlorofluoromethane    | 1.820 | 101 | 408832  | 44.34   | ug/L | 98     |
| 9) Diethyl Ether             | 2.058 | 59  | 219675  | 45.96   | ug/L | 99     |
| 10) Freon 123a               | 2.070 | 67  | 313393  | 56.52   | ug/L | 99     |
| 11) Freon 123                | 2.125 | 83  | 372514  | 57.33   | ug/L | 99     |
| 12) Acrolein                 | 2.173 | 56  | 138624  | 100.28  | ug/L | 96     |
| 13) 1,1-Dicethene            | 2.247 | 96  | 206563  | 46.20   | ug/L | 98     |
| 14) Freon 113                | 2.241 | 101 | 202664  | 43.32   | ug/L | 97     |
| 15) Acetone                  | 2.314 | 43  | 152496  | 54.12   | ug/L | 99     |
| 16) 2-Propanol               | 2.454 | 45  | 722606  | 1094.32 | ug/L | 99     |
| 17) Iodomethane              | 2.381 | 142 | 309133  | 41.22   | ug/L | 98     |
| 18) Carbon Disulfide         | 2.436 | 76  | 553043  | 44.10   | ug/L | 99     |
| 19) Acetonitrile             | 2.582 | 41  | 349913m | 218.11  | ug/L |        |
| 20) Allyl Chloride           | 2.582 | 76  | 118400  | 40.68   | ug/L | # 92   |
| 21) Methyl Acetate           | 2.619 | 43  | 328276  | 42.76   | ug/L | 98     |
| 22) Methylene Chloride       | 2.710 | 84  | 249826  | 44.47   | ug/L | 97     |
| 23) TBA                      | 2.856 | 59  | 1152784 | 976.75  | ug/L | 98     |
| 24) Acrylonitrile            | 2.990 | 53  | 788498  | 240.63  | ug/L | 100    |
| 25) Methyl-t-Butyl Ether     | 3.003 | 73  | 842846  | 46.21   | ug/L | 100    |
| 26) trans-1,2-Dichloroethene | 2.990 | 96  | 241571  | 46.42   | ug/L | 97     |
| 27) 1,1-Dicethane            | 3.496 | 63  | 414617  | 45.61   | ug/L | 100    |
| 28) Vinyl Acetate            | 3.594 | 86  | 56266   | 51.66   | ug/L | # 90   |
| 29) DIPE                     | 3.606 | 45  | 805450  | 48.56   | ug/L | 98     |
| 30) 2-Chloro-1,3-Butadiene   | 3.612 | 53  | 346410  | 45.99   | ug/L | 99     |
| 31) ETBE                     | 4.130 | 59  | 747806  | 45.89   | ug/L | 99     |
| 32) 2,2-Dichloropropane      | 4.325 | 77  | 332674  | 42.94   | ug/L | 97     |
| 33) cis-1,2-Dichloroethene   | 4.344 | 96  | 280596  | 45.48   | ug/L | 100    |
| 34) 2-Butanone               | 4.423 | 43  | 207350  | 48.33   | ug/L | 96     |
| 35) Propionitrile            | 4.539 | 54  | 339207  | 236.95  | ug/L | 99     |
| 36) Bromochloromethane       | 4.746 | 130 | 192904  | 45.05   | ug/L | 97     |
| 37) Methacrylonitrile        | 4.789 | 67  | 164660  | 47.55   | ug/L | 99     |
| 38) Tetrahydrofuran          | 4.850 | 42  | 133952  | 47.04   | ug/L | 95     |
| 39) Chloroform               | 4.929 | 83  | 438346  | 44.42   | ug/L | 99     |
| 40) 1,1,1-Trichloroethane    | 5.203 | 97  | 373513  | 44.45   | ug/L | 94     |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4605.D  
 Acq On : 10 Jun 2022 6:34 pm  
 Operator : F.NAEGLER  
 Sample : 50 PPB ICV  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:08:03 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 41) TAME                       | 6.081  | 73   | 828269   | 49.55   | ug/L  | 97       |
| 43) Cyclohexane                | 5.264  | 41   | 262167   | 56.13   | ug/L  | 96       |
| 45) Carbontetrachloride        | 5.478  | 117  | 317160   | 46.48   | ug/L  | 94       |
| 46) 1,1-Dichloropropene        | 5.502  | 75   | 303377   | 45.42   | ug/L  | 96       |
| 48) Benzene                    | 5.837  | 78   | 933187   | 45.77   | ug/L  | 100      |
| 49) 1,2-Dichloroethane         | 5.904  | 62   | 373316   | 46.27   | ug/L  | 98       |
| 50) Iso-Butyl Alcohol          | 5.911  | 43   | 448109   | 976.48  | ug/L  | 99       |
| 51) n-Heptane                  | 6.313  | 43   | 238372   | 41.89   | ug/L  | 98       |
| 52) 1-Butanol                  | 6.904  | 56   | 785983   | 2699.76 | ug/L  | 96       |
| 53) Trichloroethene            | 6.819  | 130  | 278677   | 46.69   | ug/L  | 98       |
| 54) Methylcyclohexane          | 7.038  | 55   | 350898   | 57.93   | ug/L  | 97       |
| 55) 1,2-Dichloropropane        | 7.130  | 63   | 249731   | 46.12   | ug/L  | 98       |
| 56) Dibromomethane             | 7.276  | 93   | 197956   | 47.32   | ug/L  | 92       |
| 57) 1,4-Dioxane                | 7.355  | 88   | 142471   | 987.57  | ug/L  | 90       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 270751   | 51.15   | ug/L  | 98       |
| 59) Bromodichloromethane       | 7.514  | 83   | 353213   | 47.02   | ug/L  | 98       |
| 60) 2-Nitropropane             | 7.837  | 41   | 214770   | 99.37   | ug/L  | 93       |
| 61) 2-Chloroethylvinyl Ether   | 7.947  | 63   | 193459   | 50.88   | ug/L  | 97       |
| 62) cis-1,3-Dichloropropene    | 8.081  | 75   | 416011   | 49.00   | ug/L  | 99       |
| 63) 4-Methyl-2-pentanone       | 8.306  | 43   | 429204   | 50.81   | ug/L  | 100      |
| 65) Toluene                    | 8.453  | 91   | 1033055  | 45.49   | ug/L  | 99       |
| 66) trans-1,3-Dichloropropene  | 8.751  | 75   | 406456   | 51.11   | ug/L  | 99       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 396546   | 44.29   | ug/L  | 100      |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 274462   | 47.94   | ug/L  | 100      |
| 71) Tetrachloroethene          | 9.062  | 164  | 212820   | 46.61   | ug/L  | 98       |
| 72) 2-Hexanone                 | 9.264  | 43   | 328054   | 53.16   | ug/L  | 99       |
| 73) 1,3-Dichloropropane        | 9.129  | 76   | 466046   | 48.83   | ug/L  | 98       |
| 74) Dibromochloromethane       | 9.361  | 129  | 290294   | 47.89   | ug/L  | 97       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 647127   | 56.35   | ug/L  | 98       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 309470   | 49.95   | ug/L  | 97       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 474576   | 55.94   | ug/L  | 99       |
| 78) Chlorobenzene              | 9.971  | 112  | 719888   | 45.94   | ug/L  | 100      |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 421780   | 57.47   | ug/L  | 97       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 276662   | 49.83   | ug/L  | 98       |
| 81) Ethylbenzene               | 10.087 | 106  | 361637   | 46.16   | ug/L  | 97       |
| 82) (m+p)Xylene                | 10.202 | 106  | 899485   | 93.56   | ug/L  | 100      |
| 83) o-Xylene                   | 10.574 | 106  | 453977   | 47.61   | ug/L  | 98       |
| 84) Styrene                    | 10.593 | 104  | 790397   | 48.32   | ug/L  | 99       |
| 85) Bromoform                  | 10.757 | 173  | 239331   | 50.95   | ug/L  | 99       |
| 86) 2-Chlorobenzotrifluoride   | 10.830 | 180  | 482131   | 57.93   | ug/L  | 99       |
| 87) Isopropylbenzene           | 10.916 | 105  | 1084779  | 47.31   | ug/L  | 100      |
| 88) Cyclohexanone              | 11.007 | 55   | 1451837  | 989.58  | ug/L  | 99       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 116599   | 44.12   | ug/L  | 97       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 441964   | 48.15   | ug/L  | 98       |
| 92) Bromobenzene               | 11.172 | 156  | 347829   | 45.13   | ug/L  | 98       |
| 93) 1,2,3-Trichloropropane     | 11.233 | 110  | 149879   | 46.44   | ug/L  | 98       |
| 94) n-Propylbenzene            | 11.281 | 91   | 1335423  | 45.79   | ug/L  | 99       |
| 95) 2-Chlorotoluene            | 11.342 | 91   | 779651   | 44.09   | ug/L  | 99       |
| 96) 3-Chlorotoluene            | 11.403 | 91   | 965839   | 53.26   | ug/L  | 99       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 924666   | 44.77   | ug/L  | 99       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 957899   | 45.02   | ug/L  | 99       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 818665   | 45.16   | ug/L  | 99       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 970771   | 45.59   | ug/L  | 100      |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 387095   | 55.96   | ug/L  | 100      |
| 102) sec-Butylbenzene          | 11.897 | 105  | 1171852  | 45.39   | ug/L  | 100      |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 1027308  | 45.36   | ug/L  | 99       |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4605.D  
 Acq On : 10 Jun 2022 6:34 pm  
 Operator : F.NAEGLER  
 Sample : 50 PPB ICV  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:08:03 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 609983   | 45.61  | ug/L  | 99       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 631525   | 44.60  | ug/L  | 99       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 365198   | 57.92  | ug/L  | 97       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 398266   | 56.73  | ug/L  | 99       |
| 108) n-Butylbenzene            | 12.354 | 91   | 909365   | 45.24  | ug/L  | 99       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 625095   | 45.59  | ug/L  | 99       |
| 110) 1,2-Dibromo-3-chloropr... | 13.001 | 157  | 130381   | 50.23  | ug/L  | 92       |
| 111) Trielution Dichlorotol... | 13.110 | 125  | 1814345  | 162.33 | ug/L  | 99       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 545082   | 54.49  | ug/L  | 97       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 1334276  | 108.75 | ug/L  | 98       |
| 114) 1,2,4-Tcbenzene           | 13.647 | 180  | 484434   | 45.29  | ug/L  | 94       |
| 115) Hexachlorobt              | 13.781 | 225  | 199012   | 47.66  | ug/L  | 99       |
| 116) Naphthalen                | 13.842 | 128  | 1526988  | 48.22  | ug/L  | 99       |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 485433   | 45.07  | ug/L  | 97       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 362559   | 56.07  | ug/L  | 99       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 314497   | 53.69  | ug/L  | 100      |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

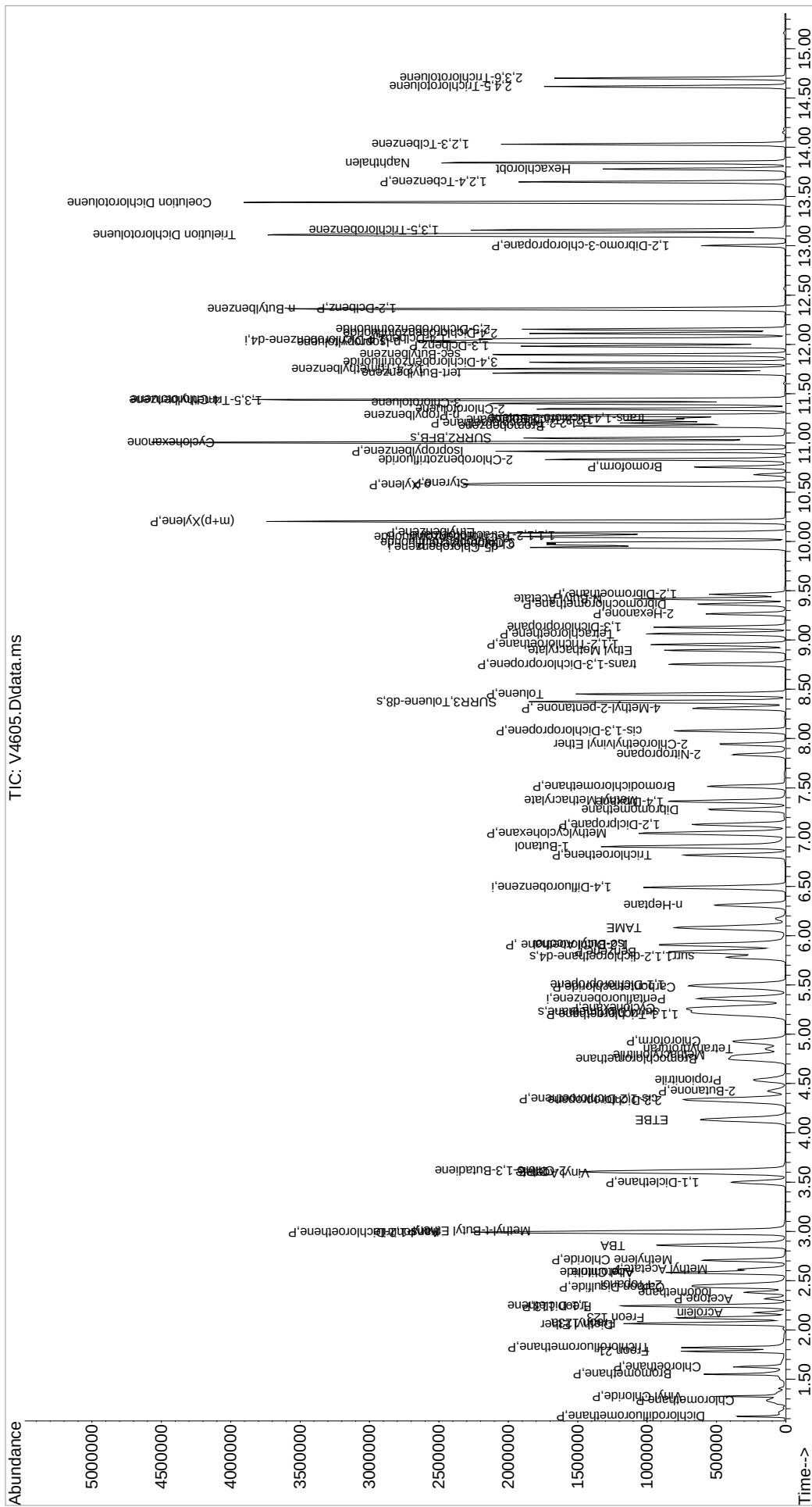
## Quantitation Report (QT Reviewed)

|           |   |   |                                  |
|-----------|---|---|----------------------------------|
| Data Path | : | : | I:\ACQUDATA\MSV0A14\Data\061022\ |
| Data File | : | : | V4605.D                          |
| Acq On    | : | : | 10 Jun 2022 6:34 pm              |
| Operator  | : | : | F.NAEGLER                        |
| Sample    | : | : | 50 PPB ICV                       |
| Misc      | : | : |                                  |
| ALS Vial  | : | : | 14 Sample Multiplier: 1          |

Inst : MSV0A14

ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 13 10:08:03 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration

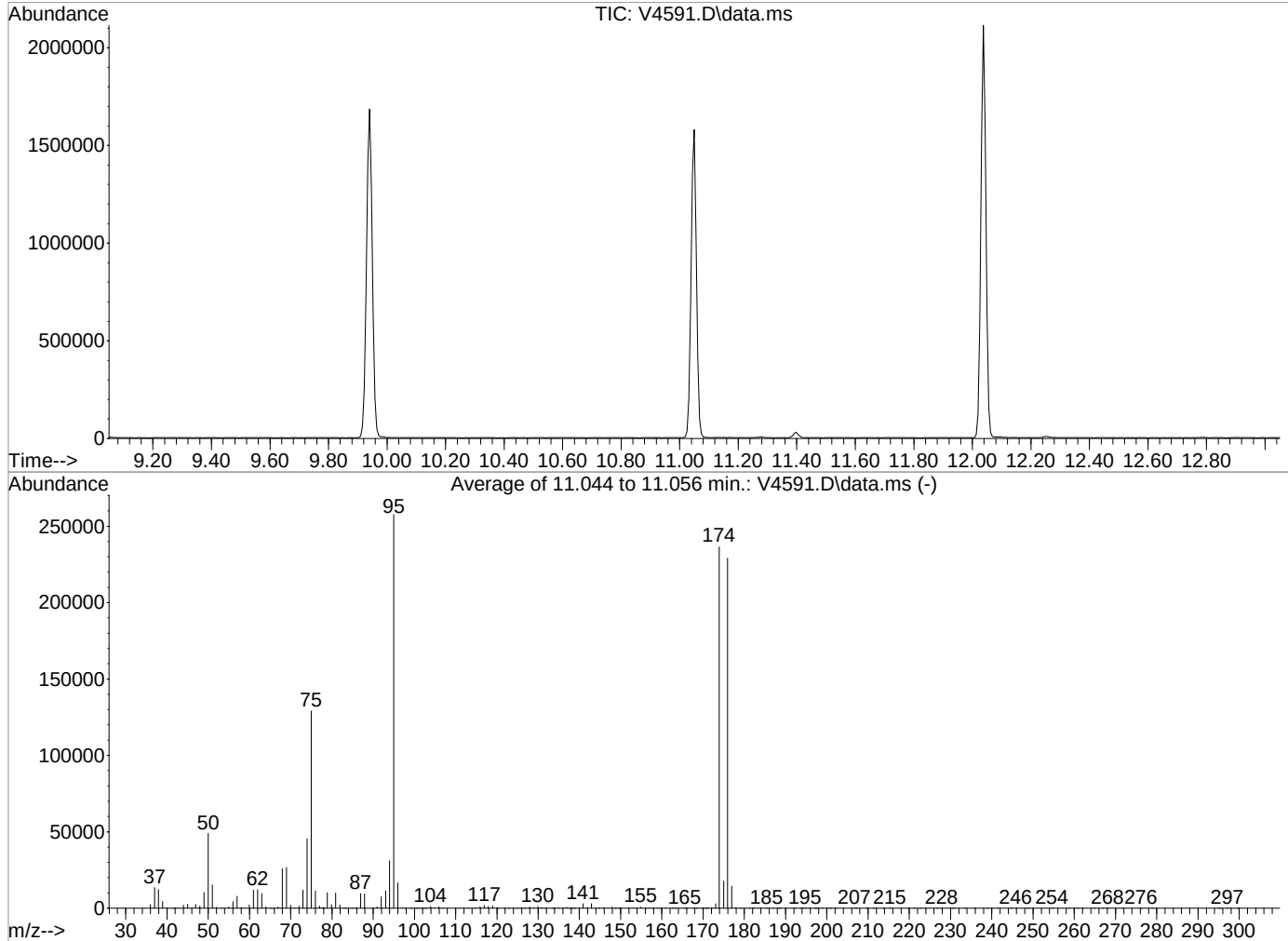


Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4591.D  
 Acq On : 10 Jun 2022 1:08 pm  
 Operator : F.NAEGLER  
 Sample : TUNE  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

Integration File: CPD4.P

Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Title : MS#14 - 8260 WATERS 5mL Purge  
 Last Update : Tue Apr 05 09:30:47 2022



AutoFind: Scans 1636, 1637, 1638; Background Corrected with Scan 1630

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 19.0      | 48890   | PASS             |
| 75          | 95           | 30           | 60           | 50.2      | 129159  | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 257515  | PASS             |
| 96          | 95           | 5            | 9            | 6.5       | 16665   | PASS             |
| 173         | 174          | 0.00         | 2            | 1.3       | 3039    | PASS             |
| 174         | 95           | 50           | 120          | 91.8      | 236501  | PASS             |
| 175         | 174          | 5            | 9            | 7.5       | 17820   | PASS             |
| 176         | 174          | 95           | 101          | 96.9      | 229163  | PASS             |
| 177         | 176          | 5            | 9            | 6.3       | 14530   | PASS             |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4592.D  
 Acq On : 10 Jun 2022 1:45 pm  
 Operator : F.NAEGLER  
 Sample : ICALBLK  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Inst : MSVOA14

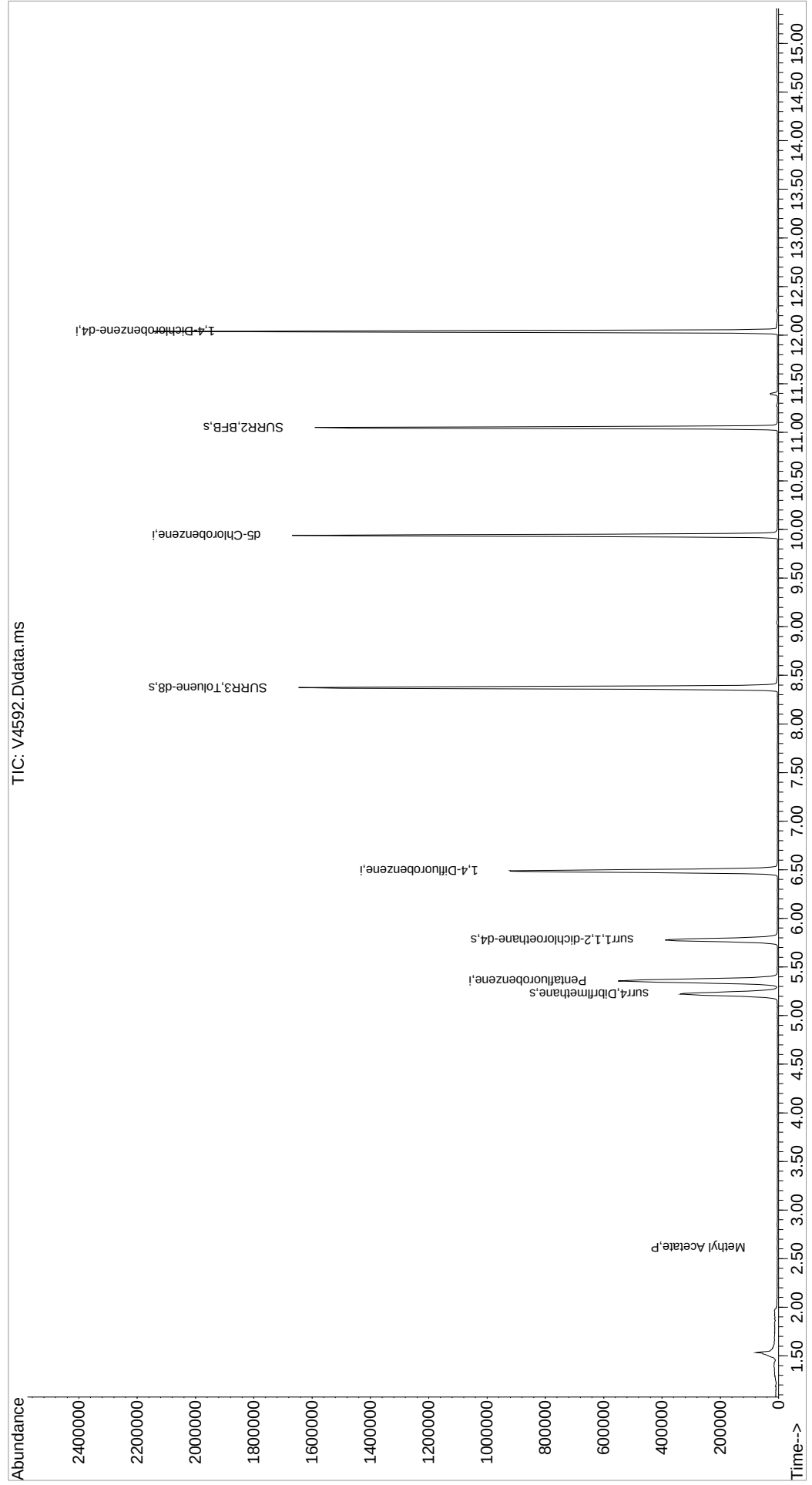
Quant Time: Jun 13 10:36:15 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

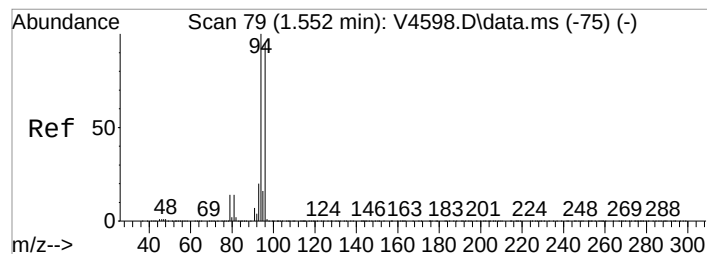
| Compound                      | R.T.   | QIon           | Response | Conc      | Units    | Dev(Min) |
|-------------------------------|--------|----------------|----------|-----------|----------|----------|
| -----                         |        |                |          |           |          |          |
| Internal Standards            |        |                |          |           |          |          |
| 1) Pentafluorobenzene         | 5.356  | 168            | 536523   | 50.00     | ug/L     | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.490  | 114            | 852872   | 50.00     | ug/L     | 0.00     |
| 70) d5-Chlorobenzene          | 9.940  | 117            | 782691   | 50.00     | ug/L     | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.038 | 152            | 408309   | 50.00     | ug/L     | 0.00     |
| System Monitoring Compounds   |        |                |          |           |          |          |
| 44) surr4,Dibrflmethane       | 5.222  | 113            | 277427   | 50.60     | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =         | 101.20%  |          |
| 47) surr1,1,2-dichloroetha... | 5.777  | 65             | 335831   | 52.37     | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =         | 104.74%  |          |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1057924  | 51.56     | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =         | 103.12%  |          |
| 69) SURR2,BFB                 | 11.050 | 95             | 390338   | 49.66     | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =         | 99.32%   |          |
| Target Compounds              |        |                |          |           |          |          |
| 5) Bromomethane               | 1.552  | 94             | 265      | Below Cal | Qvalue # | 32       |
| 21) Methyl Acetate            | 2.619  | 43             | 1299     | 0.21 ug/L |          | 85       |
| -----                         |        |                |          |           |          |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A14\Data\061022\  
 Data File : V4592.D  
 Acq On : 10 Jun 2022 1:45 pm  
 Operator : F.NAEGLER  
 Sample : ICALBLK  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1  
 Inst : MSV0A14

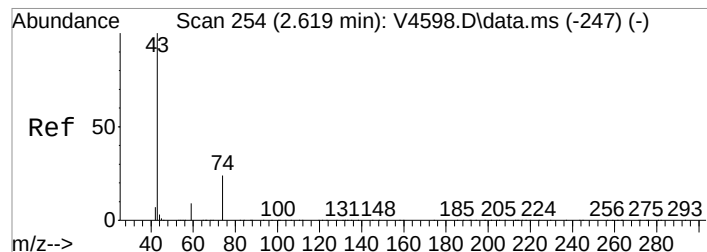
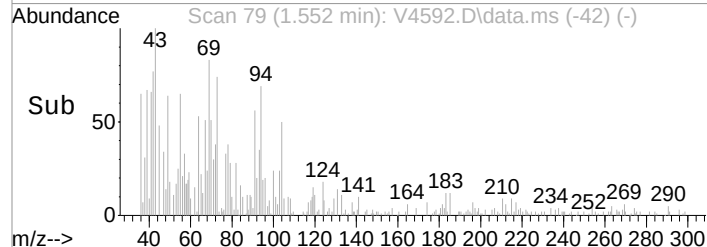
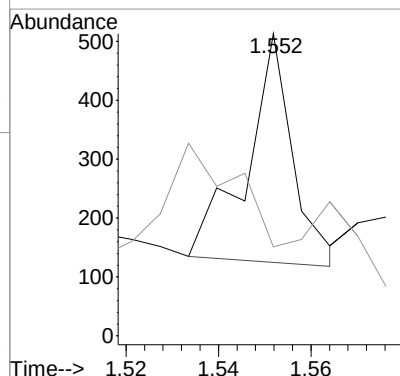
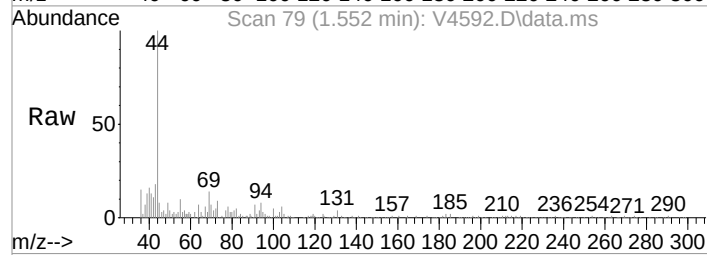
Quant Time: Jun 13 10:36:15 2022  
 Quant Method : I:\ACQUDATA\MSV0A14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 Qlast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration





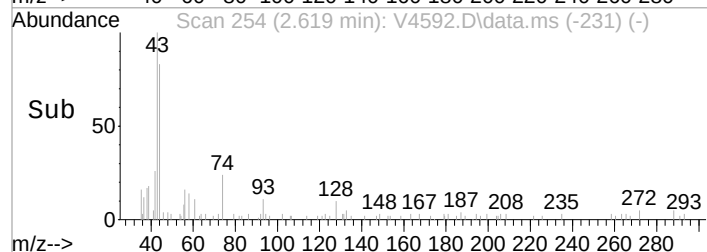
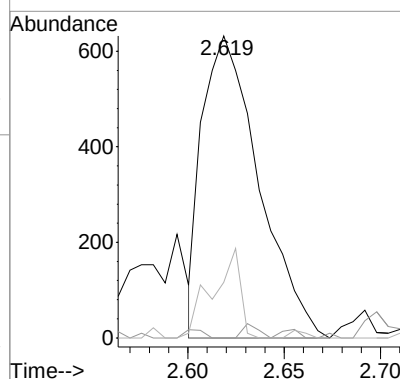
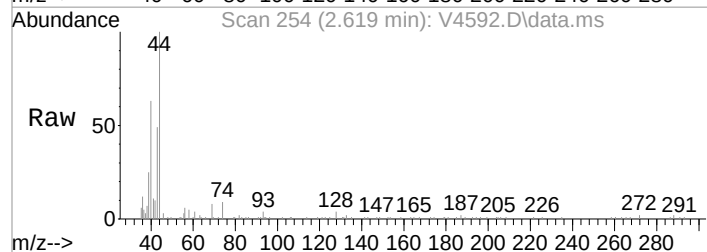
#5  
 Bromomethane  
 Concen: Below Cal  
 RT: 1.552 min Scan# 79  
 Delta R.T. 0.001 min  
 Lab File: V4592.D  
 Acq: 10 Jun 2022 1:45 pm

Tgt Ion: 94 Resp: 265  
 Ion Ratio Lower Upper  
 94 100  
 96 29.4 75.2 115.2#



#21  
 Methyl Acetate  
 Concen: 0.21 ug/L  
 RT: 2.619 min Scan# 254  
 Delta R.T. 0.000 min  
 Lab File: V4592.D  
 Acq: 10 Jun 2022 1:45 pm

Tgt Ion: 43 Resp: 1299  
 Ion Ratio Lower Upper  
 43 100  
 59 0.0 0.0 28.8  
 74 18.4 3.9 43.9





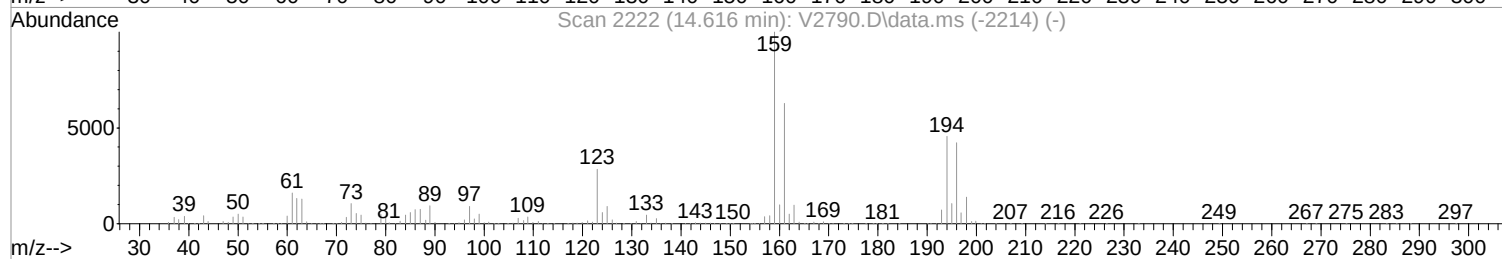
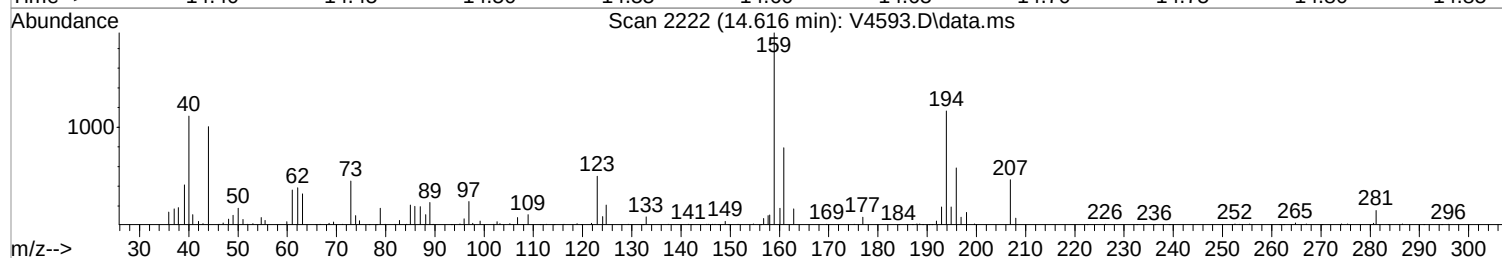
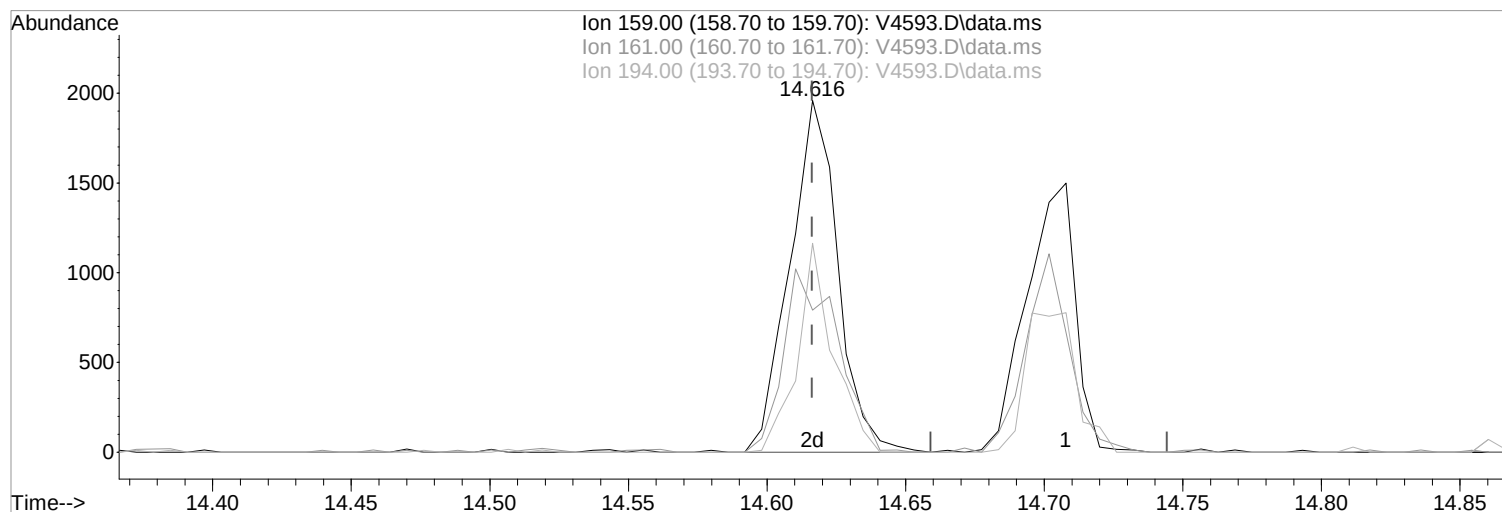
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(118) 2,4,5-Trichlorotoluene

14.616min (+0.000) 0.43 ug/L m

response 2359

| Ion    | Exp%  | Act%   |
|--------|-------|--------|
| 159.00 | 100   | 100    |
| 161.00 | 62.80 | 40.43# |
| 194.00 | 45.50 | 59.47  |
| 0.00   | 0.00  | 0.00   |

Manual Integration:

After

Wrong peak selected.

06/10/22

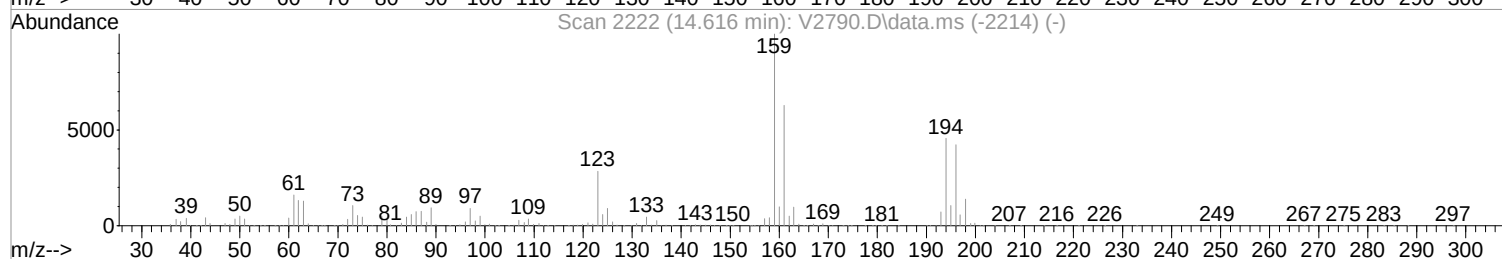
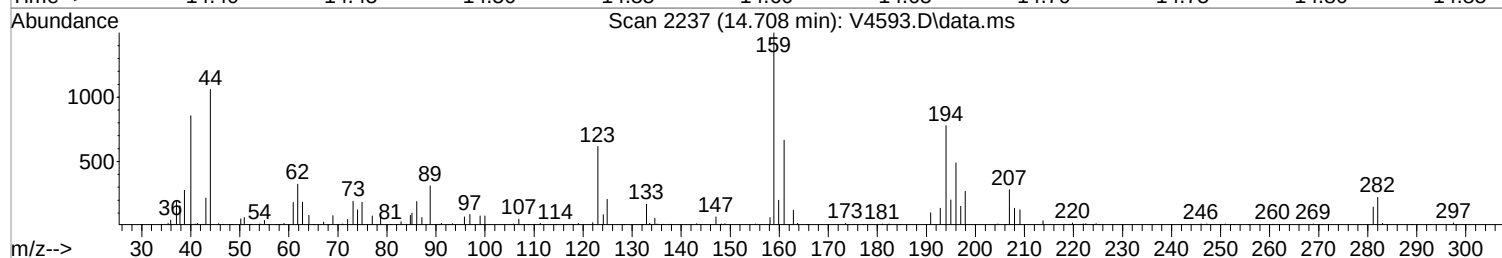
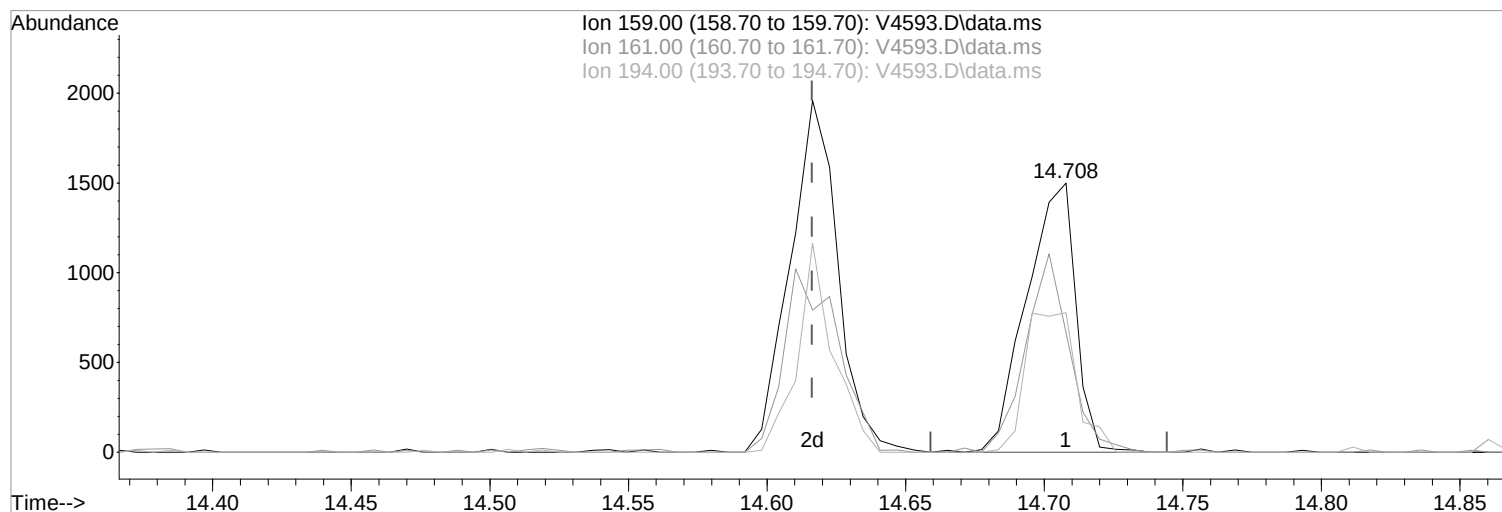
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(118) 2,4,5-Trichlorotoluene

Manual Integration:

14.708min (+0.092) 0.34 ug/L

Before

response 1846

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 159.00 | 100   | 100   |
| 161.00 | 62.80 | 44.50 |
| 194.00 | 45.50 | 51.83 |
| 0.00   | 0.00  | 0.00  |

06/10/22

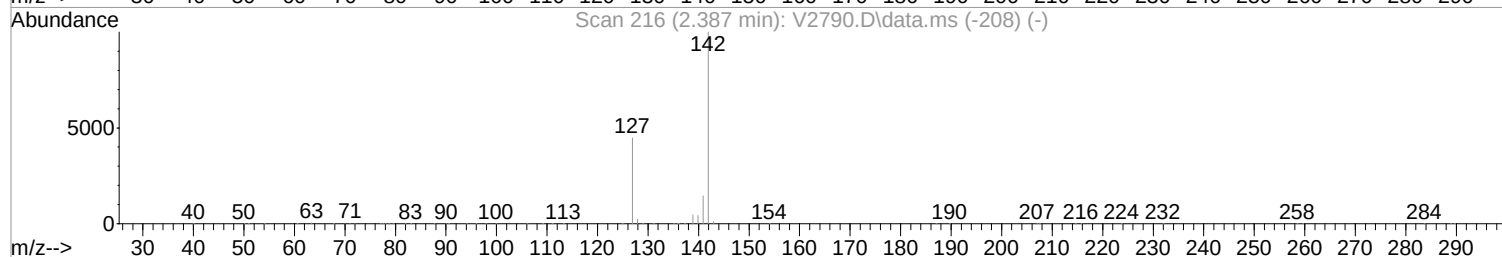
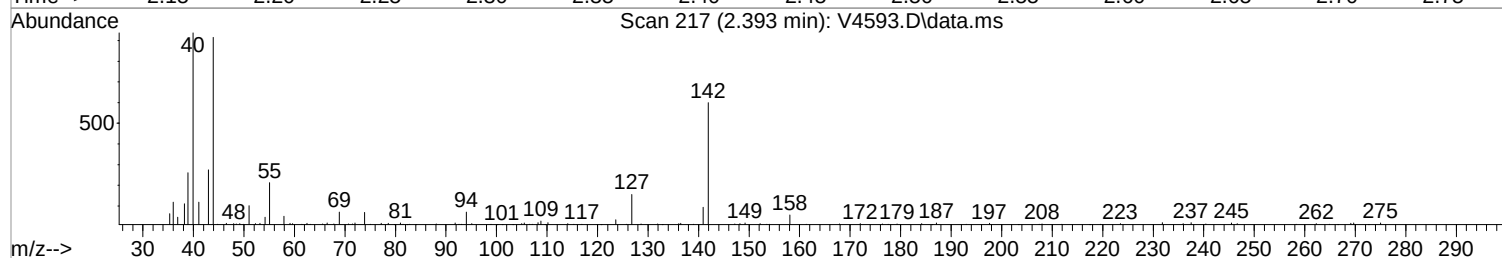
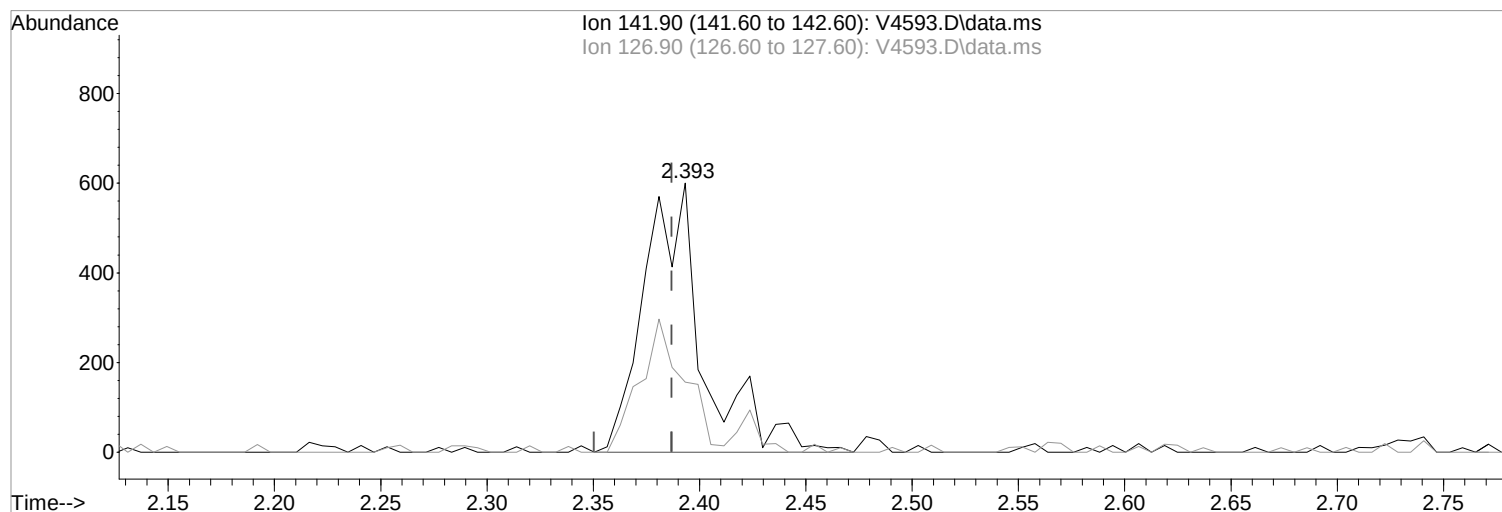
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(17) Iodomethane

2.393min (+0.006) 0.18 ug/L m

response 1157

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 141.90 | 100   | 100   |
| 126.90 | 44.70 | 26.00 |
| 0.00   | 0.00  | 0.00  |
| 0.00   | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

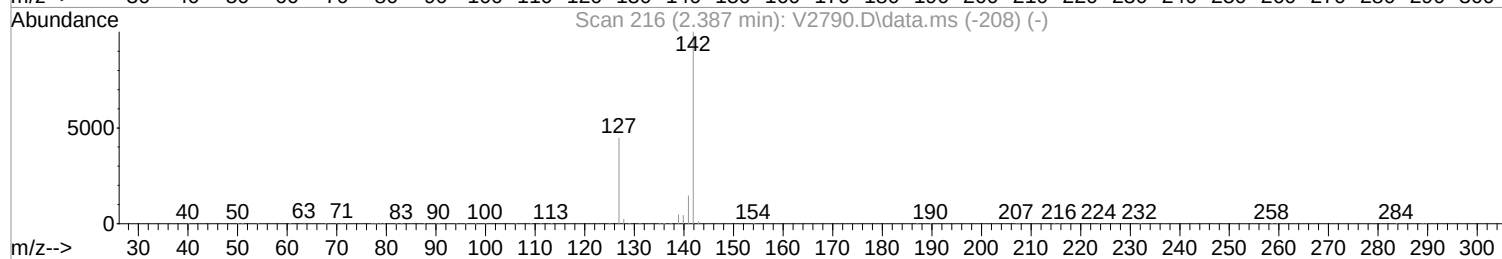
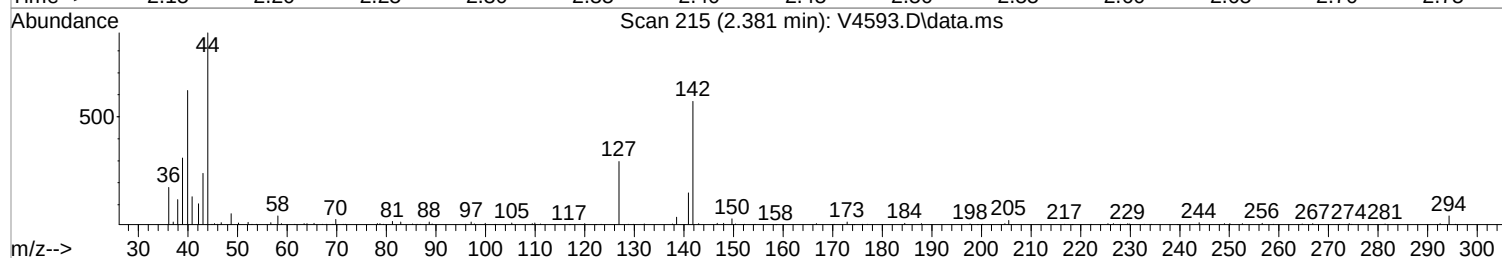
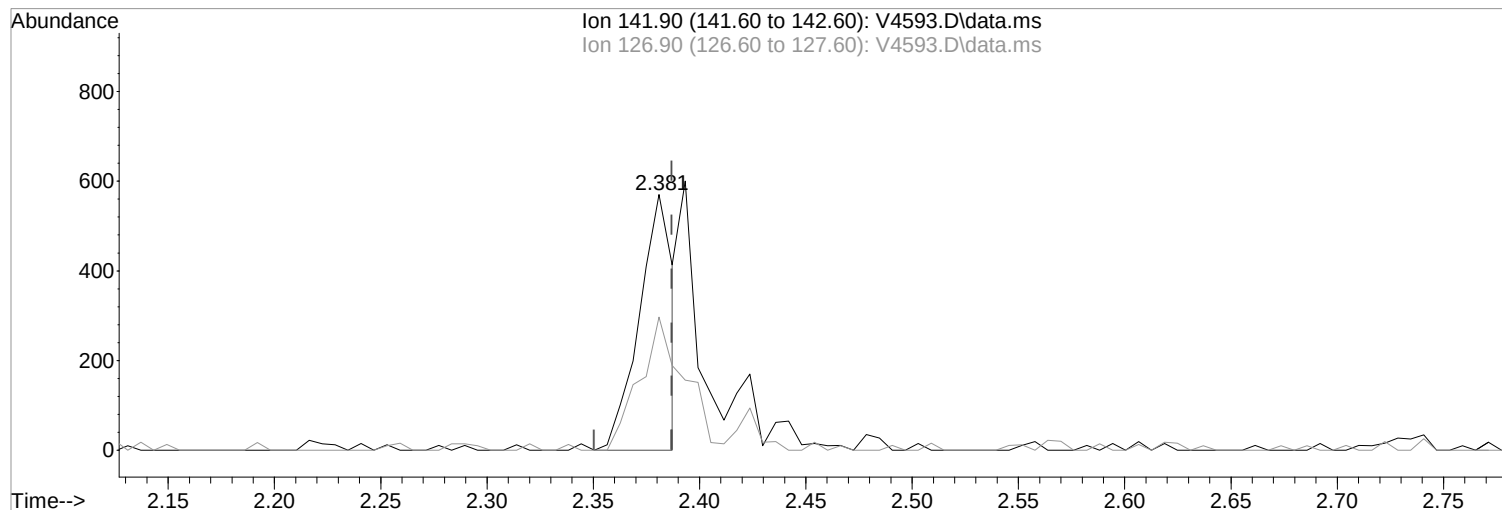
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(17) Iodomethane

Manual Integration:

2.381min (-0.006) 0.10 ug/L

Before

response 624

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 141.90 | 100   | 100   |
| 126.90 | 44.70 | 52.11 |
| 0.00   | 0.00  | 0.00  |
| 0.00   | 0.00  | 0.00  |

06/10/22

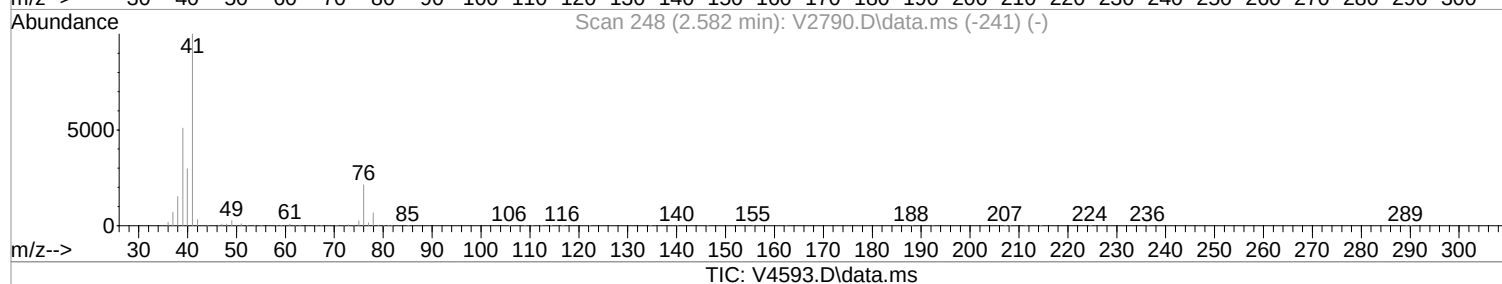
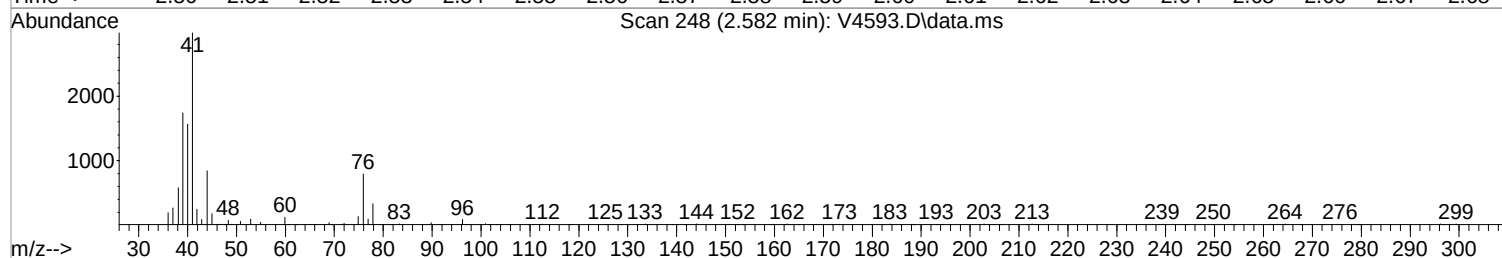
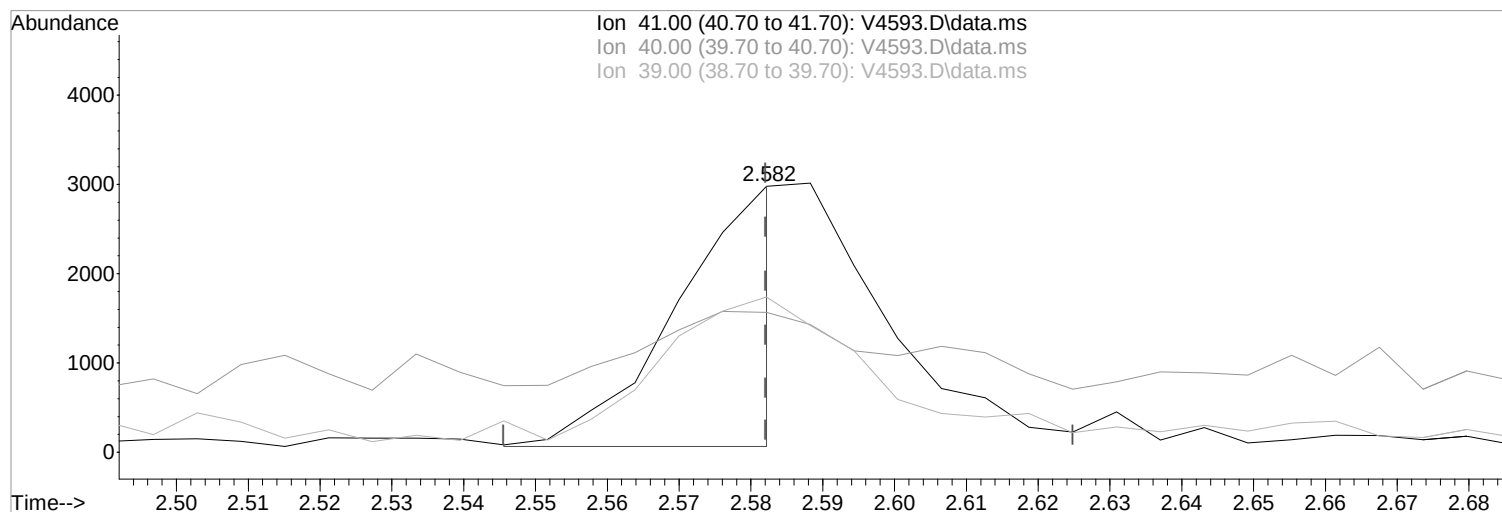
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



(19) Acetonitrile

2.582min (+0.000) 2.72 ug/L m

response 2987

| Ion   | Exp%  | Act%   |
|-------|-------|--------|
| 41.00 | 100   | 100    |
| 40.00 | 30.10 | 52.62# |
| 39.00 | 51.10 | 58.39  |
| 0.00  | 0.00  | 0.00   |

Manual Integration:

After

Poor integration.

06/10/22

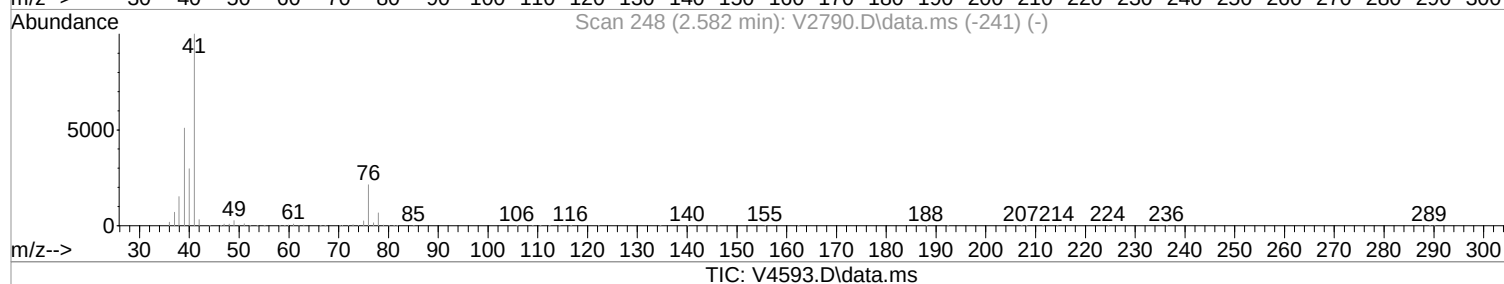
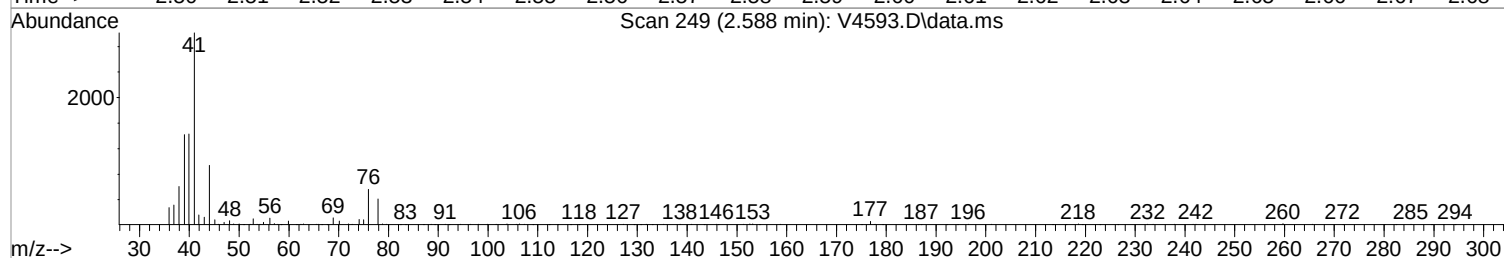
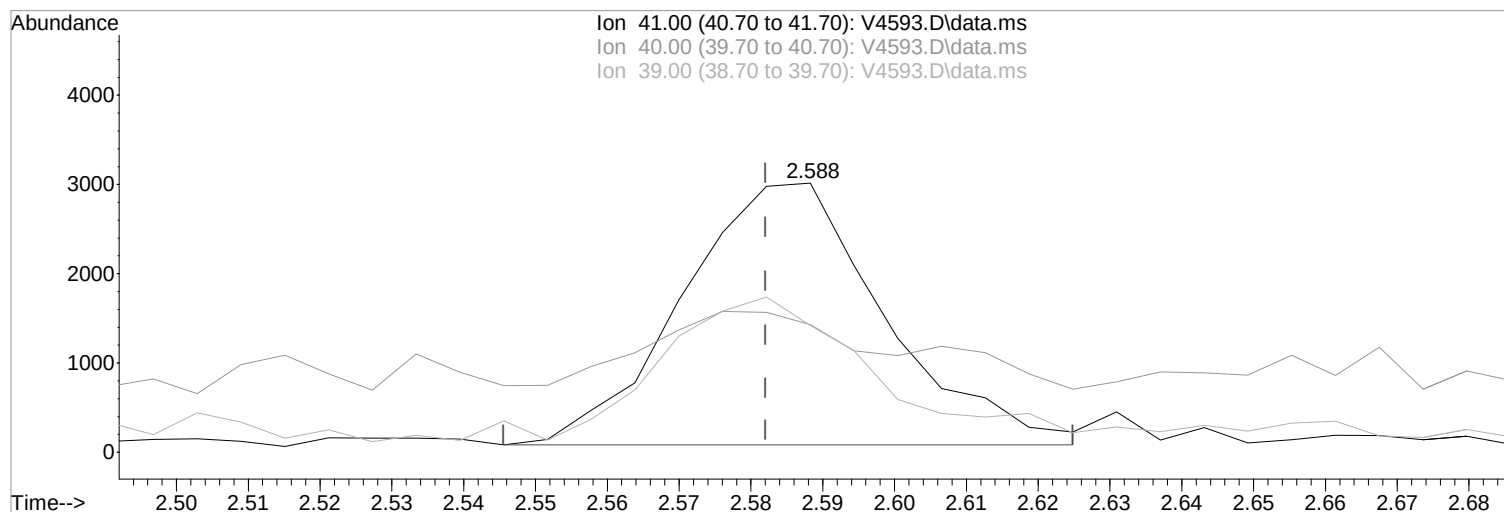
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



(19) Acetonitrile

Manual Integration:

2.588min (+0.006) 5.22 ug/L

Before

response 5740

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 47.45 |
| 39.00 | 51.10 | 47.08 |
| 0.00  | 0.00  | 0.00  |

06/10/22

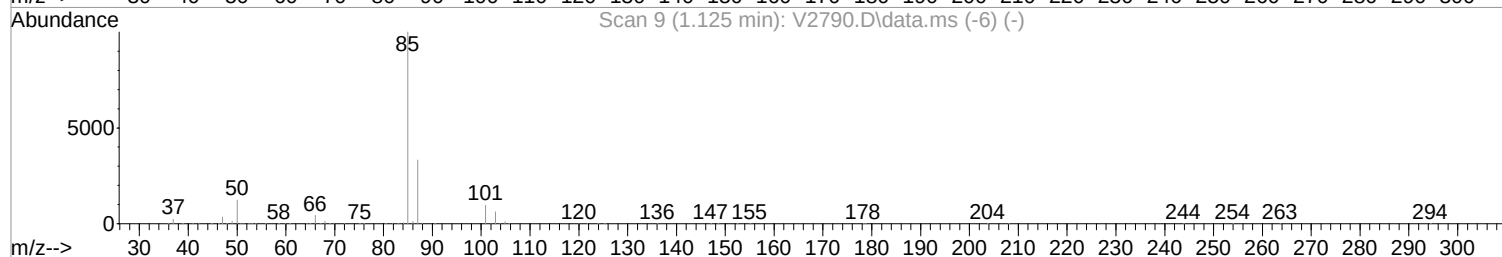
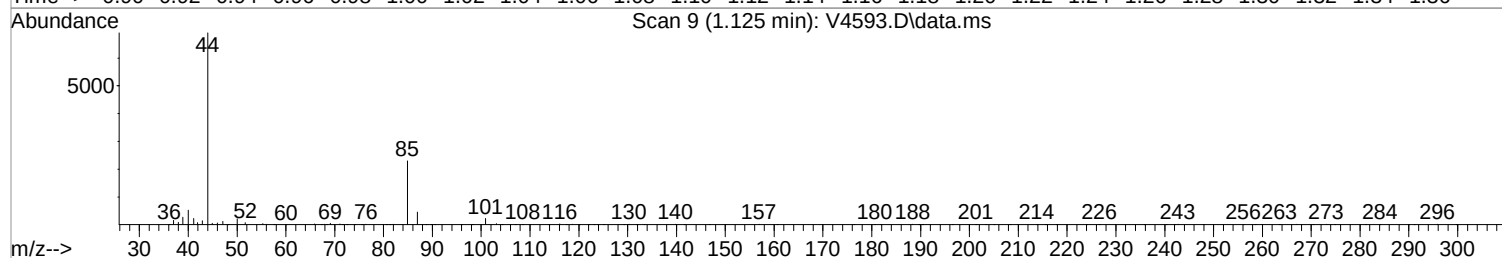
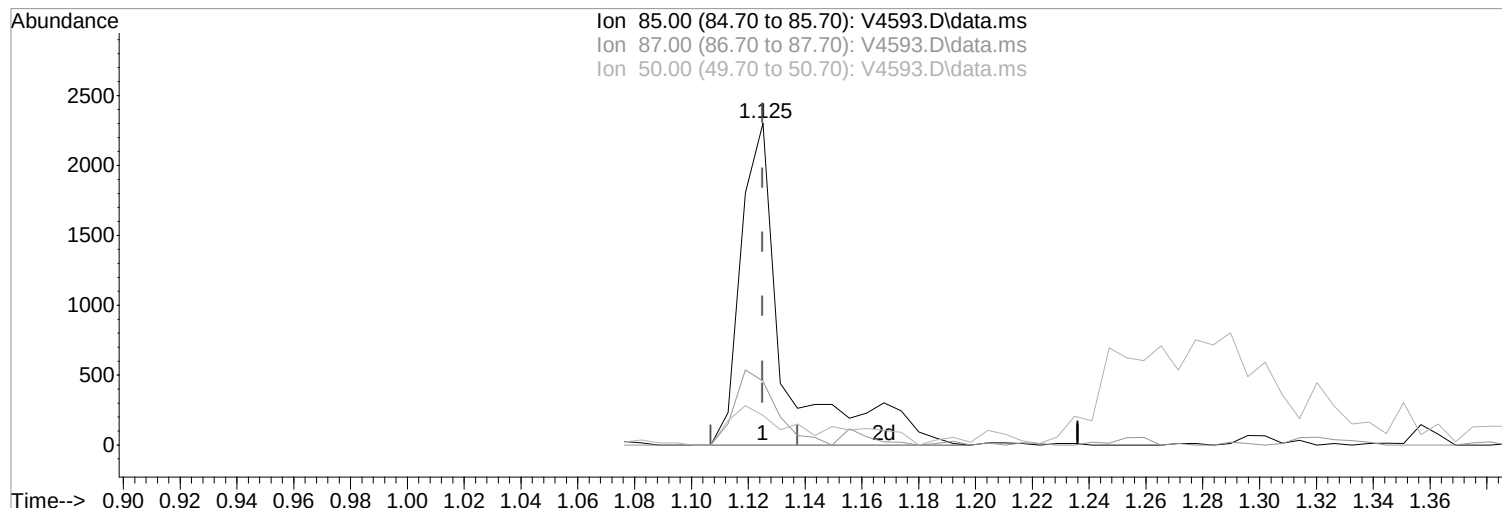
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(2) Dichlorodifluoromethane (P)

1.125min (+0.000) 0.45 ug/L m

response 2465

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 19.85 |
| 50.00 | 12.40 | 9.25  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

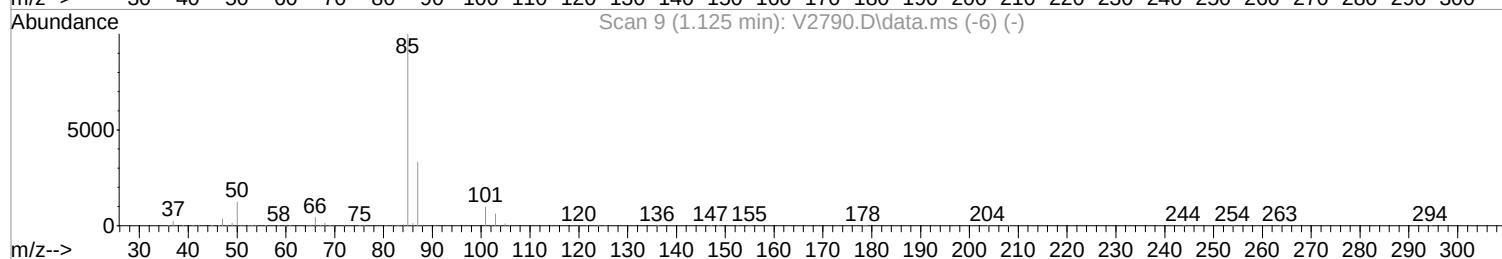
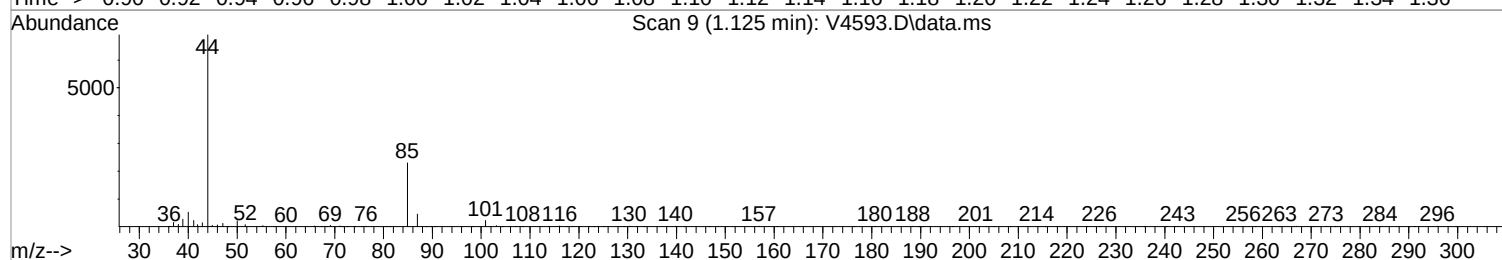
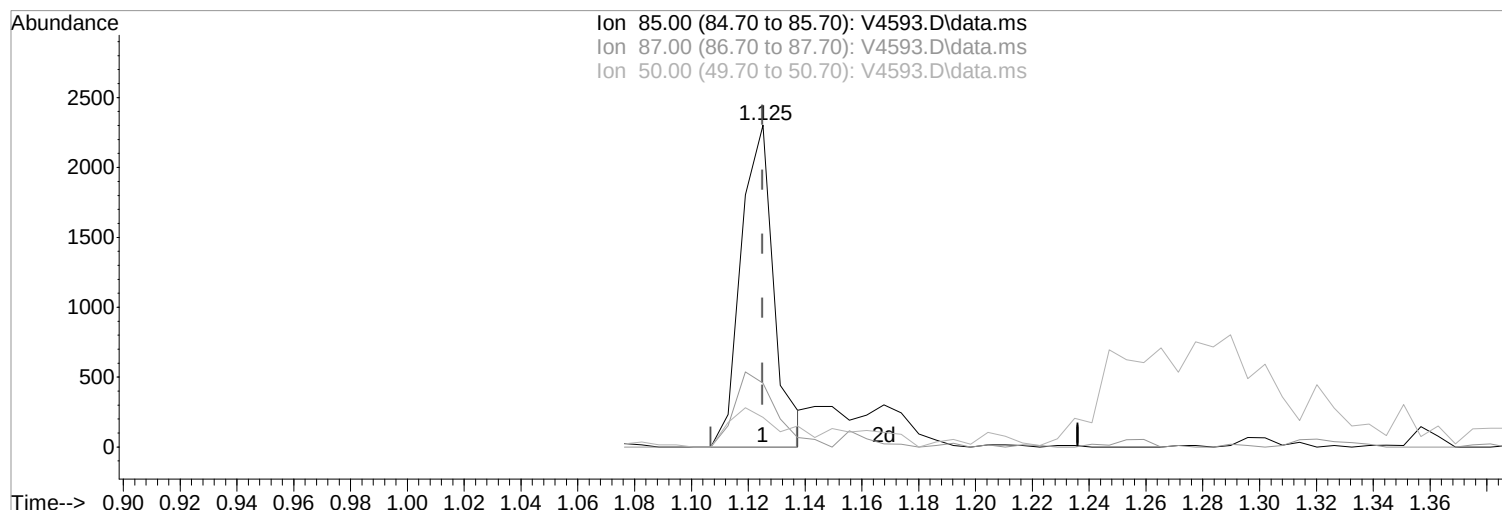
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.125min (+0.000) 0.34 ug/L

Before

response 1844

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 19.85 |
| 50.00 | 12.40 | 9.25  |
| 0.00  | 0.00  | 0.00  |

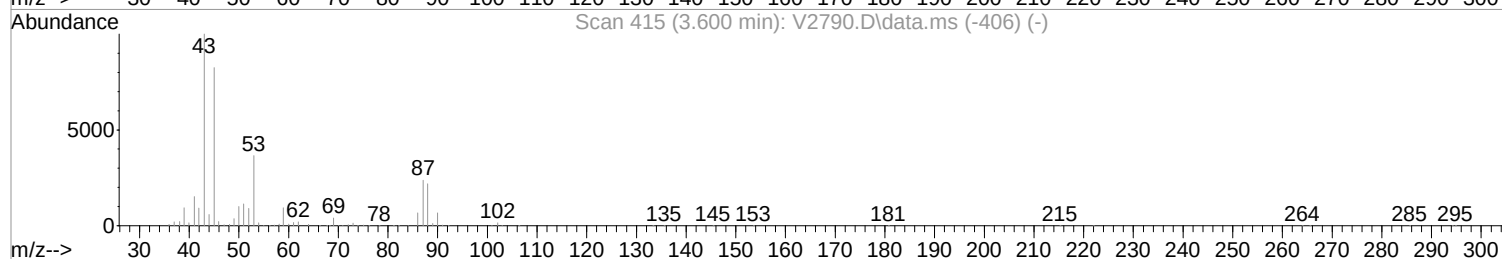
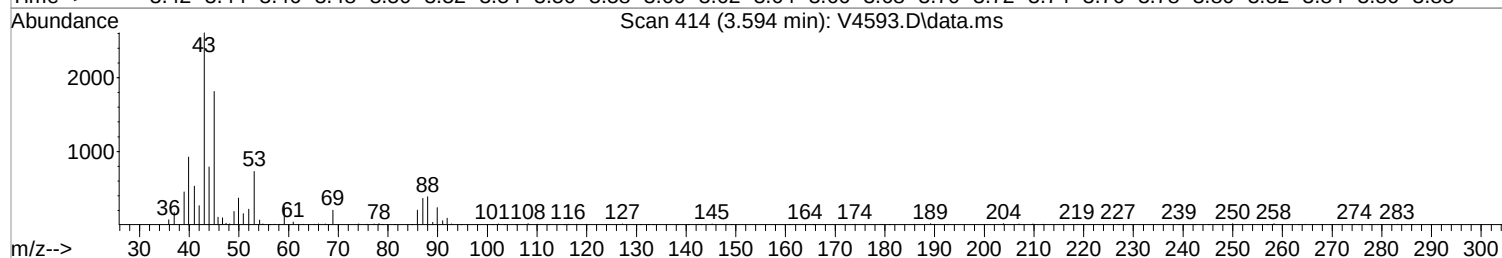
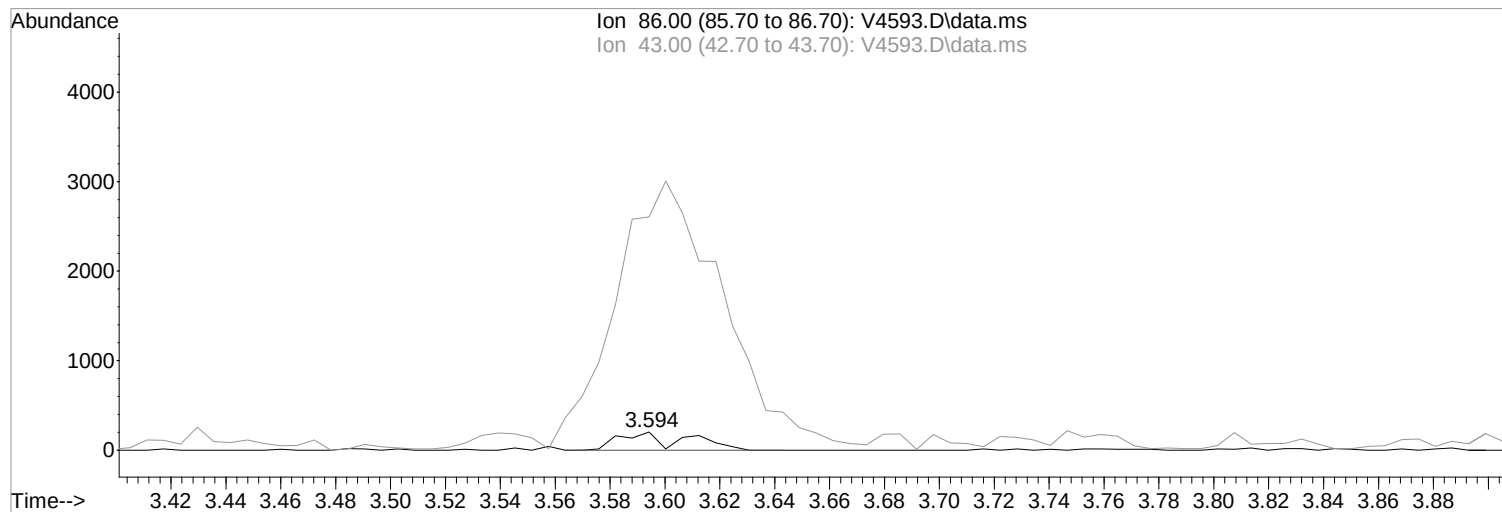
06/10/22



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(28) Vinyl Acetate

3.594min (-0.006) 0.51 ug/L m

response 350

| Ion   | Exp%    | Act%     |
|-------|---------|----------|
| 86.00 | 100     | 100      |
| 43.00 | 1490.50 | 1271.71# |
| 0.00  | 0.00    | 0.00     |
| 0.00  | 0.00    | 0.00     |

Manual Integration:

After

Peak not found.

06/10/22

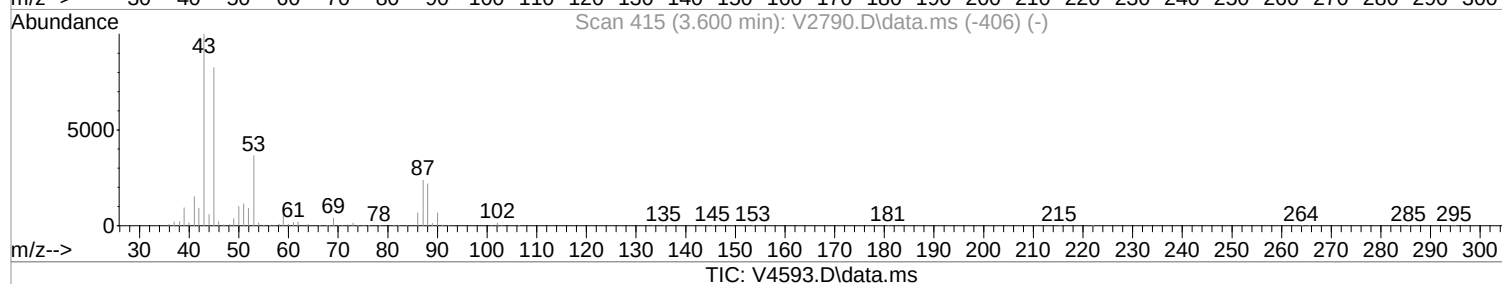
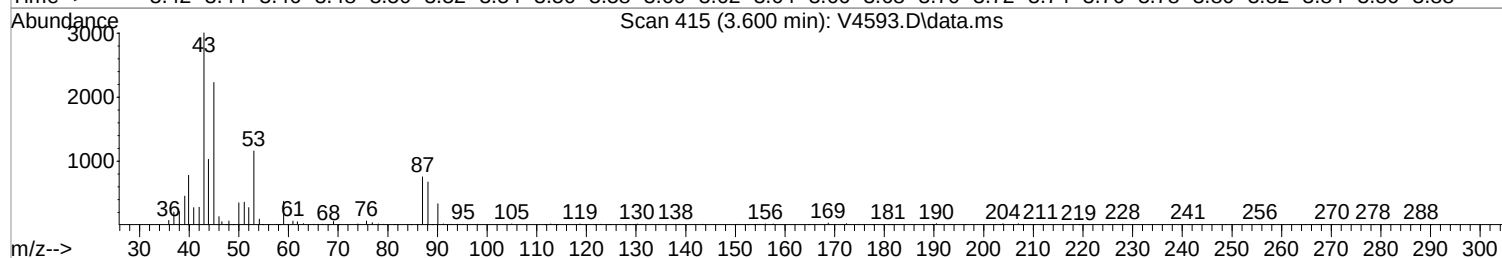
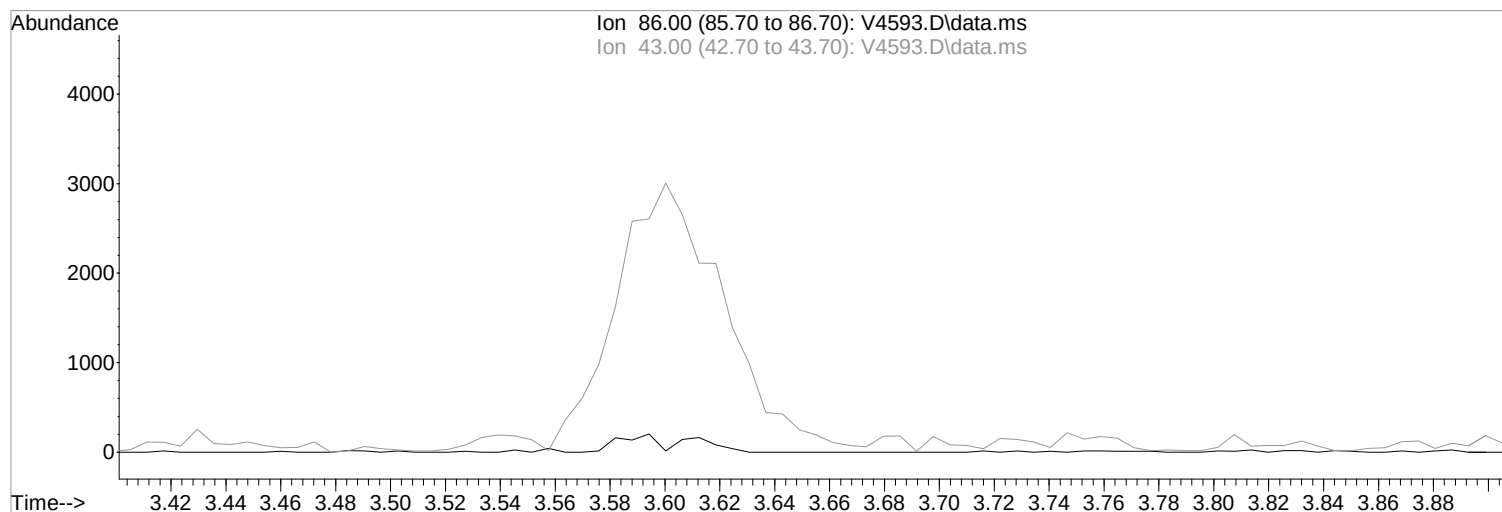
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



(28) Vinyl Acetate

Manual Integration:

3.600min (-3.600) 0.00 ug/L

Before

response 0

| Ion   | Exp%    | Act%  |
|-------|---------|-------|
| 86.00 | 100     | 0.00  |
| 43.00 | 1490.50 | 0.00# |
| 0.00  | 0.00    | 0.00  |
| 0.00  | 0.00    | 0.00  |

06/10/22

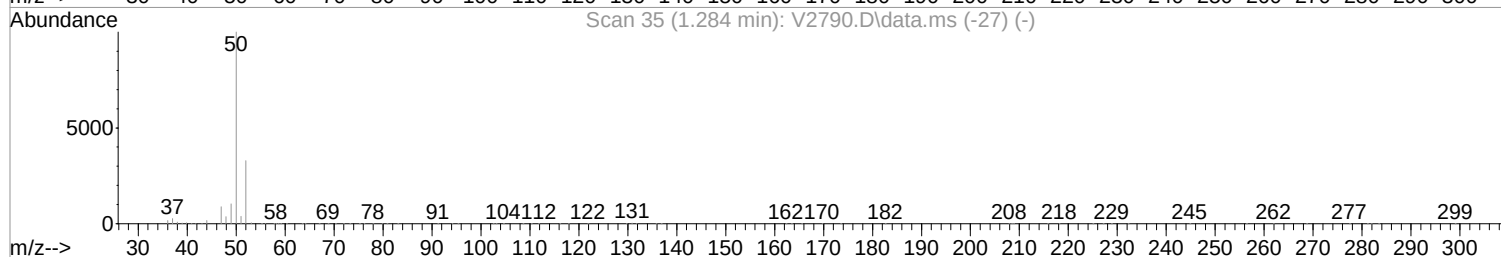
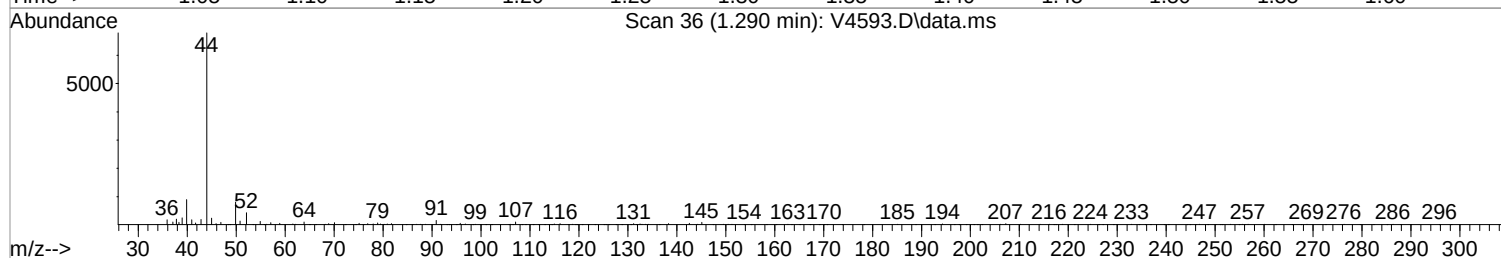
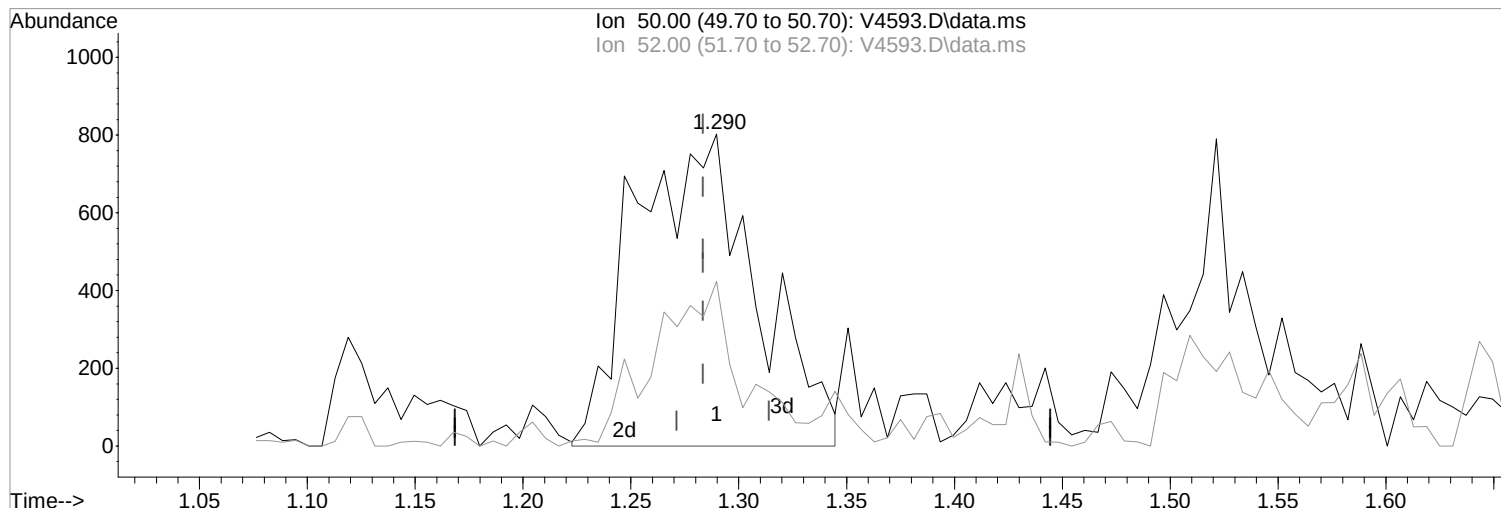
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(3) Chloromethane (P)

1.290min (+0.006) 0.68 ug/L m

response 3154

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 52.80 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

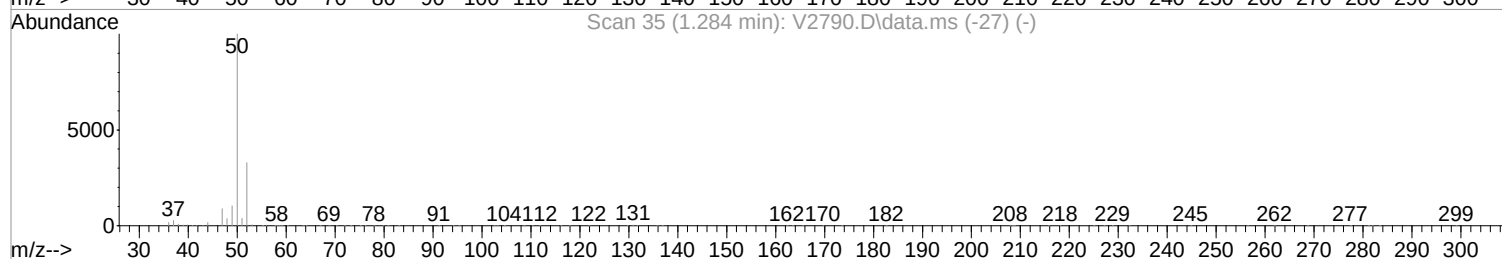
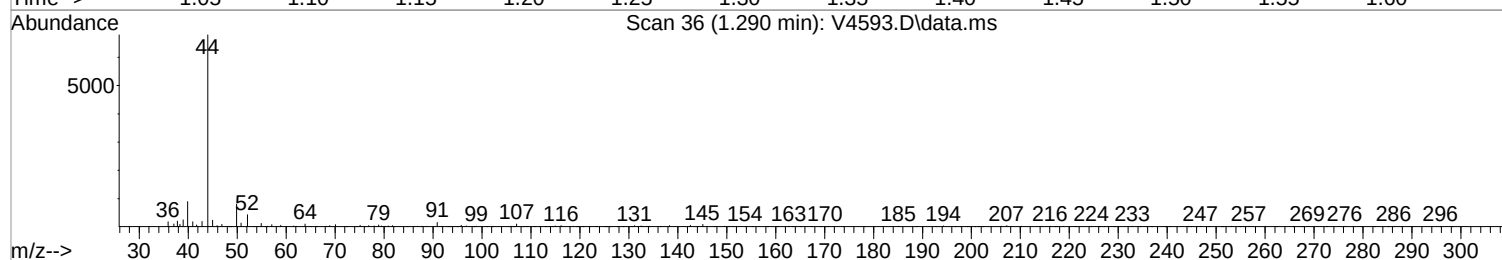
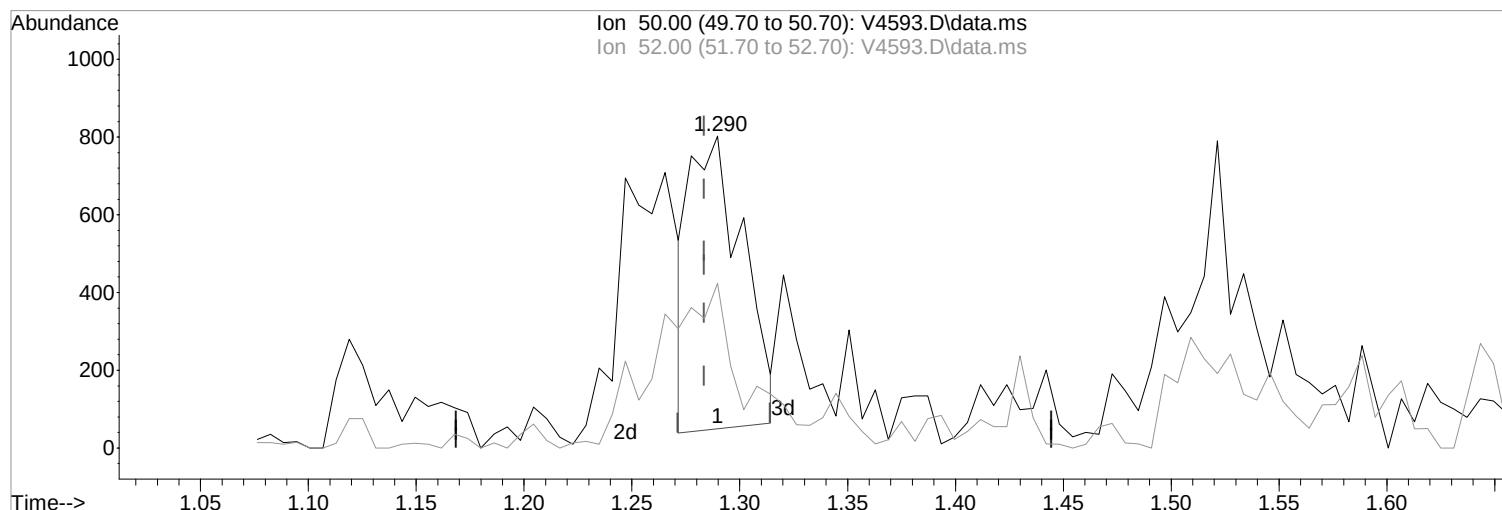
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(3) Chloromethane (P)

Manual Integration:

1.290min (+0.006) 0.28 ug/L

Before

response 1294

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 52.80 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

06/10/22

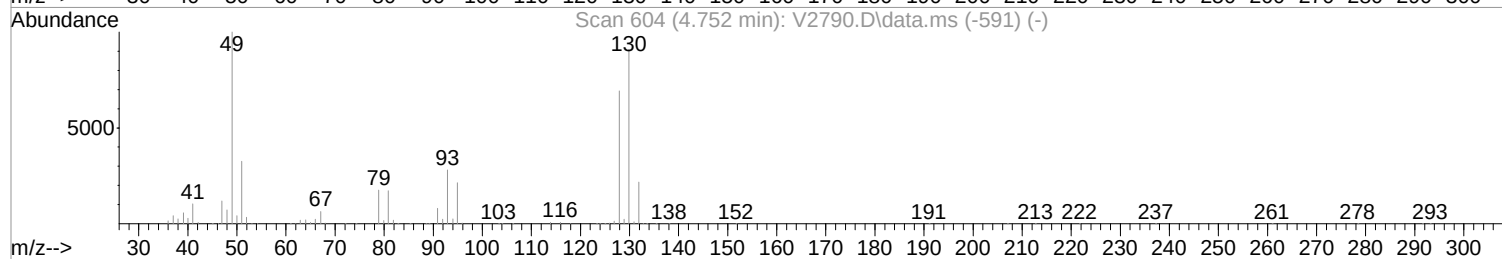
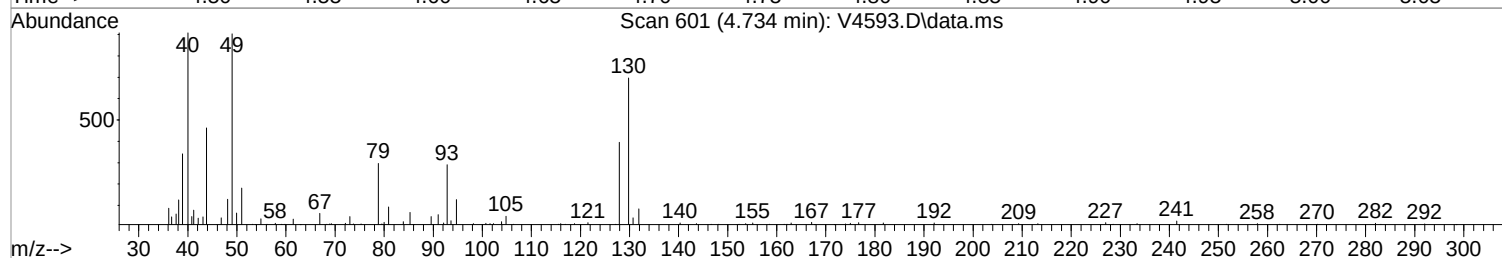
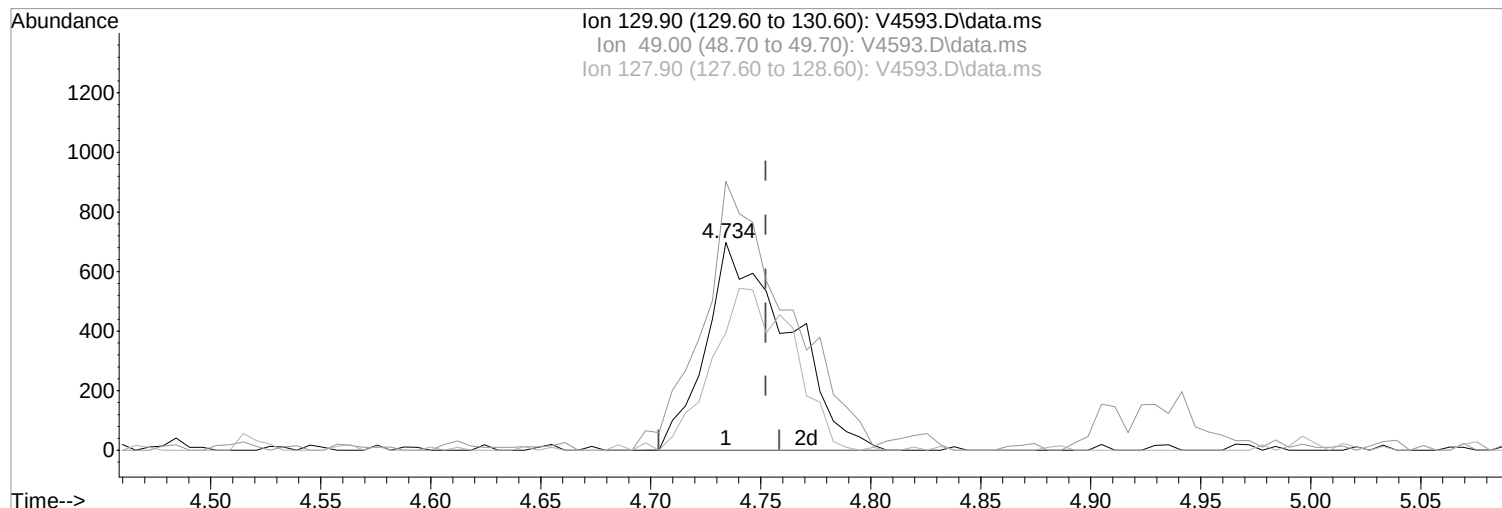
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(36) Bromochloromethane

4.734min (-0.018) 0.53 ug/L m

response 1821

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 129.90 | 100    | 100    |
| 49.00  | 109.80 | 129.56 |
| 127.90 | 76.10  | 56.67  |
| 0.00   | 0.00   | 0.00   |

Manual Integration:

After

Poor integration.

06/10/22

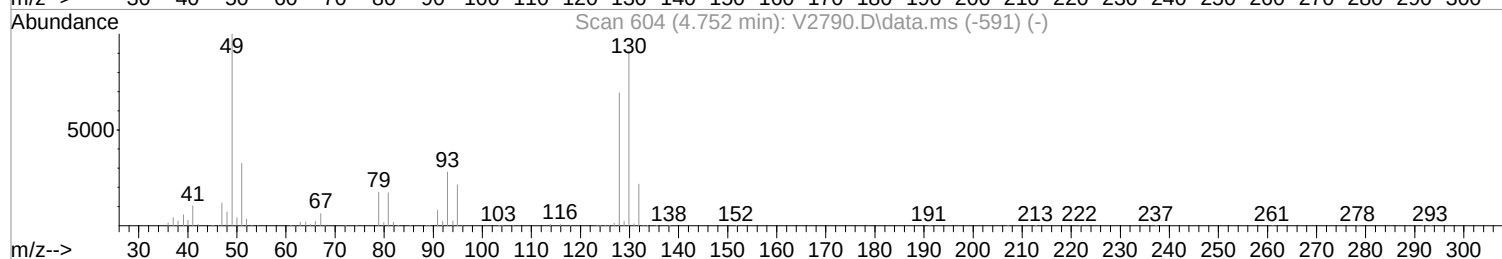
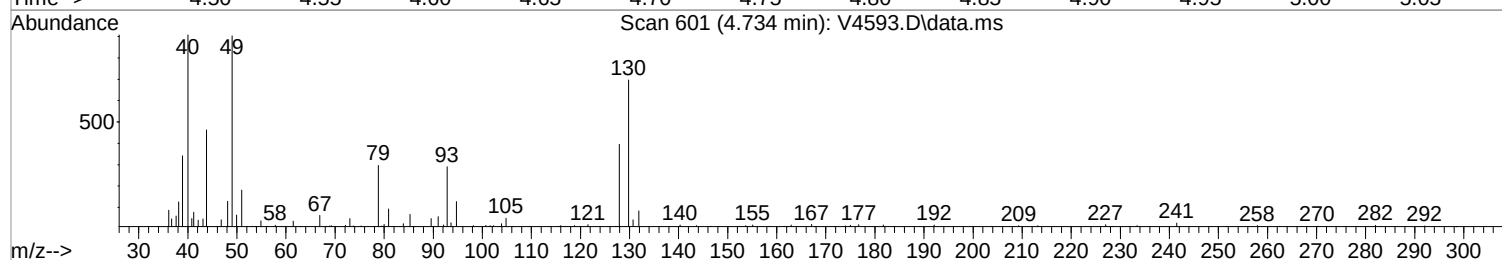
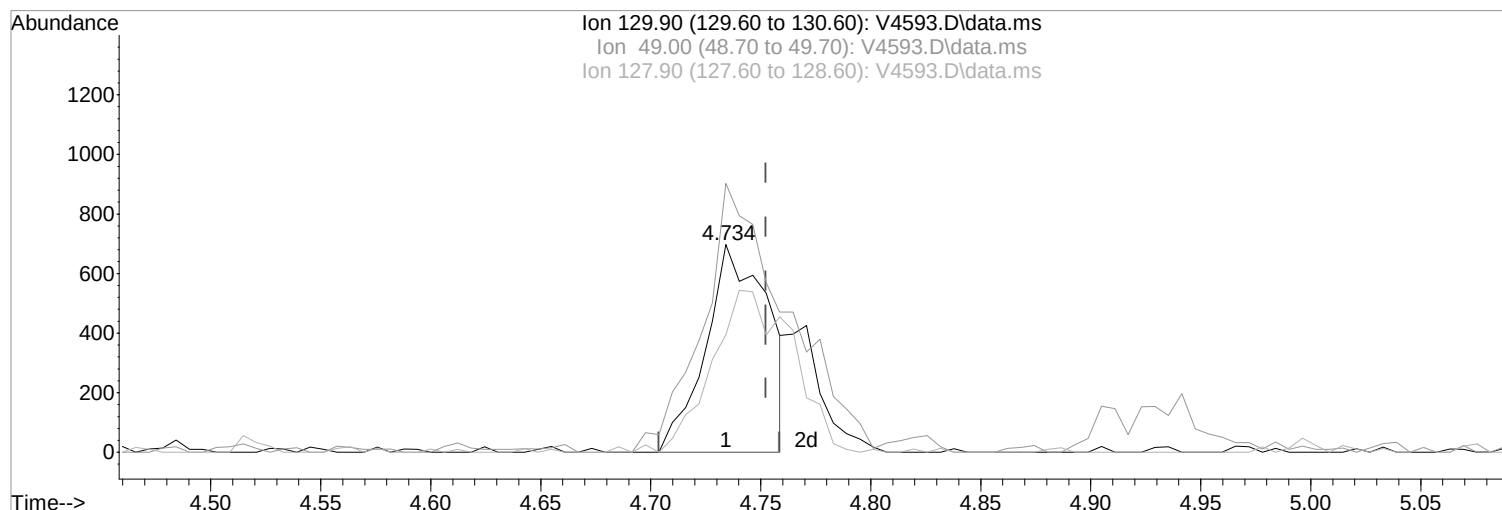
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(36) Bromochloromethane

Manual Integration:

4.734min (-0.018) 0.39 ug/L

Before

response 1366

Ion Exp% Act%

06/10/22

129.90 100 100

49.00 109.80 129.56

127.90 76.10 56.67

0.00 0.00 0.00

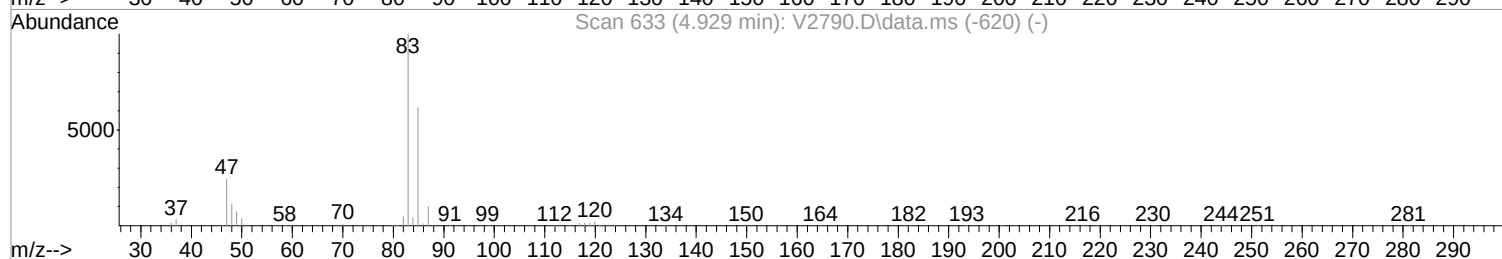
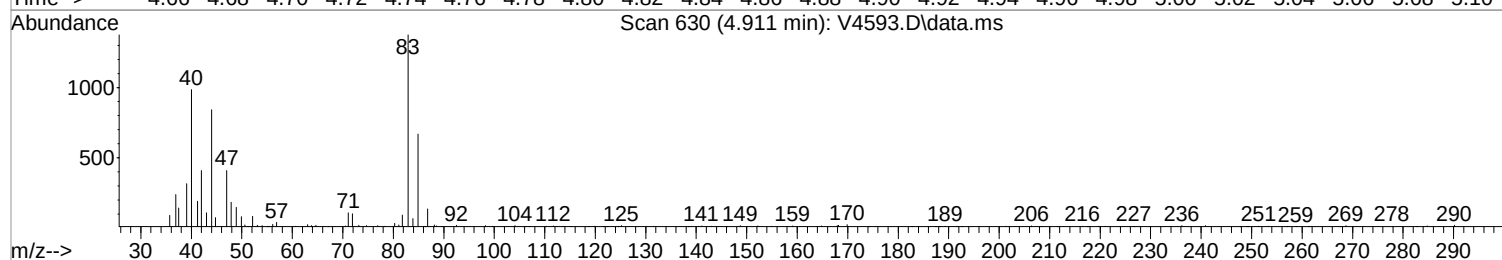
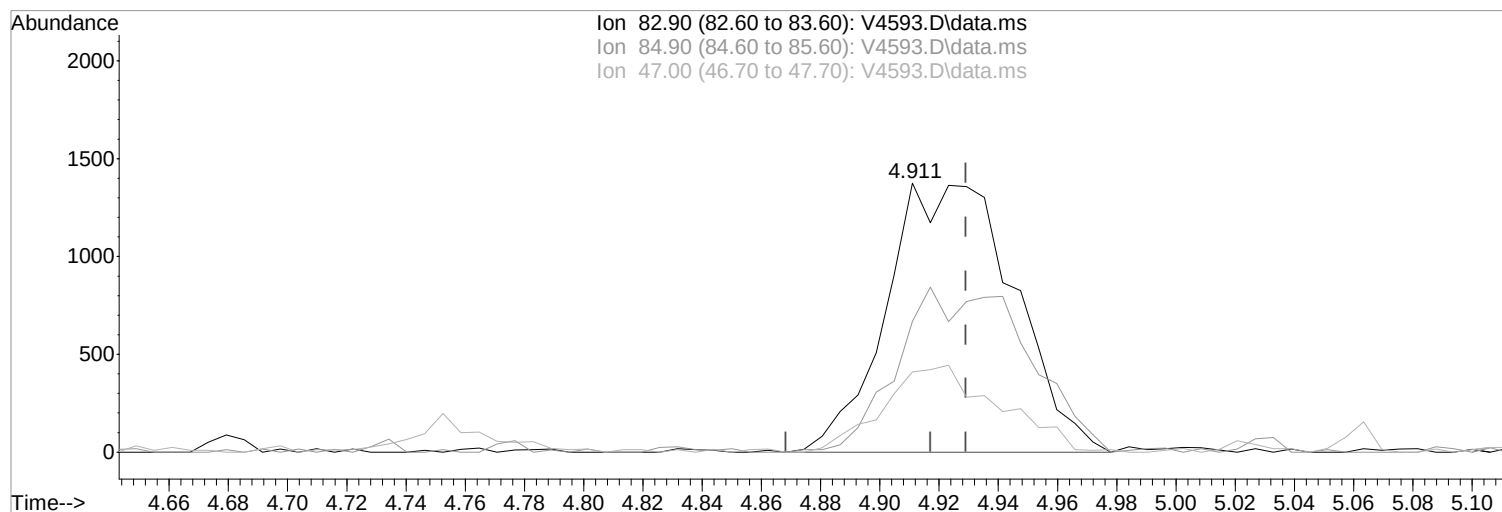
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(39) Chloroform (P)

4.911min (-0.018) 0.52 ug/L m

response 4104

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 82.90 | 100   | 100   |
| 84.90 | 61.60 | 48.65 |
| 47.00 | 24.40 | 29.82 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

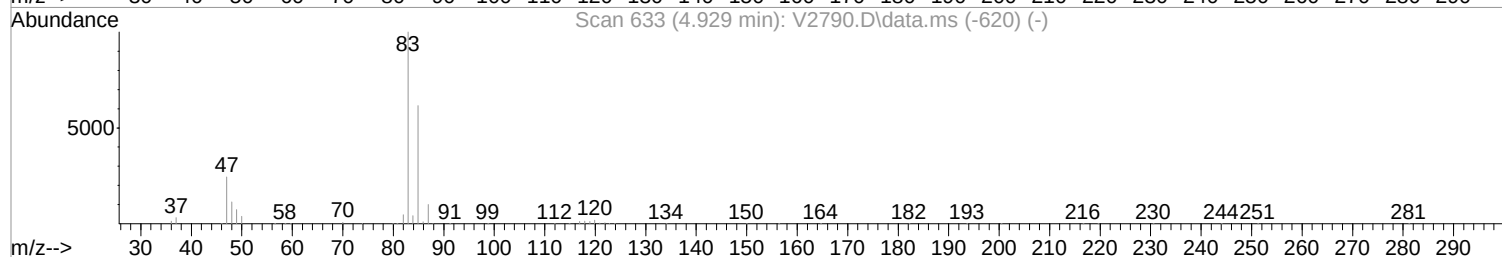
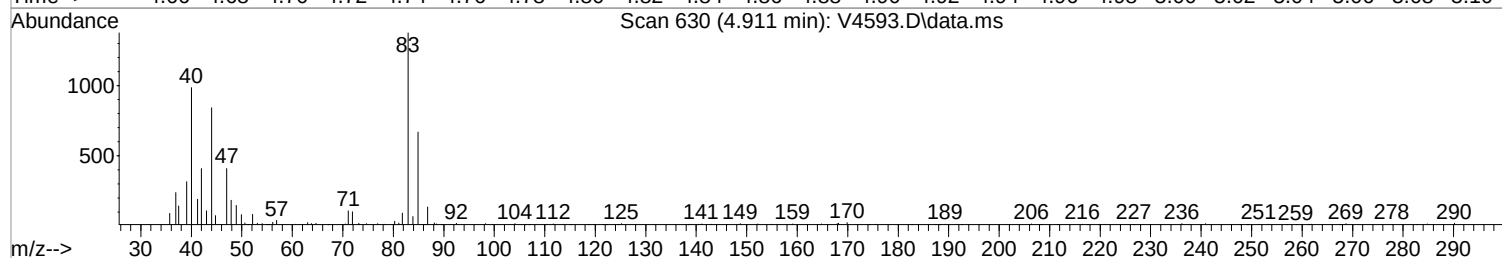
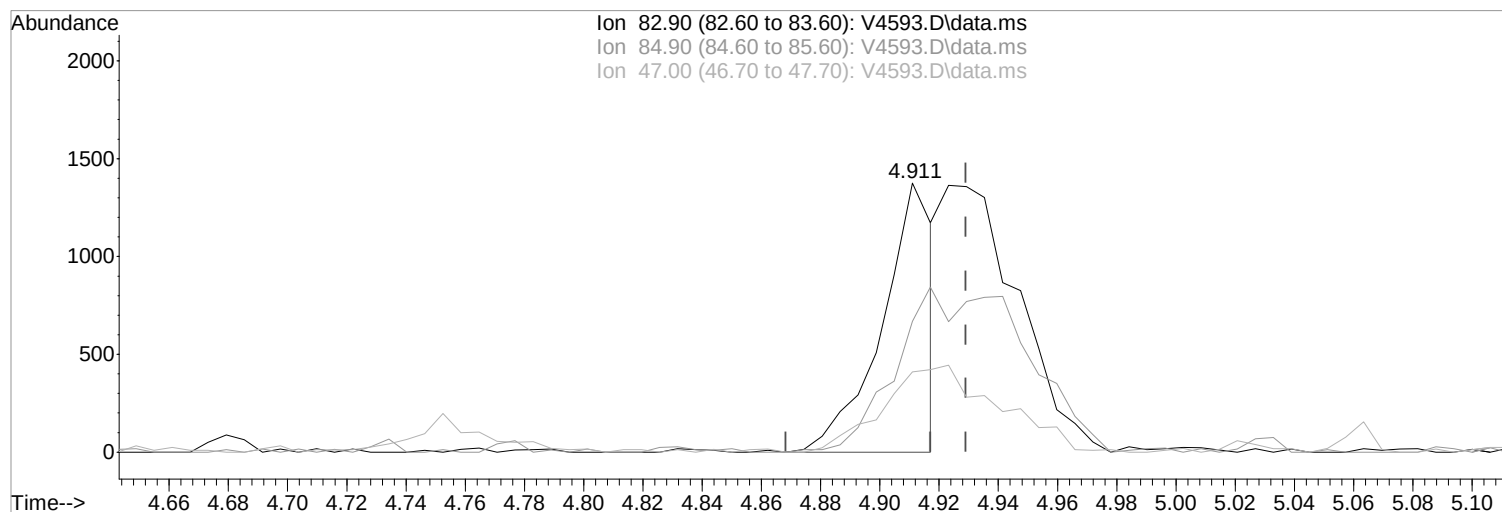
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(39) Chloroform (P)

Manual Integration:

4.911min (-0.018) 0.21 ug/L

Before

response 1668

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 82.90 | 100   | 100   |
| 84.90 | 61.60 | 48.65 |
| 47.00 | 24.40 | 29.82 |
| 0.00  | 0.00  | 0.00  |

06/10/22



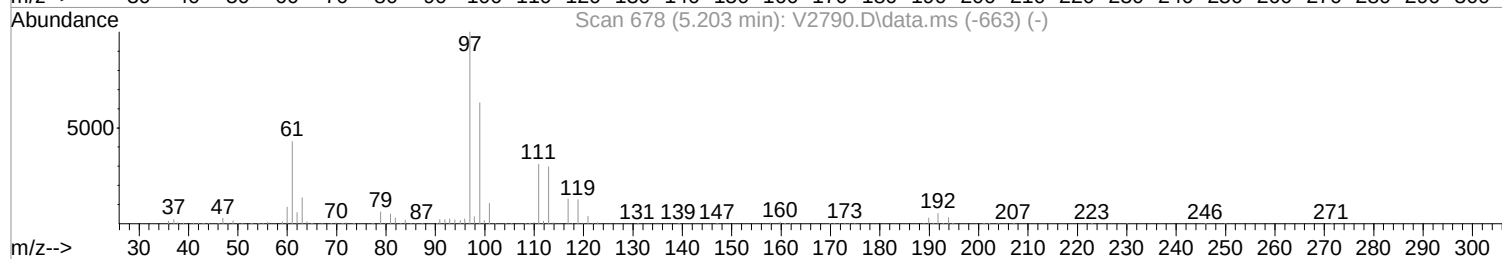
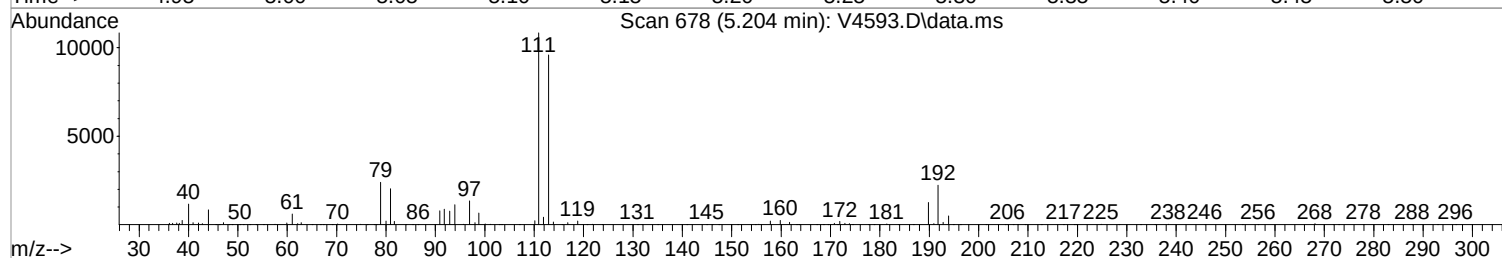
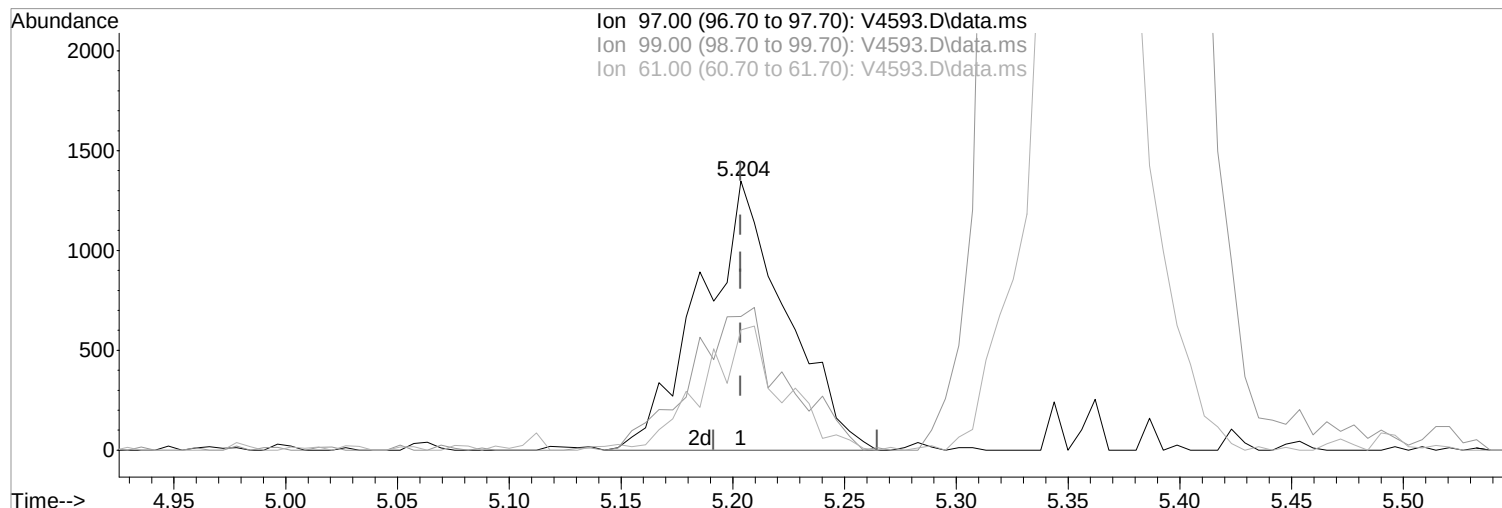
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(40) 1,1,1-Trichloroethane (P)

5.204min (+0.000) 0.51 ug/L m

response 3587

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 97.00 | 100   | 100   |
| 99.00 | 63.20 | 49.67 |
| 61.00 | 42.90 | 44.77 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

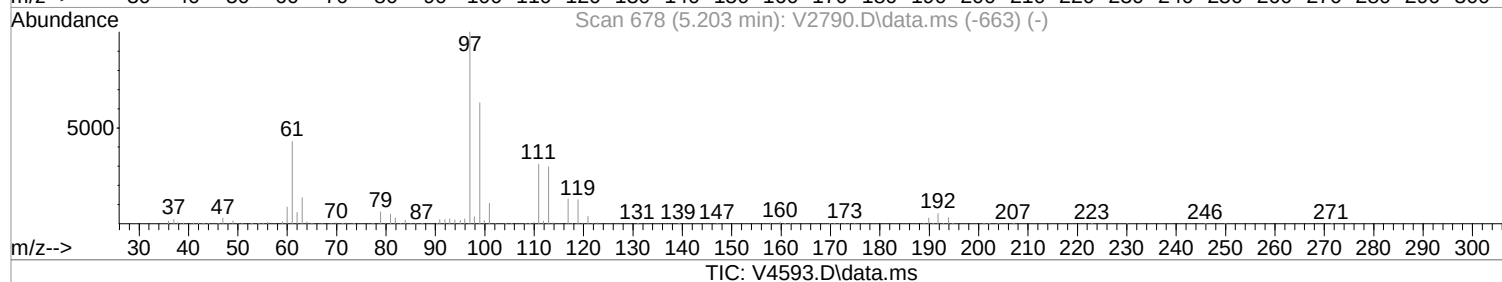
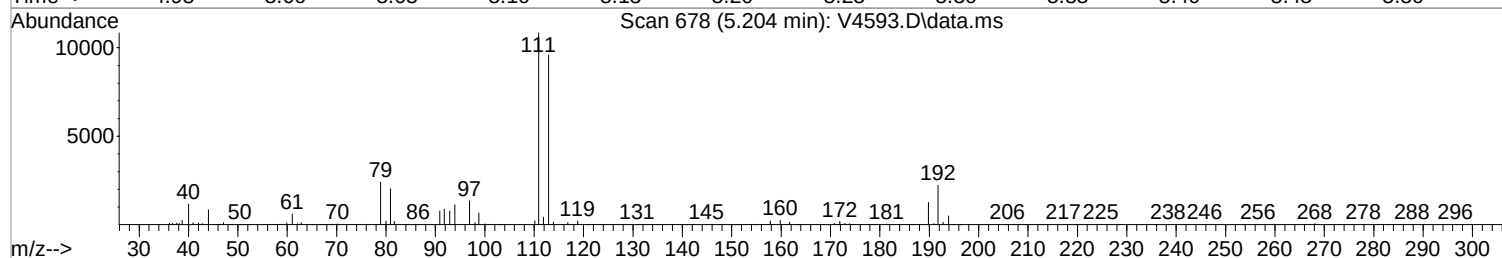
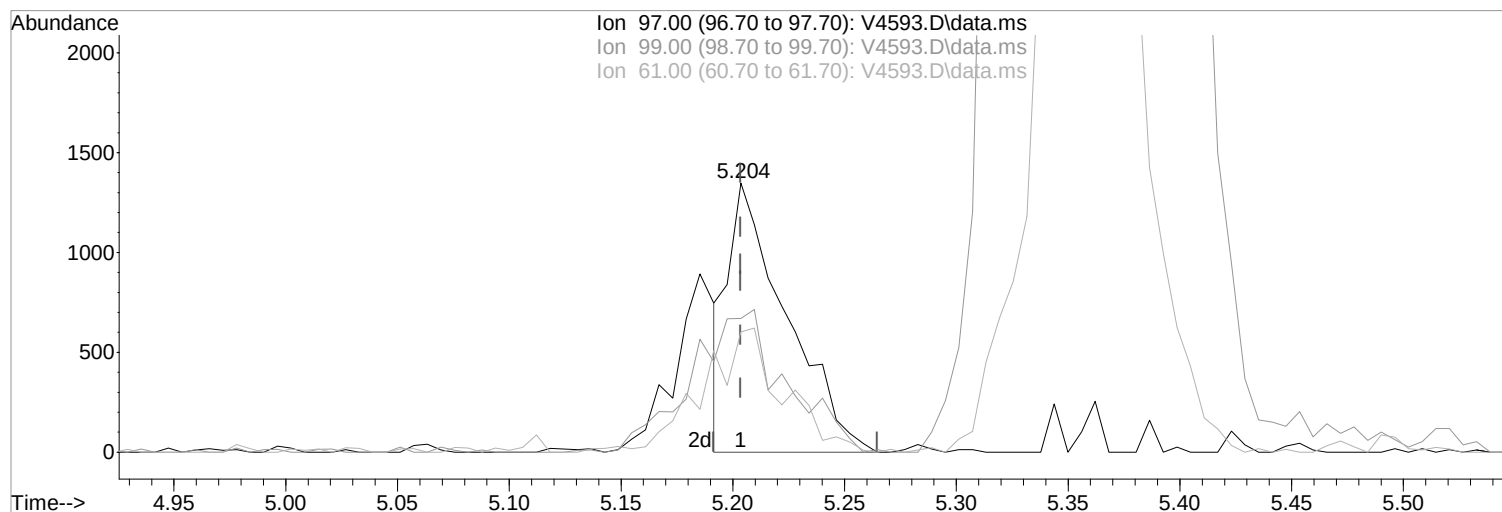
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



(40) 1,1,1-Trichloroethane (P)

Manual Integration:

5.204min (+0.000) 0.35 ug/L

Before

response 2451

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 97.00 | 100   | 100   |
| 99.00 | 63.20 | 49.67 |
| 61.00 | 42.90 | 44.77 |
| 0.00  | 0.00  | 0.00  |

06/10/22

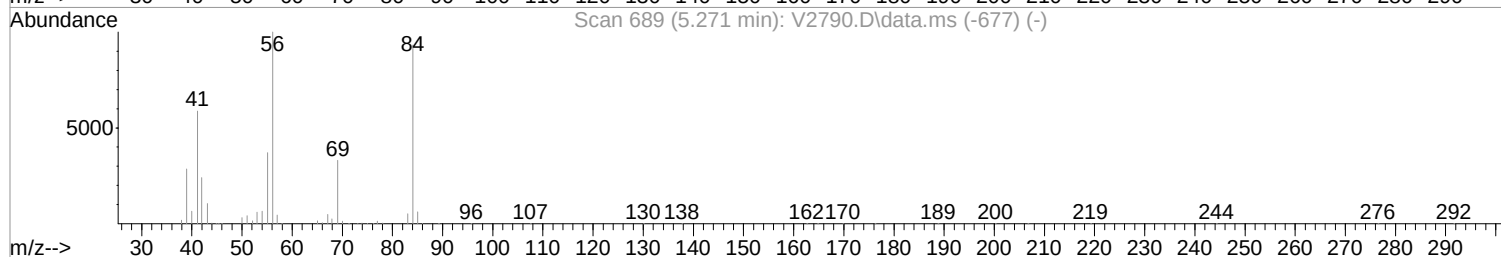
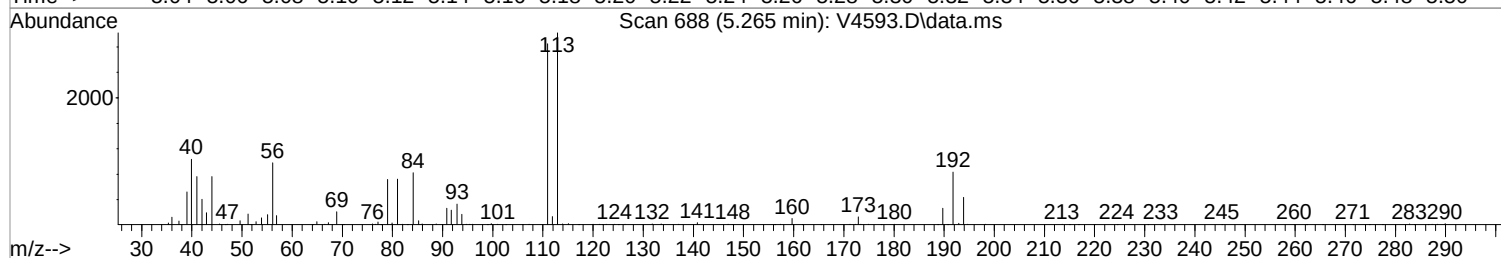
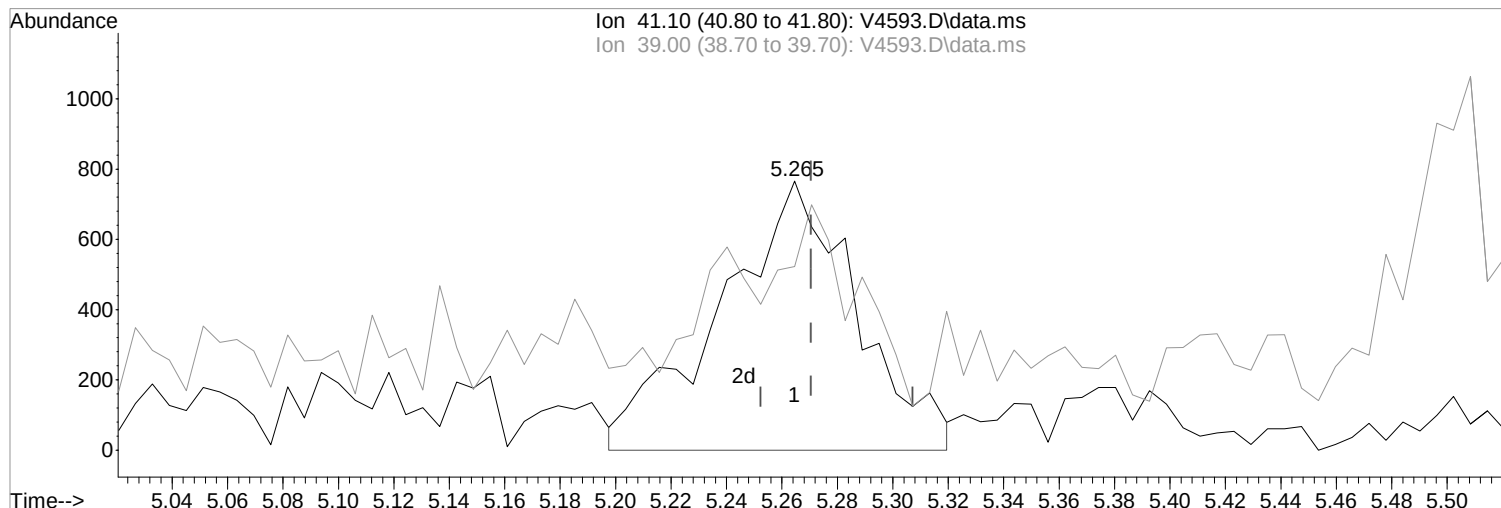
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(43) Cyclohexane (P)

5.265min (-0.006) 0.65 ug/L m

response 2604

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.10 | 100   | 100   |
| 39.00 | 48.80 | 68.28 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

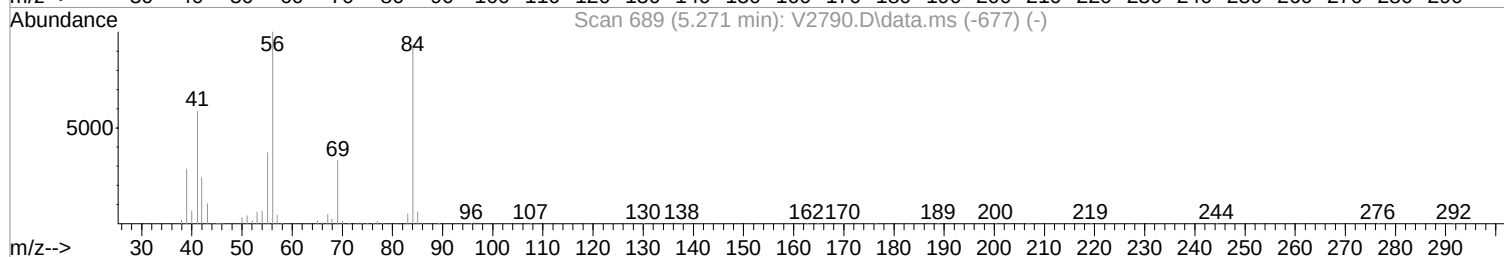
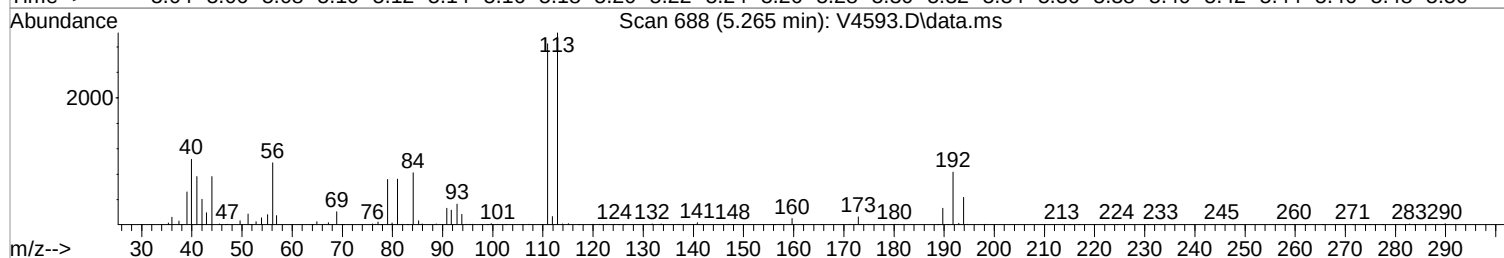
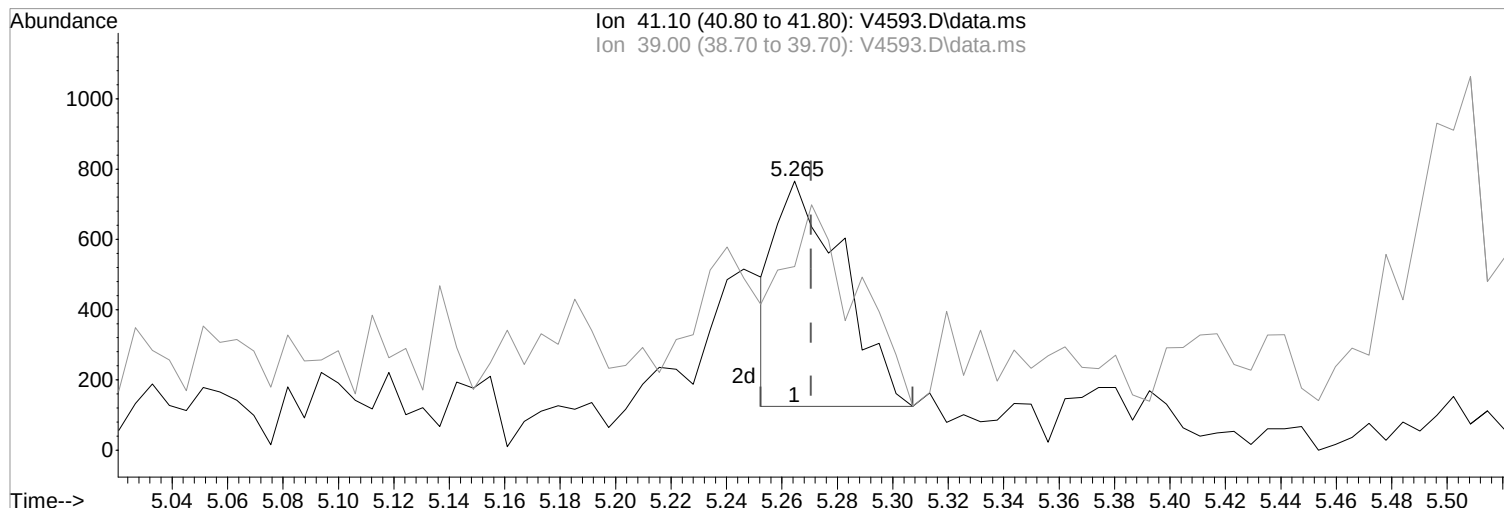
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(43) Cyclohexane (P)

Manual Integration:

5.265min (-0.006) 0.27 ug/L

Before

response 1086

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.10 | 100   | 100   |
| 39.00 | 48.80 | 68.28 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

06/10/22

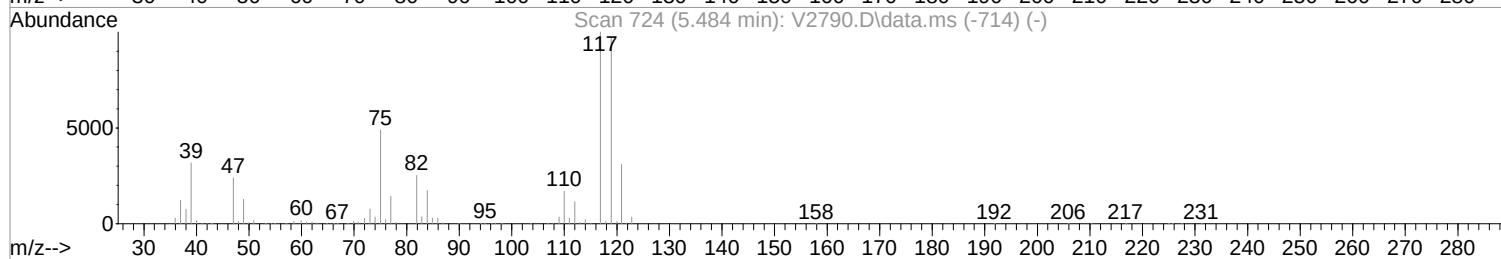
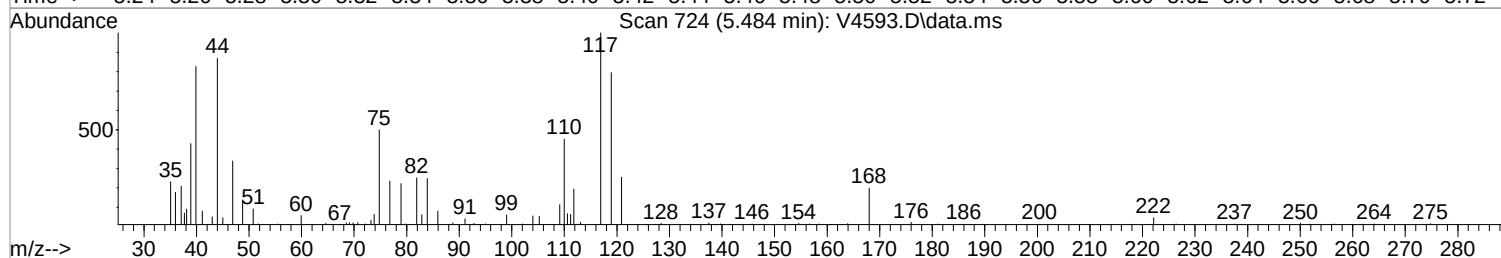
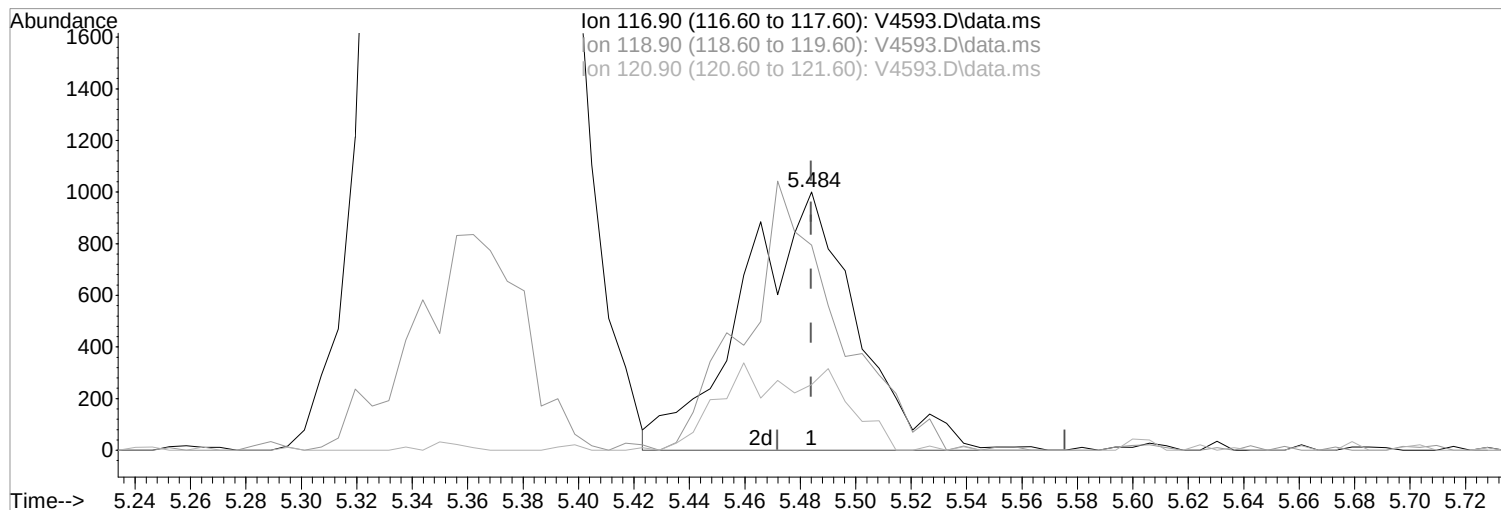
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(45) Carbontetrachloride (P)

5.484min (+0.000) 0.42 ug/L m

response 2874

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 116.90 | 100   | 100   |
| 118.90 | 97.40 | 79.50 |
| 120.90 | 31.00 | 25.40 |
| 0.00   | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

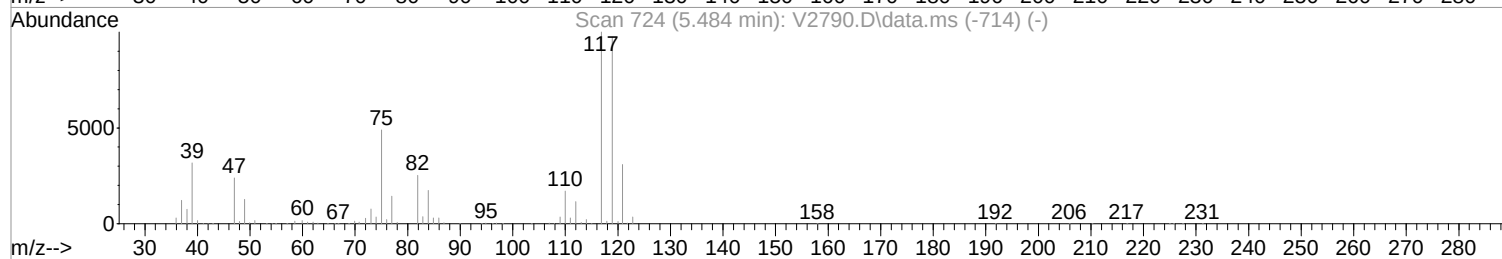
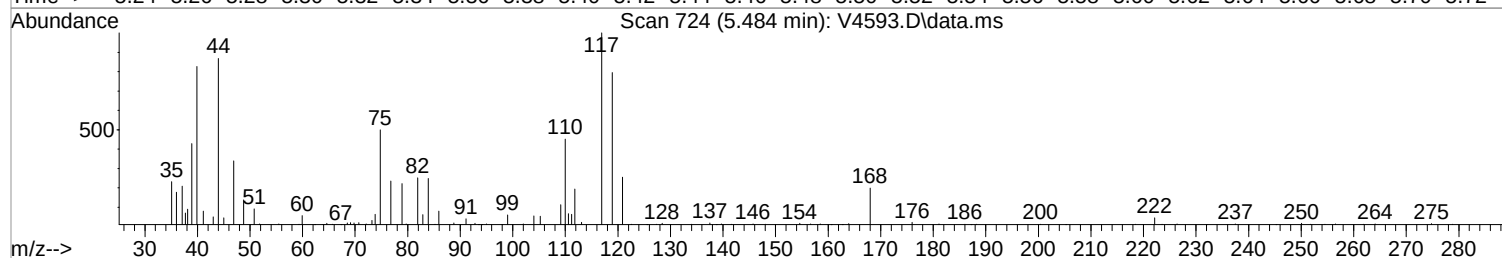
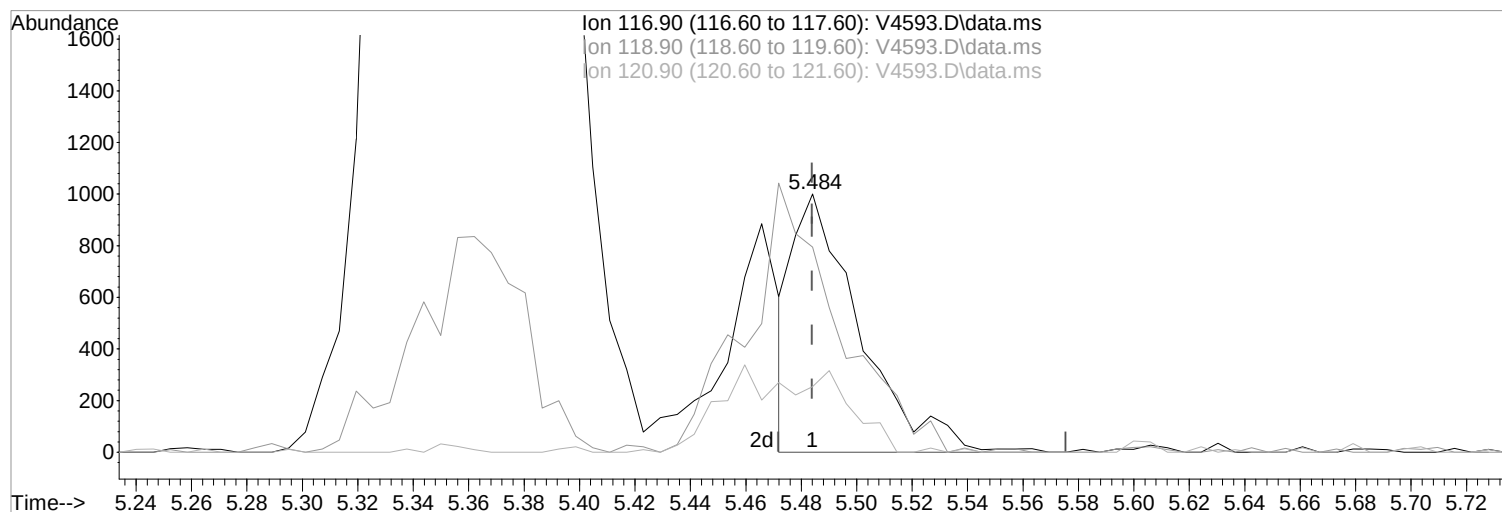
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(45) Carbontetrachloride (P)

Manual Integration:

5.484min (+0.000) 0.25 ug/L

Before

response 1692

| Ion | Exp% | Act% |
|-----|------|------|
|-----|------|------|

06/10/22

|        |       |       |
|--------|-------|-------|
| 116.90 | 100   | 100   |
| 118.90 | 97.40 | 79.50 |
| 120.90 | 31.00 | 25.40 |
| 0.00   | 0.00  | 0.00  |

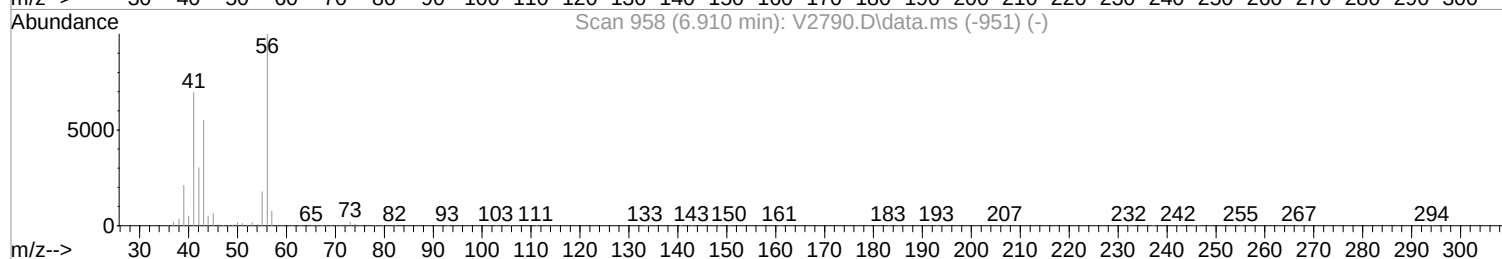
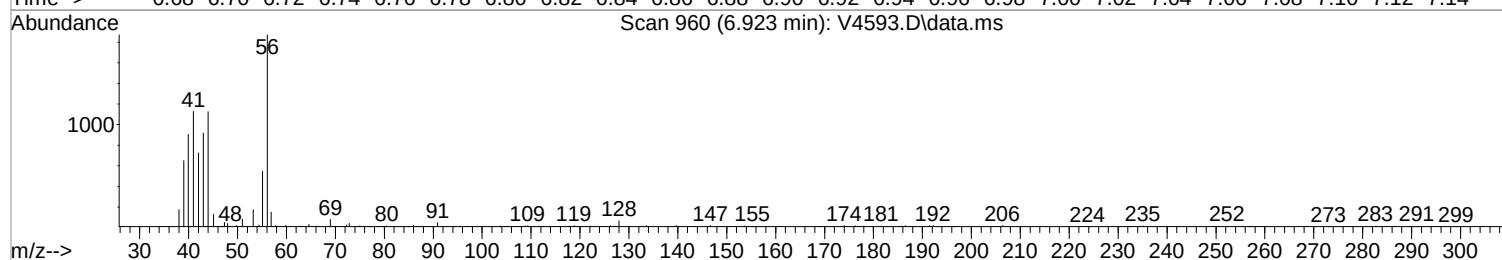
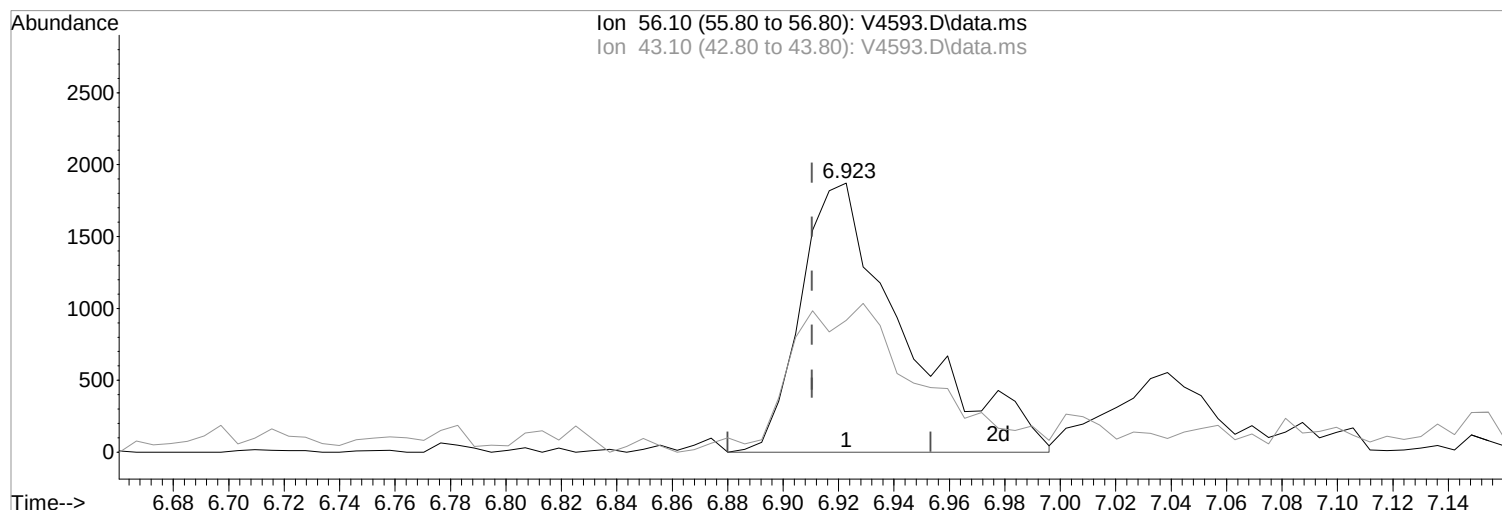
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(52) 1-Butanol

6.923min (+0.012) 18.50 ug/L m

response 4873

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 56.10 | 100   | 100   |
| 43.10 | 55.20 | 48.96 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

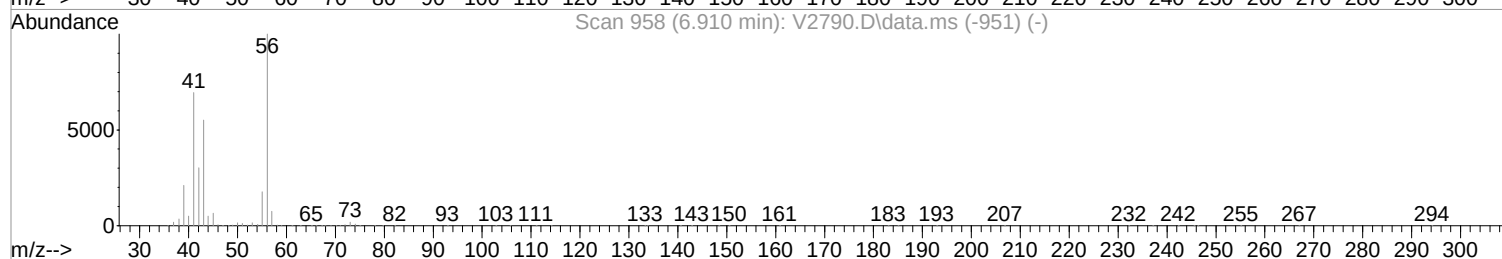
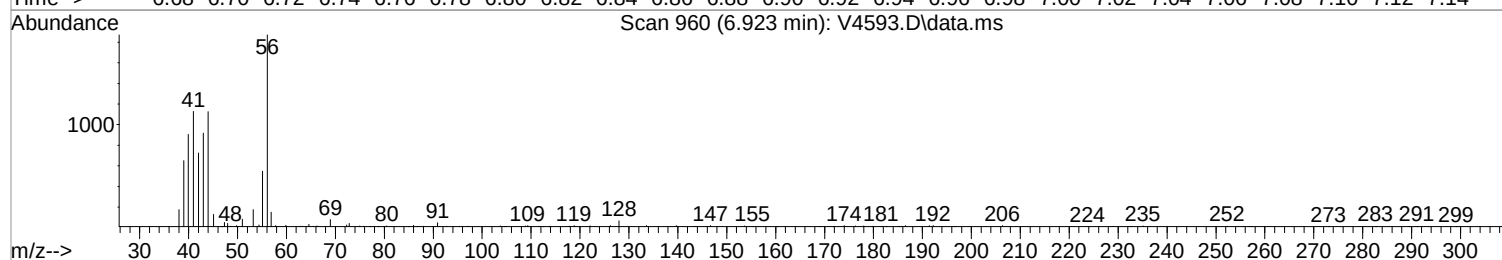
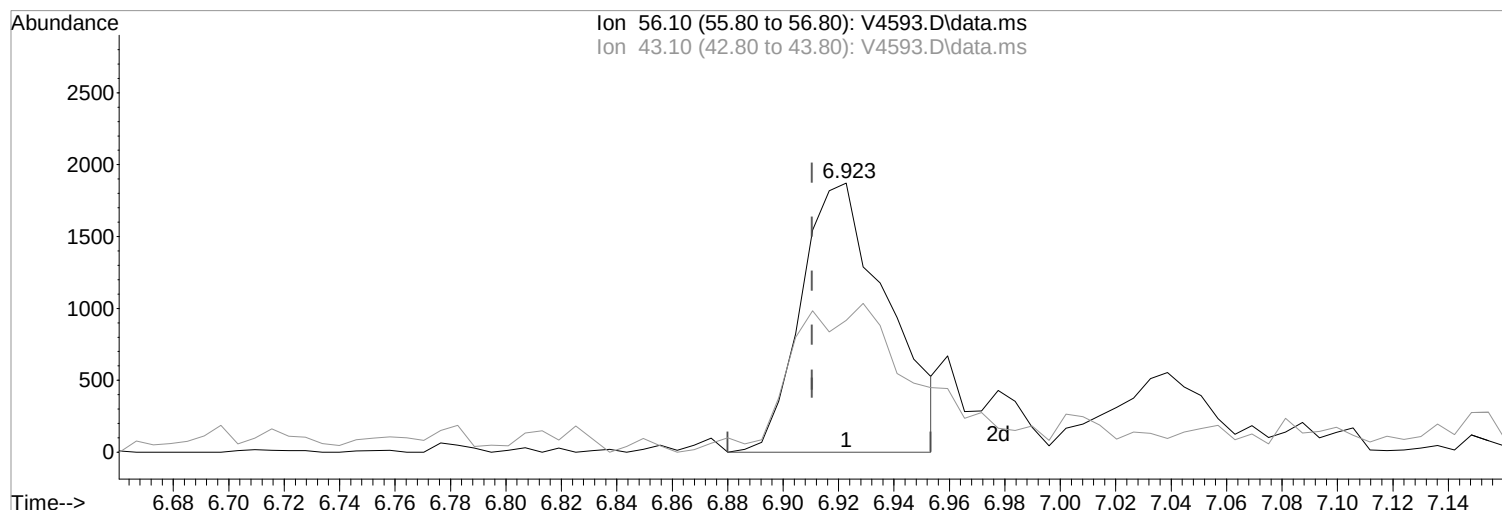
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(52) 1-Butanol

Manual Integration:

6.923min (+0.012) 15.38 ug/L

Before

response 4053

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 56.10 | 100   | 100   |
| 43.10 | 55.20 | 48.96 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

06/10/22



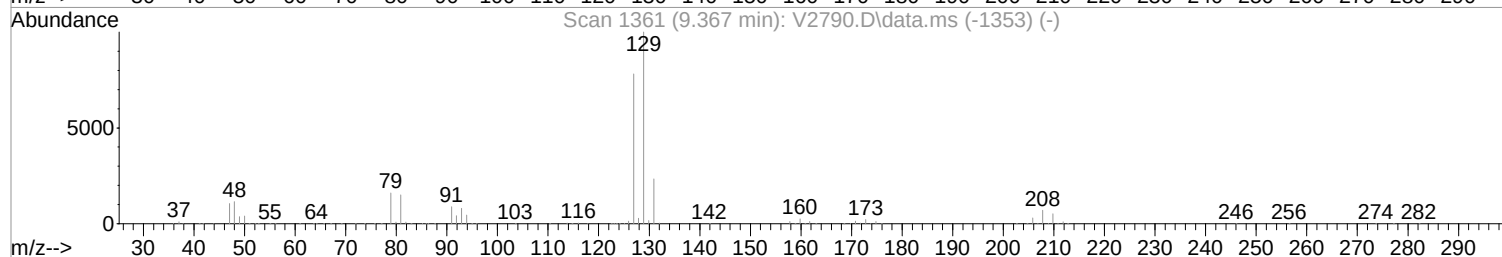
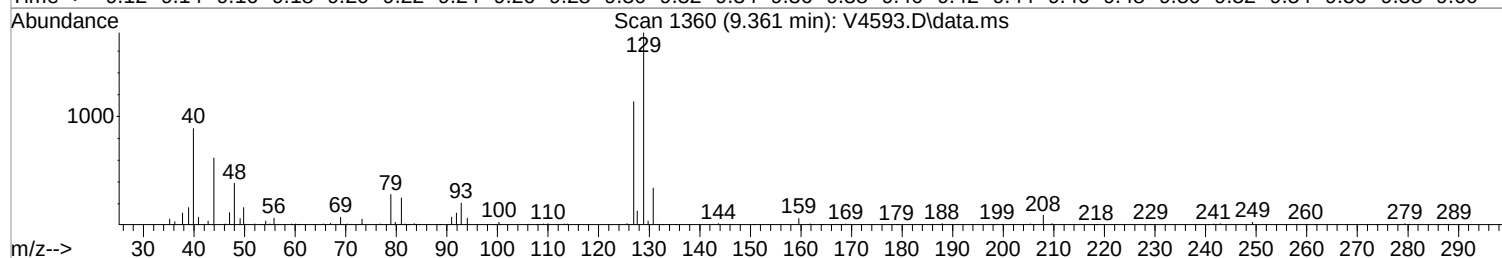
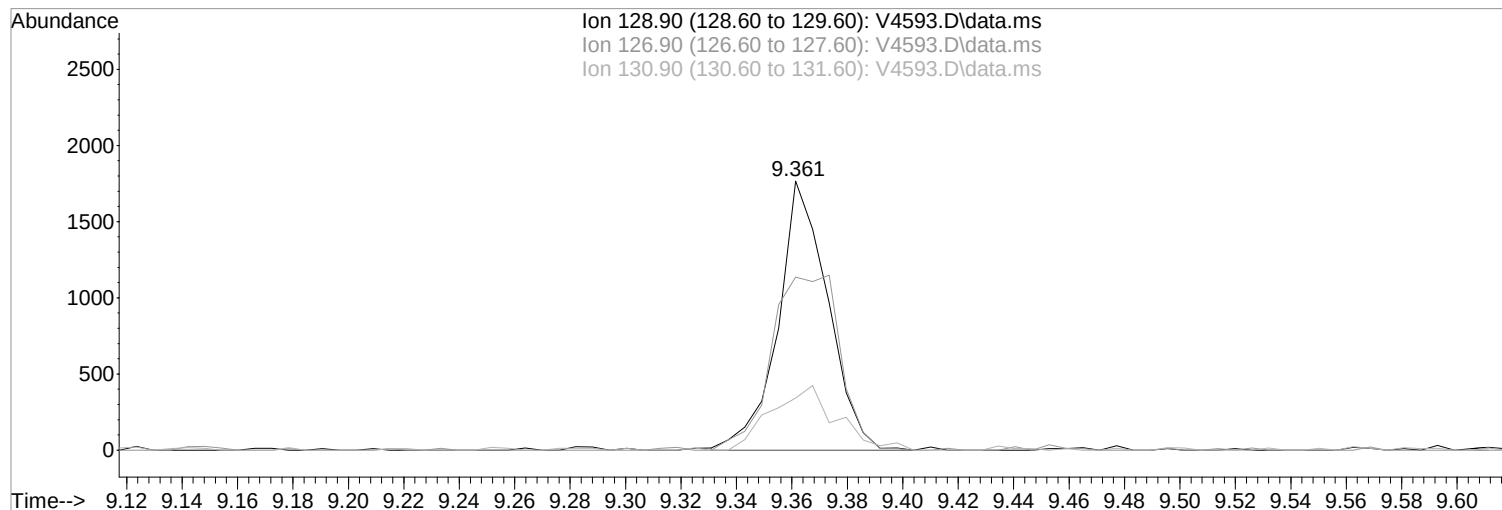
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(74) Dibromochloromethane (P)

9.361min (-0.006) 0.36 ug/L m

response 2209

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 128.90 | 100   | 100   |
| 126.90 | 78.10 | 64.38 |
| 130.90 | 23.40 | 19.42 |
| 0.00   | 0.00  | 0.00  |

Manual Integration:

After

Peak not found.

06/10/22

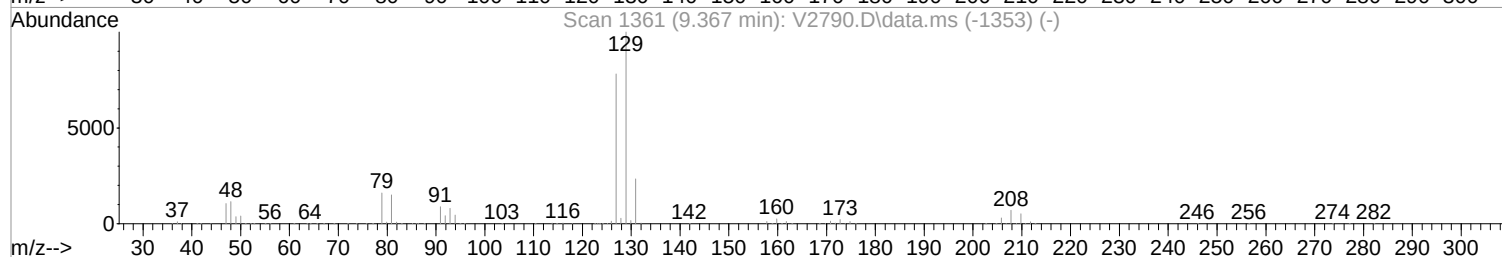
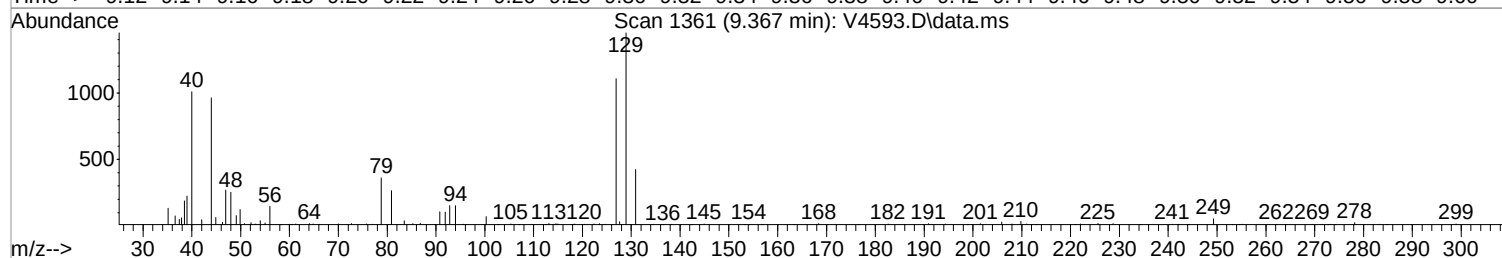
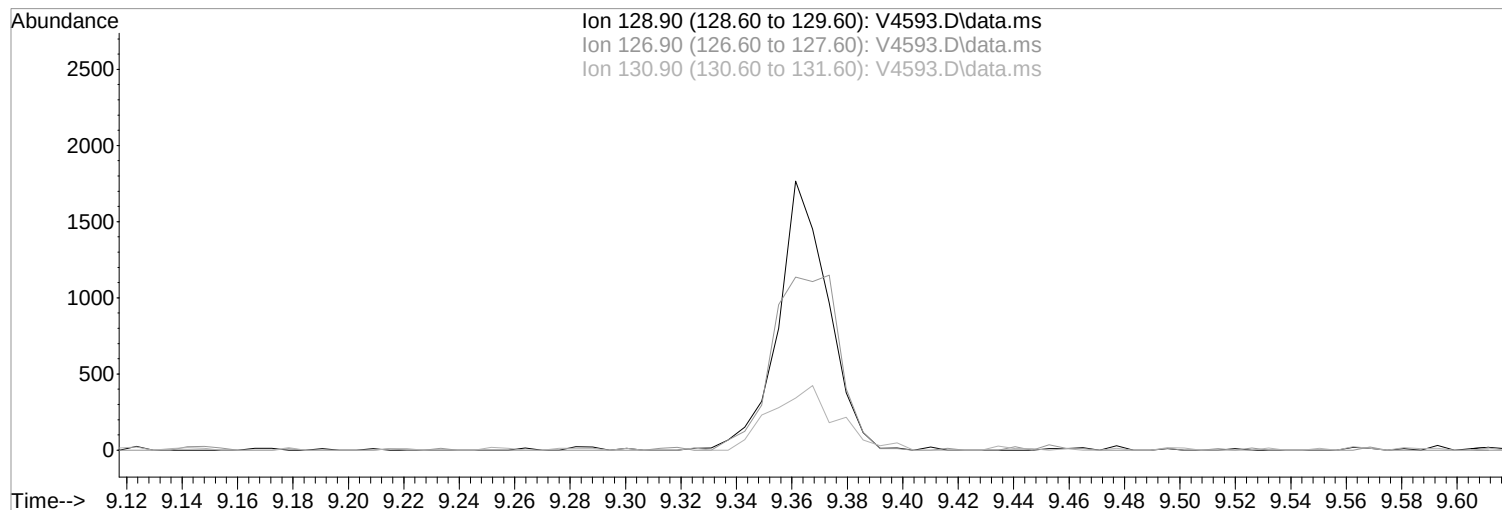
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4593.D  
Acq On : 10 Jun 2022 2:07 pm  
Operator : F.NAEGLER  
Sample : 0.5 PPB STD  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:46:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4593.D\data.ms

(74) Dibromochloromethane (P)

Manual Integration:

9.367min (-9.367) 0.00 ug/L

Before

response 0

Ion Exp% Act%

06/10/22

128.90 100 0.00

126.90 78.10 0.00#

130.90 23.40 0.00#

0.00 0.00 0.00

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4593.D  
 Acq On : 10 Jun 2022 2:07 pm  
 Operator : F.NAEGLER  
 Sample : 0.5 PPB STD  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:19 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 533440   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 848116   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 779594   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.038 | 152  | 405968   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |         |      |
|-------------------------------|--------|----------------|----------|-------|---------|------|
| System Monitoring Compounds   |        |                |          |       |         |      |
| 44) surr4,Dibrflmethane       | 5.222  | 113            | 58471    | 10.64 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 21.28%# |      |
| 47) surr1,1,2-dichloroetha... | 5.777  | 65             | 75433    | 11.53 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 23.06%# |      |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 231838   | 11.39 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 22.78%# |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 85577    | 10.95 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 21.90%# |      |

|                              |       |     |       |       |        |    |
|------------------------------|-------|-----|-------|-------|--------|----|
| Target Compounds             |       |     |       |       | Qvalue |    |
| 2) Dichlorodifluoromethane   | 1.125 | 85  | 2465m | 0.45  | ug/L   |    |
| 3) Chloromethane             | 1.290 | 50  | 3154m | 0.68  | ug/L   |    |
| 4) Vinyl Chloride            | 1.326 | 62  | 2973  | 0.54  | ug/L   | 99 |
| 5) Bromomethane              | 1.552 | 94  | 2462  | 0.78  | ug/L   | 96 |
| 6) Chloroethane              | 1.637 | 64  | 2272  | 0.68  | ug/L   | 85 |
| 7) Freon 21                  | 1.784 | 67  | 4638  | 0.59  | ug/L   | 94 |
| 8) Trichlorofluoromethane    | 1.826 | 101 | 3625  | 0.55  | ug/L   | 88 |
| 9) Diethyl Ether             | 2.058 | 59  | 2448  | 0.62  | ug/L   | 87 |
| 10) Freon 123a               | 2.070 | 67  | 2349  | 0.52  | ug/L # | 69 |
| 11) Freon 123                | 2.119 | 83  | 2604  | 0.48  | ug/L   | 82 |
| 12) Acrolein                 | 2.174 | 56  | 3111  | 2.90  | ug/L   | 98 |
| 13) 1,1-Dicethene            | 2.247 | 96  | 1632  | 0.44  | ug/L # | 55 |
| 14) Freon 113                | 2.241 | 101 | 1976  | 0.52  | ug/L # | 66 |
| 15) Acetone                  | 2.320 | 43  | 2878  | 1.14  | ug/L   | 86 |
| 16) 2-Propanol               | 2.454 | 45  | 5294  | 10.02 | ug/L   | 80 |
| 18) Carbon Disulfide         | 2.436 | 76  | 5056  | 0.48  | ug/L   | 93 |
| 19) Acetonitrile             | 2.582 | 41  | 2987m | 2.72  | ug/L   |    |
| 20) Allyl Chloride           | 2.582 | 76  | 1126  | 0.48  | ug/L # | 86 |
| 21) Methyl Acetate           | 2.625 | 43  | 3644  | 0.62  | ug/L   | 88 |
| 22) Methylene Chloride       | 2.710 | 84  | 2501  | 0.54  | ug/L   | 88 |
| 23) TBA                      | 2.863 | 59  | 10009 | 10.67 | ug/L   | 85 |
| 24) Acrylonitrile            | 2.985 | 53  | 6483  | 2.54  | ug/L   | 85 |
| 25) Methyl-t-Butyl Ether     | 3.009 | 73  | 7214  | 0.47  | ug/L   | 97 |
| 26) trans-1,2-Dichloroethene | 2.985 | 96  | 2102  | 0.50  | ug/L # | 72 |
| 27) 1,1-Dicethane            | 3.497 | 63  | 3634  | 0.49  | ug/L   | 91 |
| 28) Vinyl Acetate            | 3.594 | 86  | 350m  | 0.51  | ug/L   |    |
| 29) DIPE                     | 3.612 | 45  | 6902  | 0.56  | ug/L   | 84 |
| 30) 2-Chloro-1,3-Butadiene   | 3.606 | 53  | 2937  | 0.48  | ug/L   | 76 |
| 31) ETBE                     | 4.137 | 59  | 6542  | 0.51  | ug/L   | 97 |
| 32) 2,2-Dichloropropane      | 4.326 | 77  | 3161  | 0.54  | ug/L   | 96 |
| 33) cis-1,2-Dichloroethene   | 4.344 | 96  | 2492  | 0.51  | ug/L # | 70 |
| 34) 2-Butanone               | 4.448 | 43  | 2307  | 0.68  | ug/L   | 95 |
| 35) Propionitrile            | 4.545 | 54  | 3184  | 2.98  | ug/L   | 99 |
| 36) Bromochloromethane       | 4.734 | 130 | 1821m | 0.53  | ug/L   |    |
| 37) Methacrylonitrile        | 4.777 | 67  | 1886  | 0.70  | ug/L # | 78 |
| 38) Tetrahydrofuran          | 4.880 | 42  | 1815  | 0.82  | ug/L   | 70 |
| 39) Chloroform               | 4.911 | 83  | 4104m | 0.52  | ug/L   |    |
| 40) 1,1,1-Trichloroethane    | 5.204 | 97  | 3587m | 0.51  | ug/L   |    |
| 41) TAME                     | 6.094 | 73  | 6951  | 0.52  | ug/L   | 88 |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4593.D  
 Acq On : 10 Jun 2022 2:07 pm  
 Operator : F.NAEGLER  
 Sample : 0.5 PPB STD  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:19 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|-------|--------|----------|
| 43) Cyclohexane                | 5.265  | 41   | 2604m    | 0.65  | ug/L   |          |
| 45) Carbontetrachloride        | 5.484  | 117  | 2874m    | 0.42  | ug/L   |          |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 2977     | 0.48  | ug/L   | 83       |
| 48) Benzene                    | 5.832  | 78   | 7899     | 0.42  | ug/L   | 83       |
| 49) 1,2-Dichloroethane         | 5.905  | 62   | 3665     | 0.49  | ug/L   | 87       |
| 50) Iso-Butyl Alcohol          | 5.929  | 43   | 3764     | 9.48  | ug/L   | 88       |
| 51) n-Heptane                  | 6.301  | 43   | 2552     | 0.57  | ug/L   | 86       |
| 52) 1-Butanol                  | 6.923  | 56   | 4873m    | 18.50 | ug/L   |          |
| 53) Trichloroethene            | 6.813  | 130  | 2586     | 0.44  | ug/L # | 81       |
| 54) Methylcyclohexane          | 7.039  | 55   | 2639     | 0.50  | ug/L   | 94       |
| 55) 1,2-Dicloropropane         | 7.130  | 63   | 2162     | 0.43  | ug/L   | 91       |
| 56) Dibromomethane             | 7.276  | 93   | 1997     | 0.53  | ug/L # | 80       |
| 57) 1,4-Dioxane                | 7.374  | 88   | 1085     | 9.30  | ug/L   | 98       |
| 58) Methyl Methacrylate        | 7.374  | 69   | 2077     | 0.44  | ug/L # | 75       |
| 59) Bromodichloromethane       | 7.508  | 83   | 3212     | 0.45  | ug/L   | 93       |
| 60) 2-Nitropropane             | 7.843  | 41   | 1898     | 0.92  | ug/L   | 82       |
| 61) 2-Chloroethylvinyl Ether   | 7.947  | 63   | 1387     | 0.36  | ug/L   | 80       |
| 62) cis-1,3-Dichloropropene    | 8.075  | 75   | 3707     | 0.44  | ug/L   | 92       |
| 63) 4-Methyl-2-pentanone       | 8.313  | 43   | 3442     | 0.48  | ug/L   | 95       |
| 65) Toluene                    | 8.453  | 91   | 8733     | 0.42  | ug/L   | 92       |
| 66) trans-1,3-Dichloropropene  | 8.758  | 75   | 3138     | 0.40  | ug/L   | 78       |
| 67) Ethyl Methacrylate         | 8.892  | 69   | 3498     | 0.43  | ug/L   | 95       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 2471     | 0.47  | ug/L   | 86       |
| 71) Tetrachloroethene          | 9.069  | 164  | 2063     | 0.48  | ug/L # | 81       |
| 72) 2-Hexanone                 | 9.270  | 43   | 2630     | 0.50  | ug/L   | 94       |
| 73) 1,3-Dichloropropane        | 9.130  | 76   | 4310     | 0.49  | ug/L   | 98       |
| 74) Dibromochloromethane       | 9.361  | 129  | 2209m    | 0.36  | ug/L   |          |
| 75) N-Butyl Acetate            | 9.422  | 43   | 4694     | 0.46  | ug/L   | 97       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 2461     | 0.42  | ug/L   | 95       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 3383     | 0.41  | ug/L # | 84       |
| 78) Chlorobenzene              | 9.971  | 112  | 6388     | 0.44  | ug/L   | 93       |
| 79) 4-Chlorobenzotrifluoride   | 10.050 | 180  | 2847     | 0.39  | ug/L   | 86       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 2215     | 0.40  | ug/L   | 87       |
| 81) Ethylbenzene               | 10.087 | 106  | 3362     | 0.46  | ug/L   | 96       |
| 82) (m+p)Xylene                | 10.203 | 106  | 7496     | 0.82  | ug/L   | 99       |
| 83) o-Xylene                   | 10.574 | 106  | 4077     | 0.46  | ug/L   | 98       |
| 84) Styrene                    | 10.593 | 104  | 6640     | 0.42  | ug/L   | 94       |
| 85) Bromoform                  | 10.757 | 173  | 1663     | 0.36  | ug/L   | 86       |
| 86) 2-Chlorobenzotrifluoride   | 10.837 | 180  | 3183     | 0.38  | ug/L   | 85       |
| 87) Isopropylbenzene           | 10.910 | 105  | 9272     | 0.43  | ug/L   | 90       |
| 88) Cyclohexanone              | 11.007 | 55   | 11005    | 10.20 | ug/L   | 95       |
| 89) trans-1,4-Dichloro-2-B...  | 11.245 | 53   | 1249     | 0.55  | ug/L # | 42       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 3829     | 0.53  | ug/L   | 79       |
| 92) Bromobenzene               | 11.172 | 156  | 3456     | 0.52  | ug/L # | 69       |
| 93) 1,2,3-Trichloropropane     | 11.227 | 110  | 1695     | 0.60  | ug/L # | 79       |
| 94) n-Propylbenzene            | 11.282 | 91   | 11221    | 0.44  | ug/L   | 95       |
| 95) 2-Chlorotoluene            | 11.343 | 91   | 7229     | 0.46  | ug/L   | 99       |
| 96) 3-Chlorotoluene            | 11.404 | 91   | 7000     | 0.42  | ug/L   | 98       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 8225     | 0.45  | ug/L   | 95       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 7985     | 0.42  | ug/L   | 97       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 7162     | 0.44  | ug/L   | 98       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 8310     | 0.44  | ug/L   | 99       |
| 101) 3,4-Dichlorobenzotrifl... | 11.812 | 214  | 2764     | 0.42  | ug/L   | 95       |
| 102) sec-Butylbenzene          | 11.891 | 105  | 9561     | 0.43  | ug/L   | 95       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 8157     | 0.41  | ug/L   | 96       |
| 104) 1,3-Dclbenz               | 11.983 | 146  | 4970     | 0.43  | ug/L   | 91       |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4593.D  
 Acq On : 10 Jun 2022 2:07 pm  
 Operator : F.NAEGLER  
 Sample : 0.5 PPB STD  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

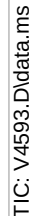
Inst : MSVOA14

Quant Time: Jun 10 14:50:19 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|------|--------|----------|
| 105) 1,4-Dclbenz               | 12.056 | 146  | 6259     | 0.52 | ug/L # | 80       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 2216     | 0.37 | ug/L   | 90       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 2858     | 0.43 | ug/L   | 95       |
| 108) n-Butylbenzene            | 12.355 | 91   | 7035     | 0.43 | ug/L   | 96       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 5193     | 0.45 | ug/L   | 86       |
| 110) 1,2-Dibromo-3-chloropr... | 13.001 | 157  | 830      | 0.39 | ug/L # | 68       |
| 111) Trielution Dichlorotol... | 13.117 | 125  | 12299    | 1.27 | ug/L   | 93       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 3442     | 0.40 | ug/L   | 86       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 8835     | 0.84 | ug/L   | 83       |
| 114) 1,2,4-Tcbenzene           | 13.647 | 180  | 4185     | 0.50 | ug/L   | 86       |
| 115) Hexachlorobt              | 13.781 | 225  | 1529     | 0.42 | ug/L # | 78       |
| 116) Naphthalen                | 13.842 | 128  | 10234    | 0.42 | ug/L   | 97       |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 3900     | 0.46 | ug/L   | 89       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 2359m    | 0.43 | ug/L   |          |
| 119) 2,3,6-Trichlorotoluene    | 14.708 | 159  | 1846     | 0.36 | ug/L   | 86       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quant Time: Jun 10 14:50:19 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



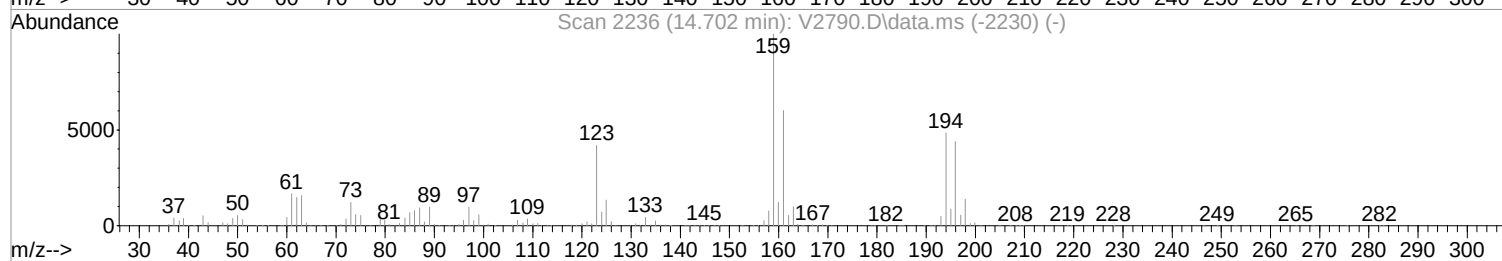
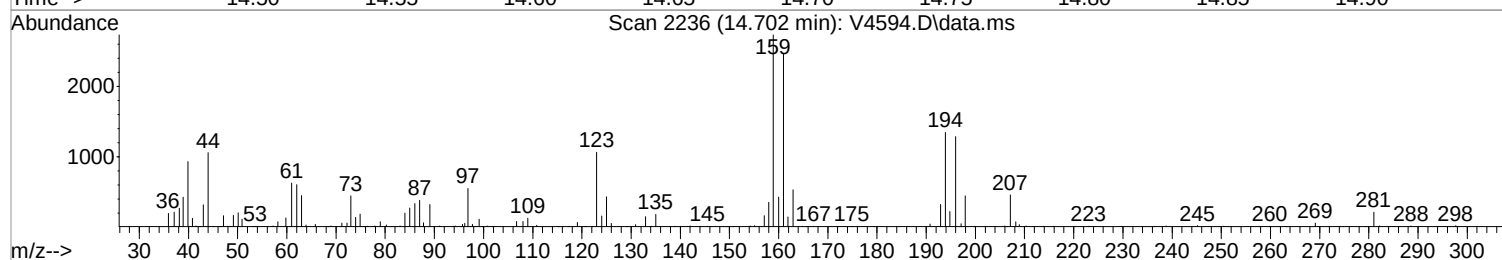
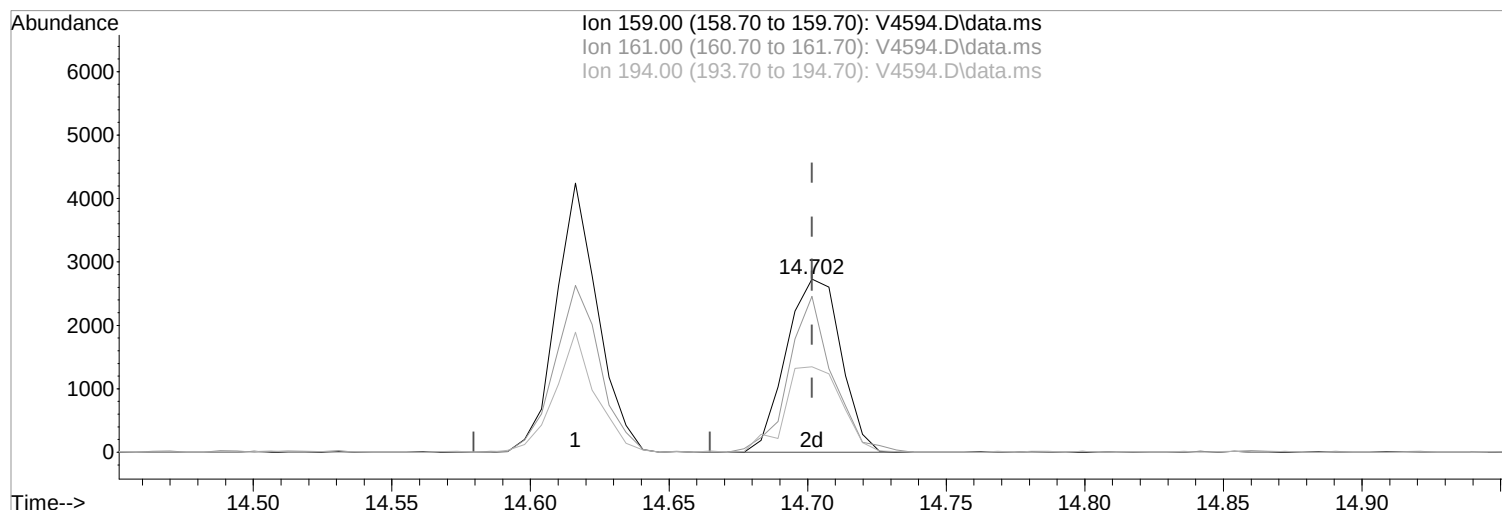
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(119) 2,3,6-Trichlorotoluene

14.702min (-0.000) 0.72 ug/L m

response 3762

| Ion    | Exp%  | Act%   |
|--------|-------|--------|
| 159.00 | 100   | 100    |
| 161.00 | 60.20 | 90.04# |
| 194.00 | 48.40 | 49.29  |
| 0.00   | 0.00  | 0.00   |

Manual Integration:

After

Wrong peak selected.

06/10/22

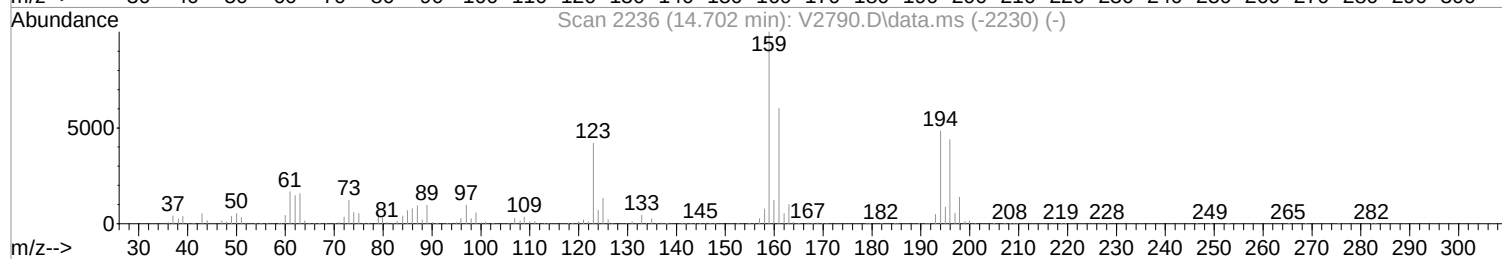
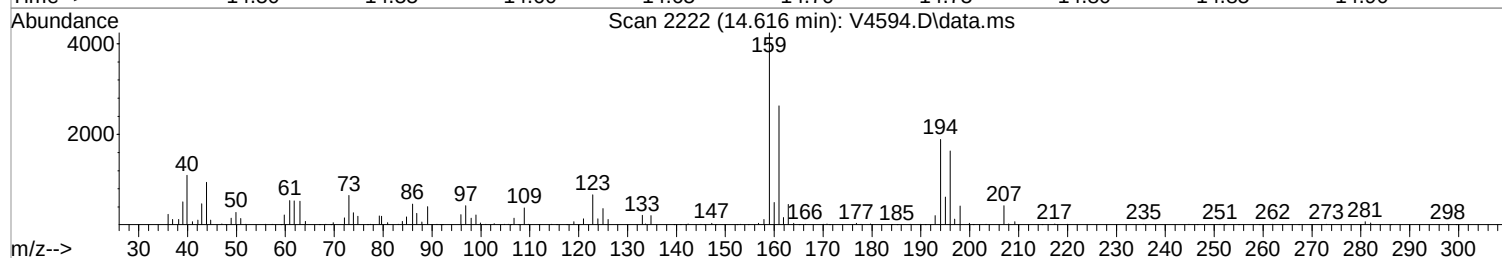
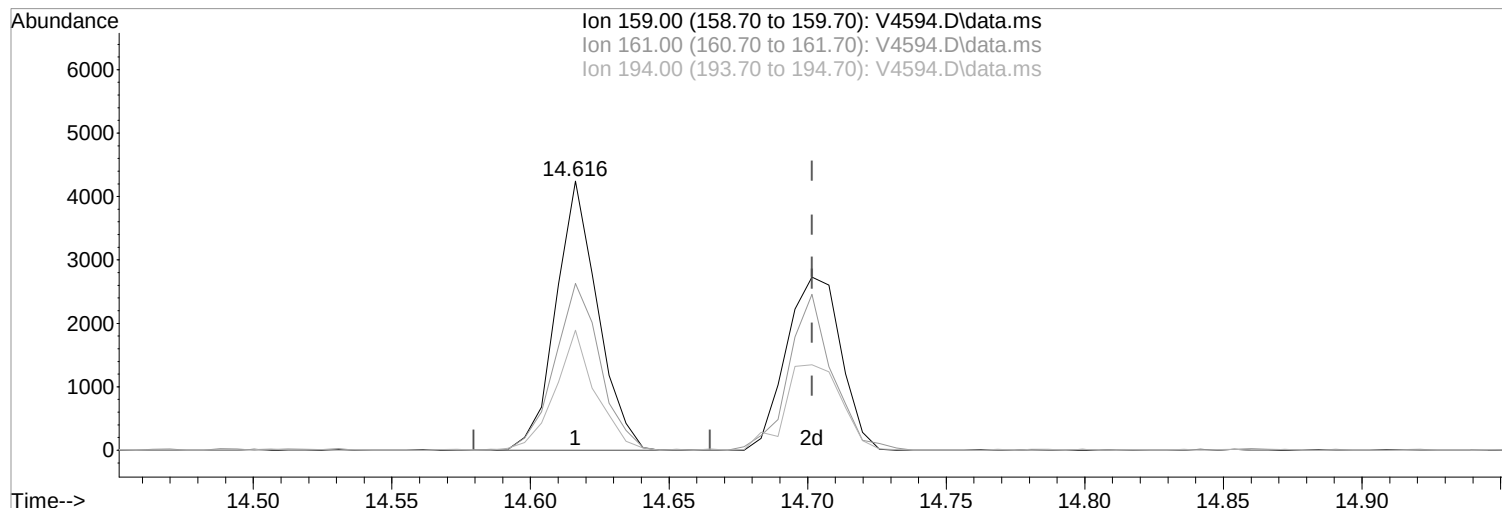
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(119) 2,3,6-Trichlorotoluene

Manual Integration:

14.616min (-0.085) 0.85 ug/L

Before

response 4461

Ion Exp% Act%

06/10/22

159.00 100 100

161.00 60.20 62.04

194.00 48.40 44.59

0.00 0.00 0.00



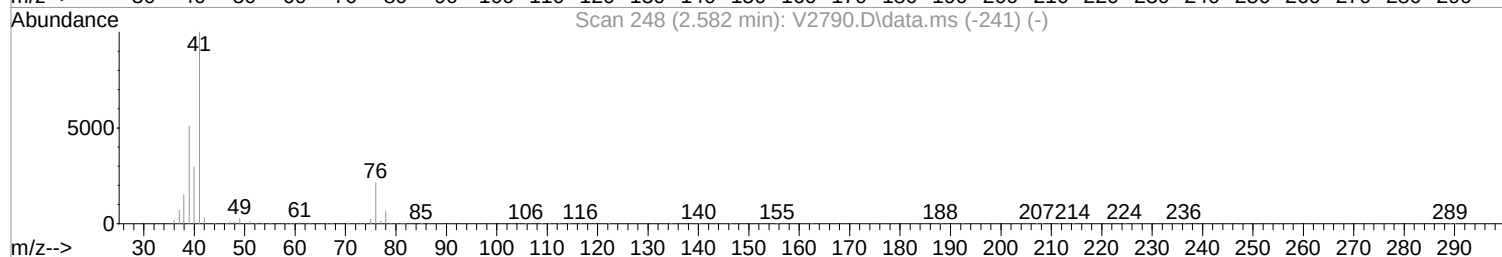
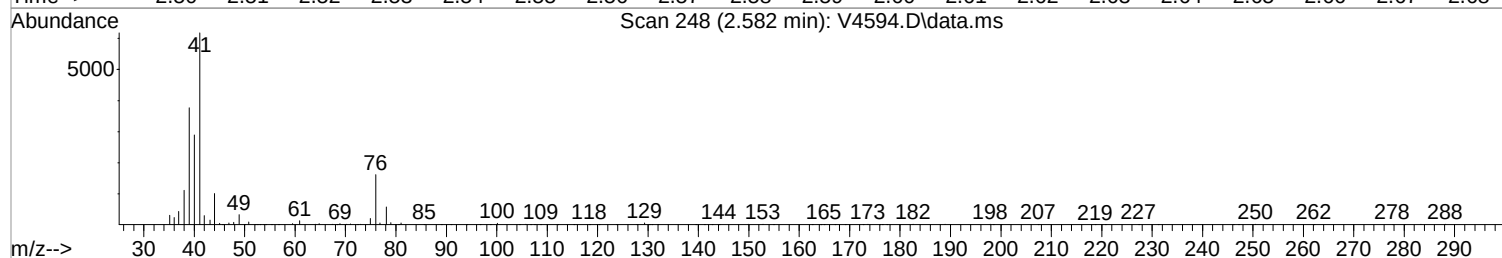
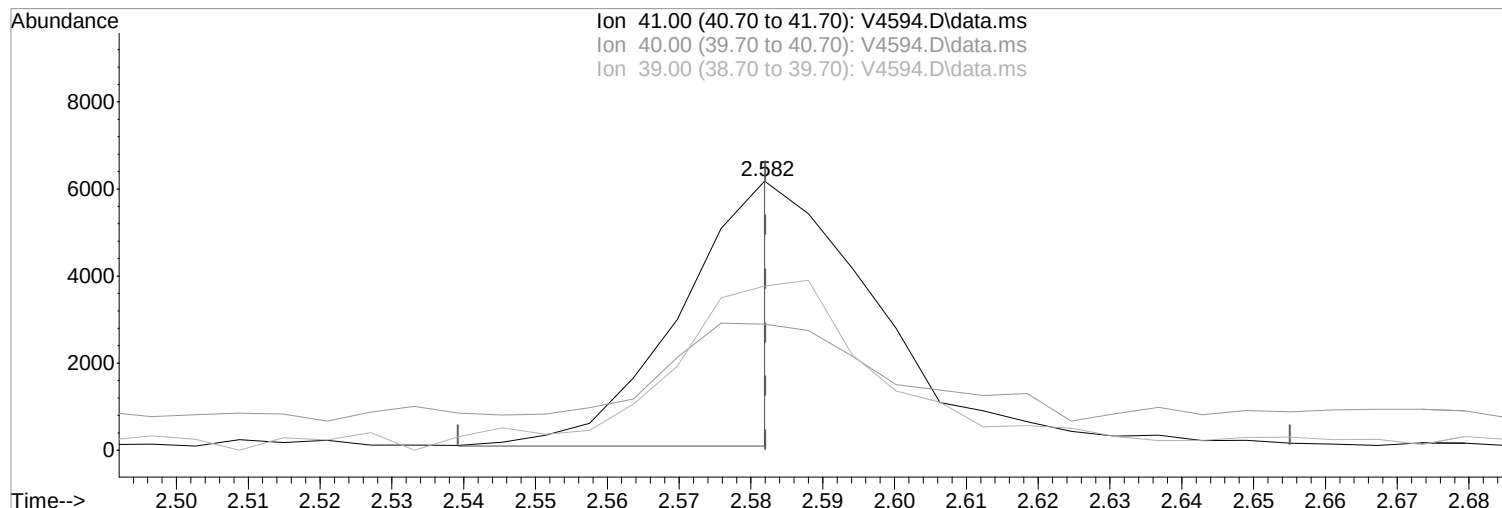
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(19) Acetonitrile

2.582min (-0.000) 5.18 ug/L m

response 6009

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 46.83 |
| 39.00 | 51.10 | 61.01 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

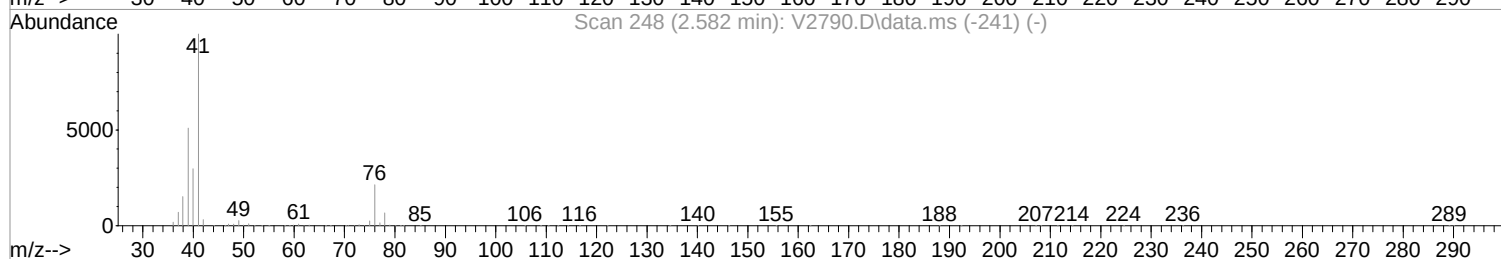
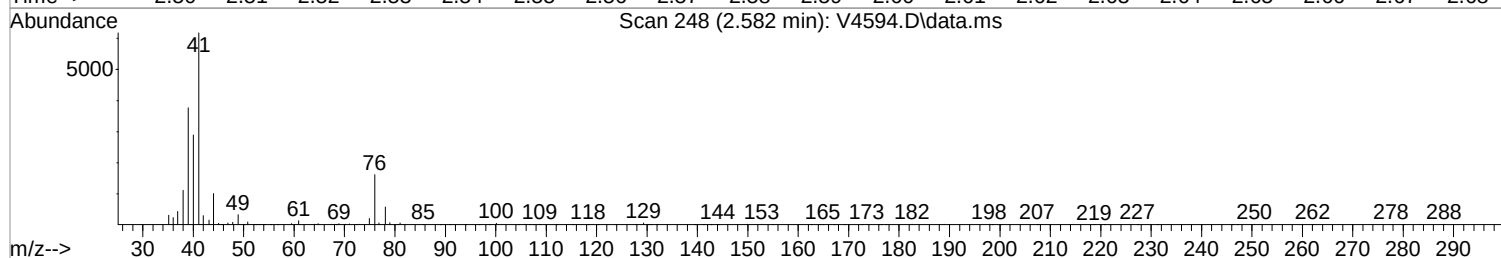
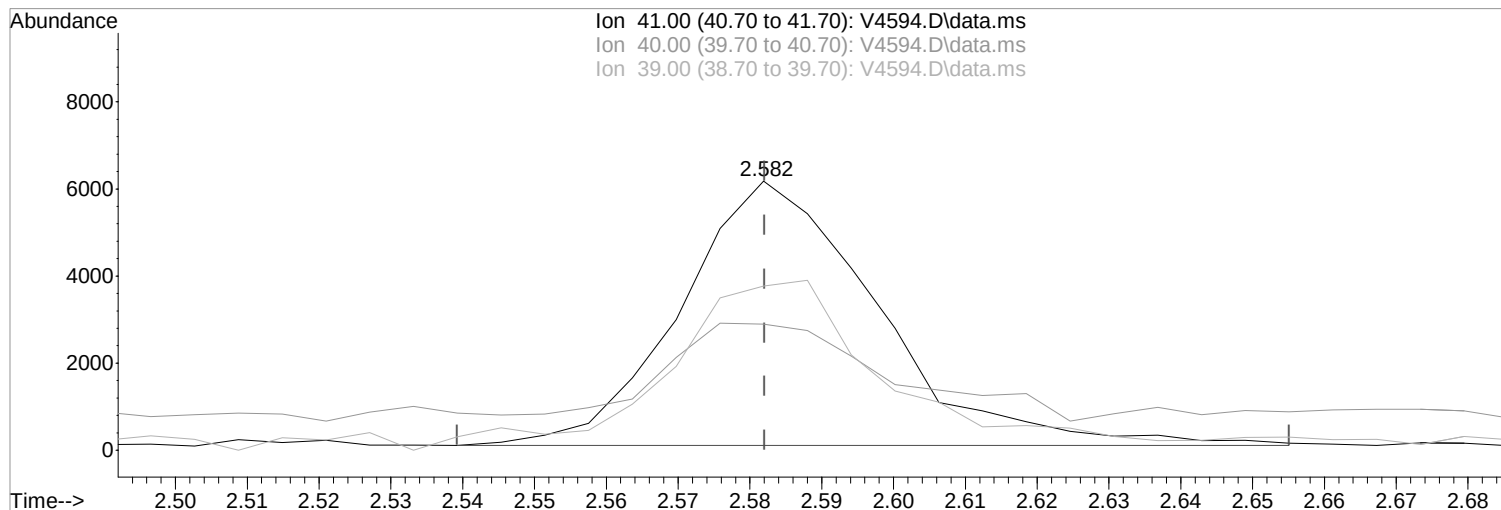
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(19) Acetonitrile

Manual Integration:

2.582min (-0.000) 10.02 ug/L

Before

response 11624

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 46.83 |
| 39.00 | 51.10 | 61.01 |
| 0.00  | 0.00  | 0.00  |

06/10/22

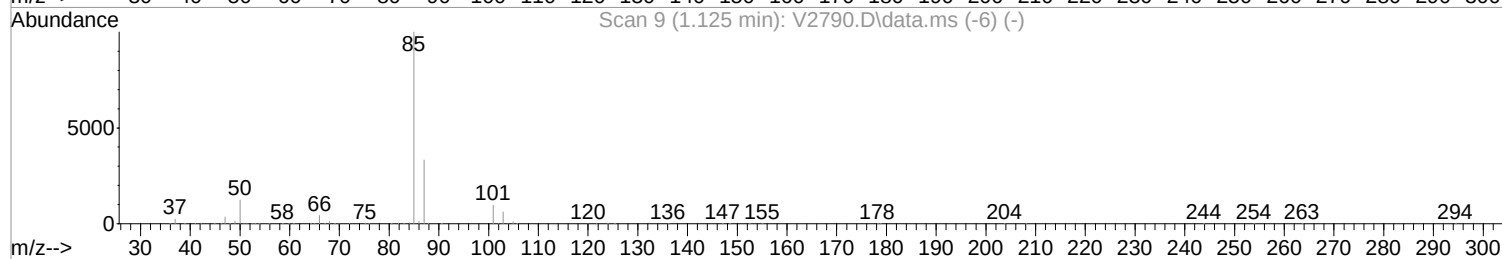
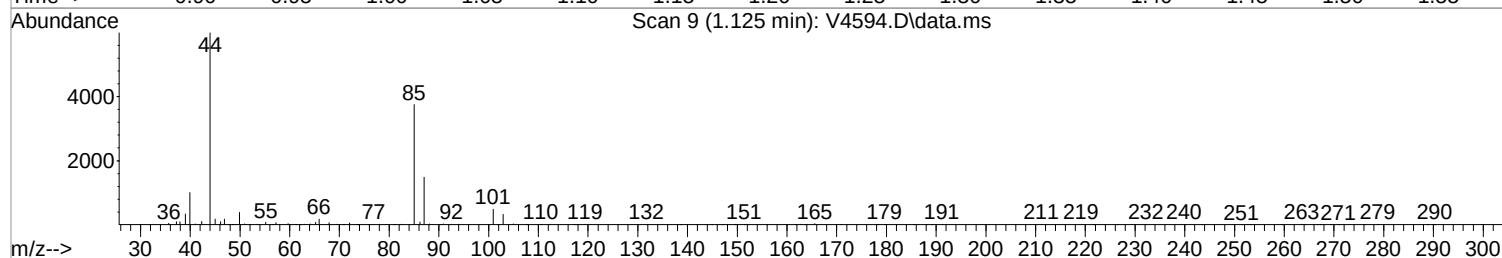
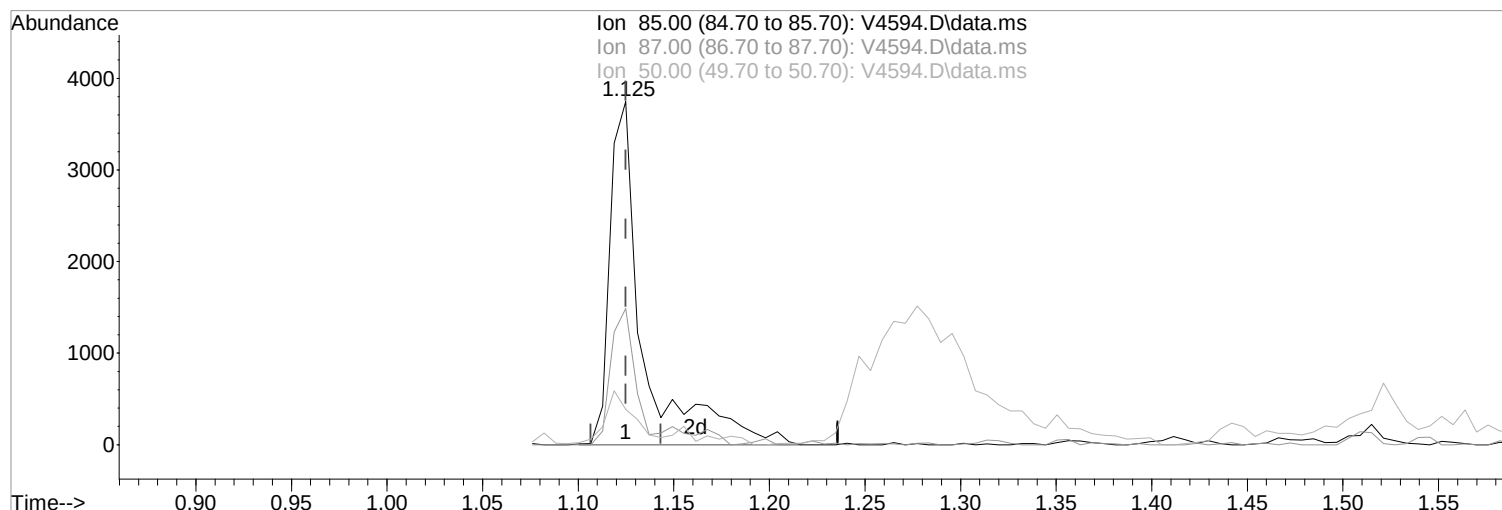
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(2) Dichlorodifluoromethane (P)

1.125min (-0.000) 0.79 ug/L m

response 4576

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 39.69 |
| 50.00 | 12.40 | 10.27 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

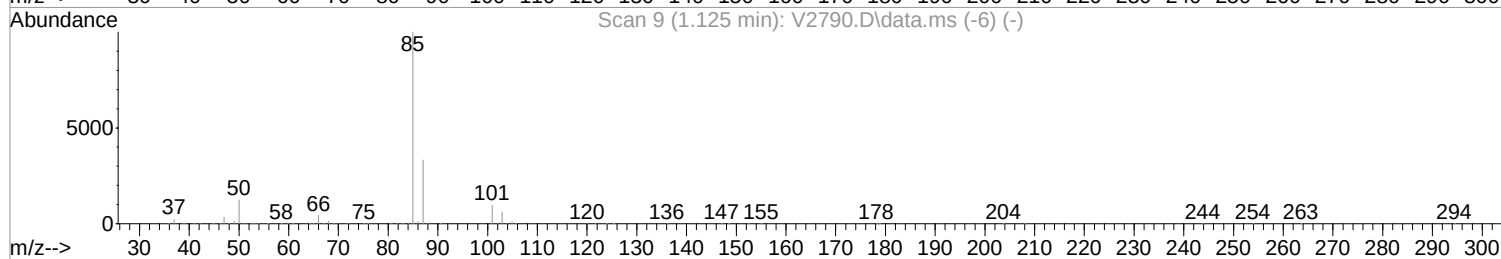
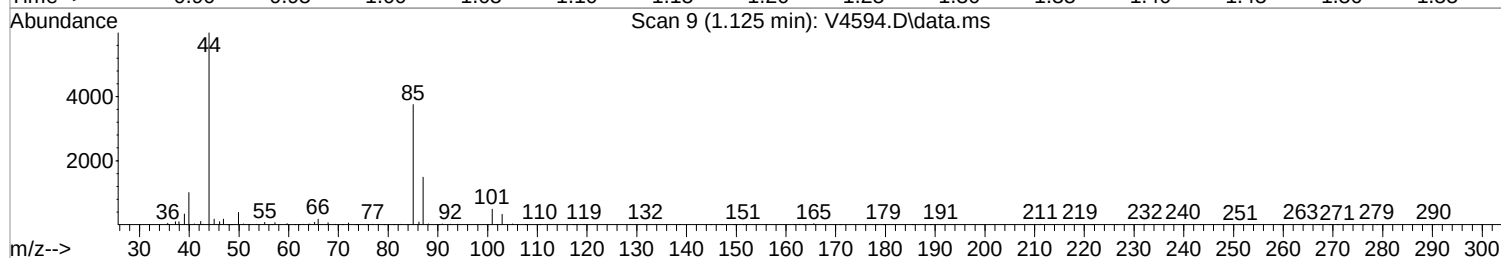
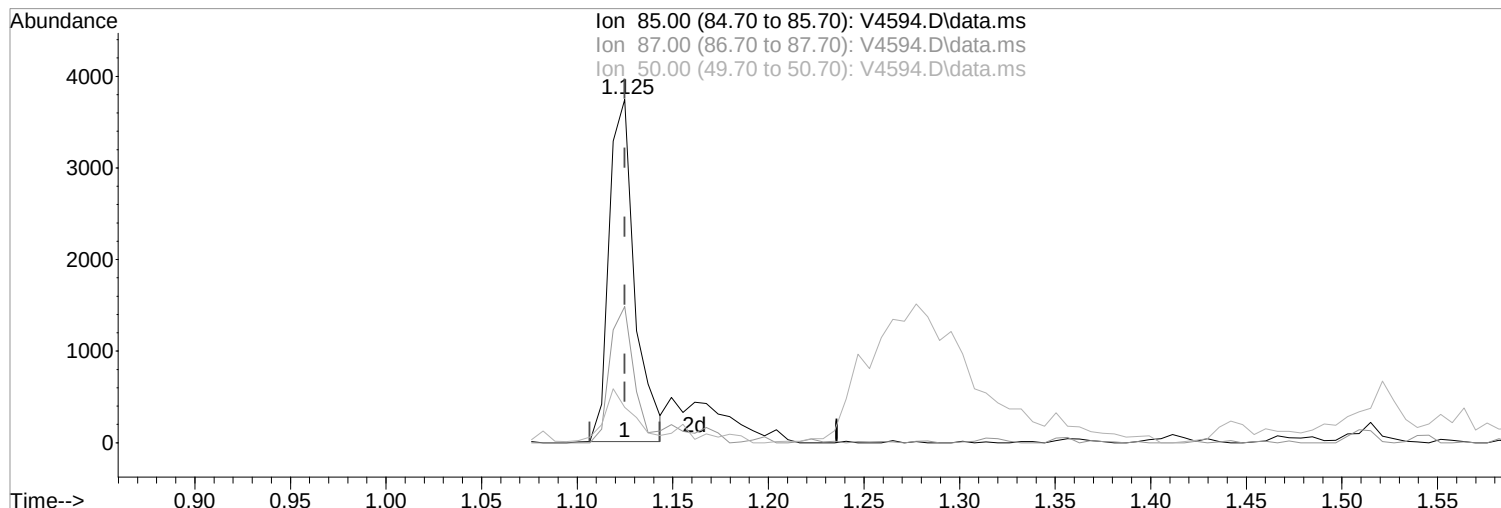
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.125min (-0.000) 0.60 ug/L

Before

response 3493

06/10/22

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 39.69 |
| 50.00 | 12.40 | 10.27 |
| 0.00  | 0.00  | 0.00  |

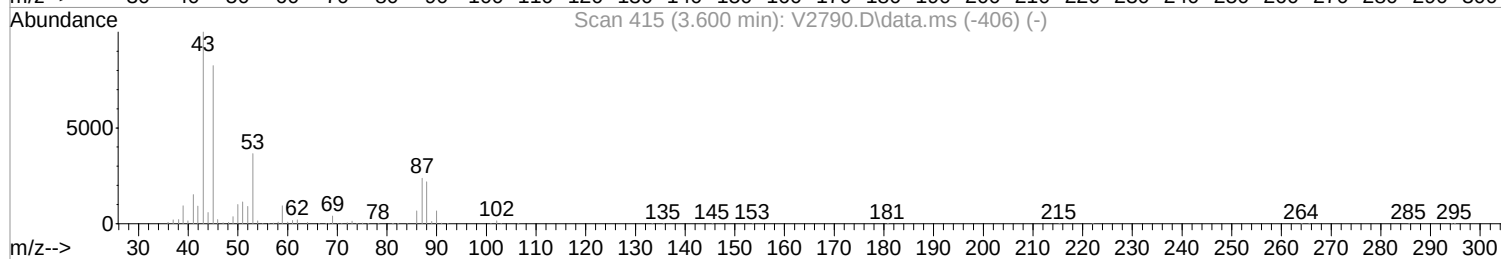
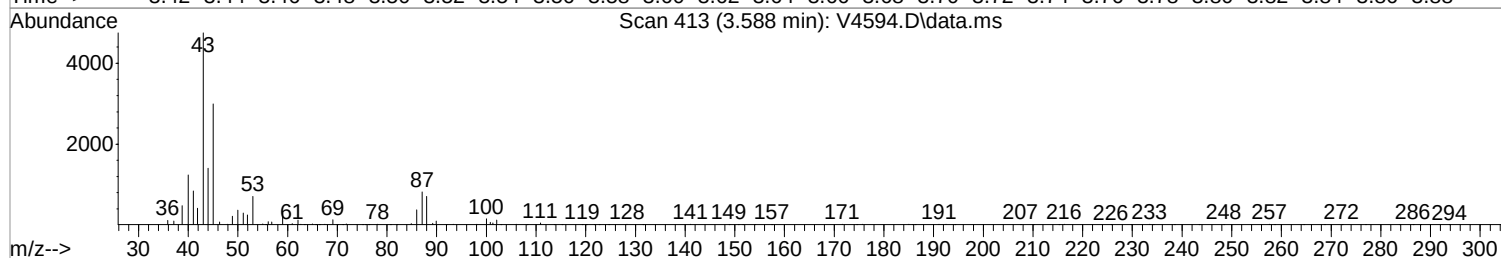
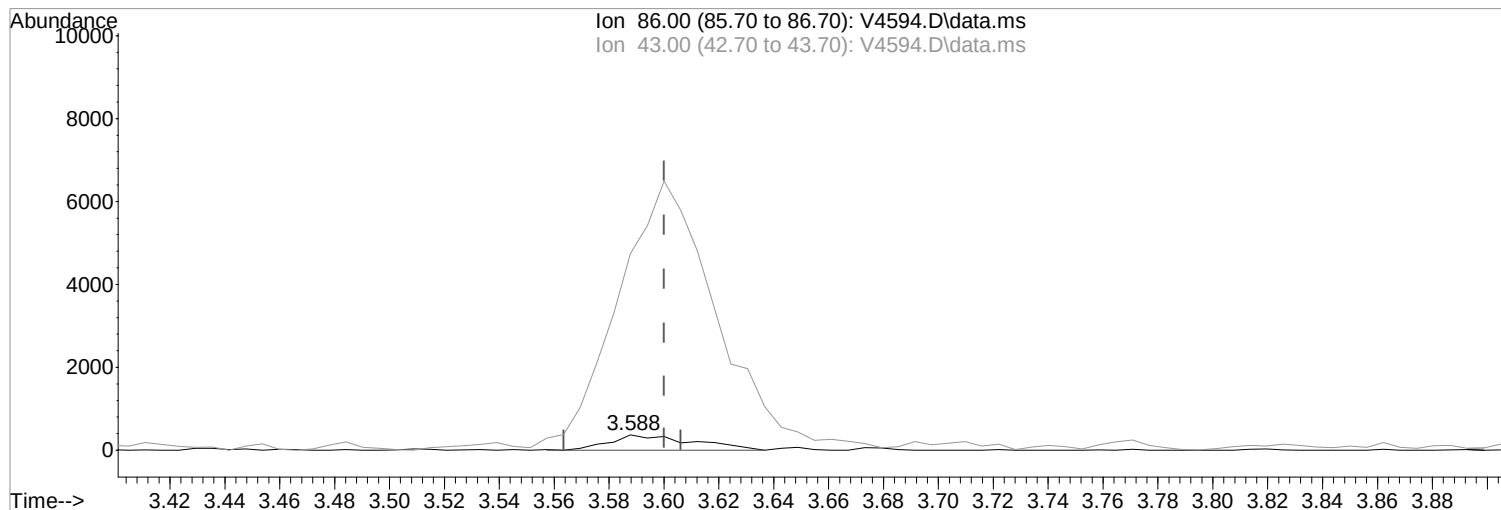
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(28) Vinyl Acetate

3.588min (-0.012) 1.08 ug/L m

response 779

| Ion   | Exp%    | Act%     |
|-------|---------|----------|
| 86.00 | 100     | 100      |
| 43.00 | 1490.50 | 1270.32# |
| 0.00  | 0.00    | 0.00     |
| 0.00  | 0.00    | 0.00     |

Manual Integration:

After

Poor integration.

06/10/22

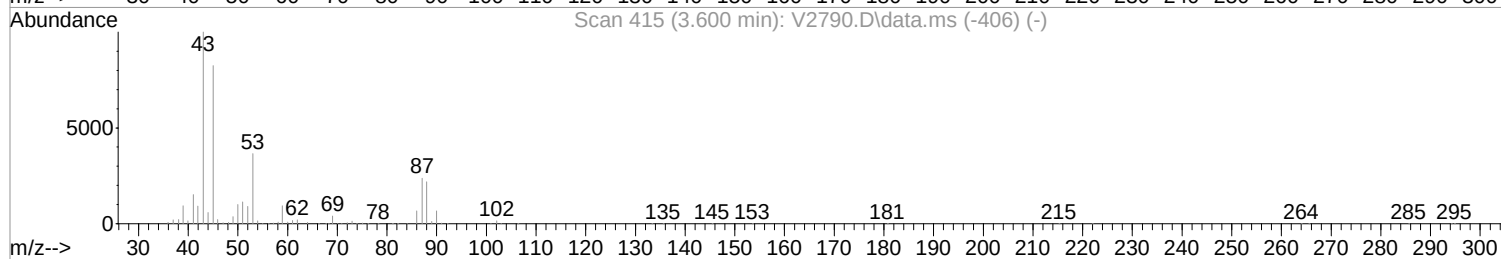
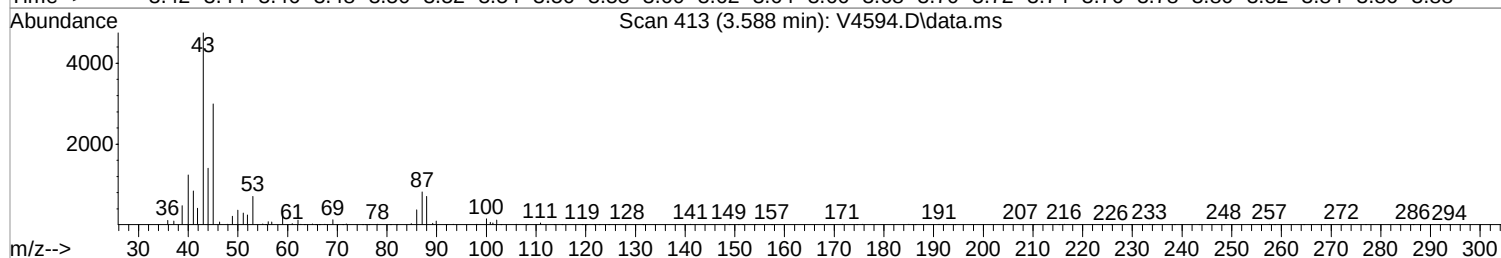
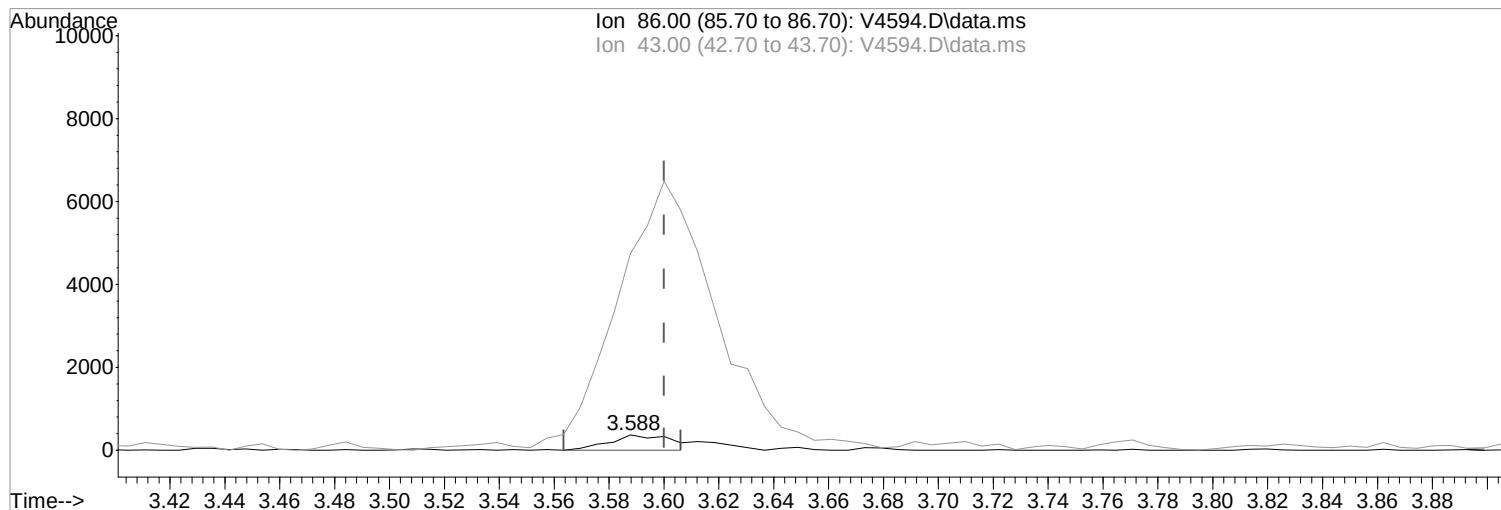
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(28) Vinyl Acetate

Manual Integration:

3.588min (-0.012) 0.79 ug/L

Before

response 568

| Ion   | Exp%    | Act%     |
|-------|---------|----------|
| 86.00 | 100     | 100      |
| 43.00 | 1490.50 | 1270.32# |
| 0.00  | 0.00    | 0.00     |
| 0.00  | 0.00    | 0.00     |

06/10/22

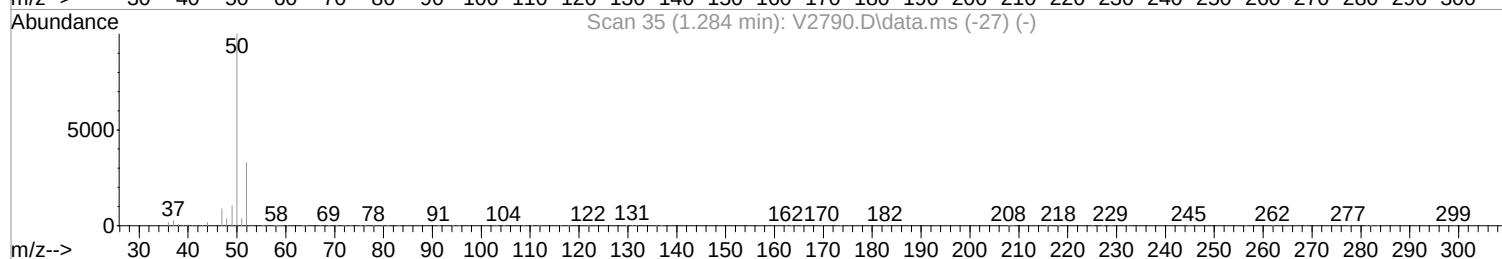
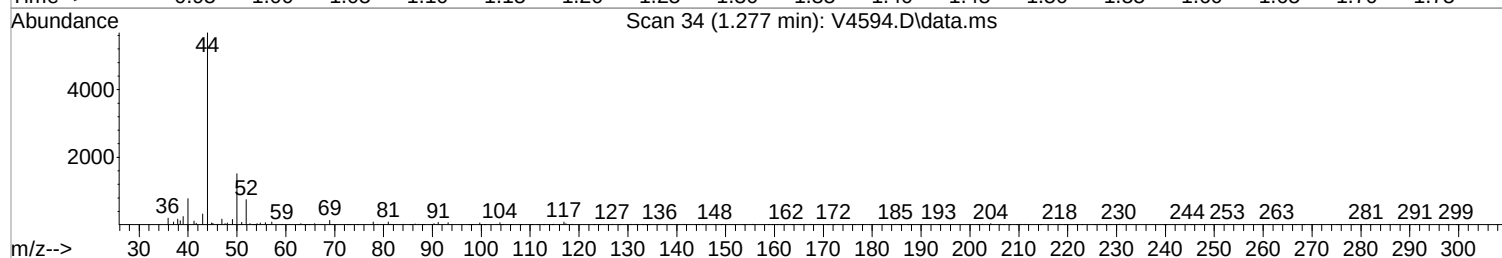
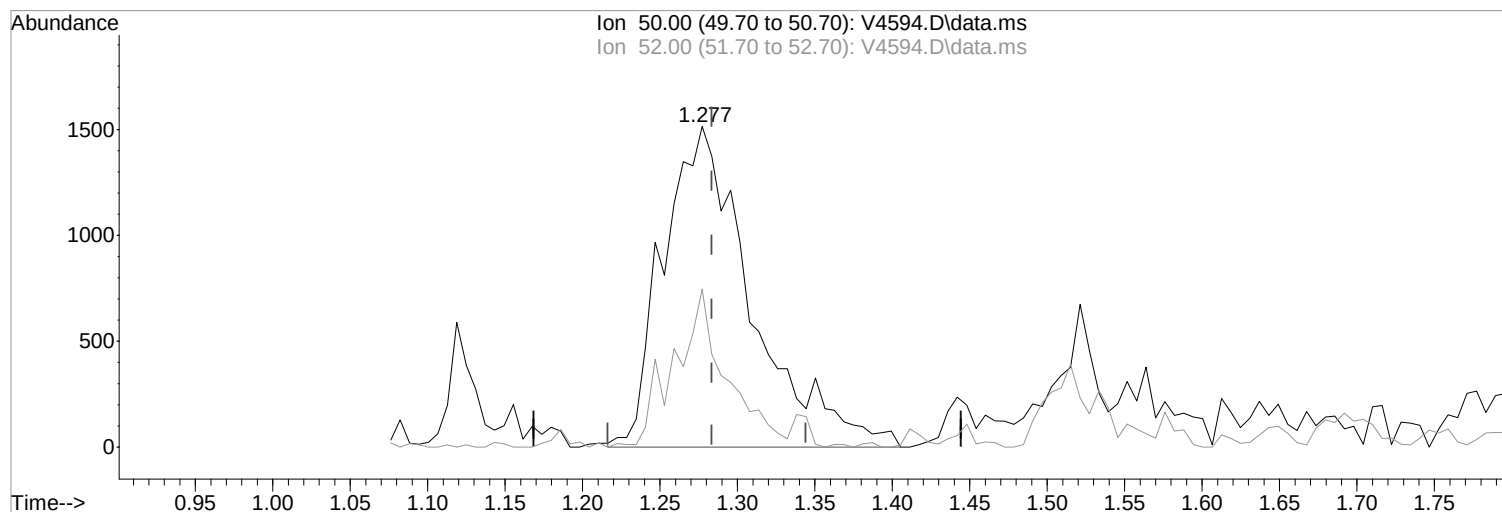
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(3) Chloromethane (P)

1.277min (-0.006) 1.23 ug/L m

response 6007

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 49.27 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

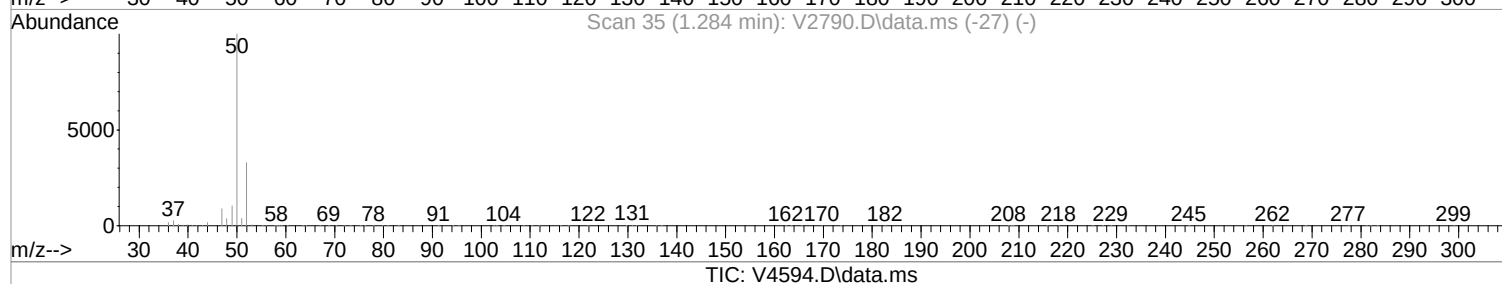
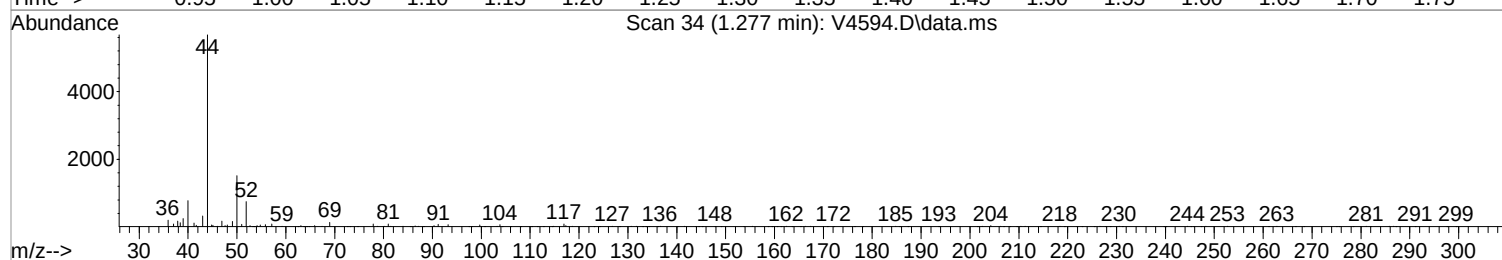
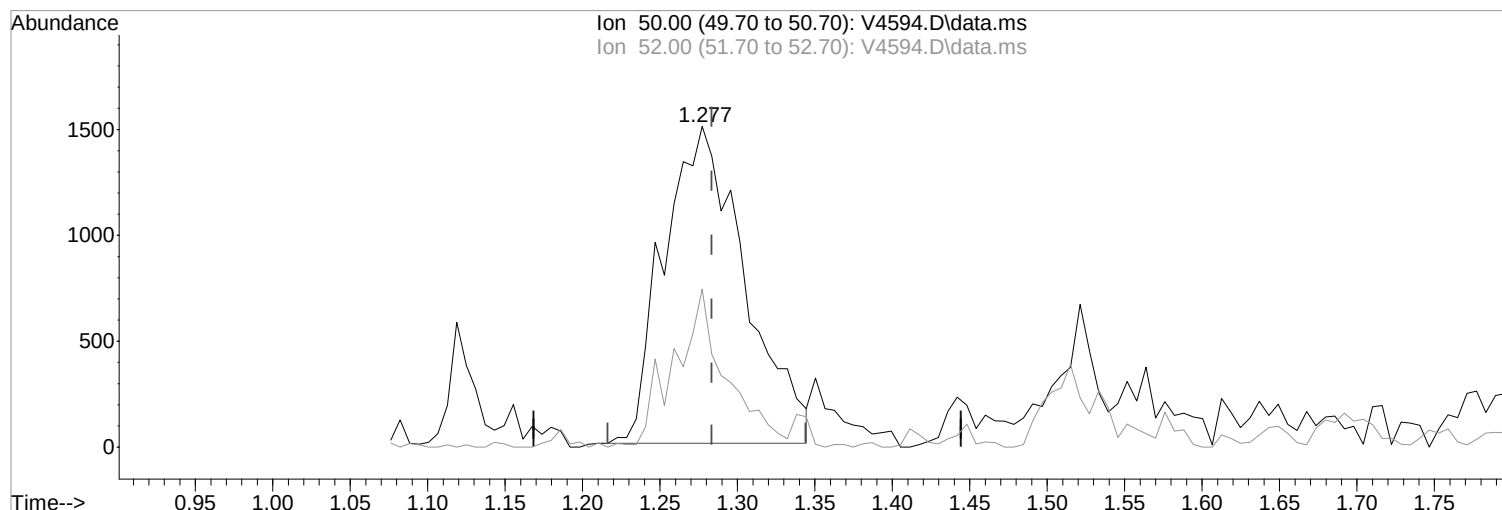
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



(3) Chloromethane (P)

Manual Integration:

1.277min (-0.006) 1.11 ug/L

Before

response 5426

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 51.52 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

06/10/22



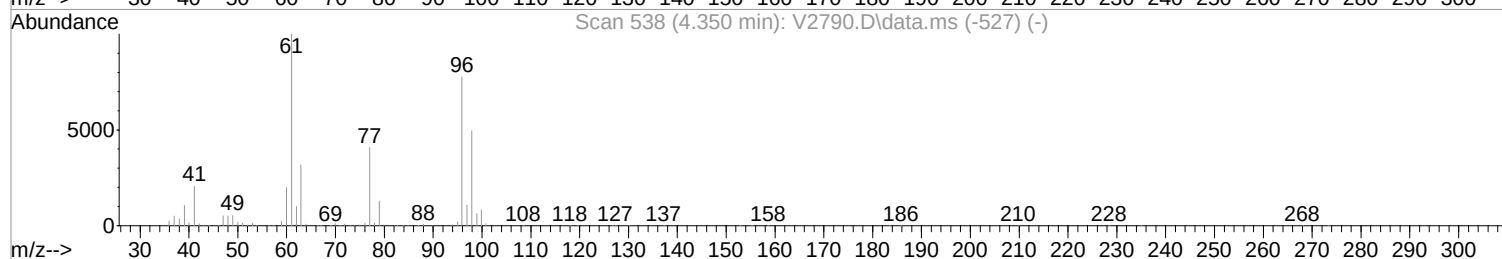
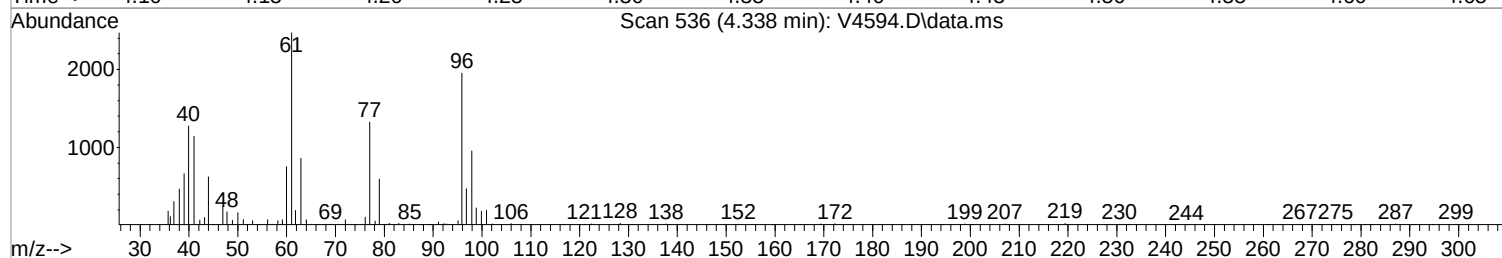
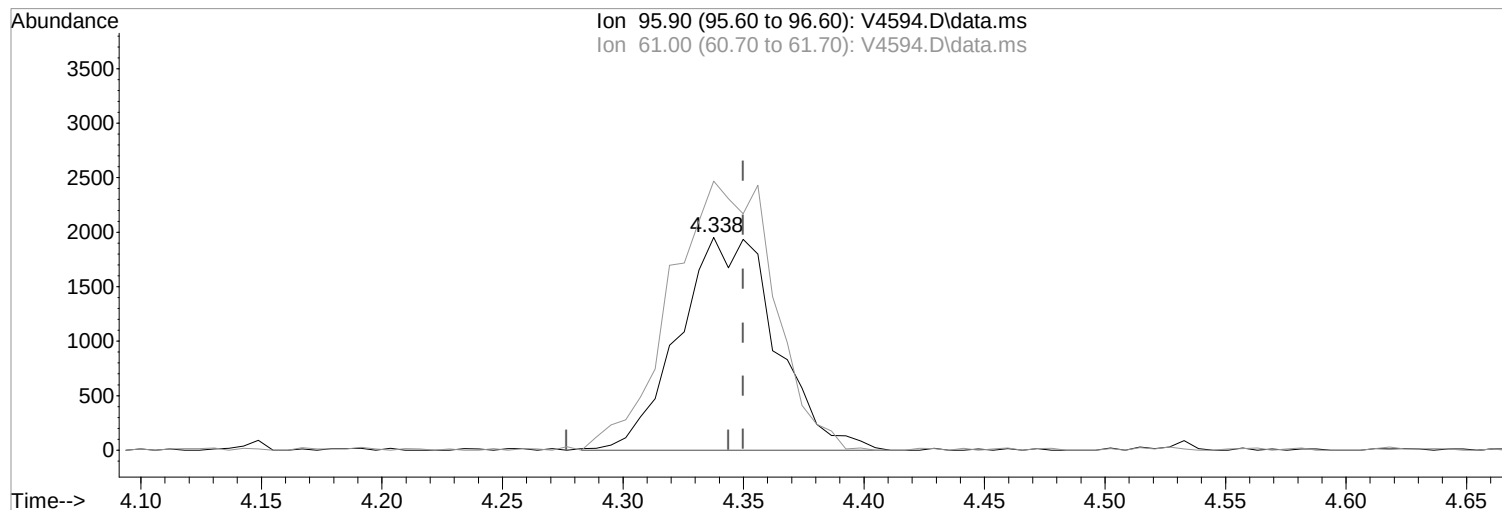
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(33) cis-1,2-Dichloroethene (P)

4.338min (-0.012) 1.06 ug/L m

response 5464

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 95.90 | 100    | 100    |
| 61.00 | 129.80 | 126.43 |
| 0.00  | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

Manual Integration:

After

Poor integration.

06/10/22

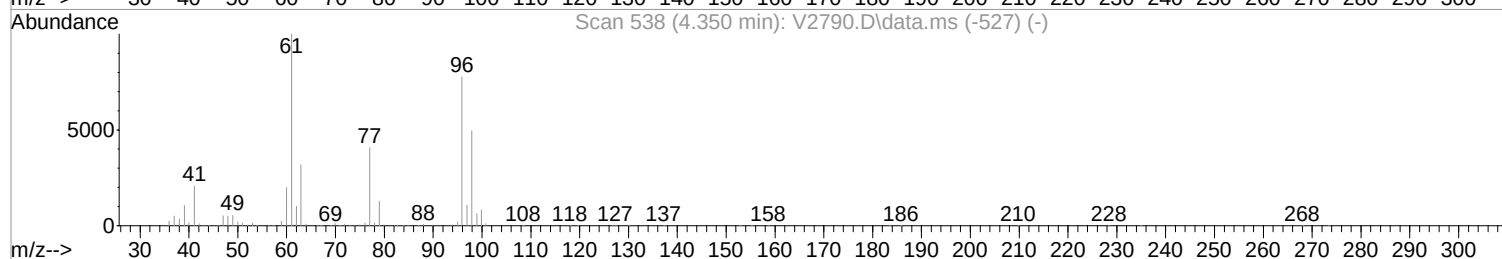
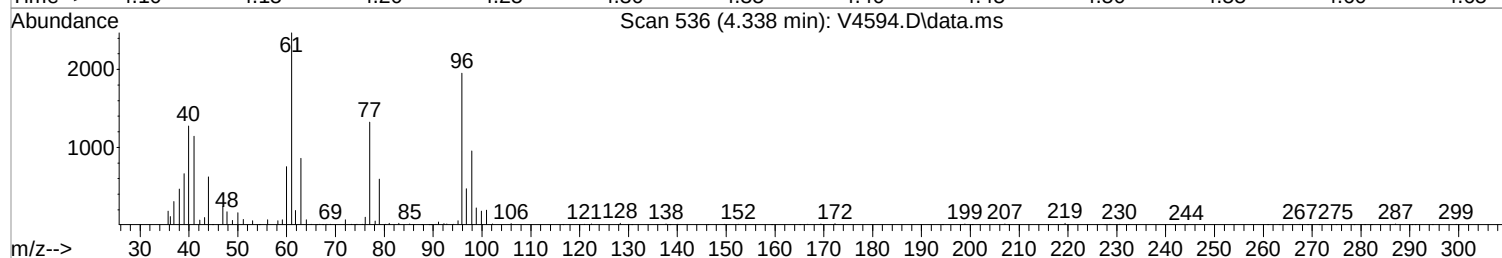
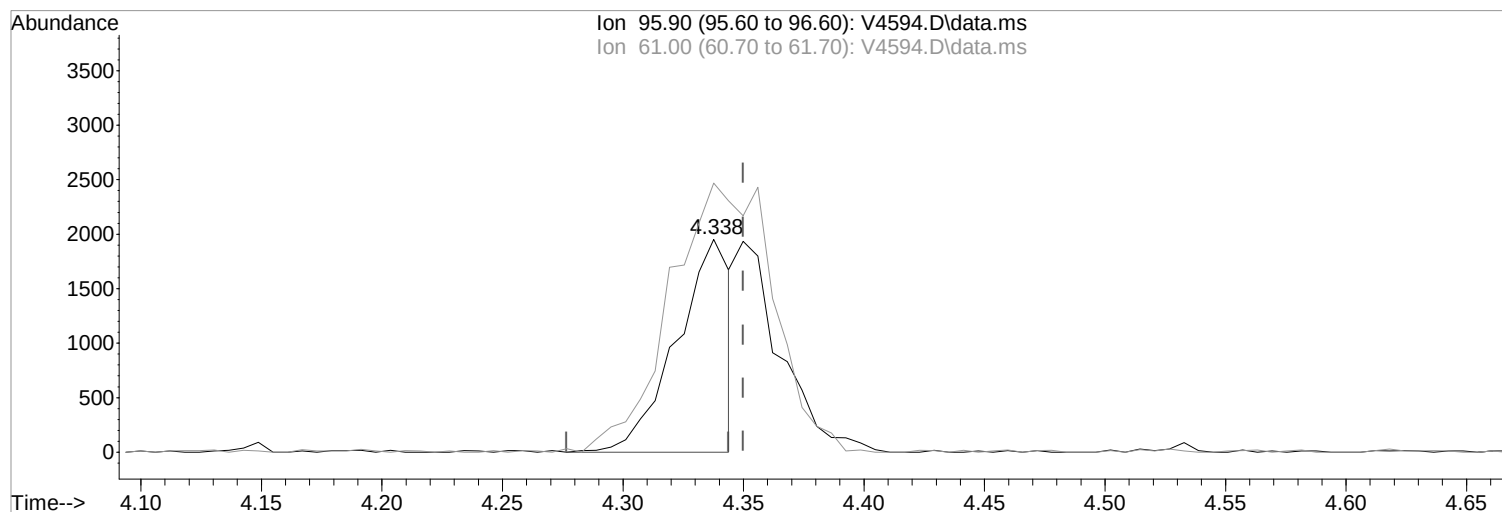
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(33) cis-1,2-Dichloroethene (P)

Manual Integration:

4.338min (-0.012) 0.59 ug/L

Before

response 3034

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 95.90 | 100    | 100    |
| 61.00 | 129.80 | 126.43 |
| 0.00  | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

06/10/22

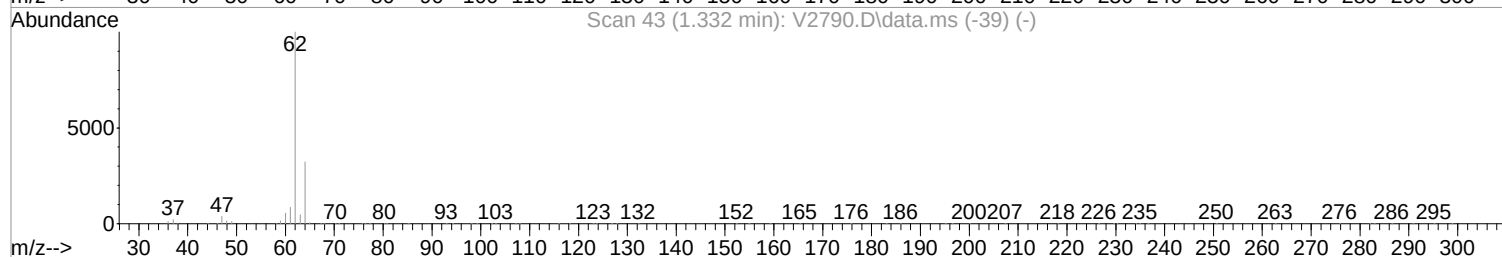
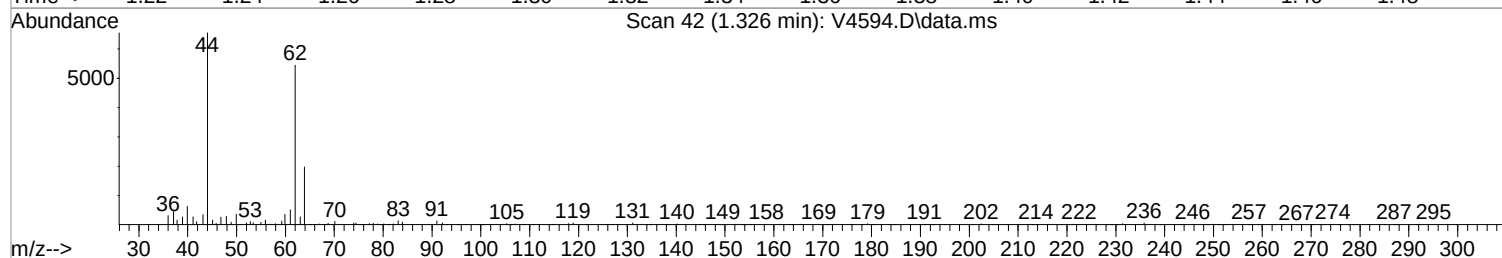
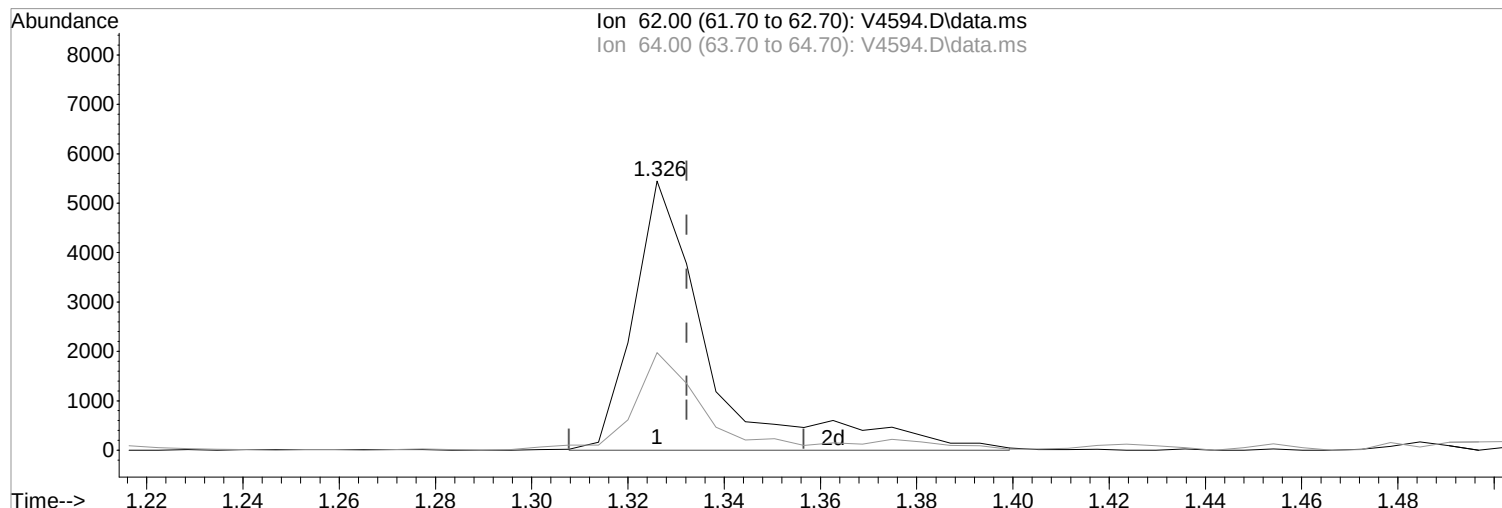
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(4) Vinyl Chloride (P)

1.326min (-0.006) 1.04 ug/L m

response 6007

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 62.00 | 100   | 100   |
| 64.00 | 32.30 | 36.33 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

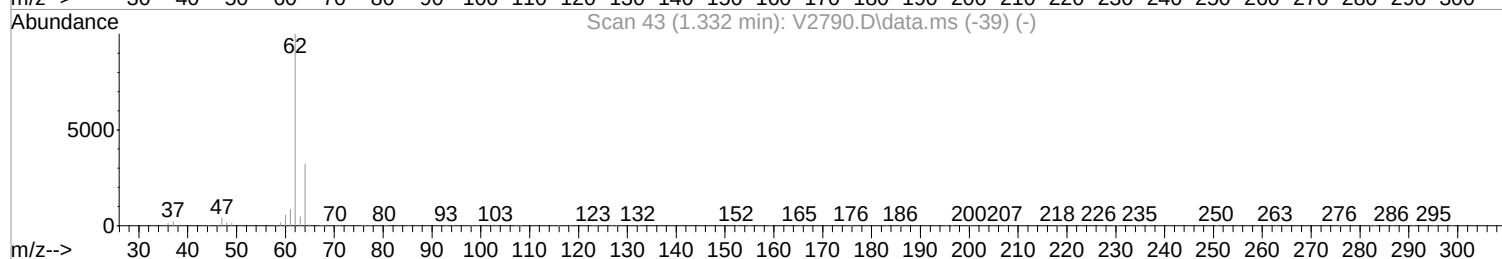
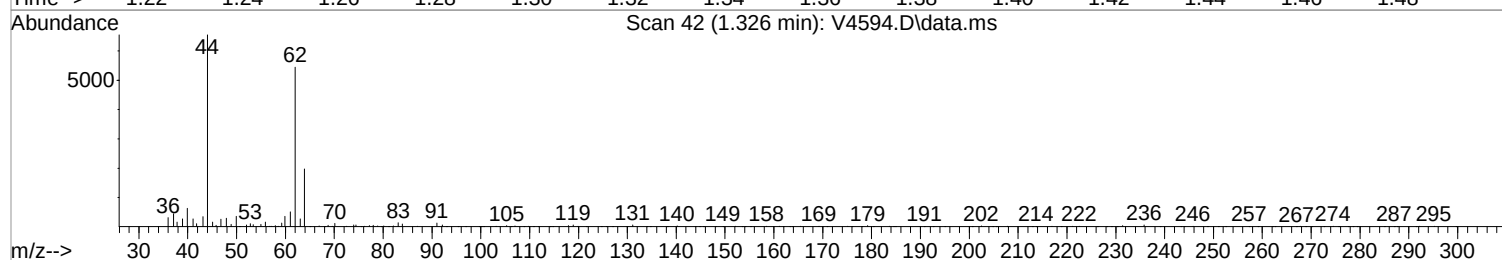
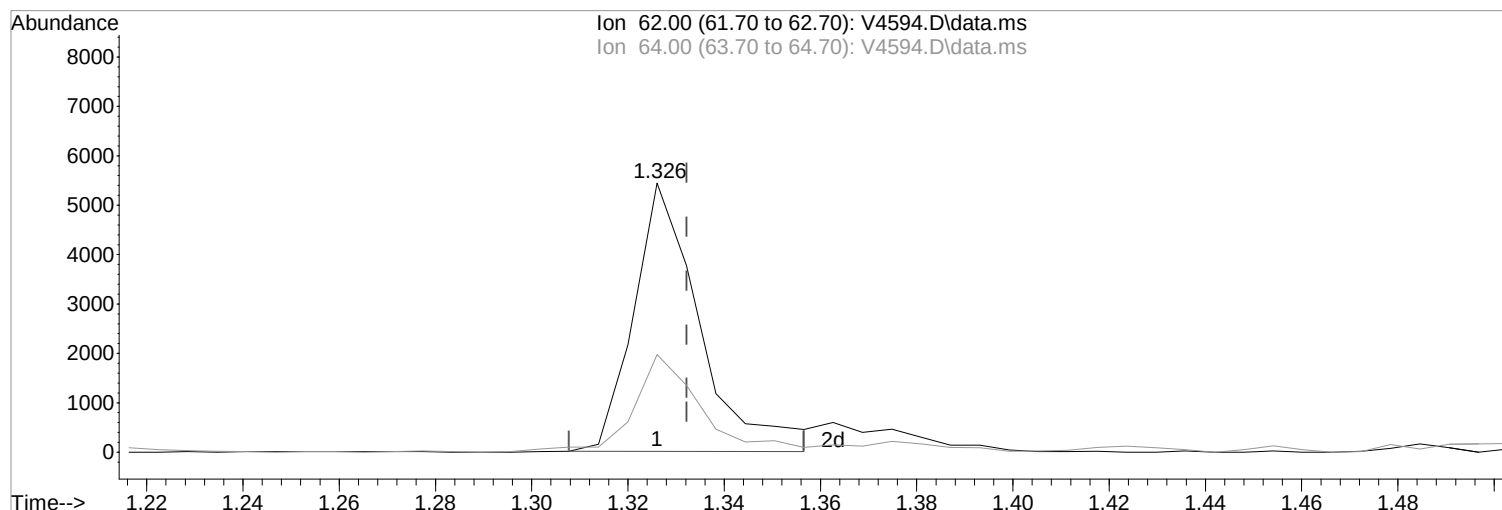
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(4) Vinyl Chloride (P)

Manual Integration:

1.326min (-0.006) 0.90 ug/L

Before

response 5184

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 62.00 | 100   | 100   |
| 64.00 | 32.30 | 36.33 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

06/10/22

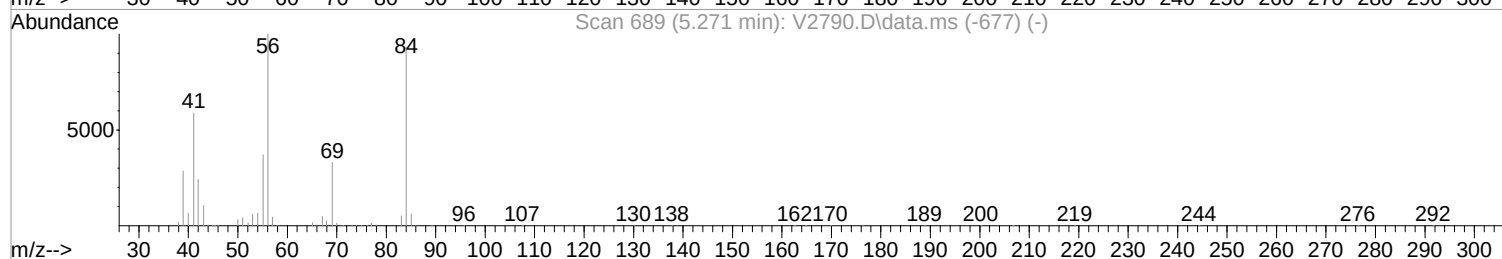
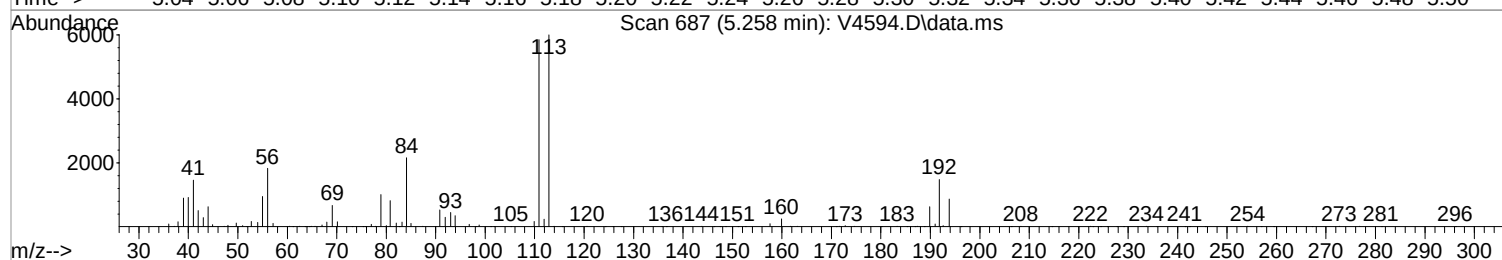
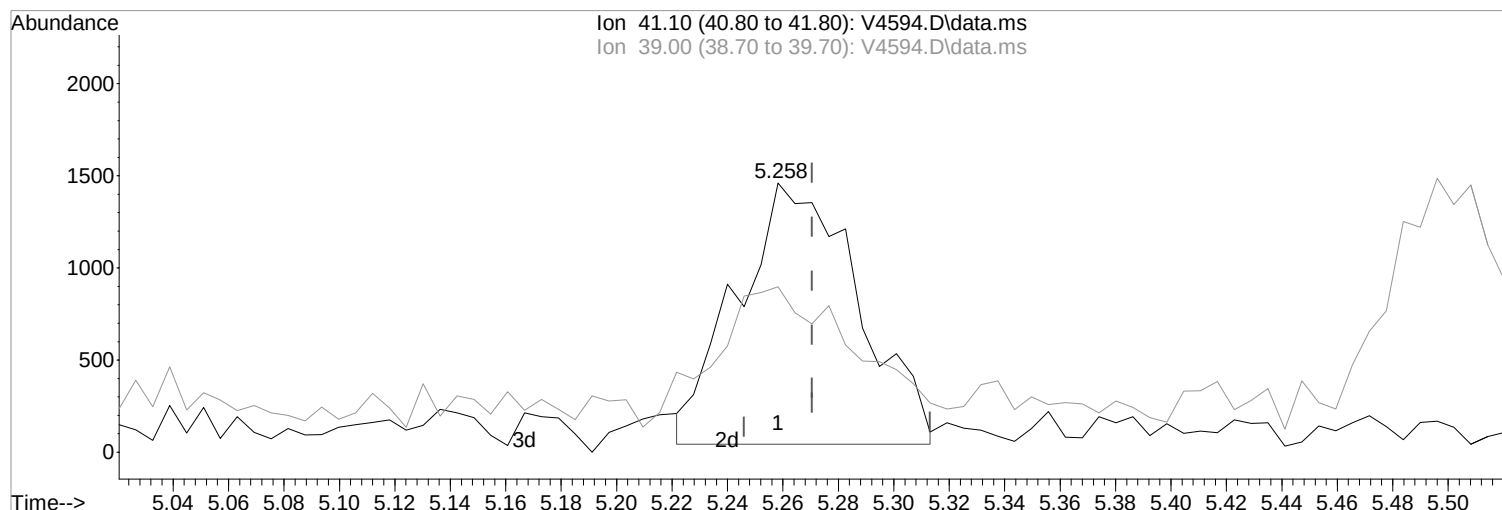
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(43) Cyclohexane (P)

5.258min (-0.012) 1.03 ug/L m

response 4280

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.10 | 100   | 100   |
| 39.00 | 48.80 | 61.51 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

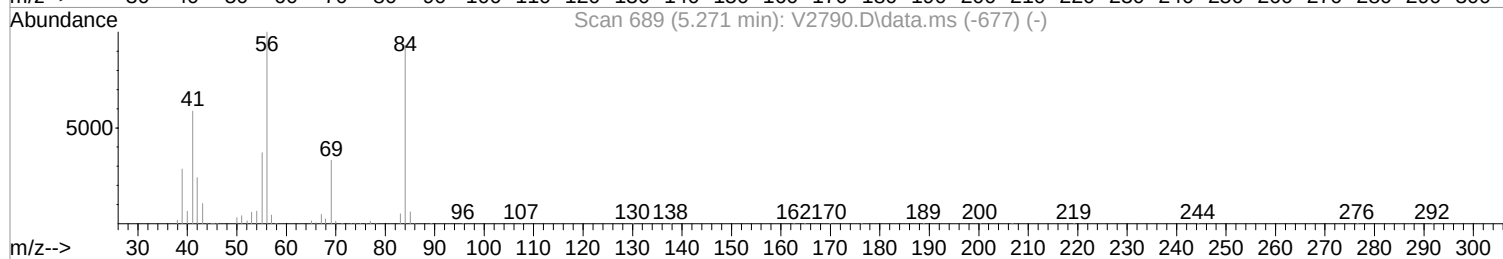
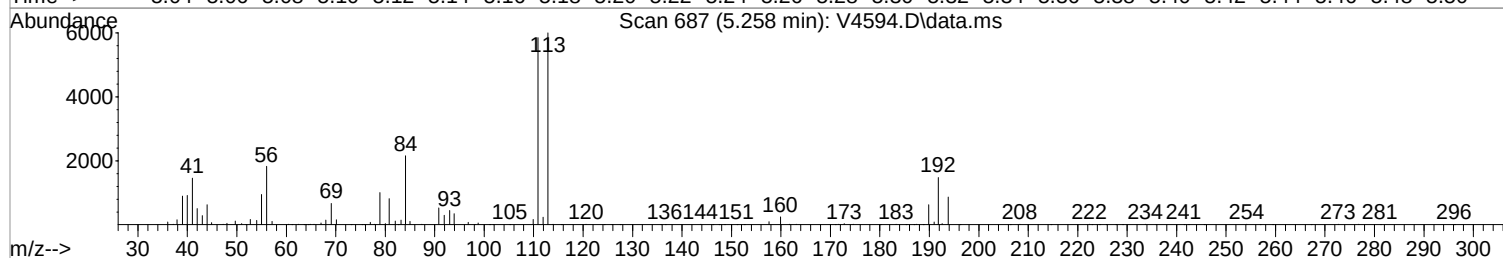
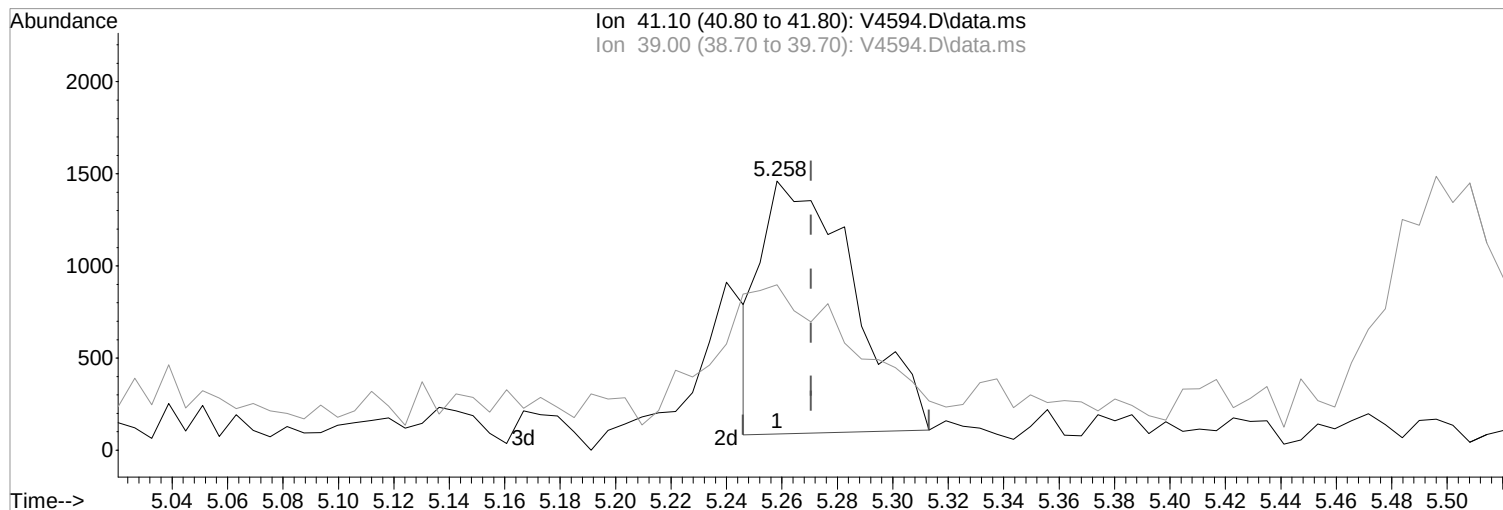
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(43) Cyclohexane (P)

Manual Integration:

5.258min (-0.012) 0.77 ug/L

Before

response 3183

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.10 | 100   | 100   |
| 39.00 | 48.80 | 61.51 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

06/10/22

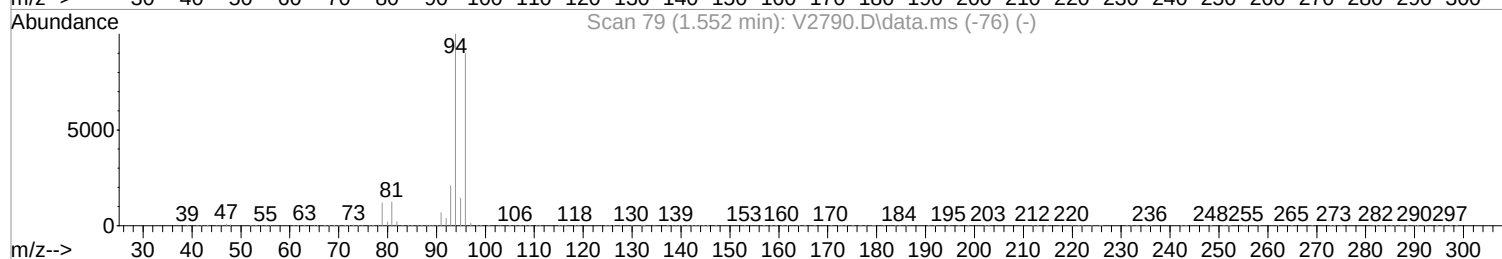
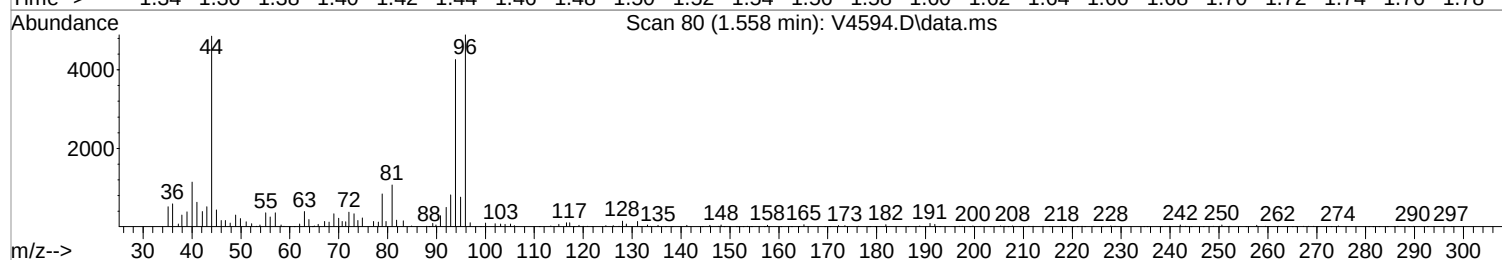
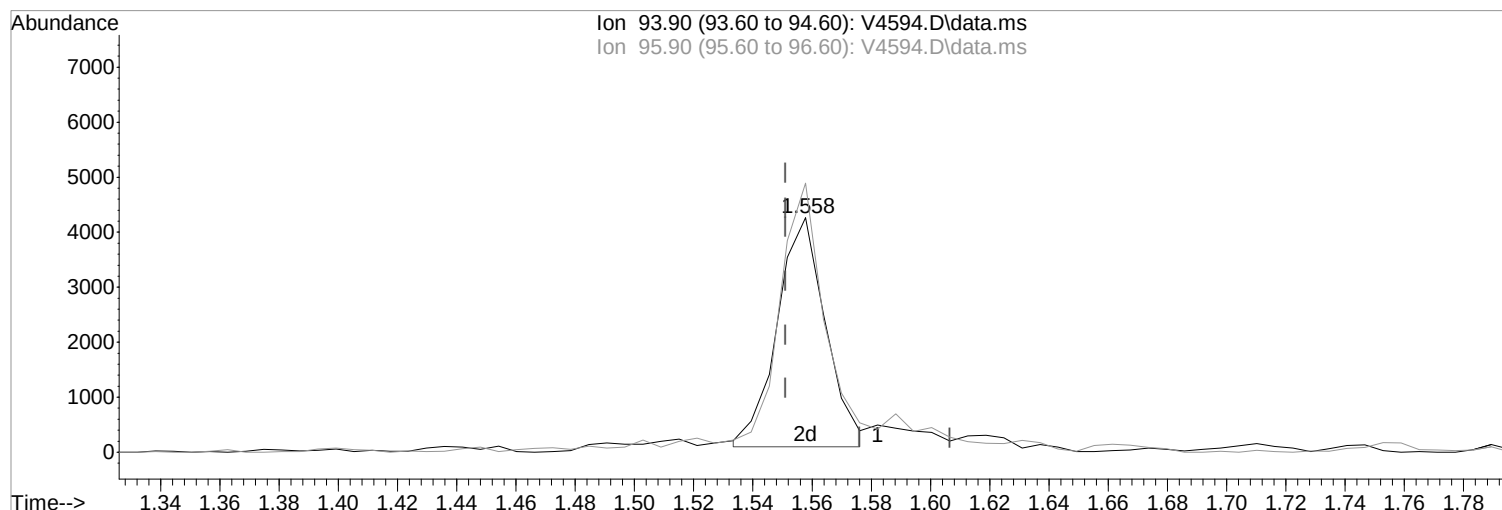
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4594.D\data.ms

(5) Bromomethane (P)

1.558min (+0.007) 1.41 ug/L m

response 4739

| Ion   | Exp%  | Act%    |
|-------|-------|---------|
| 93.90 | 100   | 100     |
| 95.90 | 89.80 | 114.60# |
| 0.00  | 0.00  | 0.00    |
| 0.00  | 0.00  | 0.00    |

Manual Integration:

After

Peak not found.

06/10/22

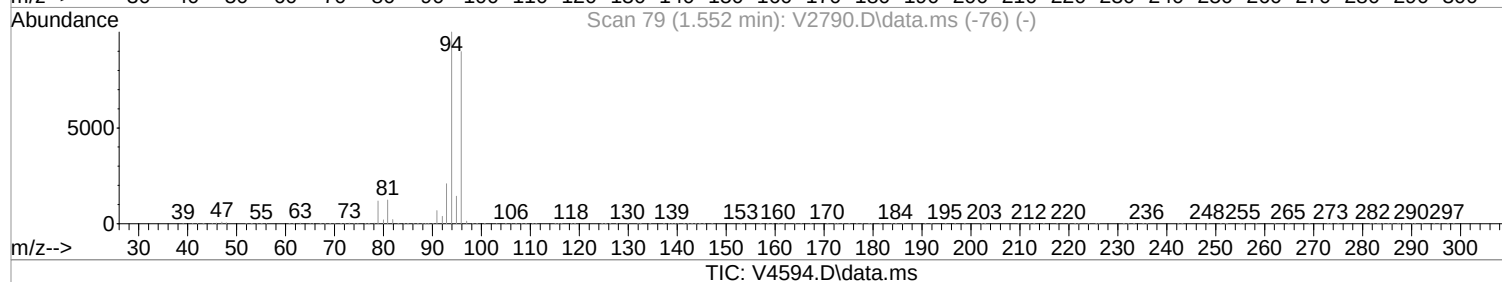
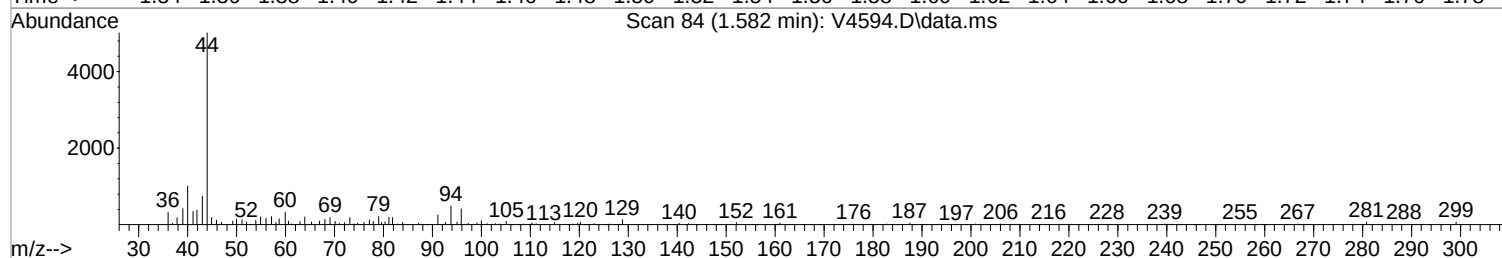
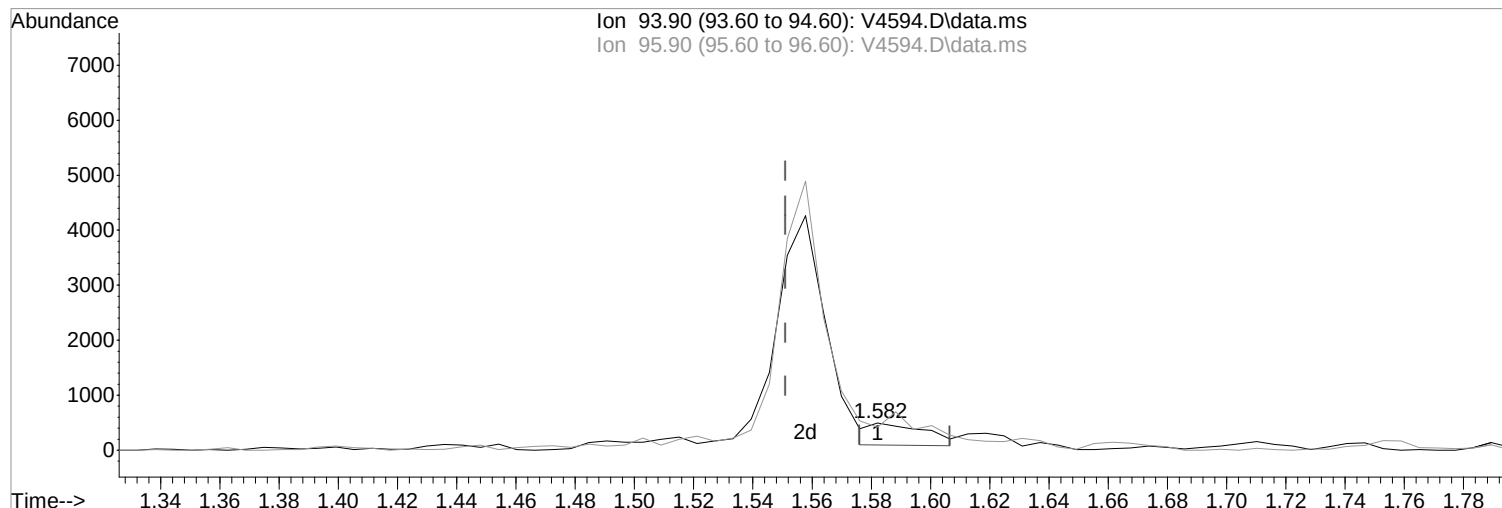
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4594.D  
Acq On : 10 Jun 2022 2:29 pm  
Operator : F.NAEGLER  
Sample : 1.0 PPB STD  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:50:29 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



(5) Bromomethane (P)

Manual Integration:

1.582min (+0.031) 0.16 ug/L

Before

response 521

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 93.90 | 100   | 100   |
| 95.90 | 89.80 | 84.21 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

06/10/22



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4594.D  
 Acq On : 10 Jun 2022 2:29 pm  
 Operator : F.NAEGLER  
 Sample : 1.0 PPB STD  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:53:08 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.356  | 168  | 563133   | 50.00 | ug/L  | -0.01    |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 879916   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 792015   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.037 | 152  | 416370   | 50.00 | ug/L  | 0.00     |

|                               |        |       |          |          |      |         |
|-------------------------------|--------|-------|----------|----------|------|---------|
| System Monitoring Compounds   |        |       |          |          |      |         |
| 44) surr4,Dibrflmethane       | 5.228  | 113   | 62642    | 10.99    | ug/L | 0.00    |
| Spiked Amount                 | 50.000 | Range | 80 - 116 | Recovery | =    | 21.98%# |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65    | 74339    | 10.96    | ug/L | 0.00    |
| Spiked Amount                 | 50.000 | Range | 73 - 125 | Recovery | =    | 21.92%# |
| 64) SURR3,Toluene-d8          | 8.373  | 98    | 242536   | 11.49    | ug/L | 0.00    |
| Spiked Amount                 | 50.000 | Range | 87 - 121 | Recovery | =    | 22.98%# |
| 69) SURR2,BFB                 | 11.050 | 95    | 89107    | 10.99    | ug/L | 0.00    |
| Spiked Amount                 | 50.000 | Range | 85 - 122 | Recovery | =    | 21.98%# |

|                              |       |     |       |       |      |        |
|------------------------------|-------|-----|-------|-------|------|--------|
| Target Compounds             |       |     |       |       |      | Qvalue |
| 2) Dichlorodifluoromethane   | 1.125 | 85  | 4576m | 0.79  | ug/L |        |
| 3) Chloromethane             | 1.277 | 50  | 6007m | 1.23  | ug/L |        |
| 4) Vinyl Chloride            | 1.326 | 62  | 6007m | 1.04  | ug/L |        |
| 5) Bromomethane              | 1.558 | 94  | 4739m | 1.41  | ug/L |        |
| 6) Chloroethane              | 1.637 | 64  | 3778  | 1.08  | ug/L | 99     |
| 7) Freon 21                  | 1.783 | 67  | 9152  | 1.10  | ug/L | 99     |
| 8) Trichlorofluoromethane    | 1.826 | 101 | 8239  | 1.18  | ug/L | 96     |
| 9) Diethyl Ether             | 2.058 | 59  | 3990  | 0.96  | ug/L | 85     |
| 10) Freon 123a               | 2.064 | 67  | 4670  | 0.97  | ug/L | 92     |
| 11) Freon 123                | 2.125 | 83  | 5567  | 0.98  | ug/L | 89     |
| 12) Acrolein                 | 2.173 | 56  | 5551  | 4.91  | ug/L | 92     |
| 13) 1,1-Dicethene            | 2.247 | 96  | 3815  | 0.97  | ug/L | 87     |
| 14) Freon 113                | 2.247 | 101 | 3566  | 0.90  | ug/L | 97     |
| 15) Acetone                  | 2.314 | 43  | 3762  | 1.42  | ug/L | 88     |
| 16) 2-Propanol               | 2.454 | 45  | 11498 | 20.62 | ug/L | 93     |
| 17) Iodomethane              | 2.381 | 142 | 2293  | 0.33  | ug/L | 99     |
| 18) Carbon Disulfide         | 2.436 | 76  | 9914  | 0.88  | ug/L | 96     |
| 19) Acetonitrile             | 2.582 | 41  | 6009m | 5.18  | ug/L |        |
| 20) Allyl Chloride           | 2.582 | 76  | 2342  | 0.95  | ug/L | # 85   |
| 21) Methyl Acetate           | 2.619 | 43  | 7724  | 1.24  | ug/L | 95     |
| 22) Methylene Chloride       | 2.704 | 84  | 4514  | 0.93  | ug/L | 93     |
| 23) TBA                      | 2.862 | 59  | 19421 | 19.61 | ug/L | 94     |
| 24) Acrylonitrile            | 2.990 | 53  | 14111 | 5.23  | ug/L | 96     |
| 25) Methyl-t-Butyl Ether     | 3.003 | 73  | 15303 | 0.95  | ug/L | 100    |
| 26) trans-1,2-Dichloroethene | 2.990 | 96  | 3959  | 0.89  | ug/L | 96     |
| 27) 1,1-Dicethane            | 3.502 | 63  | 7416  | 0.96  | ug/L | 98     |
| 28) Vinyl Acetate            | 3.588 | 86  | 779m  | 1.08  | ug/L |        |
| 29) DIPE                     | 3.612 | 45  | 14648 | 1.12  | ug/L | 97     |
| 30) 2-Chloro-1,3-Butadiene   | 3.606 | 53  | 6152  | 0.95  | ug/L | 84     |
| 31) ETBE                     | 4.143 | 59  | 14092 | 1.05  | ug/L | 94     |
| 32) 2,2-Dichloropropane      | 4.325 | 77  | 6382  | 1.03  | ug/L | 97     |
| 33) cis-1,2-Dichloroethene   | 4.338 | 96  | 5464m | 1.06  | ug/L |        |
| 34) 2-Butanone               | 4.435 | 43  | 4010  | 1.11  | ug/L | 91     |
| 35) Propionitrile            | 4.545 | 54  | 6566  | 5.82  | ug/L | 96     |
| 36) Bromochloromethane       | 4.752 | 130 | 3704  | 1.01  | ug/L | 91     |
| 37) Methacrylonitrile        | 4.801 | 67  | 3169  | 1.12  | ug/L | # 55   |
| 38) Tetrahydrofuran          | 4.880 | 42  | 2805  | 1.20  | ug/L | 95     |
| 39) Chloroform               | 4.929 | 83  | 9037  | 1.09  | ug/L | 86     |
| 40) 1,1,1-Trichloroethane    | 5.203 | 97  | 7349  | 1.00  | ug/L | 92     |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4594.D  
 Acq On : 10 Jun 2022 2:29 pm  
 Operator : F.NAEGLER  
 Sample : 1.0 PPB STD  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:53:08 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|--------------------------------|--------|------|----------|-------|-------|----------|
| 41) TAME                       | 6.087  | 73   | 14823    | 1.05  | ug/L  | 87       |
| 43) Cyclohexane                | 5.258  | 41   | 4280m    | 1.03  | ug/L  |          |
| 45) Carbontetrachloride        | 5.472  | 117  | 5705     | 0.81  | ug/L  | 92       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 5740     | 0.89  | ug/L  | 86       |
| 48) Benzene                    | 5.837  | 78   | 18091    | 0.93  | ug/L  | 96       |
| 49) 1,2-Dichloroethane         | 5.911  | 62   | 7258     | 0.94  | ug/L  | 92       |
| 50) Iso-Butyl Alcohol          | 5.917  | 43   | 7688     | 18.67 | ug/L  | 92       |
| 51) n-Heptane                  | 6.313  | 43   | 5721     | 1.23  | ug/L  | 83       |
| 52) 1-Butanol                  | 6.916  | 56   | 9806     | 35.88 | ug/L  | 92       |
| 53) Trichloroethene            | 6.813  | 130  | 5461     | 0.90  | ug/L  | 94       |
| 54) Methylcyclohexane          | 7.038  | 55   | 5552     | 1.02  | ug/L  | 93       |
| 55) 1,2-Dicloropropane         | 7.124  | 63   | 5008     | 0.97  | ug/L  | 92       |
| 56) Dibromomethane             | 7.276  | 93   | 3726     | 0.95  | ug/L  | 87       |
| 57) 1,4-Dioxane                | 7.361  | 88   | 2665     | 22.03 | ug/L  | 90       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 4397     | 0.90  | ug/L  | 93       |
| 59) Bromodichloromethane       | 7.514  | 83   | 6462     | 0.87  | ug/L  | 100      |
| 60) 2-Nitropropane             | 7.837  | 41   | 3638     | 1.69  | ug/L  | 92       |
| 61) 2-Chloroethylvinyl Ether   | 7.947  | 63   | 2850     | 0.72  | ug/L  | 79       |
| 62) cis-1,3-Dichloropropene    | 8.075  | 75   | 6548     | 0.74  | ug/L  | 97       |
| 63) 4-Methyl-2-pentanone       | 8.313  | 43   | 7391     | 1.00  | ug/L  | 78       |
| 65) Toluene                    | 8.447  | 91   | 20108    | 0.93  | ug/L  | 97       |
| 66) trans-1,3-Dichloropropene  | 8.758  | 75   | 6448     | 0.79  | ug/L  | 86       |
| 67) Ethyl Methacrylate         | 8.892  | 69   | 7060     | 0.85  | ug/L  | 86       |
| 68) 1,1,2-Trichloroethane      | 8.959  | 97   | 5016     | 0.93  | ug/L  | 96       |
| 71) Tetrachloroethene          | 9.062  | 164  | 3786     | 0.86  | ug/L  | 87       |
| 72) 2-Hexanone                 | 9.270  | 43   | 5620     | 1.04  | ug/L  | 88       |
| 73) 1,3-Dichloropropane        | 9.129  | 76   | 8980     | 1.00  | ug/L  | 96       |
| 74) Dibromochloromethane       | 9.361  | 129  | 5068     | 0.81  | ug/L  | 96       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 9791     | 0.94  | ug/L  | 86       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 5468     | 0.93  | ug/L  | 100      |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 7815     | 0.94  | ug/L  | 96       |
| 78) Chlorobenzene              | 9.971  | 112  | 14782    | 0.99  | ug/L  | 94       |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 6076     | 0.81  | ug/L  | 92       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 4618     | 0.83  | ug/L  | 90       |
| 81) Ethylbenzene               | 10.087 | 106  | 7211     | 0.98  | ug/L  | 94       |
| 82) (m+p)Xylene                | 10.202 | 106  | 16723    | 1.80  | ug/L  | 97       |
| 83) o-Xylene                   | 10.574 | 106  | 8326     | 0.92  | ug/L  | 97       |
| 84) Styrene                    | 10.593 | 104  | 13475    | 0.85  | ug/L  | 93       |
| 85) Bromoform                  | 10.751 | 173  | 3592     | 0.76  | ug/L  | 81       |
| 86) 2-Chlorobenzotrifluoride   | 10.836 | 180  | 7391     | 0.87  | ug/L  | 89       |
| 87) Isopropylbenzene           | 10.916 | 105  | 19701    | 0.89  | ug/L  | 98       |
| 88) Cyclohexanone              | 11.007 | 55   | 22420    | 20.46 | ug/L  | 98       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 2236     | 0.98  | ug/L  | 93       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 7530     | 1.02  | ug/L  | 98       |
| 92) Bromobenzene               | 11.172 | 156  | 6439     | 0.94  | ug/L  | 93       |
| 93) 1,2,3-Trichloropropane     | 11.233 | 110  | 2690     | 0.93  | ug/L  | 97       |
| 94) n-Propylbenzene            | 11.281 | 91   | 23551    | 0.90  | ug/L  | 97       |
| 95) 2-Chlorotoluene            | 11.342 | 91   | 15021    | 0.93  | ug/L  | 94       |
| 96) 3-Chlorotoluene            | 11.403 | 91   | 15769    | 0.91  | ug/L  | 93       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 17405    | 0.94  | ug/L  | 97       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 16858    | 0.87  | ug/L  | 92       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 14820    | 0.89  | ug/L  | 99       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 17031    | 0.88  | ug/L  | 92       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 5651     | 0.84  | ug/L  | 93       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 21645    | 0.95  | ug/L  | 99       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 18277    | 0.90  | ug/L  | 97       |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4594.D  
 Acq On : 10 Jun 2022 2:29 pm  
 Operator : F.NAEGLER  
 Sample : 1.0 PPB STD  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 14:53:08 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|------|--------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 11223    | 0.94 | ug/L   | 93       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 12878    | 1.05 | ug/L   | 98       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 5223     | 0.86 | ug/L   | 100      |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 5408     | 0.80 | ug/L   | 98       |
| 108) n-Butylbenzene            | 12.354 | 91   | 16429    | 0.99 | ug/L   | 94       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 11741    | 0.99 | ug/L   | 97       |
| 110) 1,2-Dibromo-3-chloropr... | 13.007 | 157  | 1995     | 0.91 | ug/L # | 85       |
| 111) Trielution Dichlorotol... | 13.116 | 125  | 26661    | 2.68 | ug/L   | 96       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 8045     | 0.91 | ug/L   | 94       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 19246    | 1.78 | ug/L   | 95       |
| 114) 1,2,4-Tcbenzene           | 13.647 | 180  | 8063     | 0.94 | ug/L # | 79       |
| 115) Hexachlorobt              | 13.781 | 225  | 3579     | 0.96 | ug/L   | 97       |
| 116) Naphthalen                | 13.842 | 128  | 23214    | 0.92 | ug/L   | 98       |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 8939     | 1.04 | ug/L   | 97       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 4461     | 0.80 | ug/L   | 99       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 3762m    | 0.72 | ug/L   |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

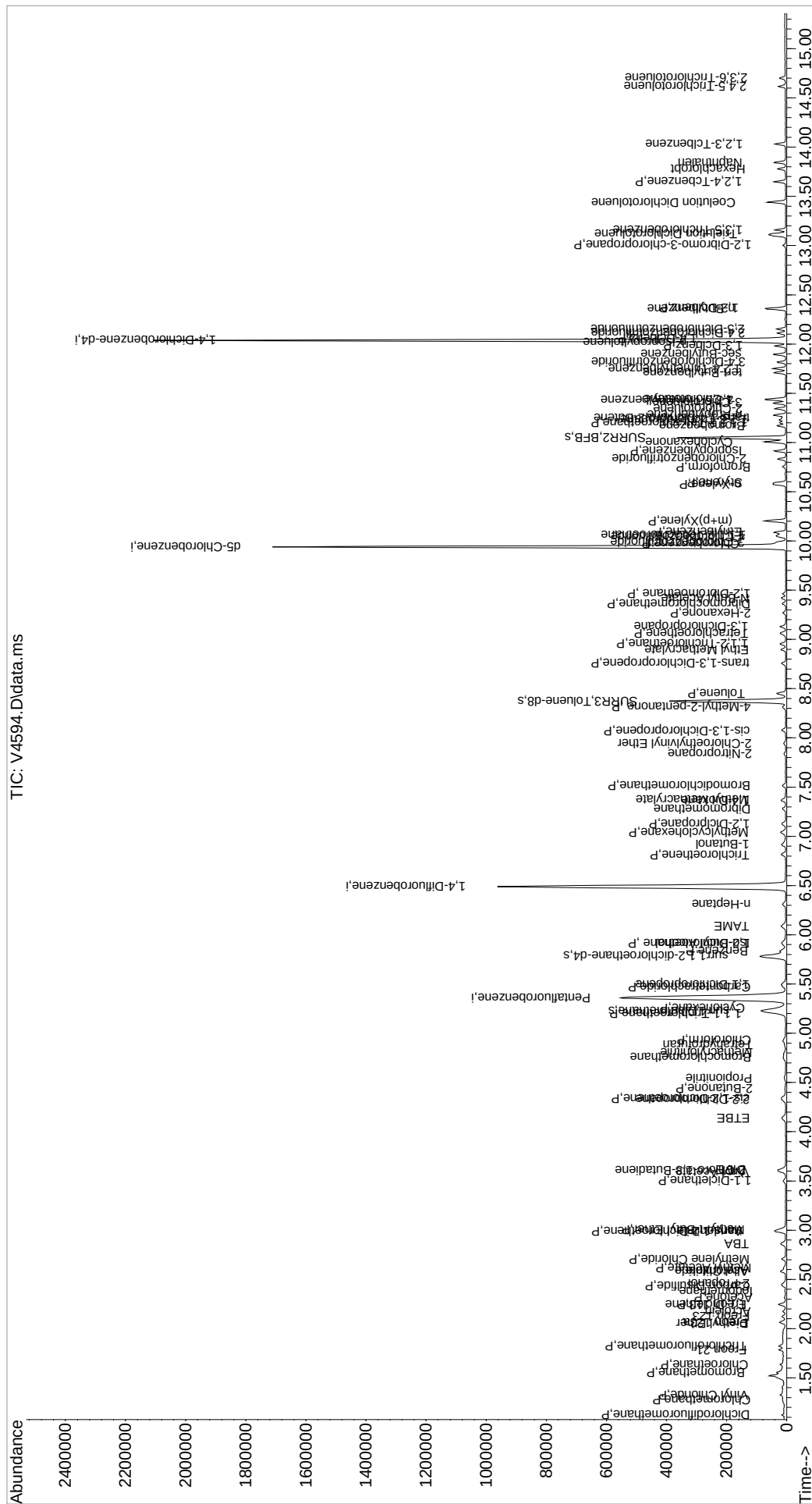
## Quantitation Report (QT Reviewed)

|           |   |   |                                  |
|-----------|---|---|----------------------------------|
| Data Path | : | : | I:\ACQUDATA\MSV0A14\Data\061022\ |
| Data File | : | : | V4594.D                          |
| Acq On    | : | : | 10 Jun 2022 2:29 pm              |
| Operator  | : | : | F.NAEGLER                        |
| Sample    | : | : | 1.0 PPB STD                      |
| Misc      | : | : |                                  |
| ALS Vial  | : | : | 3 Sample Multiplier: 1           |

Inst : MSV0A14

ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 10 14:53:08 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



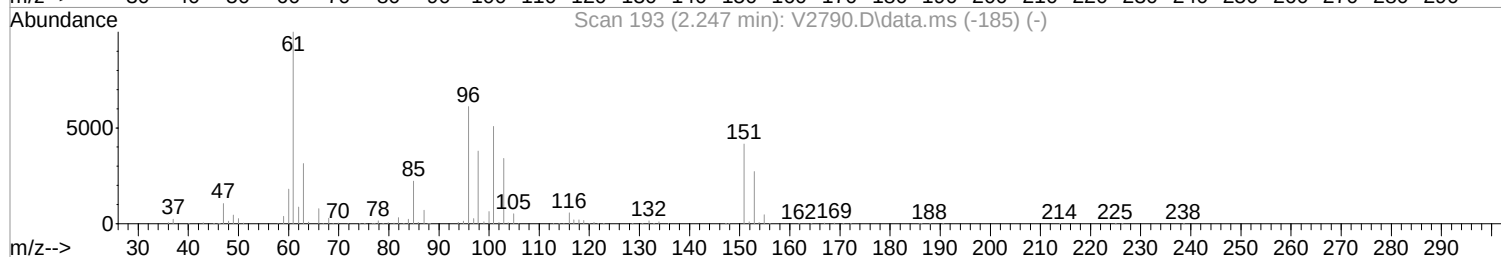
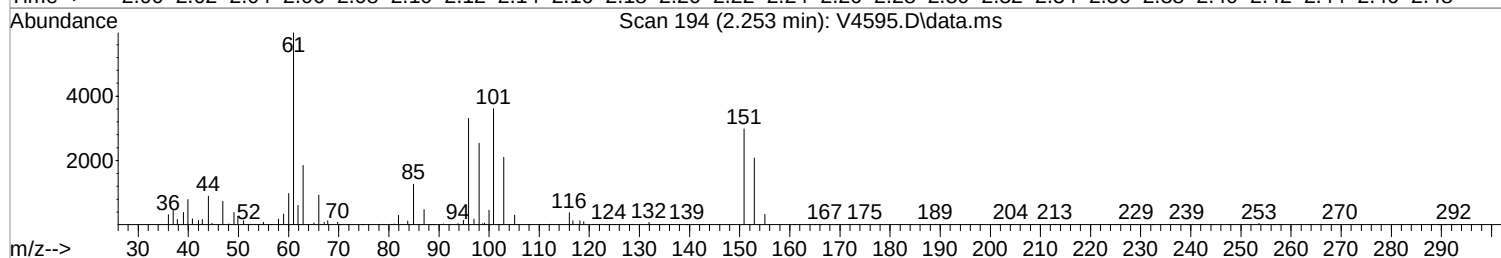
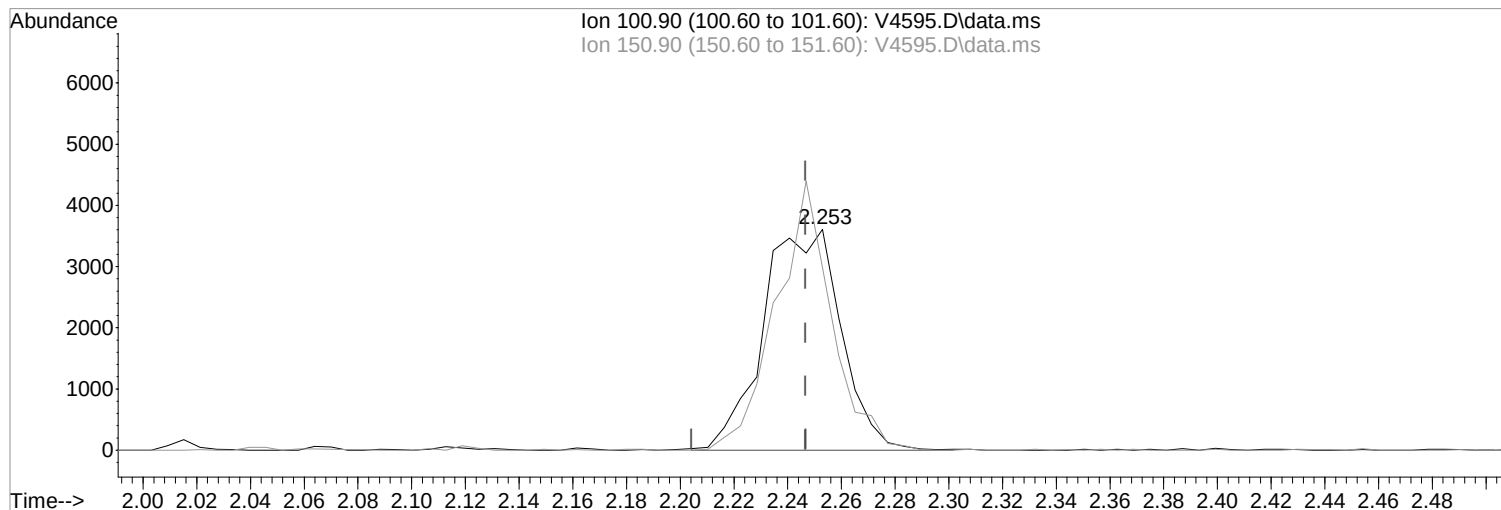
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(14) Freon 113 (P)

2.253min (+0.006) 1.79 ug/L m

response 7246

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 100.90 | 100   | 100   |
| 150.90 | 81.60 | 82.73 |
| 0.00   | 0.00  | 0.00  |
| 0.00   | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

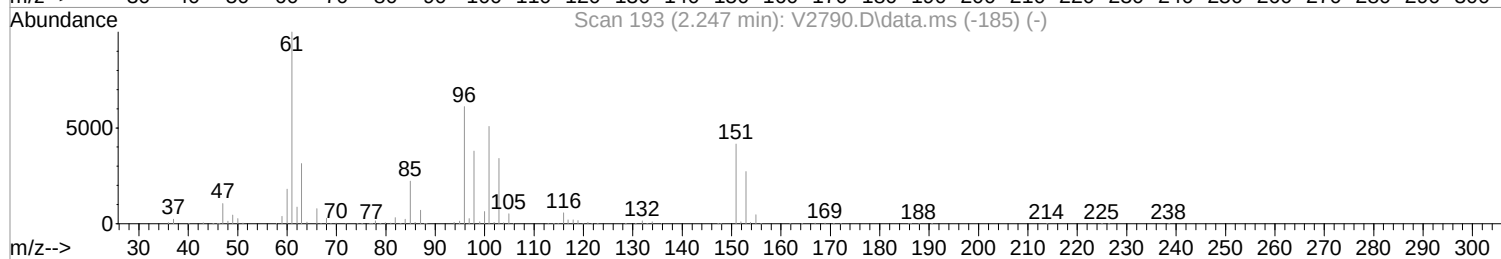
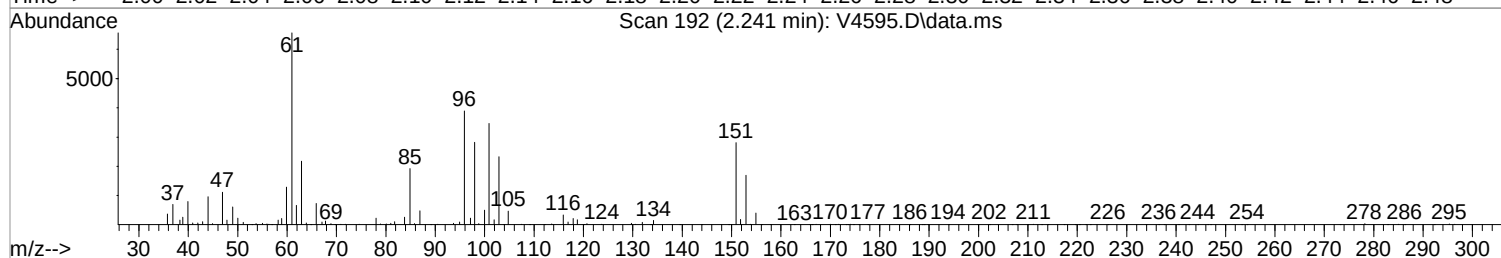
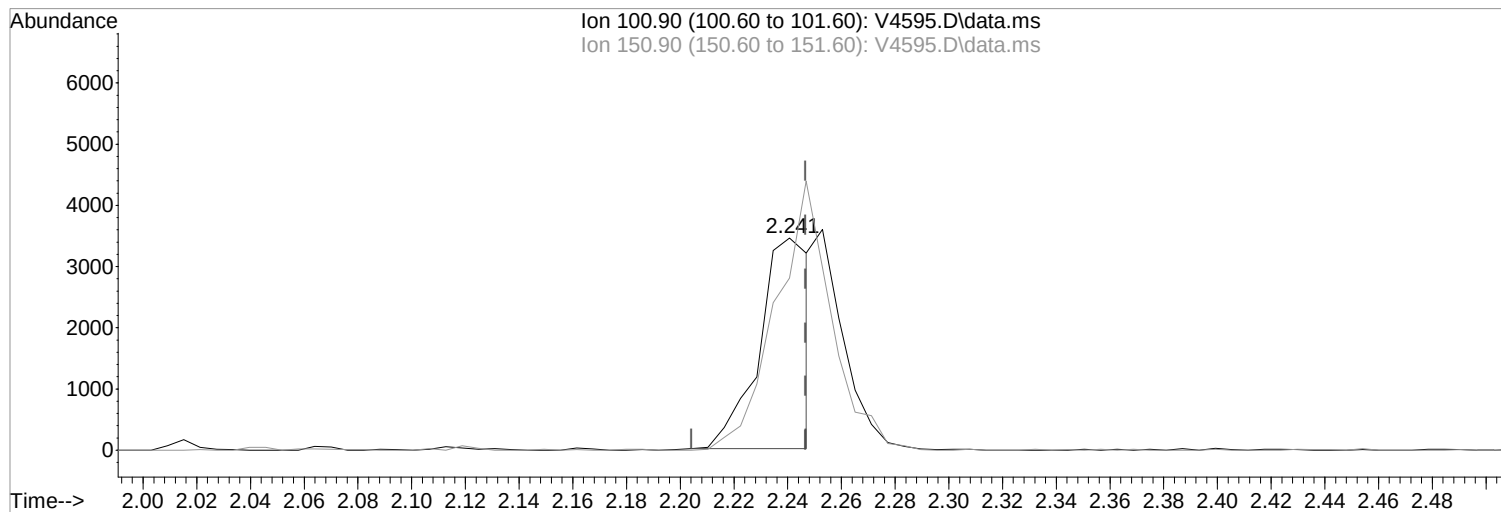
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(14) Freon 113 (P)

Manual Integration:

2.241min (-0.006) 1.11 ug/L

Before

response 4480

| Ion    | Exp%  | Act%  |
|--------|-------|-------|
| 100.90 | 100   | 100   |
| 150.90 | 81.60 | 81.12 |
| 0.00   | 0.00  | 0.00  |
| 0.00   | 0.00  | 0.00  |

06/10/22

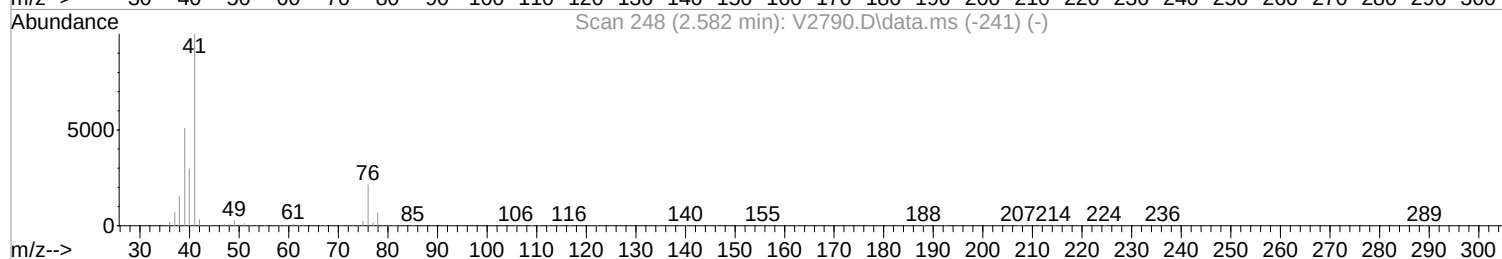
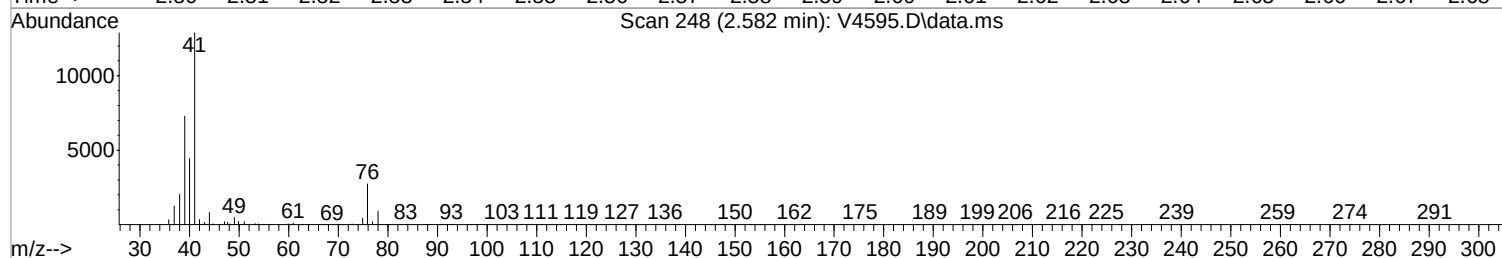
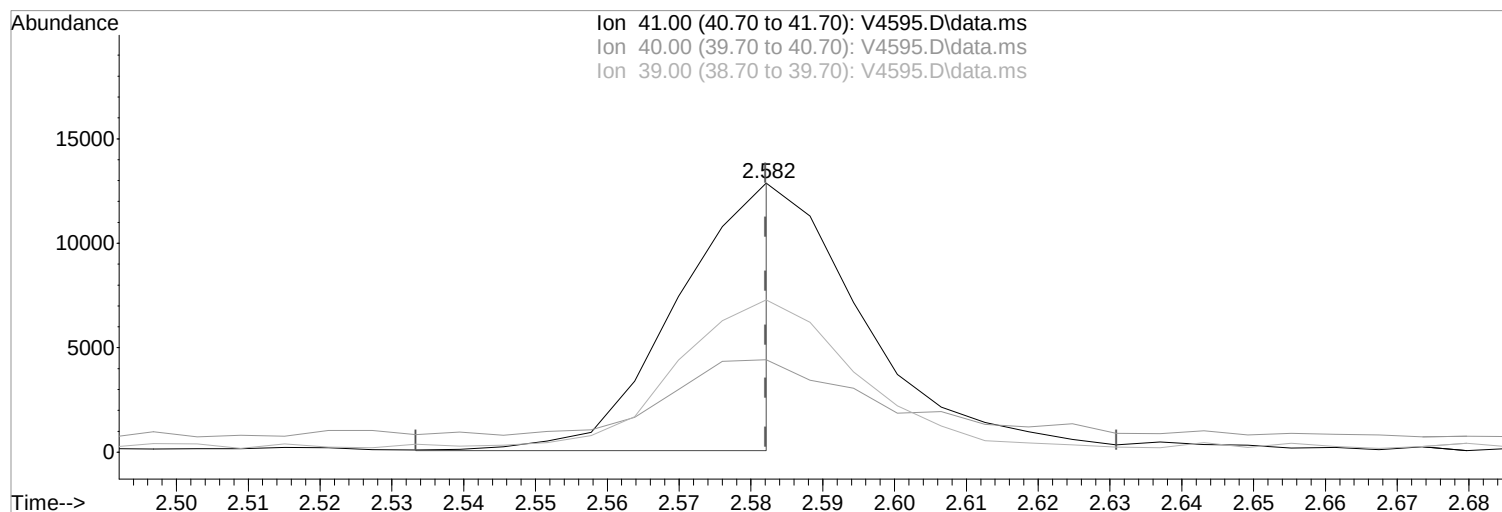
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



(19) Acetonitrile

2.582min (+0.000) 11.11 ug/L m

response 13095

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 34.43 |
| 39.00 | 51.10 | 56.68 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

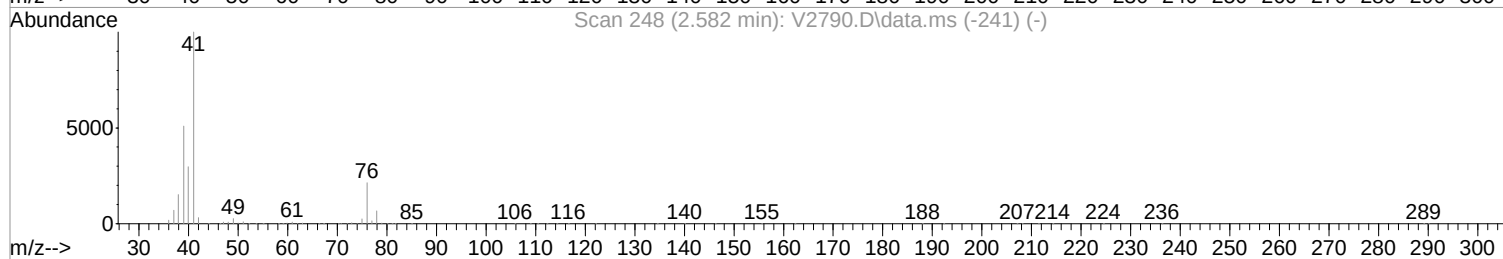
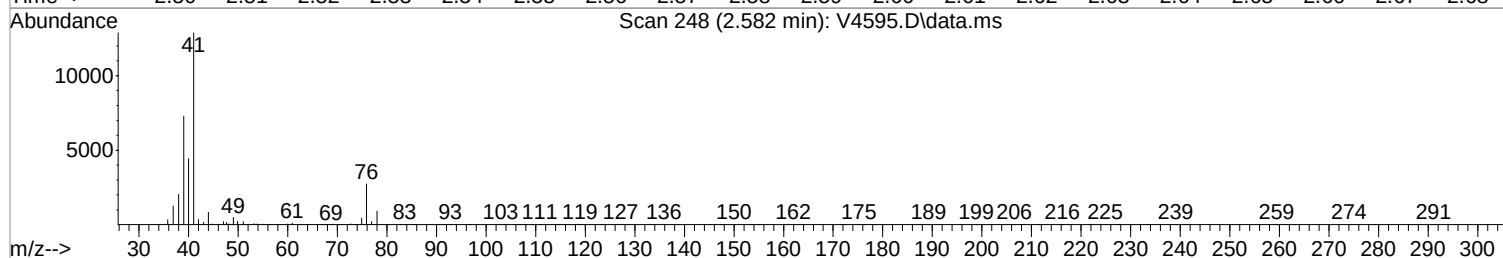
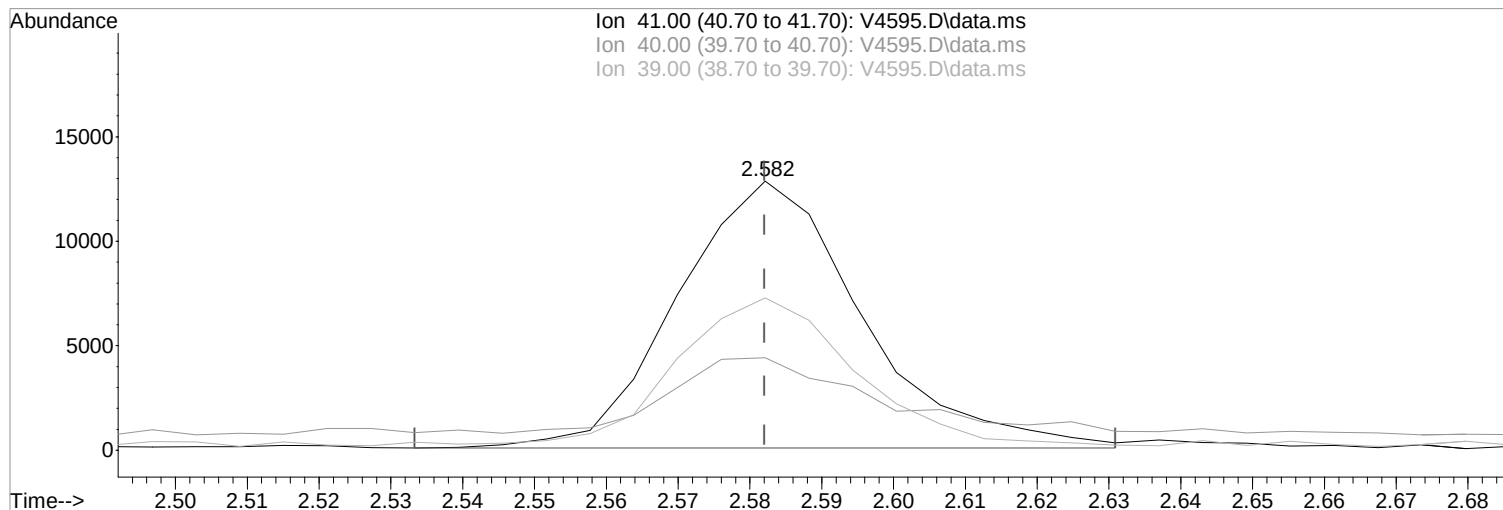
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



(19) Acetonitrile

Manual Integration:

2.582min (+0.000) 19.35 ug/L

Before

response 22815

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 34.43 |
| 39.00 | 51.10 | 56.68 |
| 0.00  | 0.00  | 0.00  |

06/10/22



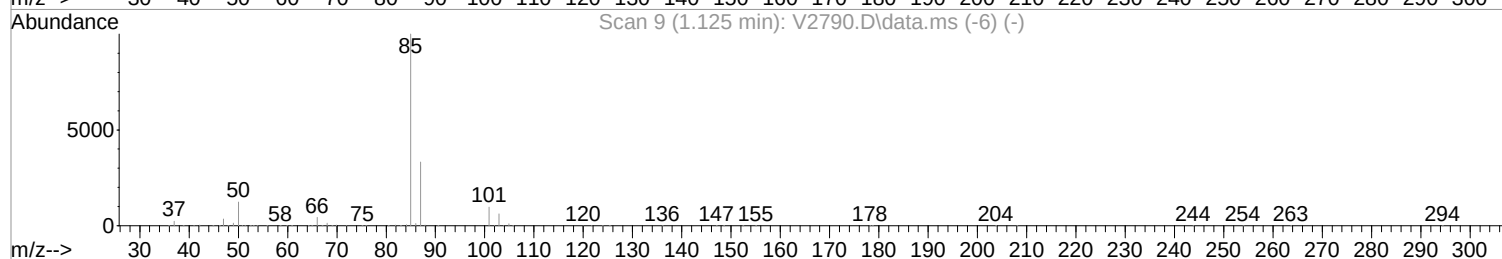
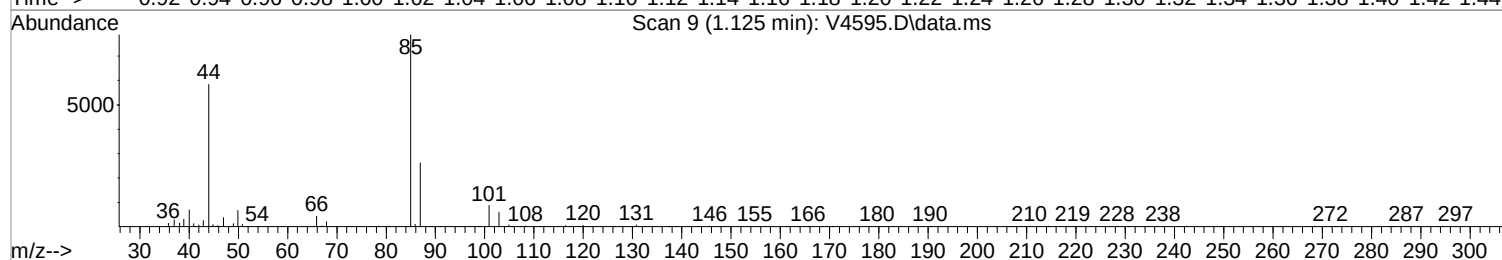
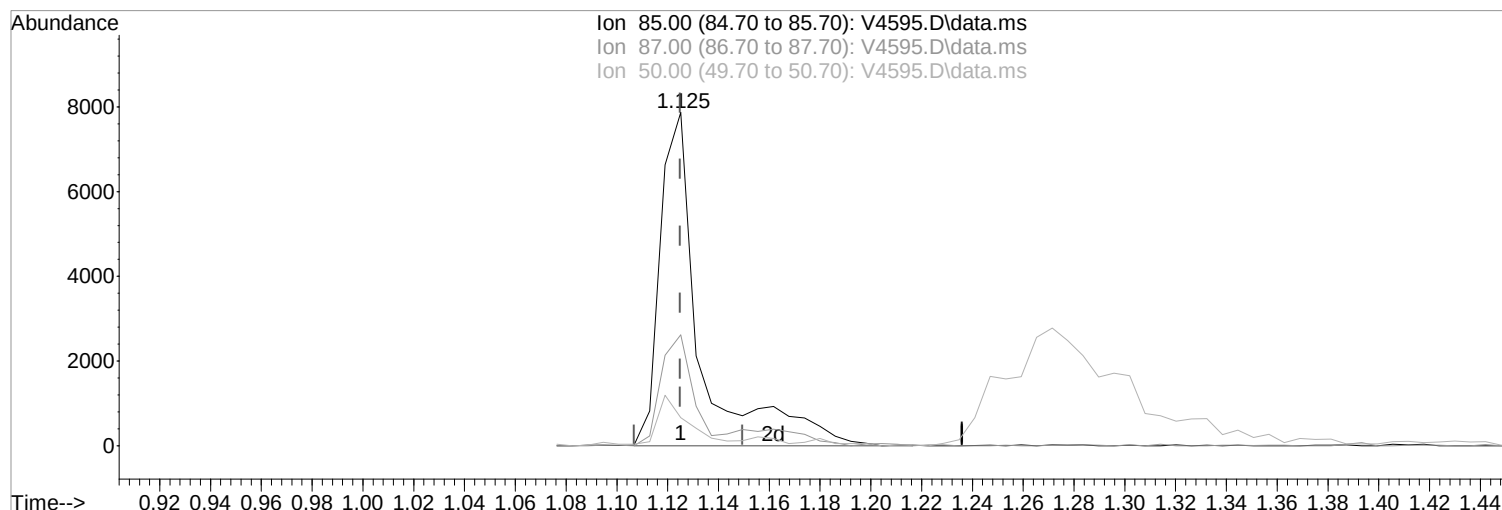
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(2) Dichlorodifluoromethane (P)

1.125min (+0.000) 1.49 ug/L m

response 8776

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 33.30 |
| 50.00 | 12.40 | 8.40  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

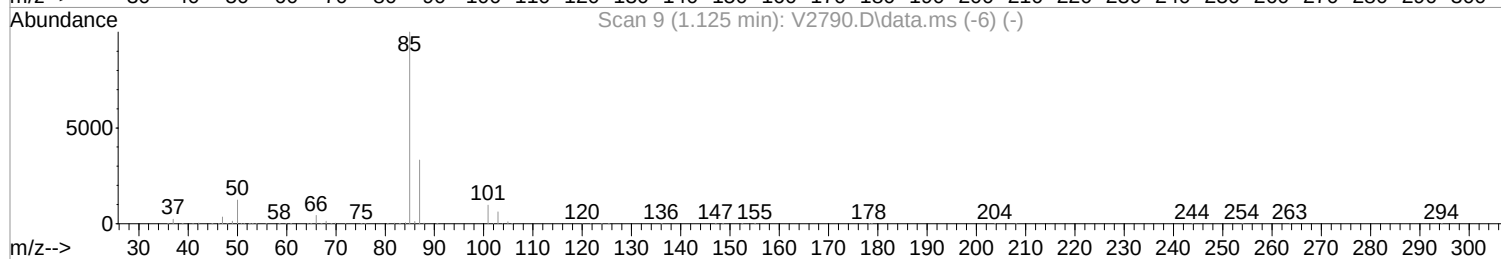
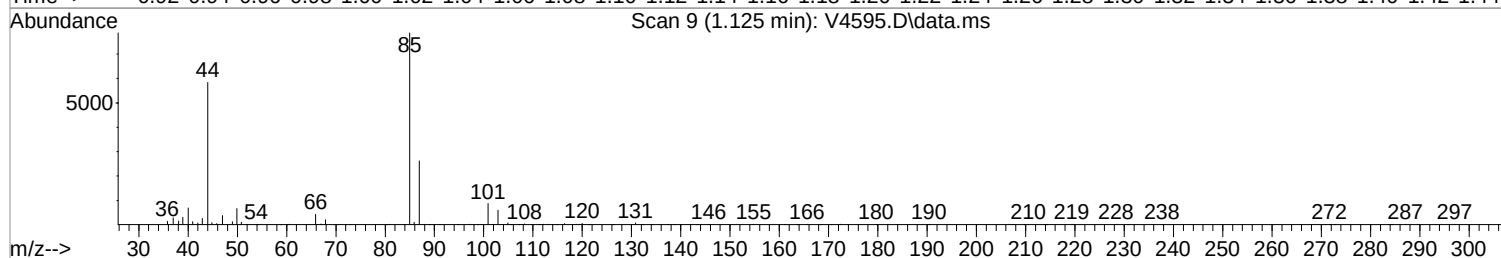
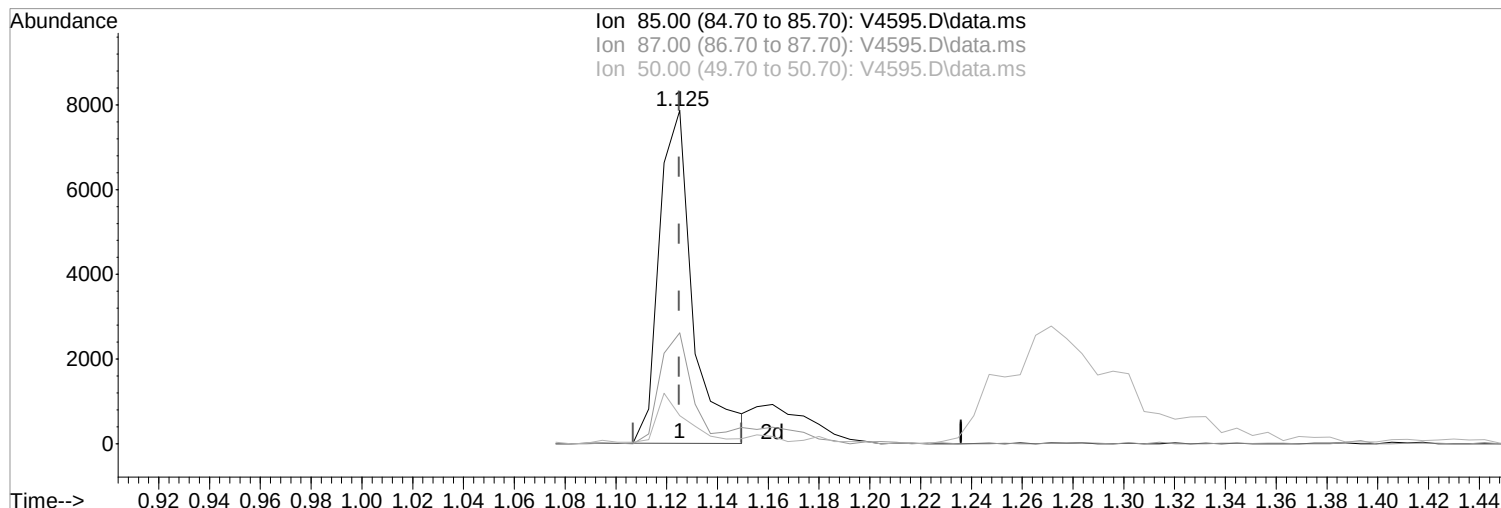
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.125min (+0.000) 1.23 ug/L

Before

response 7282

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 33.30 |
| 50.00 | 12.40 | 8.40  |
| 0.00  | 0.00  | 0.00  |

06/10/22

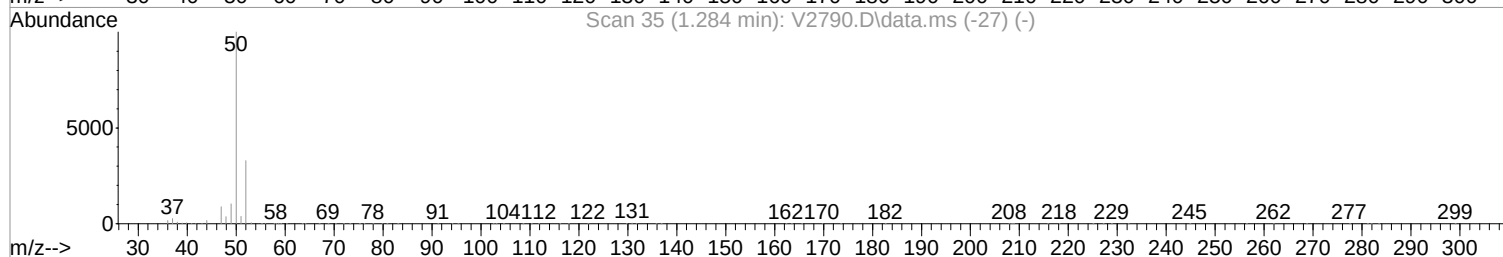
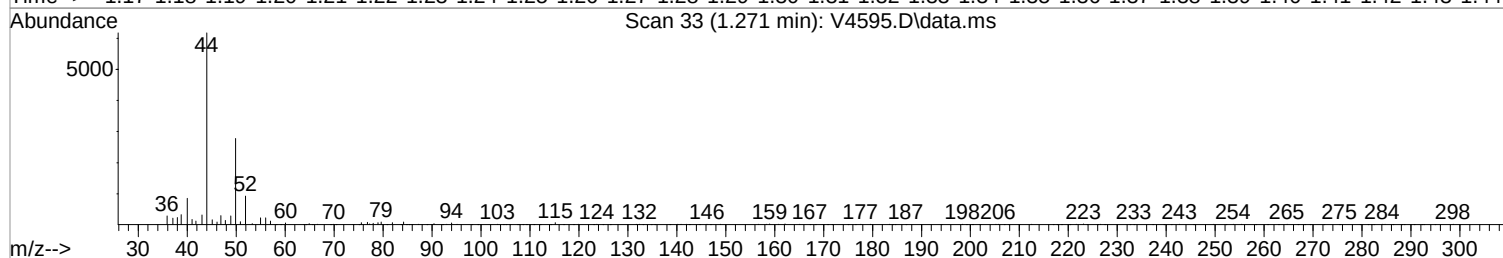
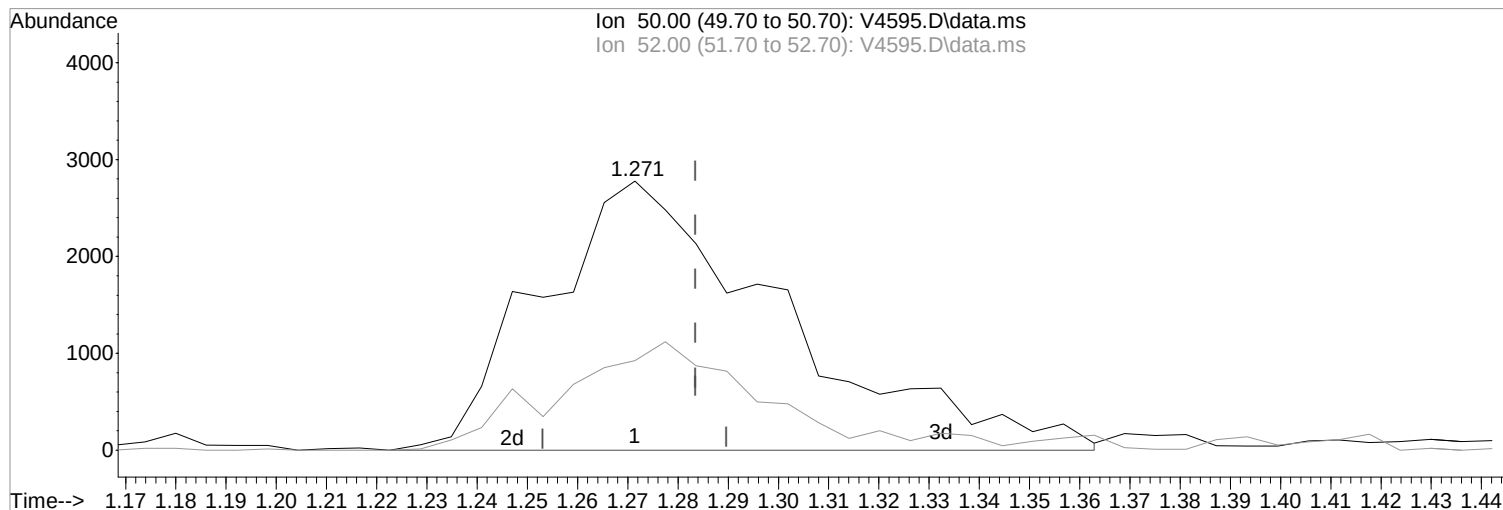
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(3) Chloromethane (P)

1.271min (-0.012) 1.85 ug/L m

response 9191

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 33.27 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

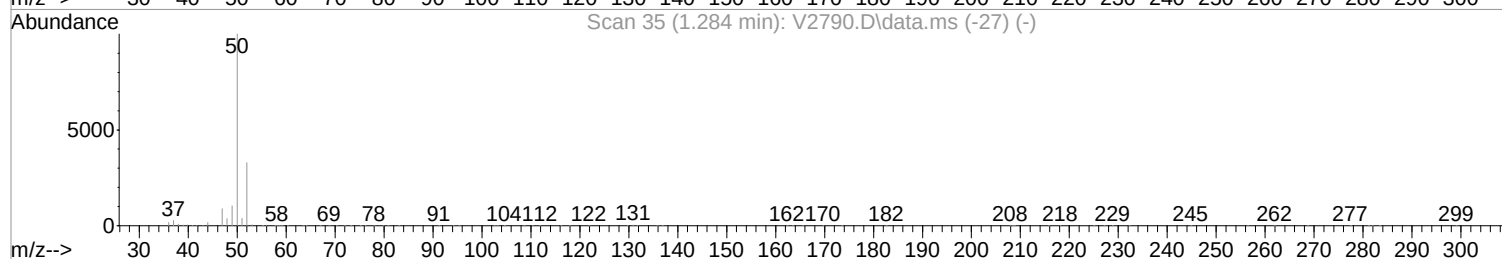
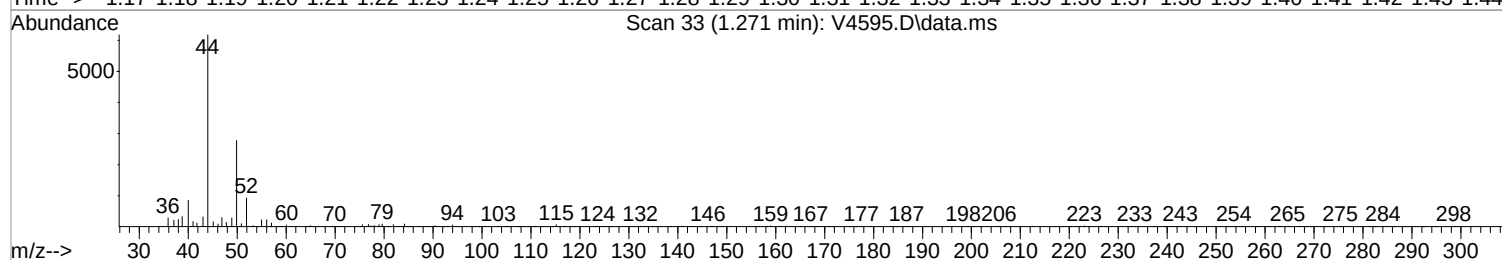
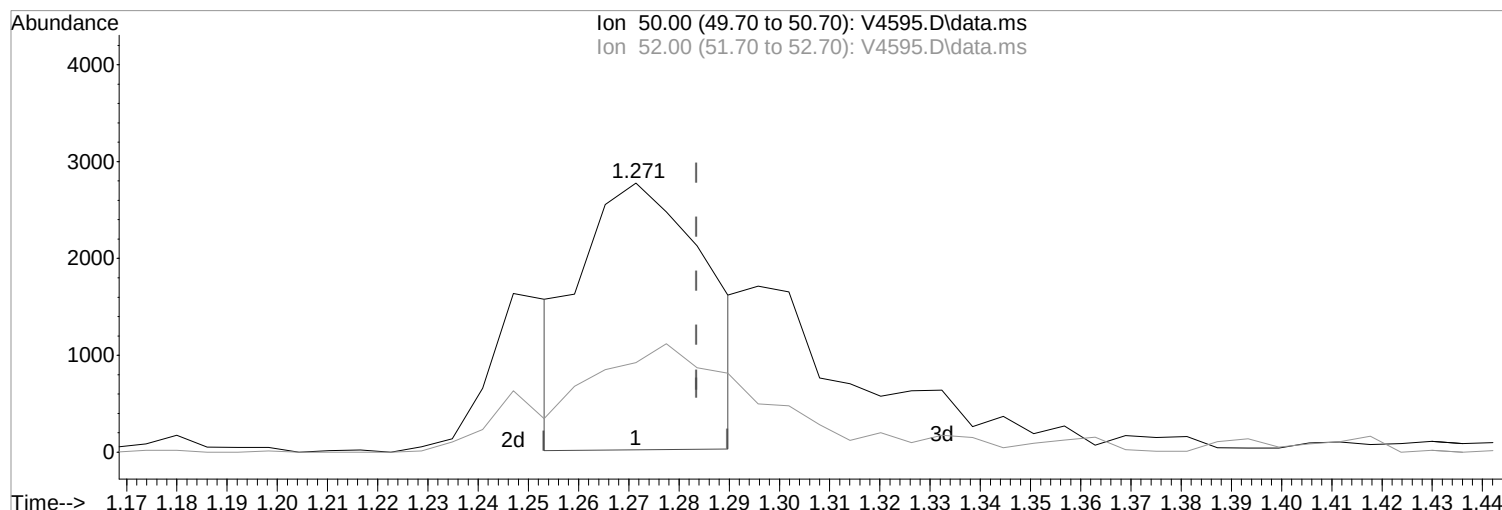
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(3) Chloromethane (P)

Manual Integration:

1.271min (-0.012) 0.96 ug/L

Before

response 4773

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 50.00 | 100   | 100   |
| 52.00 | 32.90 | 33.27 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

06/10/22

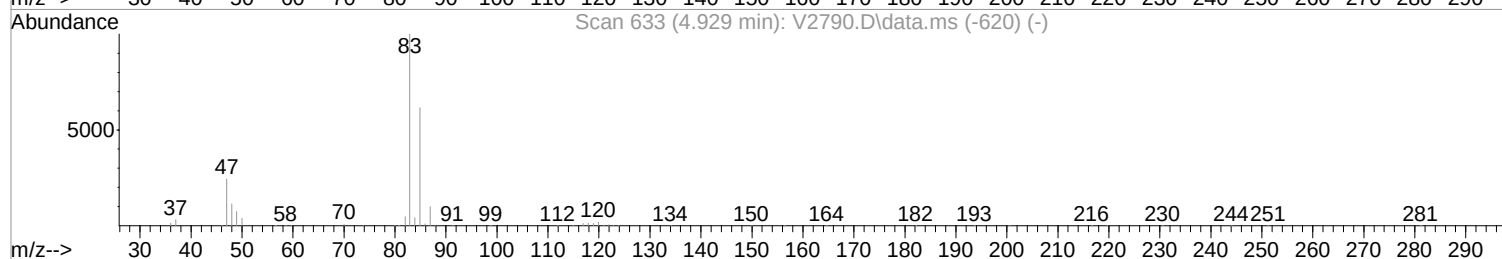
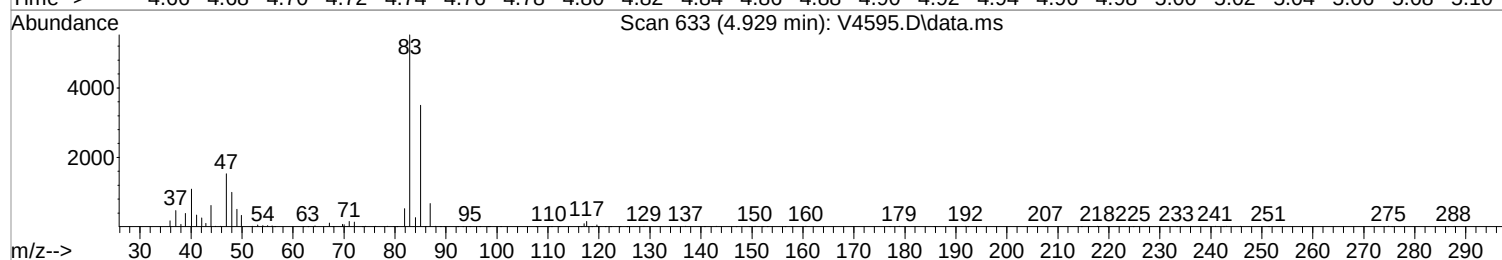
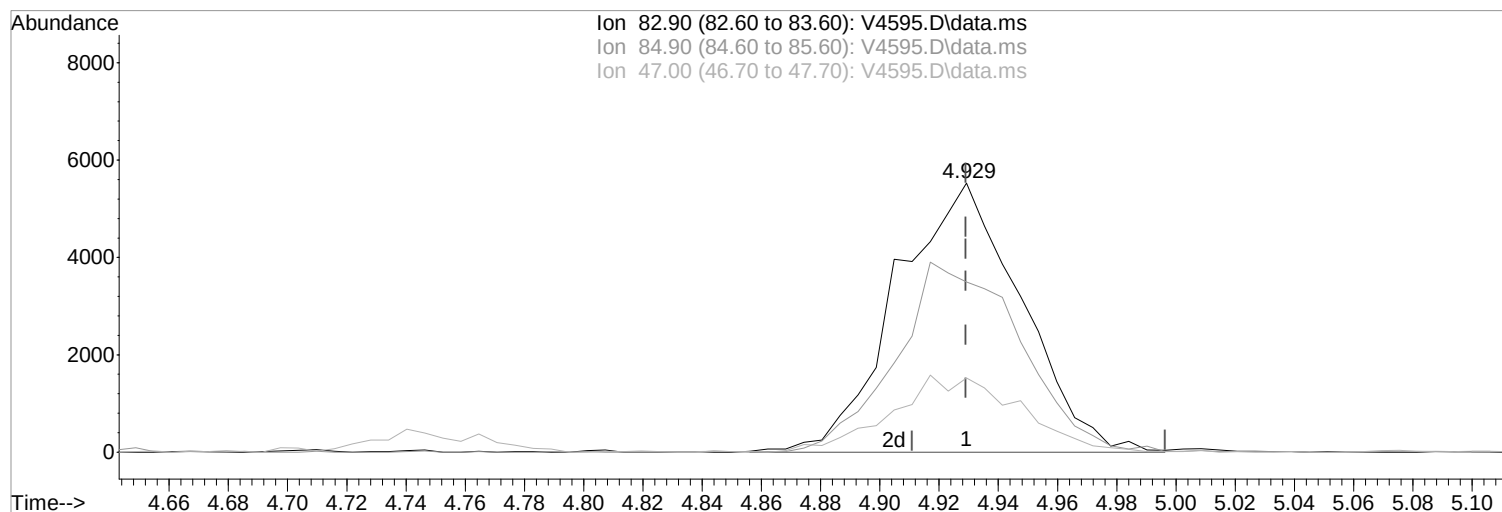
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(39) Chloroform (P)

4.929min (+0.000) 1.92 ug/L m

response 16159

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 82.90 | 100   | 100   |
| 84.90 | 61.60 | 63.29 |
| 47.00 | 24.40 | 27.62 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

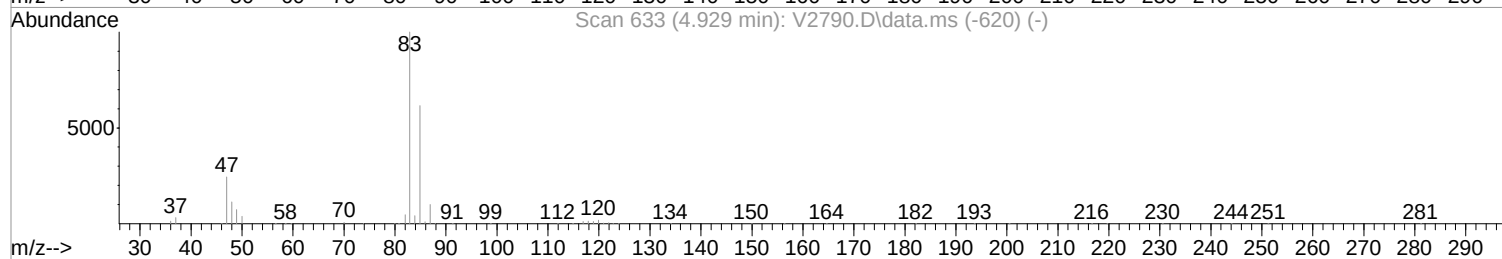
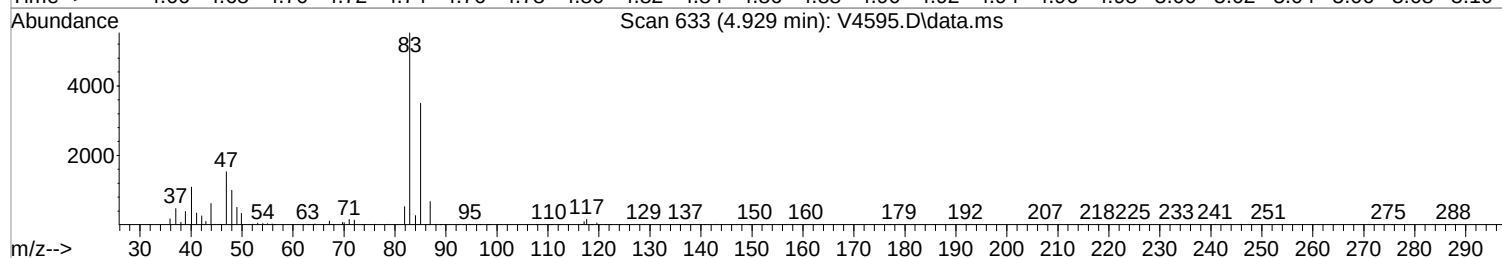
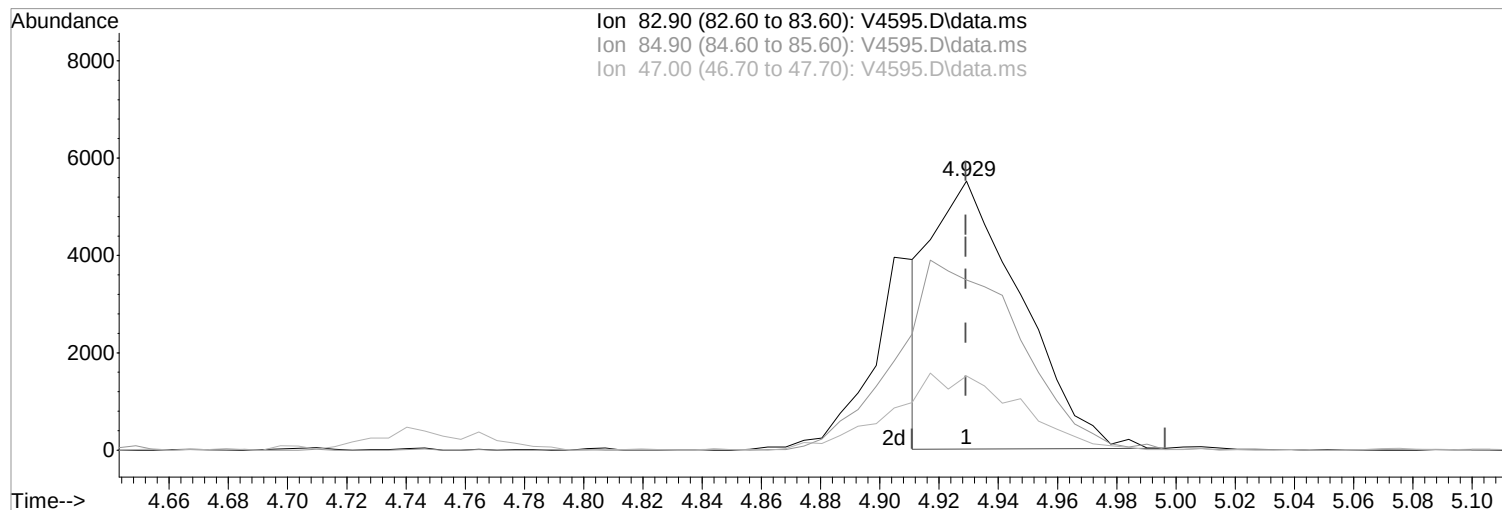
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(39) Chloroform (P)

Manual Integration:

4.929min (+0.000) 1.38 ug/L

Before

response 11580

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 82.90 | 100   | 100   |
| 84.90 | 61.60 | 63.29 |
| 47.00 | 24.40 | 27.62 |
| 0.00  | 0.00  | 0.00  |

06/10/22

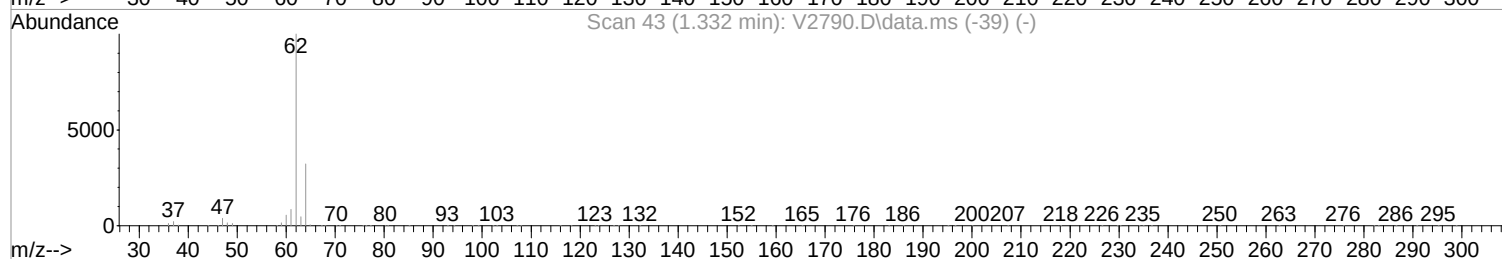
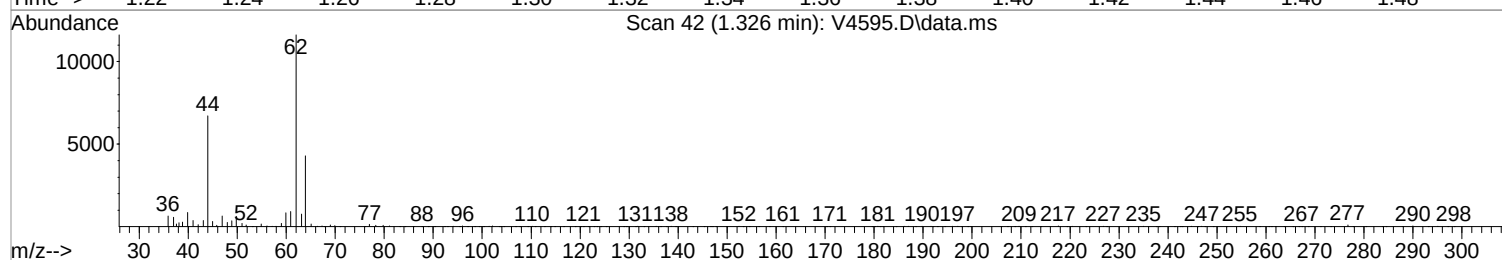
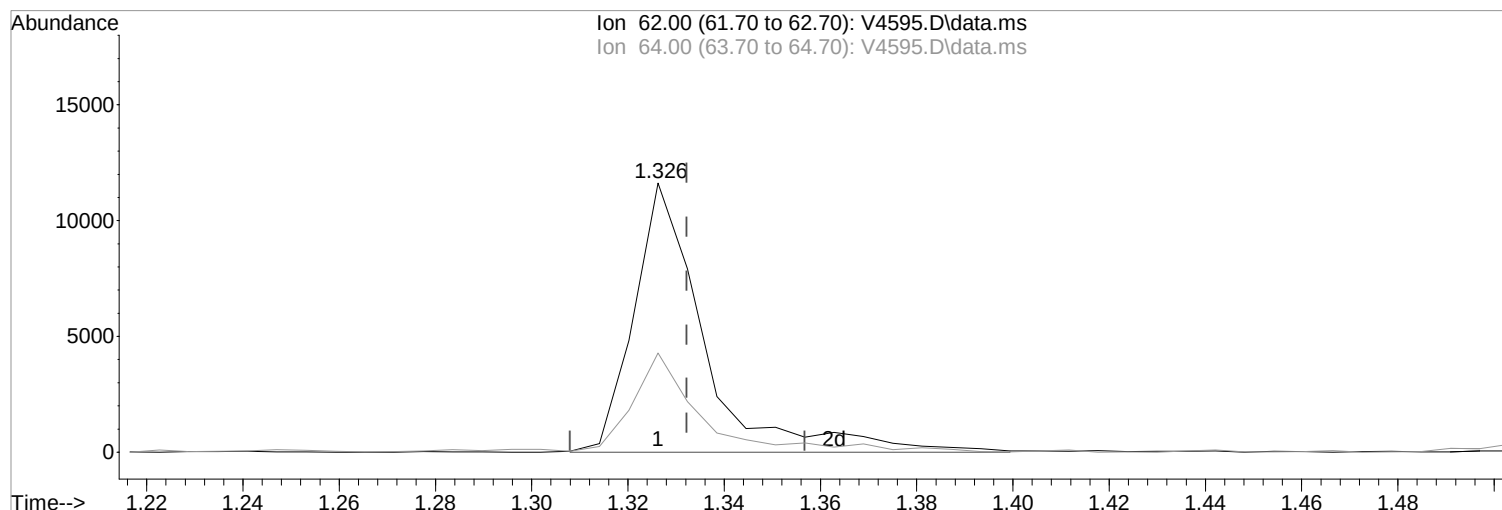
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(4) Vinyl Chloride (P)

1.326min (-0.006) 2.03 ug/L m

response 11872

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 62.00 | 100   | 100   |
| 64.00 | 32.30 | 36.90 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

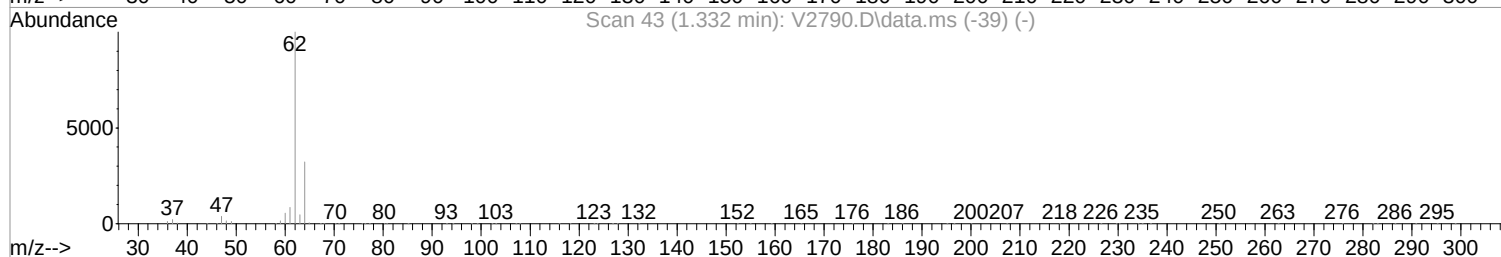
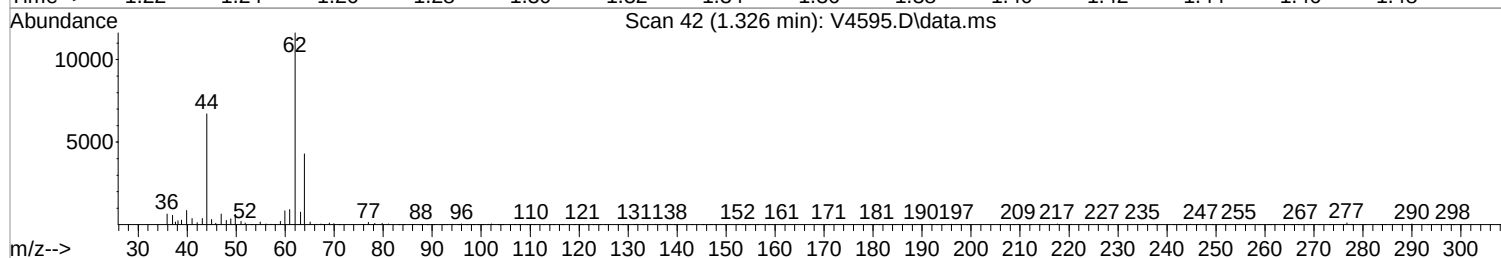
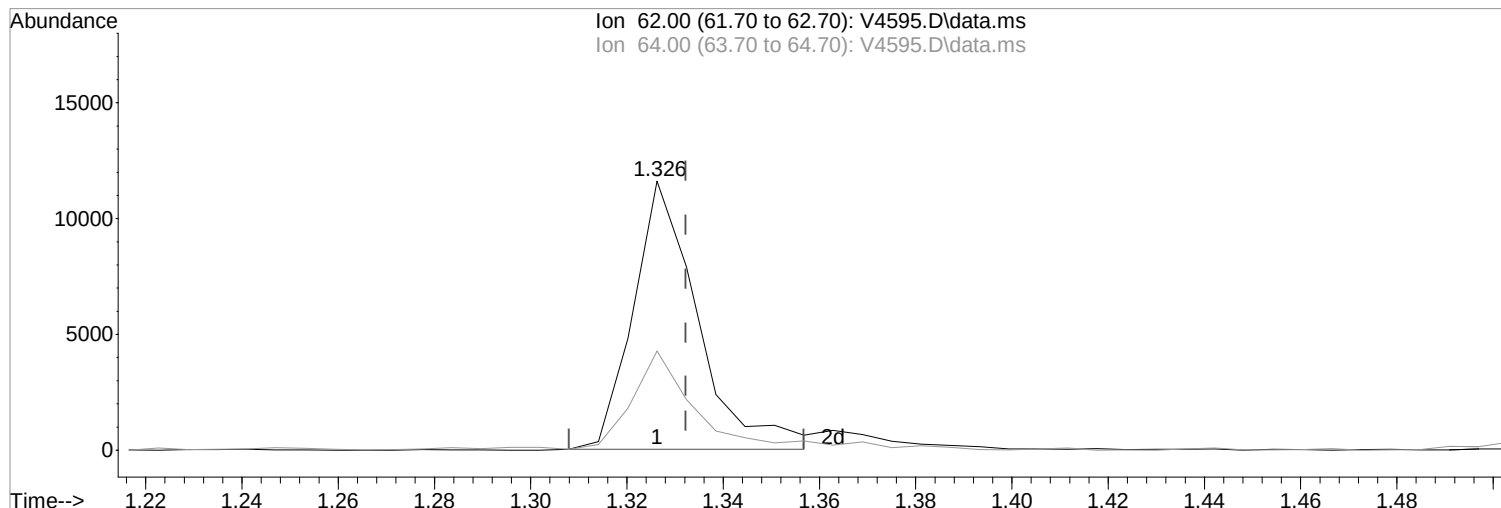
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4595.D  
Acq On : 10 Jun 2022 2:52 pm  
Operator : F.NAEGLER  
Sample : 2.0 PPB STD  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:31:47 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4595.D\data.ms

(4) Vinyl Chloride (P)

Manual Integration:

1.326min (-0.006) 1.85 ug/L

Before

response 10824

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 62.00 | 100   | 100   |
| 64.00 | 32.30 | 36.90 |
| 0.00  | 0.00  | 0.00  |
| 0.00  | 0.00  | 0.00  |

06/10/22



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4595.D  
 Acq On : 10 Jun 2022 2:52 pm  
 Operator : F.NAEGLER  
 Sample : 2.0 PPB STD  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:33:13 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.356  | 168  | 571968   | 50.00 | ug/L  | -0.01    |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 876968   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 791330   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.038 | 152  | 411763   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |         |      |
|-------------------------------|--------|----------------|----------|-------|---------|------|
| System Monitoring Compounds   |        |                |          |       |         |      |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 58229    | 10.25 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 20.50%# |      |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 71573    | 10.58 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 21.16%# |      |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 227692   | 10.82 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 21.64%# |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 85861    | 10.63 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 21.26%# |      |

|                              |       |     |        |       |        |        |
|------------------------------|-------|-----|--------|-------|--------|--------|
| Target Compounds             |       |     |        |       |        | Qvalue |
| 2) Dichlorodifluoromethane   | 1.125 | 85  | 8776m  | 1.49  | ug/L   |        |
| 3) Chloromethane             | 1.271 | 50  | 9191m  | 1.85  | ug/L   |        |
| 4) Vinyl Chloride            | 1.326 | 62  | 11872m | 2.03  | ug/L   |        |
| 5) Bromomethane              | 1.552 | 94  | 10072  | 2.96  | ug/L   | 95     |
| 6) Chloroethane              | 1.631 | 64  | 8211   | 2.31  | ug/L   | 93     |
| 7) Freon 21                  | 1.783 | 67  | 19293  | 2.28  | ug/L   | 98     |
| 8) Trichlorofluoromethane    | 1.820 | 101 | 15168  | 2.14  | ug/L   | 98     |
| 9) Diethyl Ether             | 2.058 | 59  | 7424   | 1.76  | ug/L   | 90     |
| 10) Freon 123a               | 2.070 | 67  | 9180   | 1.88  | ug/L   | 99     |
| 11) Freon 123                | 2.119 | 83  | 10312  | 1.79  | ug/L   | 87     |
| 12) Acrolein                 | 2.180 | 56  | 10969  | 9.55  | ug/L   | 83     |
| 13) 1,1-Dicethene            | 2.247 | 96  | 6785   | 1.70  | ug/L   | 93     |
| 14) Freon 113                | 2.253 | 101 | 7246m  | 1.79  | ug/L   |        |
| 15) Acetone                  | 2.320 | 43  | 5840   | 2.17  | ug/L   | 94     |
| 16) 2-Propanol               | 2.454 | 45  | 19183  | 33.88 | ug/L   | 99     |
| 17) Iodomethane              | 2.381 | 142 | 5307   | 0.76  | ug/L   | 92     |
| 18) Carbon Disulfide         | 2.436 | 76  | 19695  | 1.73  | ug/L   | 96     |
| 19) Acetonitrile             | 2.582 | 41  | 13095m | 11.11 | ug/L   |        |
| 20) Allyl Chloride           | 2.582 | 76  | 4759   | 1.90  | ug/L # | 78     |
| 21) Methyl Acetate           | 2.625 | 43  | 12998  | 2.05  | ug/L   | 96     |
| 22) Methylene Chloride       | 2.710 | 84  | 9758   | 1.98  | ug/L   | 89     |
| 23) TBA                      | 2.863 | 59  | 36321  | 36.11 | ug/L   | 97     |
| 24) Acrylonitrile            | 2.984 | 53  | 26644  | 9.72  | ug/L   | 89     |
| 25) Methyl-t-Butyl Ether     | 3.009 | 73  | 30542  | 1.87  | ug/L   | 99     |
| 26) trans-1,2-Dichloroethene | 2.991 | 96  | 8366   | 1.85  | ug/L # | 88     |
| 27) 1,1-Dicethane            | 3.497 | 63  | 15544  | 1.97  | ug/L   | 95     |
| 28) Vinyl Acetate            | 3.588 | 86  | 1537   | 2.11  | ug/L # | 48     |
| 29) DIPE                     | 3.606 | 45  | 27661  | 2.08  | ug/L   | 94     |
| 30) 2-Chloro-1,3-Butadiene   | 3.612 | 53  | 12977  | 1.98  | ug/L   | 95     |
| 31) ETBE                     | 4.131 | 59  | 27163  | 1.99  | ug/L   | 96     |
| 32) 2,2-Dichloropropane      | 4.326 | 77  | 12555  | 1.99  | ug/L   | 96     |
| 33) cis-1,2-Dichloroethene   | 4.338 | 96  | 10506  | 2.00  | ug/L # | 74     |
| 34) 2-Butanone               | 4.435 | 43  | 7488   | 2.05  | ug/L   | 89     |
| 35) Propionitrile            | 4.539 | 54  | 11604  | 10.13 | ug/L   | 96     |
| 36) Bromochloromethane       | 4.740 | 130 | 7185   | 1.93  | ug/L   | 89     |
| 37) Methacrylonitrile        | 4.783 | 67  | 5336   | 1.85  | ug/L   | 97     |
| 38) Tetrahydrofuran          | 4.874 | 42  | 4955   | 2.09  | ug/L   | 82     |
| 39) Chloroform               | 4.929 | 83  | 16159m | 1.92  | ug/L   |        |
| 40) 1,1,1-Trichloroethane    | 5.204 | 97  | 13810  | 1.84  | ug/L   | 96     |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4595.D  
 Acq On : 10 Jun 2022 2:52 pm  
 Operator : F.NAEGLER  
 Sample : 2.0 PPB STD  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:33:13 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc  | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|-------|--------|----------|
| 41) TAME                       | 6.081  | 73   | 27996    | 1.95  | ug/L   | 97       |
| 43) Cyclohexane                | 5.265  | 41   | 8595     | 2.08  | ug/L   | 87       |
| 45) Carbontetrachloride        | 5.472  | 117  | 10805    | 1.53  | ug/L   | 94       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 11087    | 1.72  | ug/L   | 99       |
| 48) Benzene                    | 5.838  | 78   | 35384    | 1.83  | ug/L   | 96       |
| 49) 1,2-Dichloroethane         | 5.905  | 62   | 14714    | 1.91  | ug/L   | 94       |
| 50) Iso-Butyl Alcohol          | 5.923  | 43   | 14237    | 34.69 | ug/L # | 76       |
| 51) n-Heptane                  | 6.307  | 43   | 9298     | 2.01  | ug/L   | 83       |
| 52) 1-Butanol                  | 6.911  | 56   | 18787    | 68.97 | ug/L   | 91       |
| 53) Trichloroethene            | 6.813  | 130  | 10005    | 1.65  | ug/L   | 89       |
| 54) Methylcyclohexane          | 7.039  | 55   | 10486    | 1.94  | ug/L   | 90       |
| 55) 1,2-Dicloropropane         | 7.130  | 63   | 9712     | 1.88  | ug/L   | 99       |
| 56) Dibromomethane             | 7.276  | 93   | 7412     | 1.90  | ug/L # | 82       |
| 57) 1,4-Dioxane                | 7.362  | 88   | 4749     | 39.38 | ug/L   | 96       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 9105     | 1.86  | ug/L   | 85       |
| 59) Bromodichloromethane       | 7.514  | 83   | 12407    | 1.68  | ug/L   | 97       |
| 60) 2-Nitropropane             | 7.837  | 41   | 6653     | 3.11  | ug/L # | 81       |
| 61) 2-Chloroethylvinyl Ether   | 7.941  | 63   | 5317     | 1.34  | ug/L   | 77       |
| 62) cis-1,3-Dichloropropene    | 8.081  | 75   | 13218    | 1.51  | ug/L   | 91       |
| 63) 4-Methyl-2-pentanone       | 8.313  | 43   | 13541    | 1.84  | ug/L   | 94       |
| 65) Toluene                    | 8.453  | 91   | 38671    | 1.79  | ug/L   | 95       |
| 66) trans-1,3-Dichloropropene  | 8.752  | 75   | 13218    | 1.63  | ug/L   | 94       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 14642    | 1.76  | ug/L   | 98       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 10128    | 1.88  | ug/L   | 86       |
| 71) Tetrachloroethene          | 9.063  | 164  | 7984     | 1.81  | ug/L   | 96       |
| 72) 2-Hexanone                 | 9.270  | 43   | 9758     | 1.81  | ug/L   | 93       |
| 73) 1,3-Dichloropropane        | 9.130  | 76   | 16675    | 1.85  | ug/L   | 96       |
| 74) Dibromochloromethane       | 9.361  | 129  | 9777     | 1.56  | ug/L   | 95       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 18115    | 1.74  | ug/L   | 91       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 10807    | 1.84  | ug/L   | 96       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 15068    | 1.82  | ug/L   | 91       |
| 78) Chlorobenzene              | 9.965  | 112  | 27807    | 1.87  | ug/L   | 98       |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 12399    | 1.66  | ug/L   | 90       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 9115     | 1.64  | ug/L   | 96       |
| 81) Ethylbenzene               | 10.087 | 106  | 13023    | 1.77  | ug/L   | 91       |
| 82) (m+p)Xylene                | 10.203 | 106  | 32768    | 3.53  | ug/L   | 96       |
| 83) o-Xylene                   | 10.574 | 106  | 16223    | 1.80  | ug/L   | 95       |
| 84) Styrene                    | 10.593 | 104  | 26250    | 1.65  | ug/L   | 98       |
| 85) Bromoform                  | 10.751 | 173  | 7051     | 1.50  | ug/L   | 98       |
| 86) 2-Chlorobenzotrifluoride   | 10.837 | 180  | 14121    | 1.67  | ug/L   | 94       |
| 87) Isopropylbenzene           | 10.916 | 105  | 39056    | 1.78  | ug/L   | 98       |
| 88) Cyclohexanone              | 11.007 | 55   | 43669    | 39.89 | ug/L   | 95       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 3965     | 1.73  | ug/L   | 80       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 15367    | 2.11  | ug/L   | 91       |
| 92) Bromobenzene               | 11.172 | 156  | 12883    | 1.89  | ug/L   | 93       |
| 93) 1,2,3-Trichloropropane     | 11.233 | 110  | 5687     | 1.98  | ug/L # | 87       |
| 94) n-Propylbenzene            | 11.276 | 91   | 46100    | 1.79  | ug/L   | 98       |
| 95) 2-Chlorotoluene            | 11.343 | 91   | 28698    | 1.79  | ug/L   | 98       |
| 96) 3-Chlorotoluene            | 11.404 | 91   | 30680    | 1.80  | ug/L   | 97       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 33531    | 1.83  | ug/L   | 98       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 33795    | 1.75  | ug/L   | 99       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 28951    | 1.76  | ug/L   | 96       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 33329    | 1.75  | ug/L   | 93       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 10707    | 1.61  | ug/L   | 97       |
| 102) sec-Butylbenzene          | 11.891 | 105  | 40449    | 1.79  | ug/L   | 95       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 34707    | 1.73  | ug/L   | 98       |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4595.D  
 Acq On : 10 Jun 2022 2:52 pm  
 Operator : F.NAEGLER  
 Sample : 2.0 PPB STD  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:33:13 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc | Units  | Dev(Min) |
|--------------------------------|--------|------|----------|------|--------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 22782    | 1.93 | ug/L   | 97       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 23442    | 1.93 | ug/L   | 94       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 10223    | 1.70 | ug/L   | 95       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 10659    | 1.59 | ug/L   | 85       |
| 108) n-Butylbenzene            | 12.355 | 91   | 30111    | 1.83 | ug/L   | 99       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 22969    | 1.95 | ug/L   | 98       |
| 110) 1,2-Dibromo-3-chloropr... | 13.001 | 157  | 3577     | 1.65 | ug/L # | 78       |
| 111) Trielution Dichlorotol... | 13.111 | 125  | 54334    | 5.53 | ug/L   | 96       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 16292    | 1.86 | ug/L   | 98       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 38281    | 3.57 | ug/L   | 95       |
| 114) 1,2,4-Tcbenzene           | 13.647 | 180  | 16669    | 1.96 | ug/L   | 97       |
| 115) Hexachlorobt              | 13.781 | 225  | 6421     | 1.74 | ug/L   | 86       |
| 116) Naphthalen                | 13.848 | 128  | 45549    | 1.82 | ug/L   | 99       |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 16879    | 1.98 | ug/L   | 92       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 8620     | 1.56 | ug/L   | 93       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 8631     | 1.67 | ug/L   | 98       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

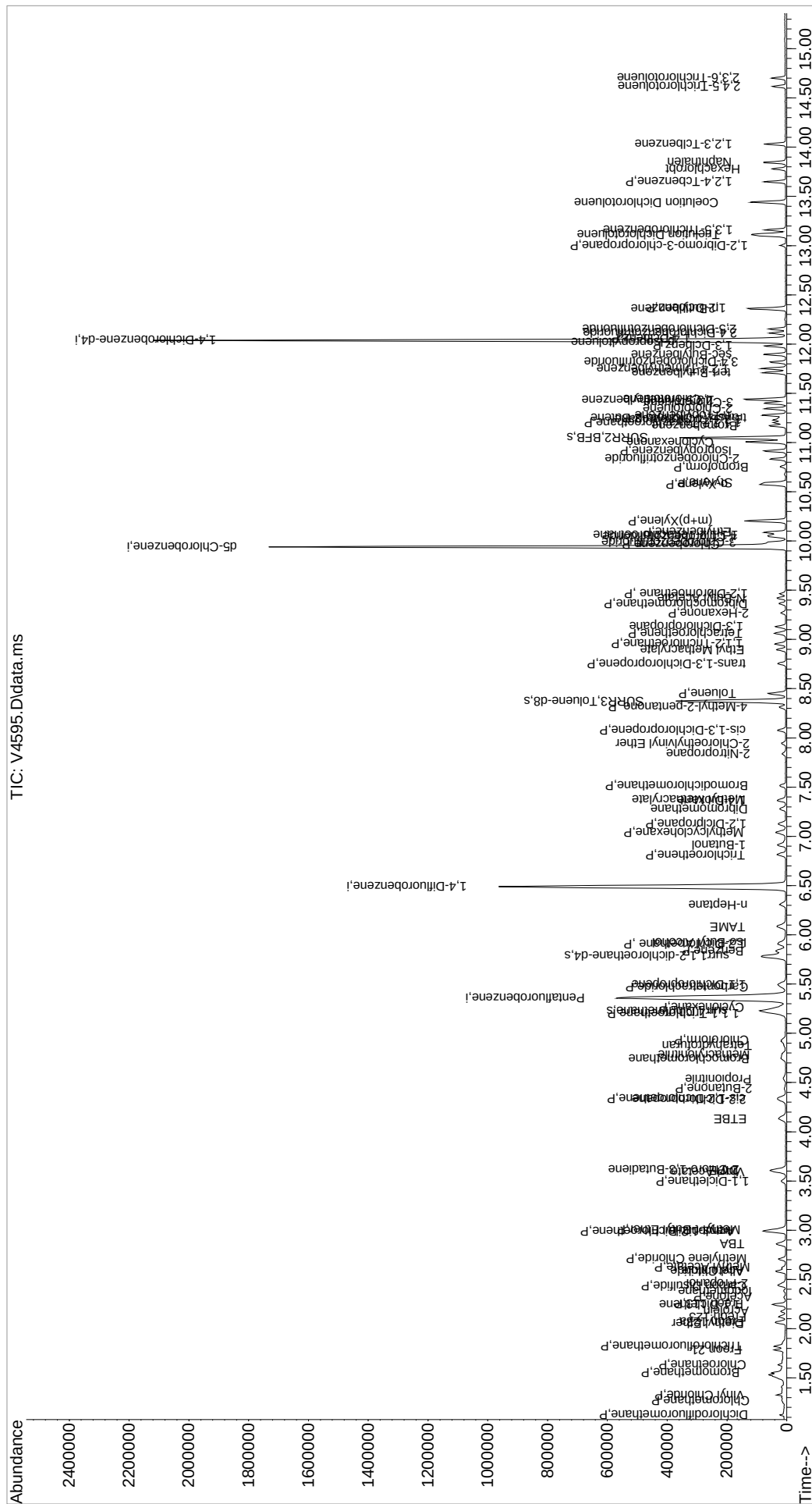
## Quantitation Report (QT Reviewed)

|           |   |   |                                  |
|-----------|---|---|----------------------------------|
| Data Path | : | : | I:\ACQUDATA\MSV0A14\Data\061022\ |
| Data File | : | : | V4595.D                          |
| Acq On    | : | : | 10 Jun 2022 2:52 pm              |
| Operator  | : | : | F.NAEGLER                        |
| Sample    | : | : | 2.0 PPB STD                      |
| Misc      | : | : |                                  |
| ALS Vial  | : | : | 4 Sample Multiplier: 1           |

Inst : MSV0A14

ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 10 15:33:13 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



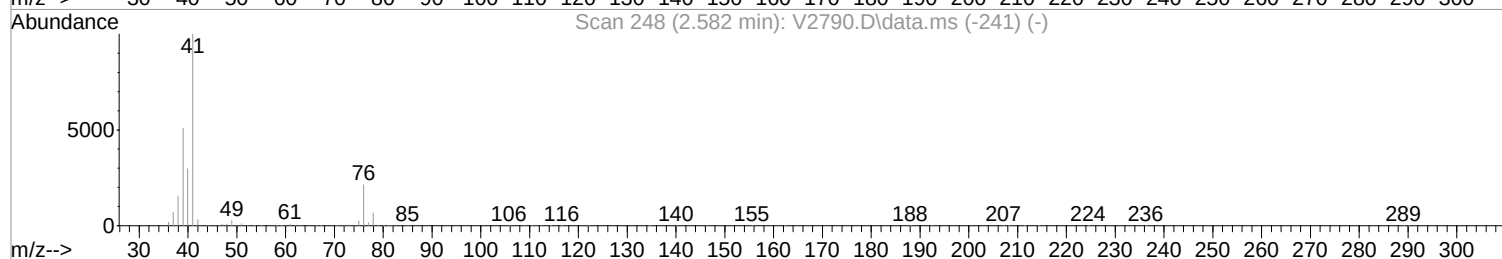
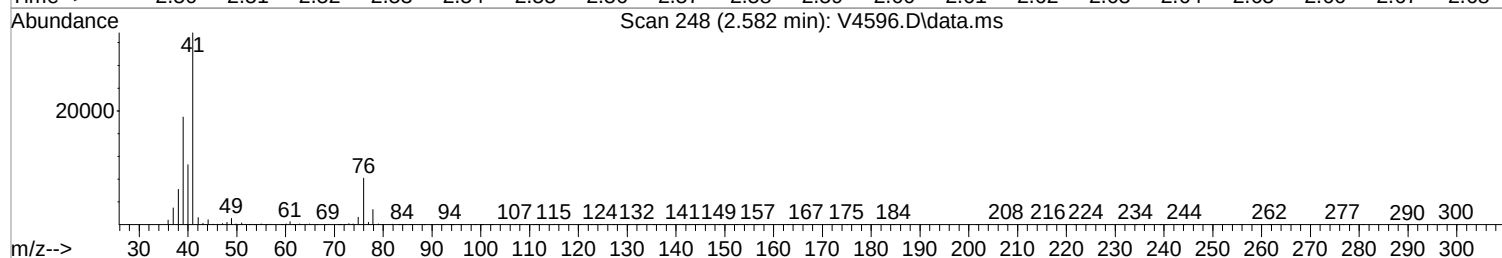
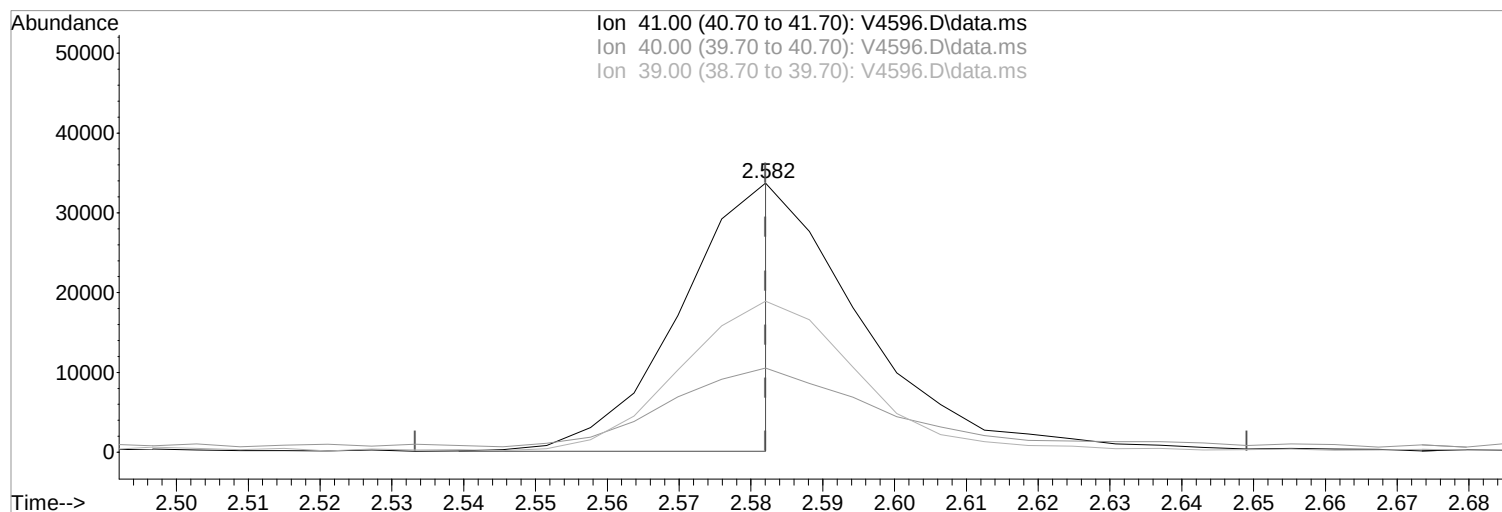
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4596.D  
Acq On : 10 Jun 2022 3:14 pm  
Operator : F.NAEGLER  
Sample : 5.0 PPB STD  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:33:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4596.D\data.ms

(19) Acetonitrile

2.582min (+0.000) 27.62 ug/L m

response 33236

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 31.23 |
| 39.00 | 51.10 | 56.10 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/10/22

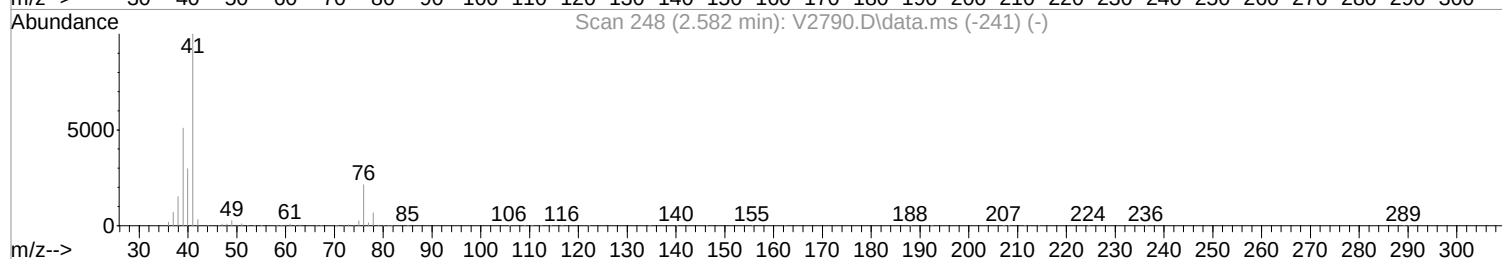
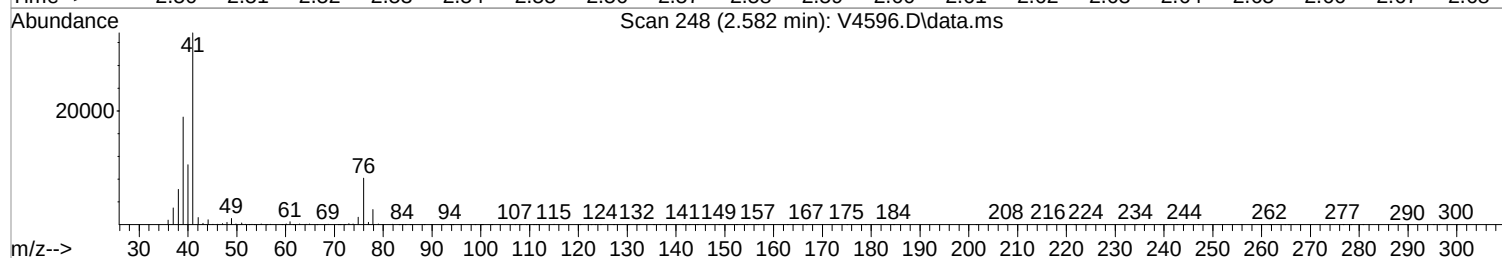
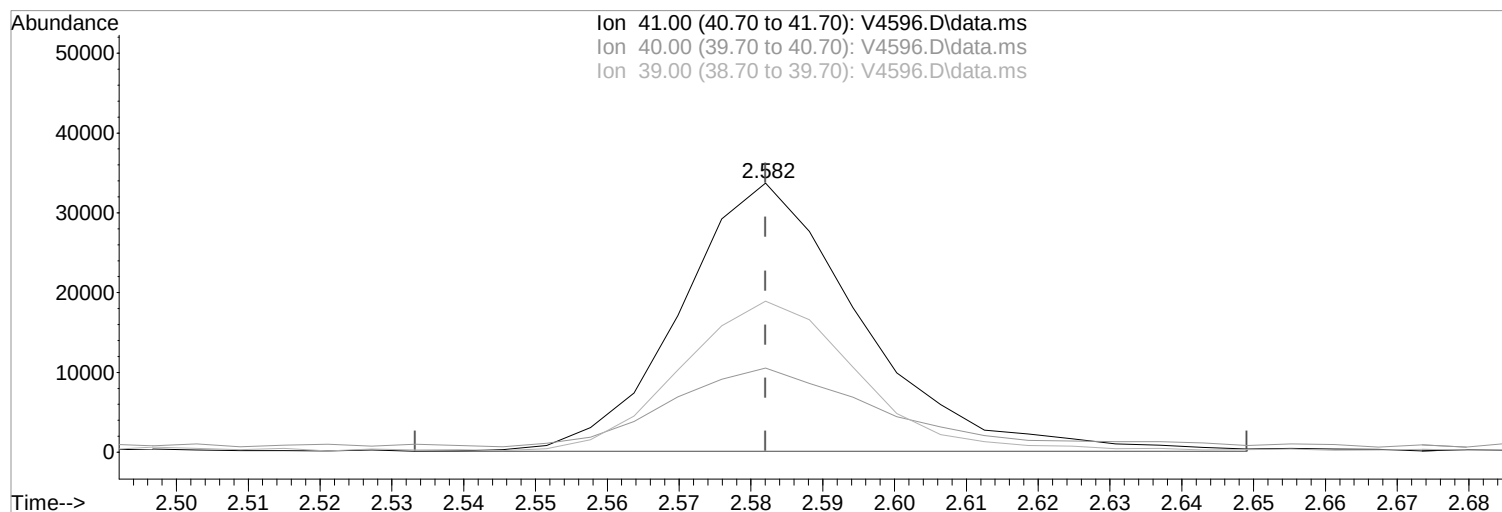
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4596.D  
Acq On : 10 Jun 2022 3:14 pm  
Operator : F.NAEGLER  
Sample : 5.0 PPB STD  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:33:50 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4596.D\data.ms

(19) Acetonitrile

Manual Integration:

2.582min (+0.000) 48.88 ug/L

Before

response 58814

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 31.23 |
| 39.00 | 51.10 | 56.10 |
| 0.00  | 0.00  | 0.00  |

06/10/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4596.D  
 Acq On : 10 Jun 2022 3:14 pm  
 Operator : F.NAEGLER  
 Sample : 5.0 PPB STD  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:34:12 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 583750   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 880087   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 797727   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.038 | 152  | 422806   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |         |      |
|-------------------------------|--------|----------------|----------|-------|---------|------|
| System Monitoring Compounds   |        |                |          |       |         |      |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 60480    | 10.61 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 21.22%# |      |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 74494    | 10.98 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 21.96%# |      |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 227652   | 10.78 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 21.56%# |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 84835    | 10.46 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 20.92%# |      |

|                              |       |     |        |       |        |        |
|------------------------------|-------|-----|--------|-------|--------|--------|
| Target Compounds             |       |     |        |       |        | Qvalue |
| 2) Dichlorodifluoromethane   | 1.125 | 85  | 23060  | 3.83  | ug/L   | 93     |
| 3) Chloromethane             | 1.277 | 50  | 23365  | 4.62  | ug/L   | 89     |
| 4) Vinyl Chloride            | 1.326 | 62  | 31654  | 5.29  | ug/L   | 96     |
| 5) Bromomethane              | 1.552 | 94  | 29006  | 8.35  | ug/L   | 98     |
| 6) Chloroethane              | 1.631 | 64  | 20277  | 5.58  | ug/L   | 99     |
| 7) Freon 21                  | 1.783 | 67  | 48651  | 5.63  | ug/L   | 98     |
| 8) Trichlorofluoromethane    | 1.820 | 101 | 41063  | 5.68  | ug/L   | 97     |
| 9) Diethyl Ether             | 2.058 | 59  | 20563  | 4.79  | ug/L   | 98     |
| 10) Freon 123a               | 2.070 | 67  | 25044  | 5.02  | ug/L   | 90     |
| 11) Freon 123                | 2.119 | 83  | 29197  | 4.97  | ug/L   | 95     |
| 12) Acrolein                 | 2.174 | 56  | 28854  | 24.62 | ug/L   | 91     |
| 13) 1,1-Dicethene            | 2.247 | 96  | 19437  | 4.78  | ug/L   | 96     |
| 14) Freon 113                | 2.247 | 101 | 21212  | 5.15  | ug/L   | 87     |
| 15) Acetone                  | 2.320 | 43  | 12765  | 4.64  | ug/L   | 95     |
| 16) 2-Propanol               | 2.454 | 45  | 53110  | 91.90 | ug/L   | 96     |
| 17) Iodomethane              | 2.381 | 142 | 19454  | 2.73  | ug/L   | 99     |
| 18) Carbon Disulfide         | 2.436 | 76  | 55843  | 4.81  | ug/L   | 98     |
| 19) Acetonitrile             | 2.582 | 41  | 33236m | 27.62 | ug/L   |        |
| 20) Allyl Chloride           | 2.582 | 76  | 12540  | 4.91  | ug/L   | 94     |
| 21) Methyl Acetate           | 2.619 | 43  | 32744  | 5.06  | ug/L   | 97     |
| 22) Methylene Chloride       | 2.710 | 84  | 25156  | 5.01  | ug/L   | 92     |
| 23) TBA                      | 2.862 | 59  | 94434  | 91.99 | ug/L   | 95     |
| 24) Acrylonitrile            | 2.990 | 53  | 69997  | 25.02 | ug/L   | 96     |
| 25) Methyl-t-Butyl Ether     | 3.003 | 73  | 81485  | 4.90  | ug/L   | 97     |
| 26) trans-1,2-Dichloroethene | 2.990 | 96  | 23155  | 5.02  | ug/L   | 99     |
| 27) 1,1-Dicethane            | 3.496 | 63  | 40291  | 5.01  | ug/L   | 98     |
| 28) Vinyl Acetate            | 3.594 | 86  | 4486   | 6.03  | ug/L # | 88     |
| 29) DIPE                     | 3.606 | 45  | 72811  | 5.37  | ug/L   | 92     |
| 30) 2-Chloro-1,3-Butadiene   | 3.606 | 53  | 34185  | 5.10  | ug/L   | 96     |
| 31) ETBE                     | 4.137 | 59  | 73133  | 5.25  | ug/L   | 95     |
| 32) 2,2-Dichloropropane      | 4.326 | 77  | 34128  | 5.30  | ug/L   | 99     |
| 33) cis-1,2-Dichloroethene   | 4.338 | 96  | 26960  | 5.04  | ug/L   | 95     |
| 34) 2-Butanone               | 4.435 | 43  | 18190  | 4.87  | ug/L   | 93     |
| 35) Propionitrile            | 4.539 | 54  | 29368  | 25.11 | ug/L   | 96     |
| 36) Bromochloromethane       | 4.746 | 130 | 18982  | 5.01  | ug/L   | 98     |
| 37) Methacrylonitrile        | 4.789 | 67  | 15503  | 5.26  | ug/L   | 97     |
| 38) Tetrahydrofuran          | 4.862 | 42  | 12809  | 5.28  | ug/L   | 87     |
| 39) Chloroform               | 4.923 | 83  | 43675  | 5.09  | ug/L   | 96     |
| 40) 1,1,1-Trichloroethane    | 5.210 | 97  | 37526  | 4.91  | ug/L   | 94     |



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4596.D  
 Acq On : 10 Jun 2022 3:14 pm  
 Operator : F.NAEGLER  
 Sample : 5.0 PPB STD  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:34:12 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 41) TAME                       | 6.081  | 73   | 74126    | 5.05   | ug/L  | 95       |
| 43) Cyclohexane                | 5.264  | 41   | 21695    | 5.24   | ug/L  | 84       |
| 45) Carbontetrachloride        | 5.478  | 117  | 30030    | 4.25   | ug/L  | 97       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 30918    | 4.77   | ug/L  | 97       |
| 48) Benzene                    | 5.837  | 78   | 96322    | 4.95   | ug/L  | 98       |
| 49) 1,2-Dichloroethane         | 5.905  | 62   | 37736    | 4.87   | ug/L  | 99       |
| 50) Iso-Butyl Alcohol          | 5.917  | 43   | 34083    | 82.75  | ug/L  | 99       |
| 51) n-Heptane                  | 6.307  | 43   | 25040    | 5.40   | ug/L  | 96       |
| 52) 1-Butanol                  | 6.910  | 56   | 49823    | 182.25 | ug/L  | 98       |
| 53) Trichloroethene            | 6.813  | 130  | 26600    | 4.36   | ug/L  | 92       |
| 54) Methylcyclohexane          | 7.045  | 55   | 27178    | 5.01   | ug/L  | 92       |
| 55) 1,2-Dicloropropane         | 7.130  | 63   | 24563    | 4.75   | ug/L  | 99       |
| 56) Dibromomethane             | 7.282  | 93   | 18634    | 4.77   | ug/L  | 95       |
| 57) 1,4-Dioxane                | 7.362  | 88   | 12316    | 101.77 | ug/L  | 90       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 22233    | 4.53   | ug/L  | 88       |
| 59) Bromodichloromethane       | 7.520  | 83   | 33506    | 4.51   | ug/L  | 95       |
| 60) 2-Nitropropane             | 7.843  | 41   | 15989    | 7.44   | ug/L  | 93       |
| 61) 2-Chloroethylvinyl Ether   | 7.941  | 63   | 15323    | 3.86   | ug/L  | 99       |
| 62) cis-1,3-Dichloropropene    | 8.081  | 75   | 35981    | 4.09   | ug/L  | 98       |
| 63) 4-Methyl-2-pentanone       | 8.313  | 43   | 35648    | 4.84   | ug/L  | 96       |
| 65) Toluene                    | 8.453  | 91   | 106054   | 4.88   | ug/L  | 98       |
| 66) trans-1,3-Dichloropropene  | 8.758  | 75   | 32967    | 4.06   | ug/L  | 99       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 38880    | 4.66   | ug/L  | 96       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 26291    | 4.85   | ug/L  | 96       |
| 71) Tetrachloroethene          | 9.062  | 164  | 21617    | 4.87   | ug/L  | 96       |
| 72) 2-Hexanone                 | 9.270  | 43   | 24475    | 4.50   | ug/L  | 89       |
| 73) 1,3-Dichloropropane        | 9.136  | 76   | 43979    | 4.85   | ug/L  | 95       |
| 74) Dibromochloromethane       | 9.367  | 129  | 26164    | 4.14   | ug/L  | 98       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 47663    | 4.53   | ug/L  | 96       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 28907    | 4.87   | ug/L  | 95       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 39271    | 4.69   | ug/L  | 97       |
| 78) Chlorobenzene              | 9.965  | 112  | 75550    | 5.04   | ug/L  | 98       |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 35051    | 4.66   | ug/L  | 96       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 24836    | 4.43   | ug/L  | 97       |
| 81) Ethylbenzene               | 10.087 | 106  | 36788    | 4.95   | ug/L  | 95       |
| 82) (m+p)Xylene                | 10.203 | 106  | 88073    | 9.42   | ug/L  | 90       |
| 83) o-Xylene                   | 10.574 | 106  | 44853    | 4.93   | ug/L  | 95       |
| 84) Styrene                    | 10.593 | 104  | 74279    | 4.63   | ug/L  | 97       |
| 85) Bromoform                  | 10.757 | 173  | 18608    | 3.92   | ug/L  | 100      |
| 86) 2-Chlorobenzotrifluoride   | 10.830 | 180  | 39927    | 4.69   | ug/L  | 97       |
| 87) Isopropylbenzene           | 10.916 | 105  | 106036   | 4.78   | ug/L  | 96       |
| 88) Cyclohexanone              | 11.007 | 55   | 114152   | 103.44 | ug/L  | 91       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 10516    | 4.56   | ug/L  | 81       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 38075    | 5.08   | ug/L  | 99       |
| 92) Bromobenzene               | 11.172 | 156  | 34020    | 4.87   | ug/L  | 96       |
| 93) 1,2,3-Trichloropropane     | 11.227 | 110  | 14033    | 4.77   | ug/L  | 92       |
| 94) n-Propylbenzene            | 11.275 | 91   | 129861   | 4.90   | ug/L  | 98       |
| 95) 2-Chlorotoluene            | 11.343 | 91   | 78624    | 4.79   | ug/L  | 98       |
| 96) 3-Chlorotoluene            | 11.403 | 91   | 83539    | 4.77   | ug/L  | 99       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 91577    | 4.86   | ug/L  | 98       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 95681    | 4.84   | ug/L  | 97       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 82839    | 4.90   | ug/L  | 100      |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 93769    | 4.79   | ug/L  | 97       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 30710    | 4.50   | ug/L  | 97       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 116807   | 5.03   | ug/L  | 99       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 101661   | 4.94   | ug/L  | 99       |



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4596.D  
 Acq On : 10 Jun 2022 3:14 pm  
 Operator : F.NAEGLER  
 Sample : 5.0 PPB STD  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 10 15:34:12 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|--------------------------------|--------|------|----------|-------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 61122    | 5.03  | ug/L  | 99       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 62947    | 5.04  | ug/L  | 99       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 27198    | 4.41  | ug/L  | 93       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 30382    | 4.41  | ug/L  | 98       |
| 108) n-Butylbenzene            | 12.355 | 91   | 89548    | 5.29  | ug/L  | 96       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 61872    | 5.12  | ug/L  | 99       |
| 110) 1,2-Dibromo-3-chloropr... | 13.007 | 157  | 9735     | 4.38  | ug/L  | 97       |
| 111) Trielution Dichlorotol... | 13.110 | 125  | 150416   | 14.91 | ug/L  | 97       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 45043    | 5.01  | ug/L  | 97       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 107720   | 9.79  | ug/L  | 93       |
| 114) 1,2,4-Tcbenzene           | 13.653 | 180  | 47214    | 5.40  | ug/L  | 93       |
| 115) Hexachlorobt              | 13.781 | 225  | 17412    | 4.59  | ug/L  | 94       |
| 116) Naphthalen                | 13.848 | 128  | 129374   | 5.04  | ug/L  | 99       |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 47089    | 5.38  | ug/L  | 93       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 27049    | 4.77  | ug/L  | 97       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 25246    | 4.76  | ug/L  | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

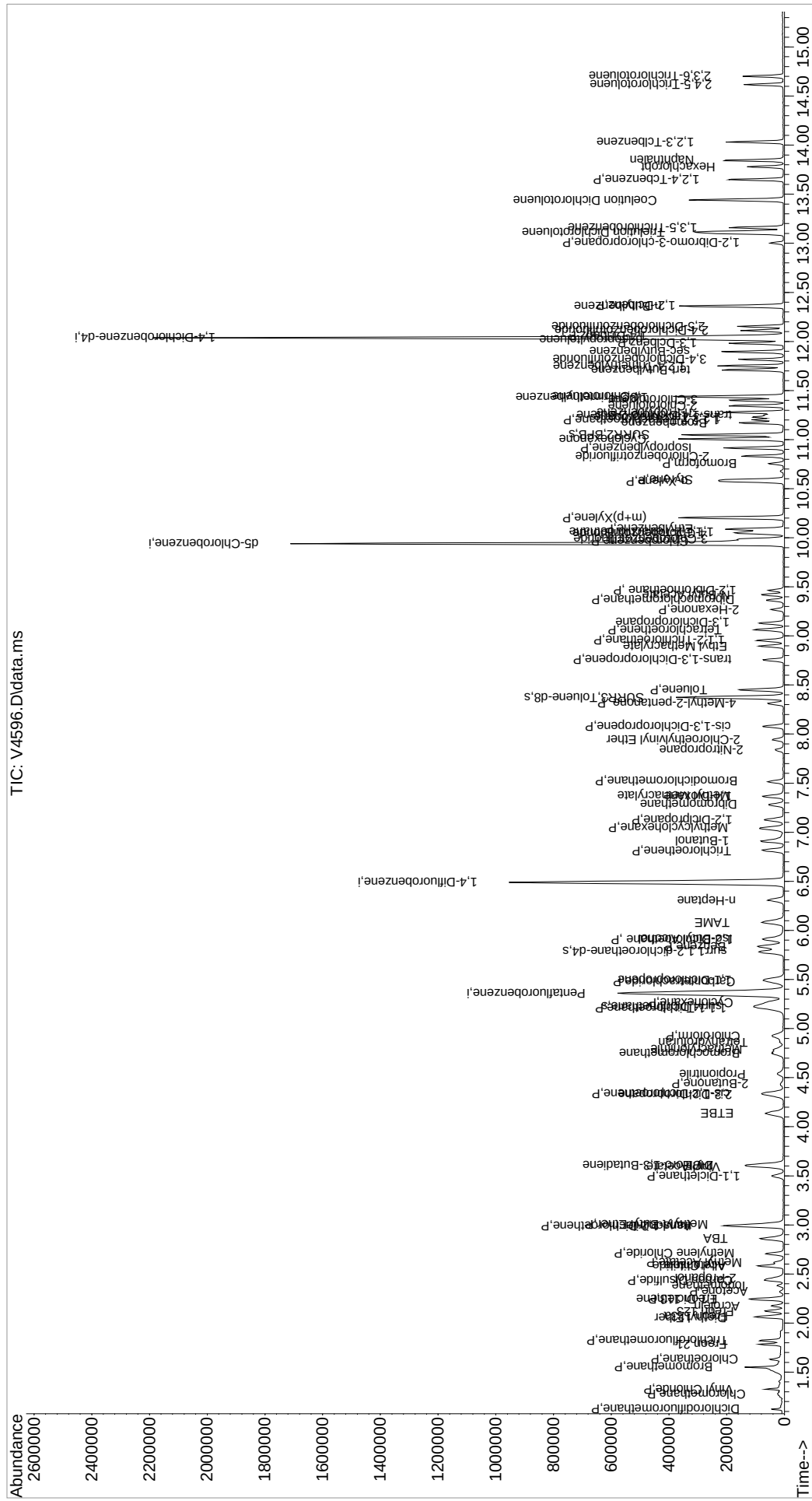
## Quantitation Report

|           |   |                                  |
|-----------|---|----------------------------------|
| Data Path | : | I:\ACQUDATA\MSVOA14\Data\061022\ |
| Data File | : | V4596.D                          |
| Acq On    | : | 10 Jun 2022 3:14 pm              |
| Operator  | : | F.NAEGLER                        |
| Sample    | : | 5.0 PPB STD                      |
| Misc      | : |                                  |
| ALS Vial  | : | 5 Sample Multiplier: 1           |

Inst : MSV0A14

ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 10 15:34:12 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



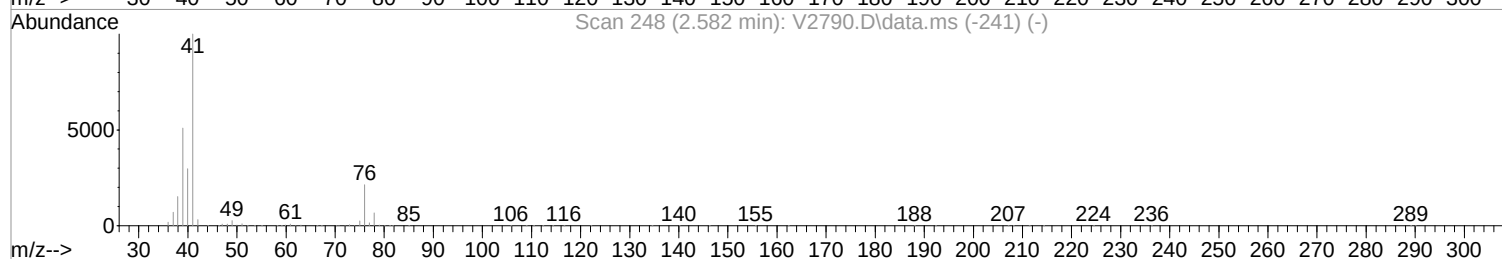
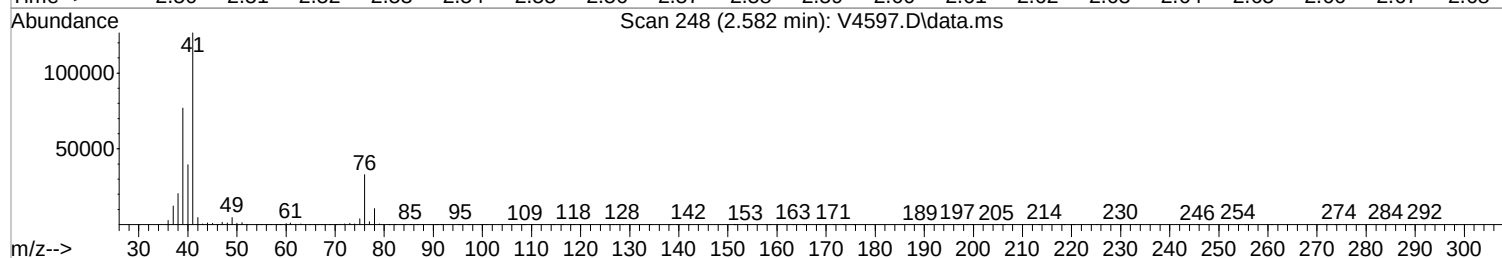
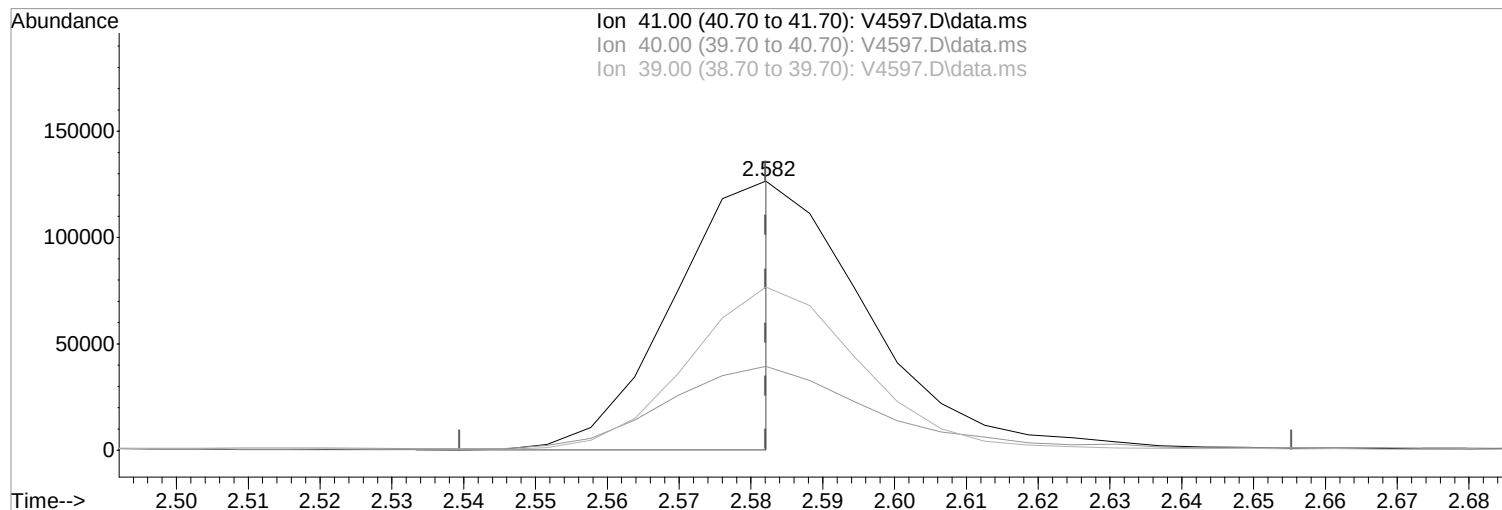
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4597.D  
Acq On : 10 Jun 2022 3:36 pm  
Operator : F.NAEGLER  
Sample : 20 PPB STD  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:26:27 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4597.D\data.ms

(19) Acetonitrile

2.582min (+0.000) 105.91 ug/L m

response 134350

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 31.16 |
| 39.00 | 51.10 | 60.71 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

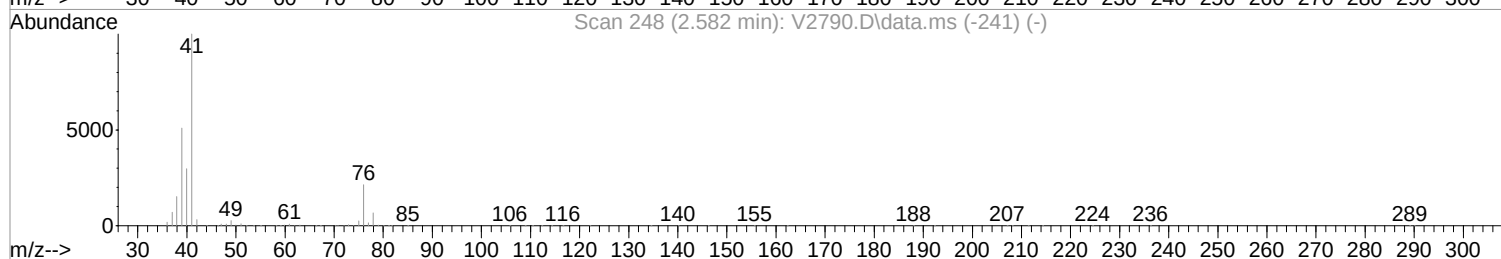
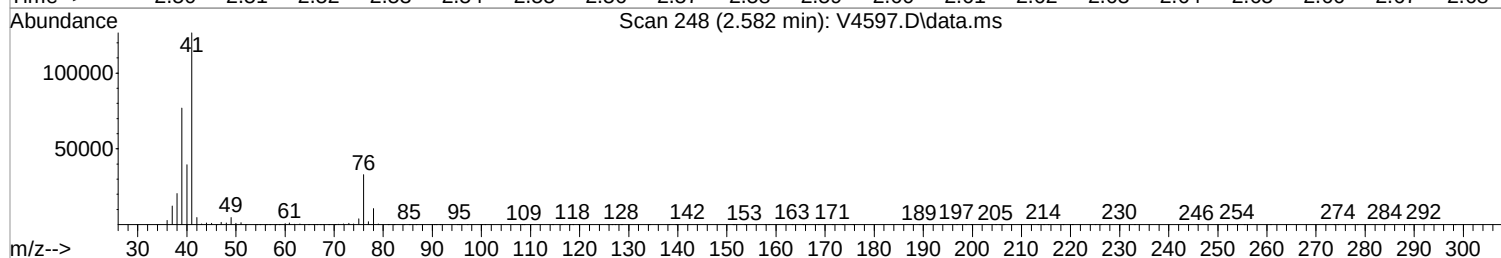
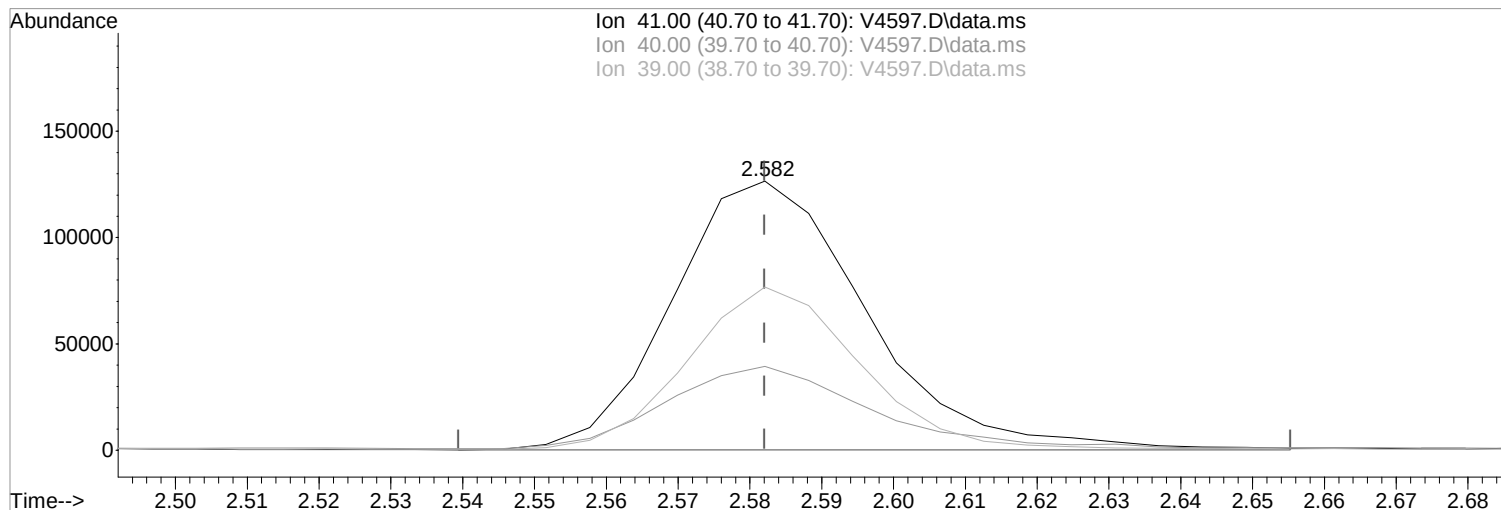
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4597.D  
Acq On : 10 Jun 2022 3:36 pm  
Operator : F.NAEGLER  
Sample : 20 PPB STD  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:26:27 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4597.D\data.ms

(19) Acetonitrile

Manual Integration:

2.582min (+0.000) 187.73 ug/L

Before

response 238140

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 31.16 |
| 39.00 | 51.10 | 60.71 |
| 0.00  | 0.00  | 0.00  |

06/13/22

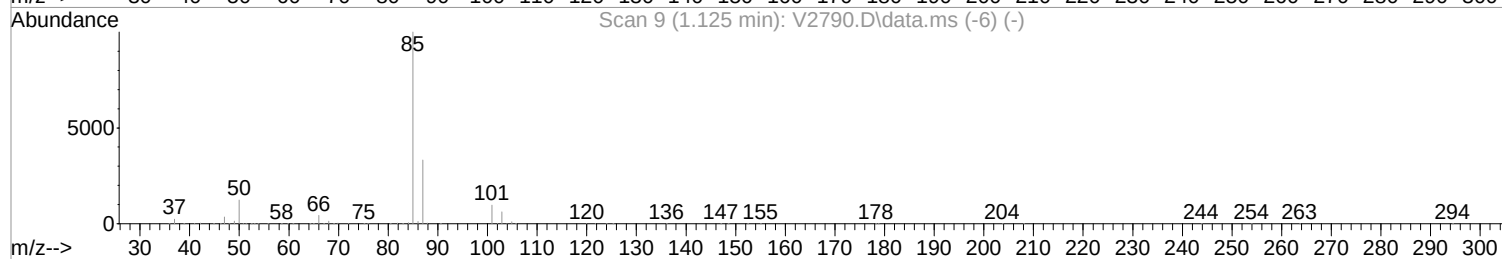
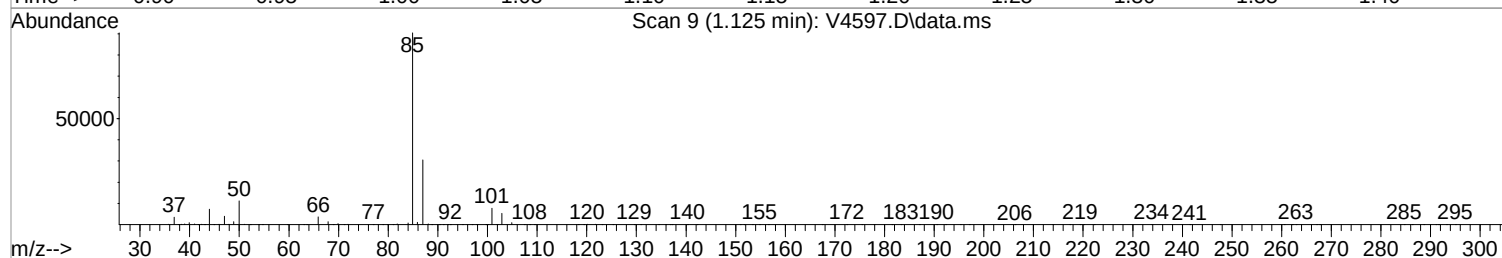
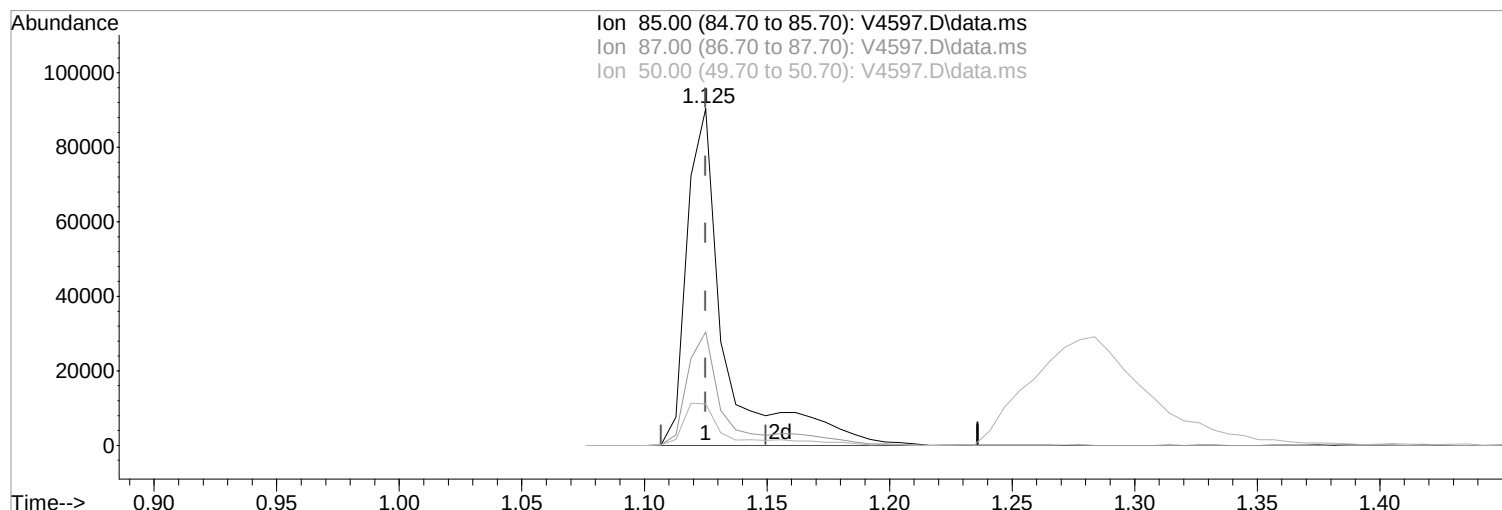
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4597.D  
Acq On : 10 Jun 2022 3:36 pm  
Operator : F.NAEGLER  
Sample : 20 PPB STD  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:26:27 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4597.D\data.ms

(2) Dichlorodifluoromethane (P)

1.125min (+0.000) 15.50 ug/L m

response 98388

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 33.68 |
| 50.00 | 12.40 | 12.32 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

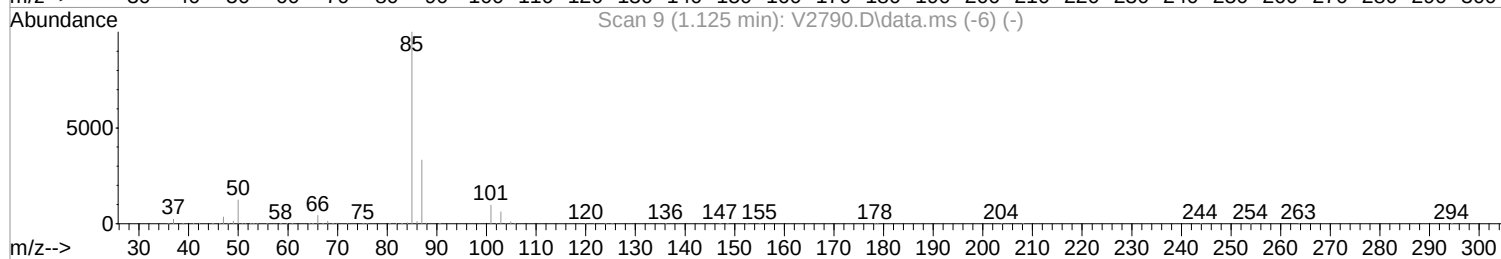
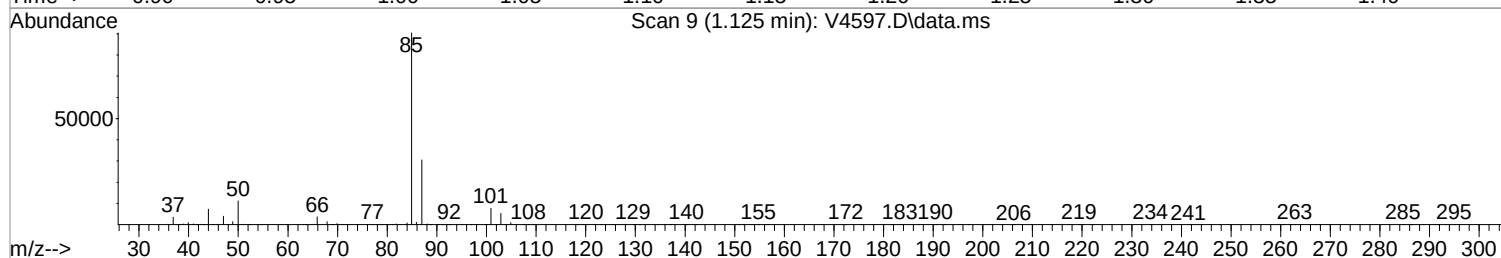
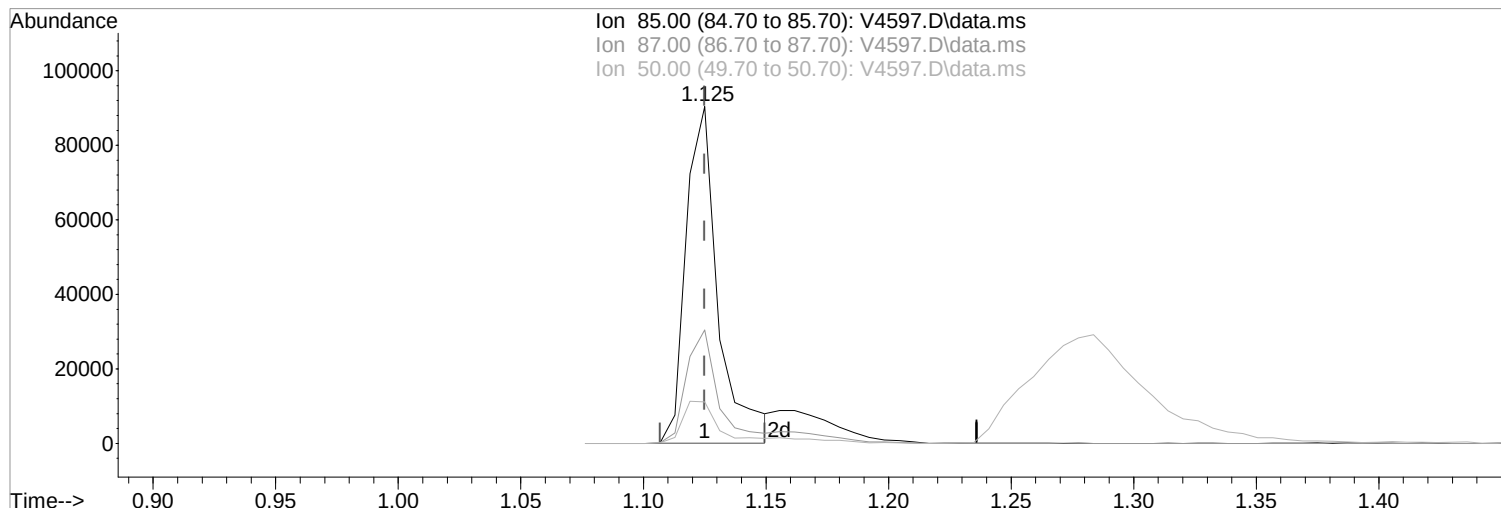
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4597.D  
Acq On : 10 Jun 2022 3:36 pm  
Operator : F.NAEGLER  
Sample : 20 PPB STD  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:26:27 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4597.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.125min (+0.000) 13.04 ug/L

Before

response 82724

06/13/22

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 33.68 |
| 50.00 | 12.40 | 12.32 |
| 0.00  | 0.00  | 0.00  |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4597.D  
 Acq On : 10 Jun 2022 3:36 pm  
 Operator : F.NAEGLER  
 Sample : 20 PPB STD  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:27:06 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 615469   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 903323   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 823286   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.038 | 152  | 455037   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |         |      |
|-------------------------------|--------|----------------|----------|-------|---------|------|
| System Monitoring Compounds   |        |                |          |       |         |      |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 109541   | 18.72 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 37.44%# |      |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 127618   | 18.32 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 36.64%# |      |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 407451   | 18.80 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 37.60%# |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 158136   | 19.00 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 38.00%# |      |

|                              |       |     |         |        |        |      |
|------------------------------|-------|-----|---------|--------|--------|------|
| Target Compounds             |       |     |         |        | Qvalue |      |
| 2) Dichlorodifluoromethane   | 1.125 | 85  | 98388m  | 15.50  | ug/L   |      |
| 3) Chloromethane             | 1.284 | 50  | 95906   | 17.98  | ug/L   | 93   |
| 4) Vinyl Chloride            | 1.326 | 62  | 126026  | 19.98  | ug/L   | 100  |
| 5) Bromomethane              | 1.552 | 94  | 89463   | 24.42  | ug/L   | 98   |
| 6) Chloroethane              | 1.631 | 64  | 83341   | 21.75  | ug/L   | 96   |
| 7) Freon 21                  | 1.783 | 67  | 189344  | 20.79  | ug/L   | 98   |
| 8) Trichlorofluoromethane    | 1.820 | 101 | 156718  | 20.54  | ug/L   | 98   |
| 9) Diethyl Ether             | 2.058 | 59  | 78524   | 17.34  | ug/L   | 98   |
| 10) Freon 123a               | 2.070 | 67  | 93456   | 17.78  | ug/L   | 95   |
| 11) Freon 123                | 2.125 | 83  | 106401  | 17.17  | ug/L   | 99   |
| 12) Acrolein                 | 2.174 | 56  | 115312  | 93.32  | ug/L   | 97   |
| 13) 1,1-Dicethene            | 2.247 | 96  | 74634   | 17.42  | ug/L   | 94   |
| 14) Freon 113                | 2.247 | 101 | 72400   | 16.66  | ug/L   | 95   |
| 15) Acetone                  | 2.314 | 43  | 48124   | 16.58  | ug/L   | 95   |
| 16) 2-Propanol               | 2.448 | 45  | 215027  | 352.90 | ug/L   | 96   |
| 17) Iodomethane              | 2.381 | 142 | 108520  | 14.46  | ug/L   | 98   |
| 18) Carbon Disulfide         | 2.436 | 76  | 192306  | 15.70  | ug/L   | 98   |
| 19) Acetonitrile             | 2.582 | 41  | 134350m | 105.91 | ug/L   |      |
| 20) Allyl Chloride           | 2.582 | 76  | 53048   | 19.68  | ug/L   | # 86 |
| 21) Methyl Acetate           | 2.619 | 43  | 126601  | 18.55  | ug/L   | 99   |
| 22) Methylene Chloride       | 2.710 | 84  | 97672   | 18.43  | ug/L   | 99   |
| 23) TBA                      | 2.856 | 59  | 399203  | 368.83 | ug/L   | 96   |
| 24) Acrylonitrile            | 2.991 | 53  | 288558  | 97.83  | ug/L   | 99   |
| 25) Methyl-t-Butyl Ether     | 3.003 | 73  | 321310  | 18.31  | ug/L   | 96   |
| 26) trans-1,2-Dichloroethene | 2.991 | 96  | 91623   | 18.85  | ug/L   | 95   |
| 27) 1,1-Dicethane            | 3.503 | 63  | 161937  | 19.11  | ug/L   | 99   |
| 28) Vinyl Acetate            | 3.594 | 86  | 19426   | 24.75  | ug/L   | # 71 |
| 29) DIPE                     | 3.606 | 45  | 282090  | 19.72  | ug/L   | 94   |
| 30) 2-Chloro-1,3-Butadiene   | 3.612 | 53  | 118516  | 16.76  | ug/L   | 99   |
| 31) ETBE                     | 4.137 | 59  | 278959  | 19.00  | ug/L   | 97   |
| 32) 2,2-Dichloropropane      | 4.326 | 77  | 133290  | 19.62  | ug/L   | 96   |
| 33) cis-1,2-Dichloroethene   | 4.344 | 96  | 109112  | 19.34  | ug/L   | 98   |
| 34) 2-Butanone               | 4.429 | 43  | 72434   | 18.40  | ug/L   | 98   |
| 35) Propionitrile            | 4.539 | 54  | 124307  | 100.81 | ug/L   | 96   |
| 36) Bromochloromethane       | 4.752 | 130 | 75731   | 18.94  | ug/L   | 97   |
| 37) Methacrylonitrile        | 4.789 | 67  | 60582   | 19.50  | ug/L   | 99   |
| 38) Tetrahydrofuran          | 4.856 | 42  | 48910   | 19.13  | ug/L   | 97   |
| 39) Chloroform               | 4.929 | 83  | 176638  | 19.51  | ug/L   | 96   |
| 40) 1,1,1-Trichloroethane    | 5.204 | 97  | 139490  | 17.32  | ug/L   | 97   |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4597.D  
 Acq On : 10 Jun 2022 3:36 pm  
 Operator : F.NAEGLER  
 Sample : 20 PPB STD  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:27:06 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 41) TAME                       | 6.081  | 73   | 279092   | 18.05  | ug/L  | 96       |
| 43) Cyclohexane                | 5.265  | 41   | 80086    | 18.84  | ug/L  | 99       |
| 45) Carbontetrachloride        | 5.478  | 117  | 117620   | 16.21  | ug/L  | 89       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 114334   | 17.18  | ug/L  | 97       |
| 48) Benzene                    | 5.838  | 78   | 372045   | 18.64  | ug/L  | 99       |
| 49) 1,2-Dichloroethane         | 5.905  | 62   | 146833   | 18.47  | ug/L  | 96       |
| 50) Iso-Butyl Alcohol          | 5.911  | 43   | 153548   | 363.22 | ug/L  | 99       |
| 51) n-Heptane                  | 6.313  | 43   | 87288    | 18.34  | ug/L  | 93       |
| 52) 1-Butanol                  | 6.904  | 56   | 239845   | 854.79 | ug/L  | 97       |
| 53) Trichloroethene            | 6.819  | 130  | 107494   | 17.17  | ug/L  | 98       |
| 54) Methylcyclohexane          | 7.039  | 55   | 103139   | 18.52  | ug/L  | 97       |
| 55) 1,2-Dicloropropane         | 7.130  | 63   | 98848    | 18.61  | ug/L  | 99       |
| 56) Dibromomethane             | 7.282  | 93   | 74709    | 18.62  | ug/L  | 98       |
| 57) 1,4-Dioxane                | 7.356  | 88   | 51070    | 411.15 | ug/L  | 97       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 96206    | 19.09  | ug/L  | 99       |
| 59) Bromodichloromethane       | 7.514  | 83   | 135183   | 17.74  | ug/L  | 97       |
| 60) 2-Nitropropane             | 7.837  | 41   | 74813    | 33.91  | ug/L  | 99       |
| 61) 2-Chloroethylvinyl Ether   | 7.941  | 63   | 64907    | 15.94  | ug/L  | 93       |
| 62) cis-1,3-Dichloropropene    | 8.081  | 75   | 154343   | 17.10  | ug/L  | 97       |
| 63) 4-Methyl-2-pentanone       | 8.307  | 43   | 143197   | 18.93  | ug/L  | 95       |
| 65) Toluene                    | 8.453  | 91   | 411629   | 18.45  | ug/L  | 98       |
| 66) trans-1,3-Dichloropropene  | 8.752  | 75   | 140852   | 16.90  | ug/L  | 98       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 160993   | 18.80  | ug/L  | 98       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 103437   | 18.61  | ug/L  | 98       |
| 71) Tetrachloroethene          | 9.063  | 164  | 79269    | 17.29  | ug/L  | 98       |
| 72) 2-Hexanone                 | 9.264  | 43   | 106083   | 18.91  | ug/L  | 97       |
| 73) 1,3-Dichloropropane        | 9.130  | 76   | 177080   | 18.91  | ug/L  | 98       |
| 74) Dibromochloromethane       | 9.367  | 129  | 112991   | 17.32  | ug/L  | 98       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 199948   | 18.43  | ug/L  | 97       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 113458   | 18.52  | ug/L  | 98       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 149325   | 17.29  | ug/L  | 97       |
| 78) Chlorobenzene              | 9.971  | 112  | 286274   | 18.52  | ug/L  | 97       |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 130926   | 16.86  | ug/L  | 97       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 104437   | 18.05  | ug/L  | 96       |
| 81) Ethylbenzene               | 10.087 | 106  | 141510   | 18.46  | ug/L  | 96       |
| 82) (m+p)Xylene                | 10.203 | 106  | 355357   | 36.82  | ug/L  | 97       |
| 83) o-Xylene                   | 10.574 | 106  | 173920   | 18.53  | ug/L  | 99       |
| 84) Styrene                    | 10.593 | 104  | 307724   | 18.58  | ug/L  | 99       |
| 85) Bromoform                  | 10.757 | 173  | 81109    | 16.54  | ug/L  | 99       |
| 86) 2-Chlorobenzotrifluoride   | 10.830 | 180  | 148087   | 16.85  | ug/L  | 99       |
| 87) Isopropylbenzene           | 10.916 | 105  | 409091   | 17.88  | ug/L  | 99       |
| 88) Cyclohexanone              | 11.007 | 55   | 527861   | 463.47 | ug/L  | 98       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 45991    | 19.32  | ug/L  | 93       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 161698   | 20.04  | ug/L  | 99       |
| 92) Bromobenzene               | 11.172 | 156  | 137645   | 18.30  | ug/L  | 95       |
| 93) 1,2,3-Trichloropropane     | 11.233 | 110  | 53268    | 16.82  | ug/L  | 97       |
| 94) n-Propylbenzene            | 11.276 | 91   | 505596   | 17.73  | ug/L  | 98       |
| 95) 2-Chlorotoluene            | 11.343 | 91   | 315712   | 17.86  | ug/L  | 97       |
| 96) 3-Chlorotoluene            | 11.397 | 91   | 314803   | 16.69  | ug/L  | 96       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 361940   | 17.85  | ug/L  | 97       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 376953   | 17.71  | ug/L  | 96       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 313047   | 17.20  | ug/L  | 96       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 378356   | 17.97  | ug/L  | 98       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 116542   | 15.86  | ug/L  | 97       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 436670   | 17.47  | ug/L  | 98       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 395660   | 17.85  | ug/L  | 98       |



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4597.D  
Acq On : 10 Jun 2022 3:36 pm  
Operator : F.NAEGLER  
Sample : 20 PPB STD  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:27:06 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|--------------------------------|--------|------|----------|-------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 243264   | 18.62 | ug/L  | 99       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 244520   | 18.18 | ug/L  | 97       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 108755   | 16.38 | ug/L  | 98       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 118738   | 16.03 | ug/L  | 96       |
| 108) n-Butylbenzene            | 12.355 | 91   | 340824   | 18.70 | ug/L  | 97       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 247456   | 19.04 | ug/L  | 98       |
| 110) 1,2-Dibromo-3-chloropr... | 13.001 | 157  | 44195    | 18.48 | ug/L  | 91       |
| 111) Trielution Dichlorotol... | 13.111 | 125  | 576754   | 53.12 | ug/L  | 99       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 177557   | 18.36 | ug/L  | 98       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 427132   | 36.07 | ug/L  | 97       |
| 114) 1,2,4-Tcbenzene           | 13.647 | 180  | 190690   | 20.28 | ug/L  | 99       |
| 115) Hexachlorobt              | 13.781 | 225  | 67983    | 16.64 | ug/L  | 98       |
| 116) Naphthalen                | 13.848 | 128  | 556486   | 20.13 | ug/L  | 99       |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 191819   | 20.37 | ug/L  | 98       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 110428   | 18.10 | ug/L  | 96       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 100235   | 17.56 | ug/L  | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

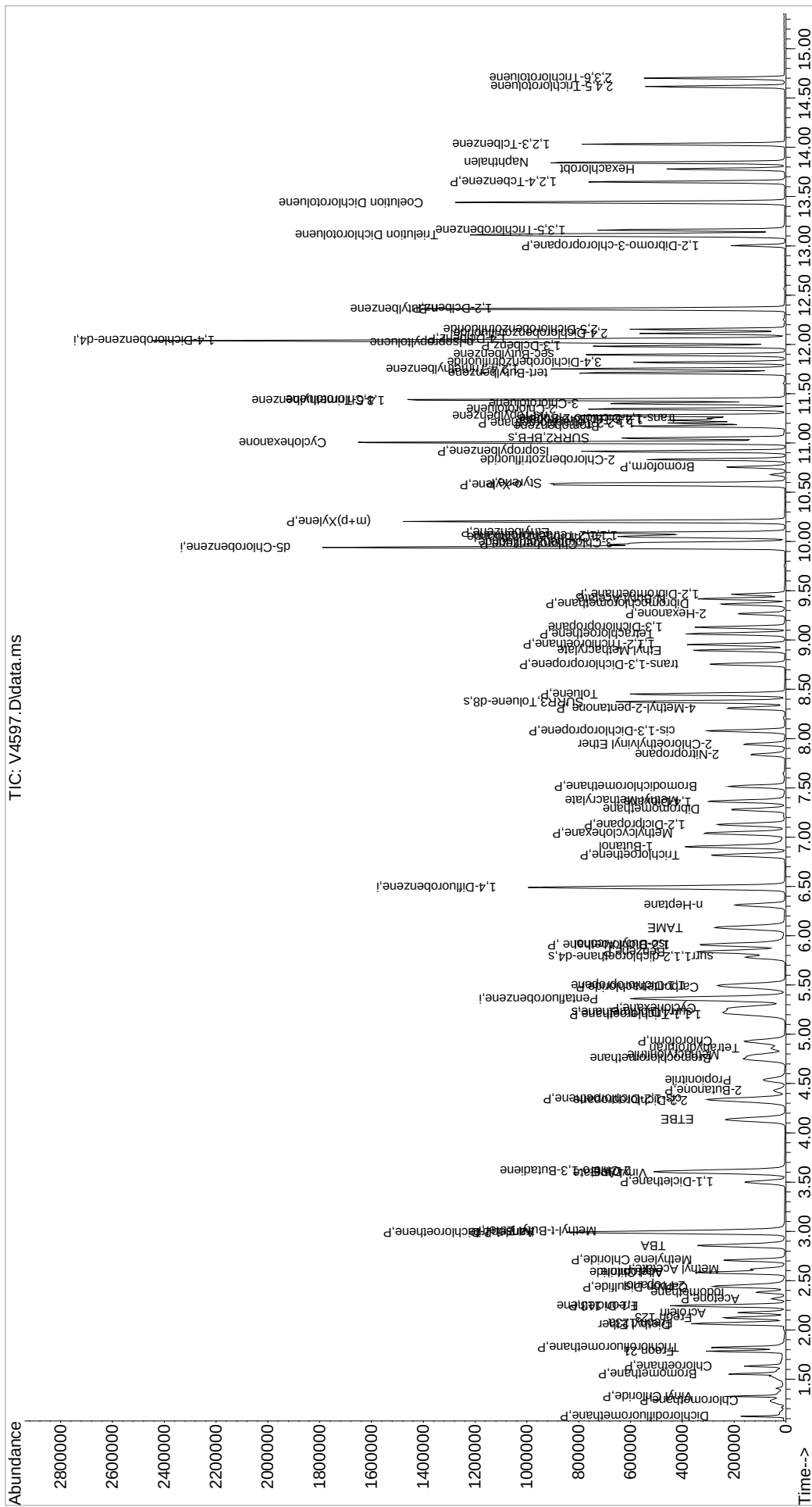
## Quantitation Report (QT Reviewed)

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Data Path      : I:\ACQUDATA\MSV0A14\Data\061022\
Data File     : V4597.D
Acq On        : 10 Jun 2022   3:36 pm
Operator      : F.NAEGLER
Sample        : 20 PPB STD
Misc          :
ALS Vial      : 6   Sample Multiplier: 1
Inst          : MSV0A14

```

Quant Time: Jun 13 09:27:06 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



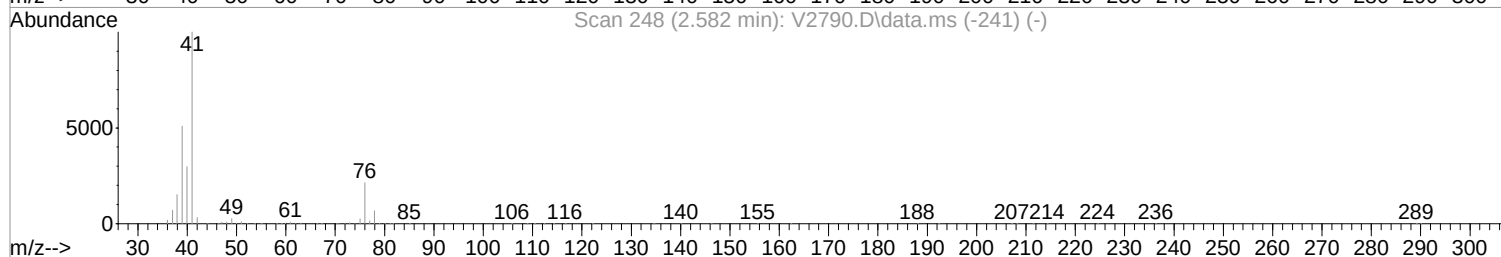
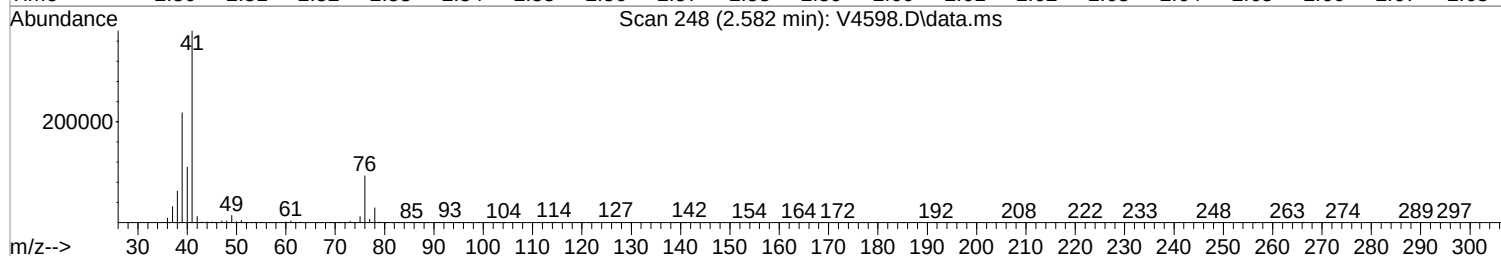
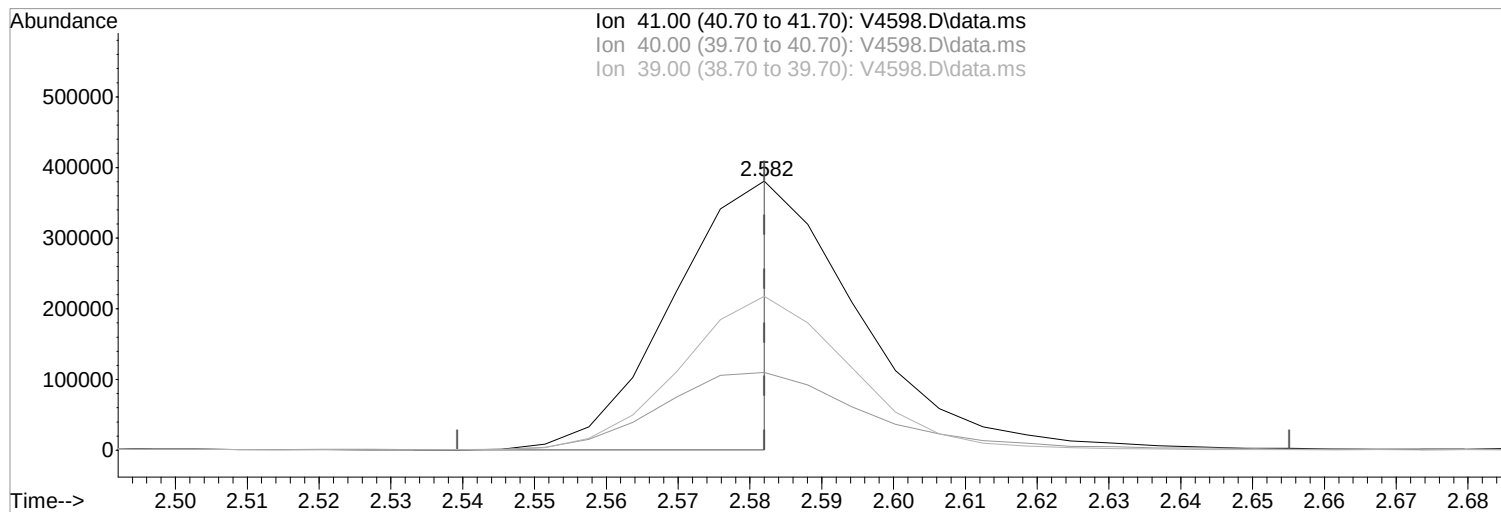
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4598.D  
Acq On : 10 Jun 2022 3:58 pm  
Operator : F.NAEGLER  
Sample : 50 PPB STD  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:27:55 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4598.D\data.ms

(19) Acetonitrile

2.582min (-0.000) 296.37 ug/L m

response 398458

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 28.88 |
| 39.00 | 51.10 | 57.24 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

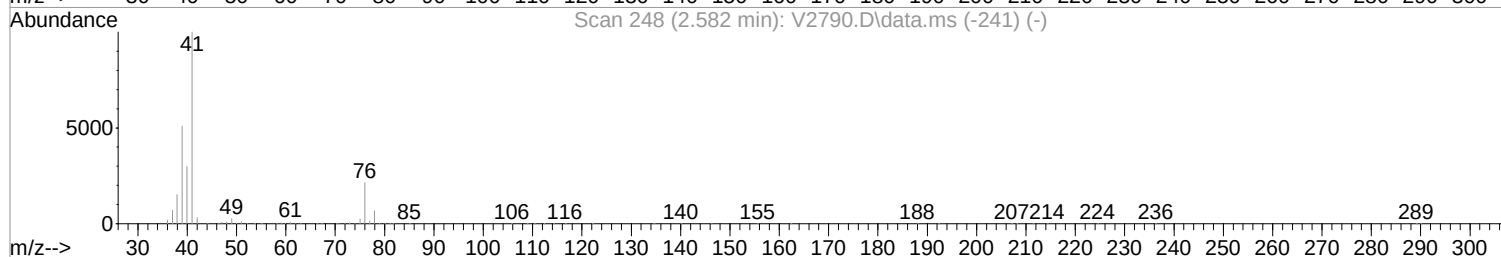
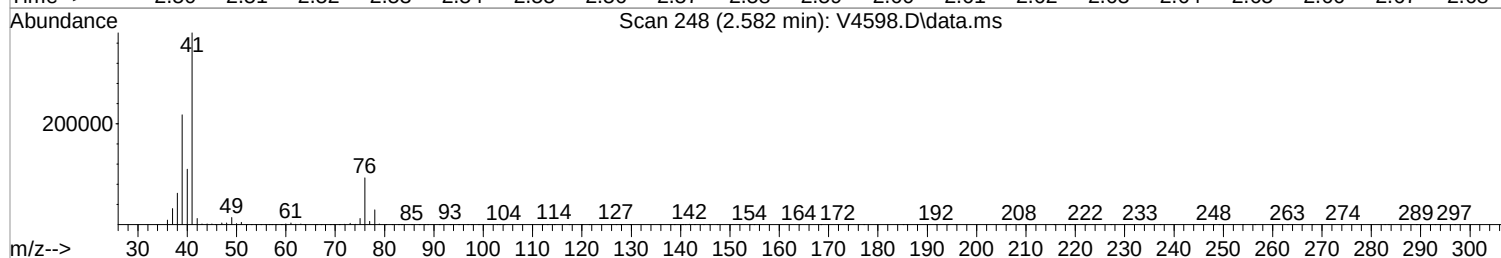
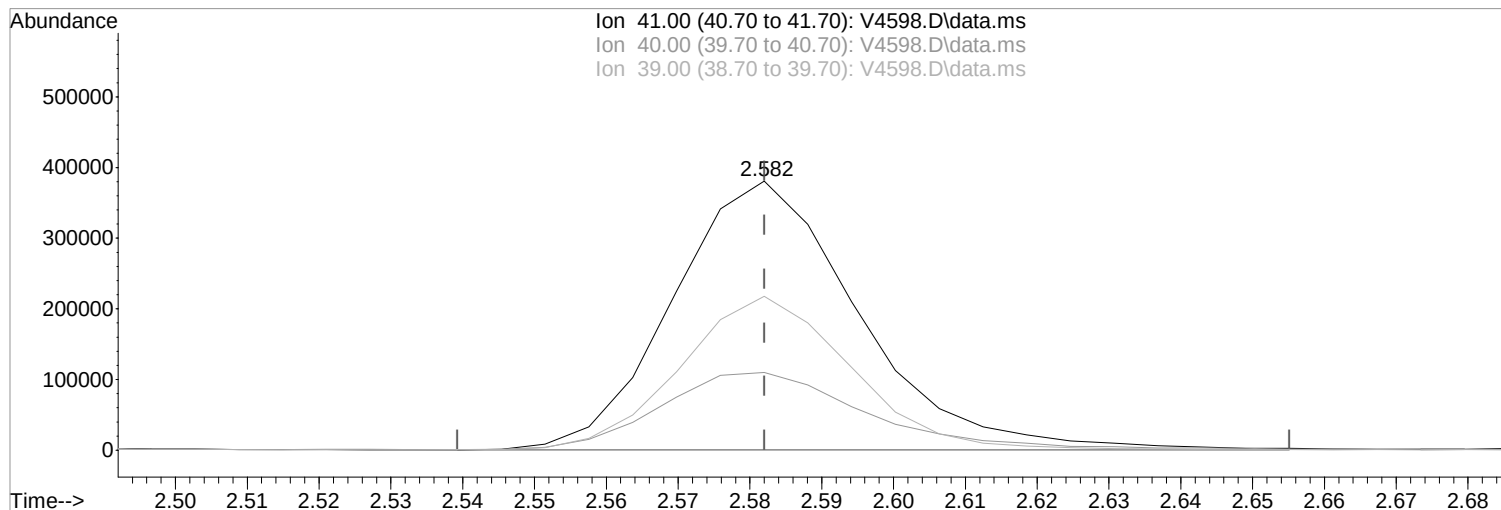
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4598.D  
Acq On : 10 Jun 2022 3:58 pm  
Operator : F.NAEGLER  
Sample : 50 PPB STD  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:27:55 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4598.D\data.ms

(19) Acetonitrile

Manual Integration:

2.582min (-0.000) 510.94 ug/L

Before

response 686931

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 28.88 |
| 39.00 | 51.10 | 57.24 |
| 0.00  | 0.00  | 0.00  |

06/13/22

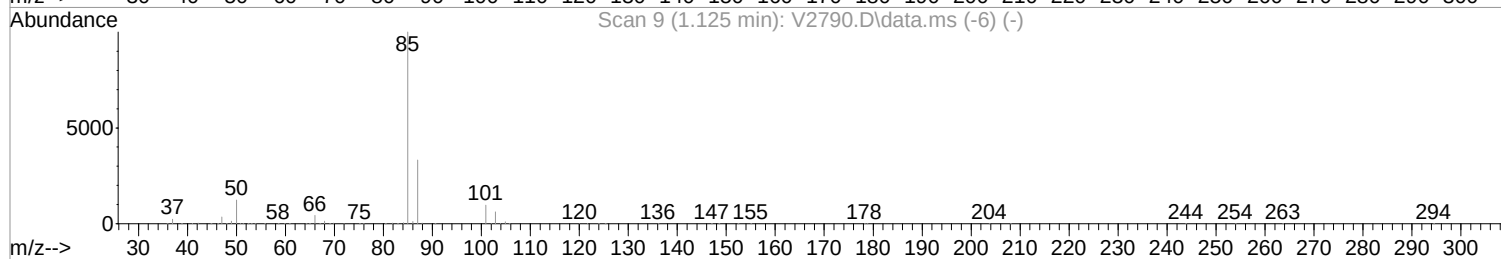
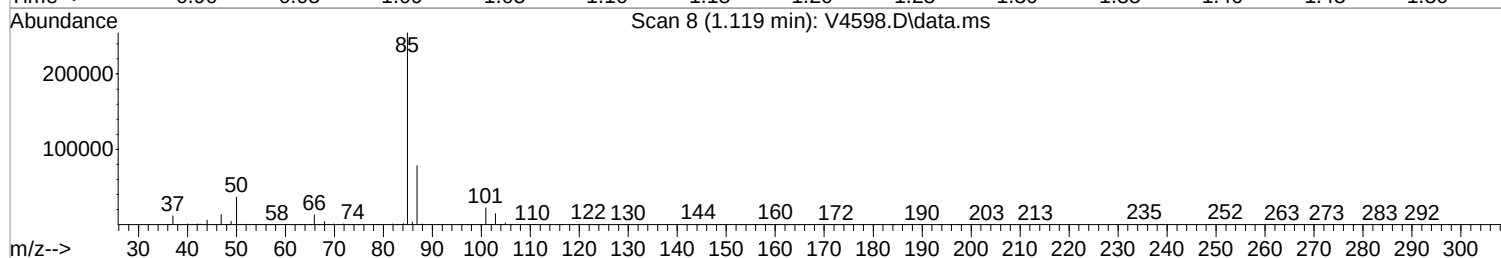
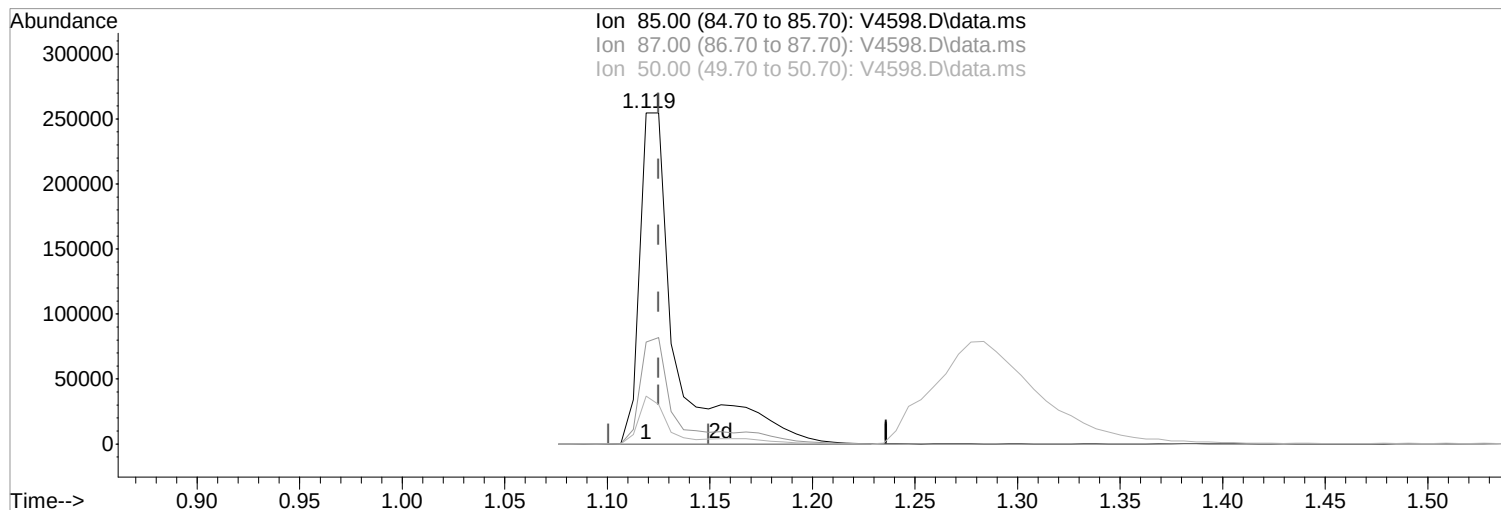
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4598.D  
Acq On : 10 Jun 2022 3:58 pm  
Operator : F.NAEGLER  
Sample : 50 PPB STD  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:27:55 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4598.D\data.ms

(2) Dichlorodifluoromethane (P)

1.119min (-0.006) 47.44 ug/L m

response 319107

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 30.77 |
| 50.00 | 12.40 | 14.43 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

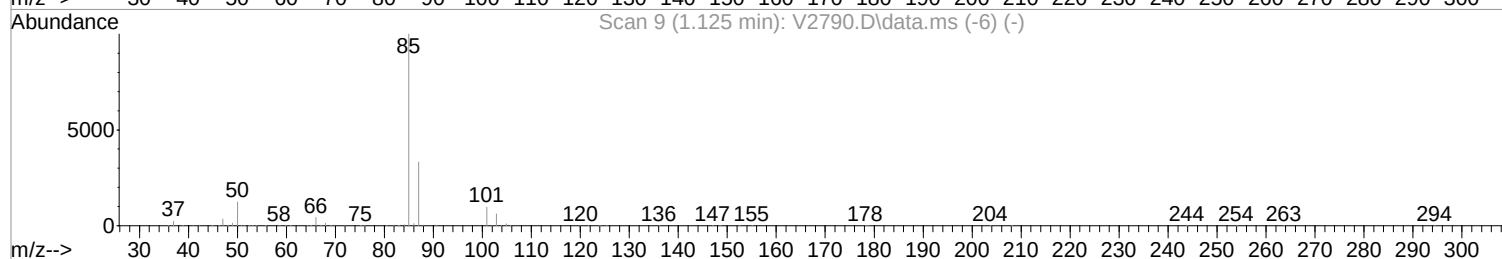
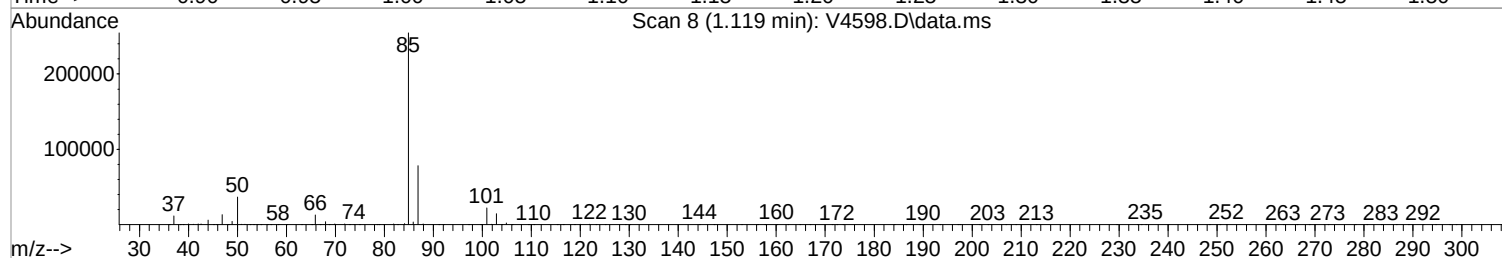
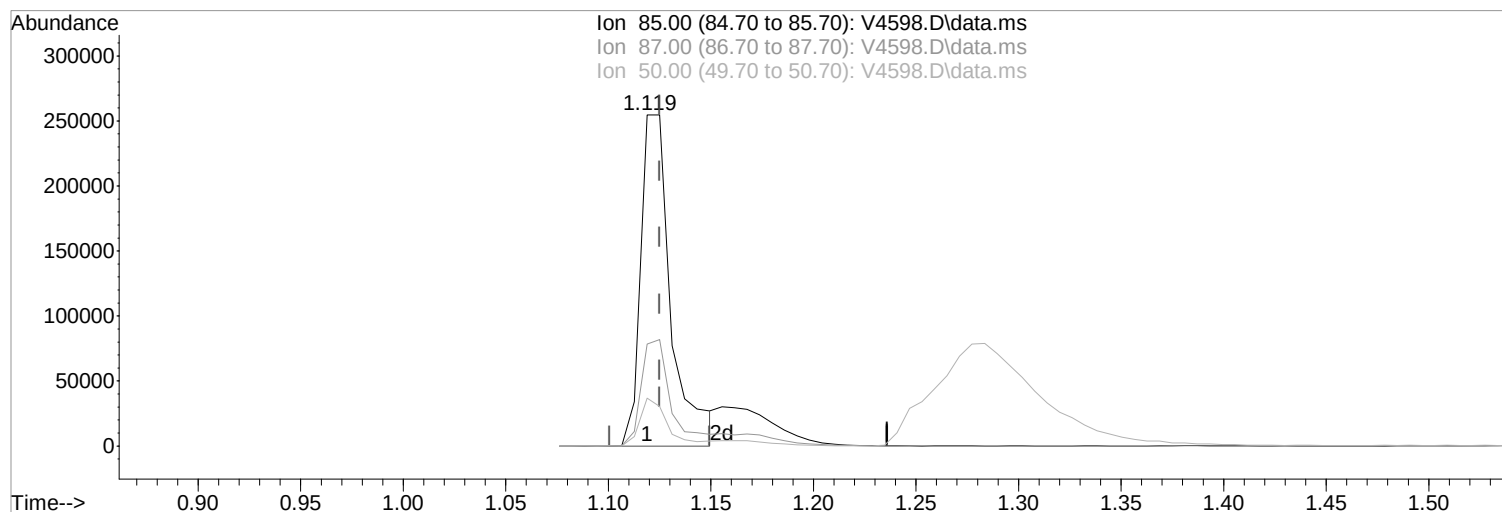
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4598.D  
Acq On : 10 Jun 2022 3:58 pm  
Operator : F.NAEGLER  
Sample : 50 PPB STD  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:27:55 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4598.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.119min (-0.006) 38.76 ug/L

Before

response 260721

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 30.77 |
| 50.00 | 12.40 | 14.43 |
| 0.00  | 0.00  | 0.00  |

06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4598.D  
 Acq On : 10 Jun 2022 3:58 pm  
 Operator : F.NAEGLER  
 Sample : 50 PPB STD  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:28:26 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 652315   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 950593   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 848954   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.037 | 152  | 477734   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |         |      |
|-------------------------------|--------|----------------|----------|-------|---------|------|
| System Monitoring Compounds   |        |                |          |       |         |      |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 309400   | 50.25 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 100.50% |      |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 358219   | 48.87 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 97.74%  |      |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1143710  | 50.14 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 100.28% |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 441485   | 50.42 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 100.84% |      |

|                              |       |     |         |         |      |        |
|------------------------------|-------|-----|---------|---------|------|--------|
| Target Compounds             |       |     |         |         |      | Qvalue |
| 2) Dichlorodifluoromethane   | 1.119 | 85  | 319107m | 47.44   | ug/L |        |
| 3) Chloromethane             | 1.283 | 50  | 282023  | 49.88   | ug/L | 100    |
| 4) Vinyl Chloride            | 1.326 | 62  | 368218  | 55.08   | ug/L | 98     |
| 5) Bromomethane              | 1.552 | 94  | 212170  | 54.65   | ug/L | 94     |
| 6) Chloroethane              | 1.625 | 64  | 236495  | 58.23   | ug/L | 97     |
| 7) Freon 21                  | 1.783 | 67  | 555626  | 57.57   | ug/L | 98     |
| 8) Trichlorofluoromethane    | 1.820 | 101 | 475038  | 58.76   | ug/L | 98     |
| 9) Diethyl Ether             | 2.058 | 59  | 231000  | 48.14   | ug/L | 97     |
| 10) Freon 123a               | 2.070 | 67  | 286164  | 51.37   | ug/L | 97     |
| 11) Freon 123                | 2.119 | 83  | 347358  | 52.89   | ug/L | 97     |
| 12) Acrolein                 | 2.174 | 56  | 350646  | 267.74  | ug/L | 98     |
| 13) 1,1-Dicethene            | 2.247 | 96  | 236880  | 52.17   | ug/L | 95     |
| 14) Freon 113                | 2.241 | 101 | 241122  | 52.34   | ug/L | 99     |
| 15) Acetone                  | 2.314 | 43  | 140587  | 45.71   | ug/L | 96     |
| 16) 2-Propanol               | 2.454 | 45  | 680381  | 1053.57 | ug/L | 99     |
| 17) Iodomethane              | 2.381 | 142 | 414369  | 52.11   | ug/L | 98     |
| 18) Carbon Disulfide         | 2.436 | 76  | 653786  | 50.35   | ug/L | 99     |
| 19) Acetonitrile             | 2.582 | 41  | 398458m | 296.37  | ug/L |        |
| 20) Allyl Chloride           | 2.582 | 76  | 146424  | 51.27   | ug/L | 92     |
| 21) Methyl Acetate           | 2.619 | 43  | 371989  | 51.43   | ug/L | 99     |
| 22) Methylene Chloride       | 2.704 | 84  | 280012  | 49.86   | ug/L | 98     |
| 23) TBA                      | 2.856 | 59  | 1224831 | 1067.71 | ug/L | 97     |
| 24) Acrylonitrile            | 2.984 | 53  | 832268  | 266.24  | ug/L | 99     |
| 25) Methyl-t-Butyl Ether     | 3.003 | 73  | 910039  | 48.93   | ug/L | 100    |
| 26) trans-1,2-Dichloroethene | 2.990 | 96  | 272940  | 52.98   | ug/L | 95     |
| 27) 1,1-Dicethane            | 3.496 | 63  | 464568  | 51.72   | ug/L | 98     |
| 28) Vinyl Acetate            | 3.594 | 86  | 57303   | 68.89   | ug/L | # 70   |
| 29) DIPE                     | 3.606 | 45  | 799259  | 52.71   | ug/L | 92     |
| 30) 2-Chloro-1,3-Butadiene   | 3.612 | 53  | 387519  | 51.72   | ug/L | 100    |
| 31) ETBE                     | 4.130 | 59  | 799437  | 51.38   | ug/L | 100    |
| 32) 2,2-Dichloropropane      | 4.326 | 77  | 395787  | 54.97   | ug/L | 100    |
| 33) cis-1,2-Dichloroethene   | 4.344 | 96  | 311401  | 52.07   | ug/L | 99     |
| 34) 2-Butanone               | 4.423 | 43  | 217675  | 52.16   | ug/L | 97     |
| 35) Propionitrile            | 4.533 | 54  | 352961  | 270.08  | ug/L | 98     |
| 36) Bromochloromethane       | 4.746 | 130 | 214804  | 50.69   | ug/L | 94     |
| 37) Methacrylonitrile        | 4.783 | 67  | 175352  | 53.26   | ug/L | 89     |
| 38) Tetrahydrofuran          | 4.856 | 42  | 139921  | 51.63   | ug/L | 99     |
| 39) Chloroform               | 4.929 | 83  | 491465  | 51.21   | ug/L | 97     |
| 40) 1,1,1-Trichloroethane    | 5.203 | 97  | 420132  | 49.21   | ug/L | 95     |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4598.D  
 Acq On : 10 Jun 2022 3:58 pm  
 Operator : F.NAEGLER  
 Sample : 50 PPB STD  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:28:26 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 41) TAME                       | 6.081  | 73   | 822703   | 50.20   | ug/L  | 99       |
| 43) Cyclohexane                | 5.264  | 41   | 245527   | 54.89   | ug/L  | 92       |
| 45) Carbontetrachloride        | 5.478  | 117  | 363411   | 47.59   | ug/L  | 95       |
| 46) 1,1-Dichloropropene        | 5.502  | 75   | 345814   | 49.37   | ug/L  | 97       |
| 48) Benzene                    | 5.837  | 78   | 1071834  | 51.03   | ug/L  | 99       |
| 49) 1,2-Dichloroethane         | 5.904  | 62   | 402510   | 48.13   | ug/L  | 96       |
| 50) Iso-Butyl Alcohol          | 5.911  | 43   | 484517   | 1089.13 | ug/L  | 98       |
| 51) n-Heptane                  | 6.313  | 43   | 277736   | 55.46   | ug/L  | 95       |
| 52) 1-Butanol                  | 6.904  | 56   | 798274   | 2703.51 | ug/L  | 98       |
| 53) Trichloroethene            | 6.819  | 130  | 309469   | 46.98   | ug/L  | 98       |
| 54) Methylcyclohexane          | 7.038  | 55   | 321416   | 54.85   | ug/L  | 97       |
| 55) 1,2-Dichloropropane        | 7.130  | 63   | 274358   | 49.10   | ug/L  | 100      |
| 56) Dibromomethane             | 7.282  | 93   | 209949   | 49.73   | ug/L  | 98       |
| 57) 1,4-Dioxane                | 7.355  | 88   | 148984   | 1139.79 | ug/L  | 94       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 280761   | 52.93   | ug/L  | 99       |
| 59) Bromodichloromethane       | 7.514  | 83   | 388260   | 48.43   | ug/L  | 98       |
| 60) 2-Nitropropane             | 7.837  | 41   | 228939   | 98.62   | ug/L  | 94       |
| 61) 2-Chloroethylvinyl Ether   | 7.941  | 63   | 204989   | 47.83   | ug/L  | 97       |
| 62) cis-1,3-Dichloropropene    | 8.081  | 75   | 451136   | 47.49   | ug/L  | 98       |
| 63) 4-Methyl-2-pentanone       | 8.306  | 43   | 432843   | 54.37   | ug/L  | 98       |
| 65) Toluene                    | 8.453  | 91   | 1181127  | 50.31   | ug/L  | 97       |
| 66) trans-1,3-Dichloropropene  | 8.752  | 75   | 417630   | 47.61   | ug/L  | 99       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 480886   | 53.35   | ug/L  | 97       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 293309   | 50.14   | ug/L  | 100      |
| 71) Tetrachloroethene          | 9.062  | 164  | 240090   | 50.78   | ug/L  | 96       |
| 72) 2-Hexanone                 | 9.264  | 43   | 327950   | 56.69   | ug/L  | 99       |
| 73) 1,3-Dichloropropane        | 9.129  | 76   | 485199   | 50.24   | ug/L  | 99       |
| 74) Dibromochloromethane       | 9.367  | 129  | 333976   | 49.64   | ug/L  | 96       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 616847   | 55.13   | ug/L  | 98       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 330687   | 52.35   | ug/L  | 100      |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 442641   | 49.70   | ug/L  | 98       |
| 78) Chlorobenzene              | 9.971  | 112  | 810243   | 50.84   | ug/L  | 99       |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 387057   | 48.32   | ug/L  | 98       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 301029   | 50.47   | ug/L  | 99       |
| 81) Ethylbenzene               | 10.087 | 106  | 407936   | 51.62   | ug/L  | 99       |
| 82) (m+p)Xylene                | 10.202 | 106  | 1018450  | 102.34  | ug/L  | 92       |
| 83) o-Xylene                   | 10.574 | 106  | 497794   | 51.43   | ug/L  | 97       |
| 84) Styrene                    | 10.593 | 104  | 881613   | 51.63   | ug/L  | 99       |
| 85) Bromoform                  | 10.757 | 173  | 257014   | 50.82   | ug/L  | 99       |
| 86) 2-Chlorobenzotrifluoride   | 10.830 | 180  | 438179   | 48.36   | ug/L  | 99       |
| 87) Isopropylbenzene           | 10.916 | 105  | 1204245  | 51.04   | ug/L  | 99       |
| 88) Cyclohexanone              | 11.007 | 55   | 1632833  | 1390.30 | ug/L  | 98       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 143232   | 58.36   | ug/L  | 93       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 481236   | 56.82   | ug/L  | 99       |
| 92) Bromobenzene               | 11.172 | 156  | 389618   | 49.35   | ug/L  | 96       |
| 93) 1,2,3-Trichloropropane     | 11.233 | 110  | 160945   | 48.41   | ug/L  | 96       |
| 94) n-Propylbenzene            | 11.281 | 91   | 1504335  | 50.26   | ug/L  | 100      |
| 95) 2-Chlorotoluene            | 11.342 | 91   | 893916   | 48.17   | ug/L  | 98       |
| 96) 3-Chlorotoluene            | 11.403 | 91   | 906890   | 45.79   | ug/L  | 99       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 1047537  | 49.21   | ug/L  | 98       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 1088852  | 48.72   | ug/L  | 97       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 918290   | 48.06   | ug/L  | 97       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 1095926  | 49.58   | ug/L  | 98       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 359077   | 46.54   | ug/L  | 98       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 1326730  | 50.56   | ug/L  | 99       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 1170555  | 50.30   | ug/L  | 98       |



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4598.D  
Acq On : 10 Jun 2022 3:58 pm  
Operator : F.NAEGLER  
Sample : 50 PPB STD  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:28:26 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 683733   | 49.84  | ug/L  | 100      |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 692127   | 49.01  | ug/L  | 98       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 332533   | 47.70  | ug/L  | 97       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 370669   | 47.65  | ug/L  | 100      |
| 108) n-Butylbenzene            | 12.354 | 91   | 1033578  | 54.03  | ug/L  | 99       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 699799   | 51.28  | ug/L  | 99       |
| 110) 1,2-Dibromo-3-chloropr... | 13.007 | 157  | 145398   | 57.92  | ug/L  | 97       |
| 111) Trielution Dichlorotol... | 13.110 | 125  | 1696270  | 148.81 | ug/L  | 99       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 516712   | 50.89  | ug/L  | 98       |
| 113) Coelution Dichlorotoluene | 13.440 | 125  | 1256459  | 101.06 | ug/L  | 96       |
| 114) 1,2,4-Tcbenzene           | 13.653 | 180  | 555013   | 56.21  | ug/L  | 96       |
| 115) Hexachlorobt              | 13.781 | 225  | 213780   | 49.83  | ug/L  | 99       |
| 116) Naphthalen                | 13.848 | 128  | 1713753  | 59.06  | ug/L  | 99       |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 567522   | 57.41  | ug/L  | 98       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 341994   | 53.40  | ug/L  | 99       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 324878   | 54.22  | ug/L  | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

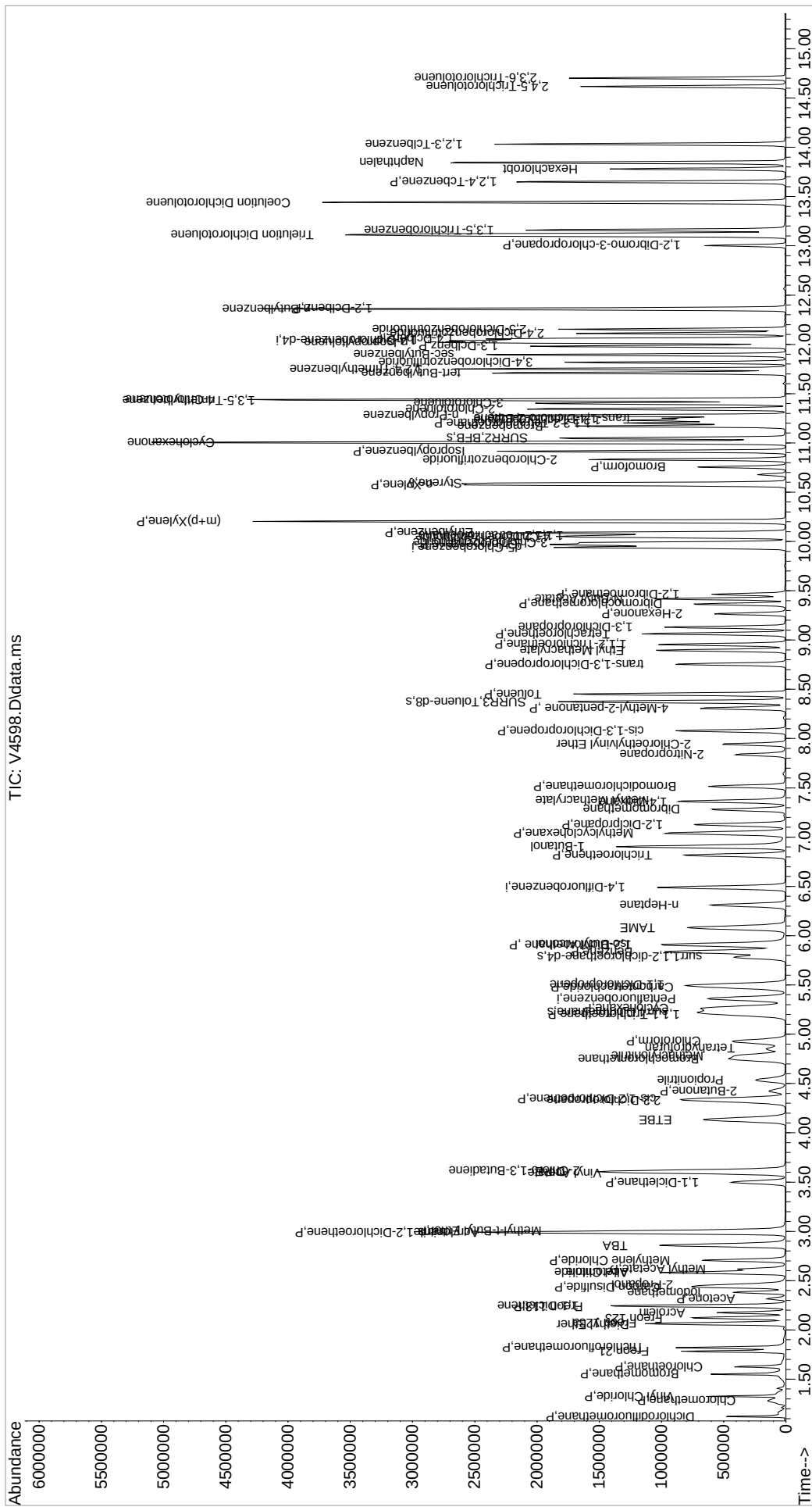
## Quantitation Report (QT Reviewed)

|           |   |                                  |
|-----------|---|----------------------------------|
| Data Path | : | I:\ACQUDATA\MSV0A14\Data\061022\ |
| Data File | : | V4598.D                          |
| Acq On    | : | 10 Jun 2022 3:58 pm              |
| Operator  | : | F.NAEGLER                        |
| Sample    | : | 50 PPB STD                       |
| Misc      | : |                                  |
| ALS Vial  | : | 7 Sample Multiplier: 1           |

Inst : MSV0A14

ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 13 09:28:26 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



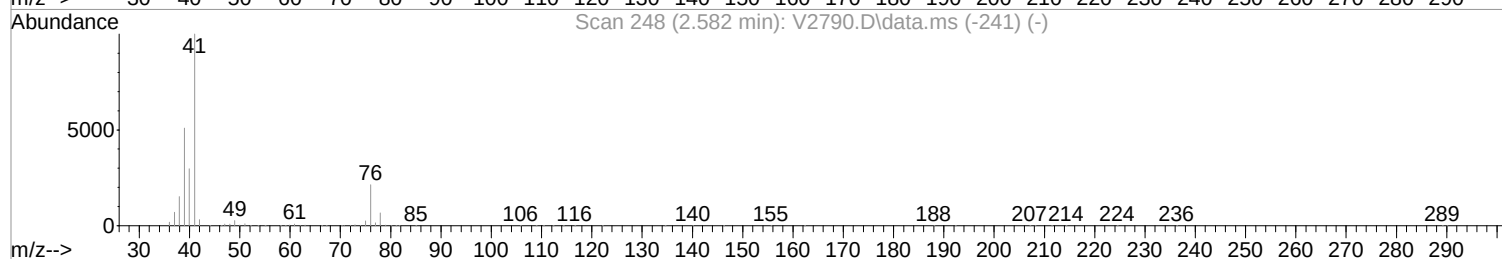
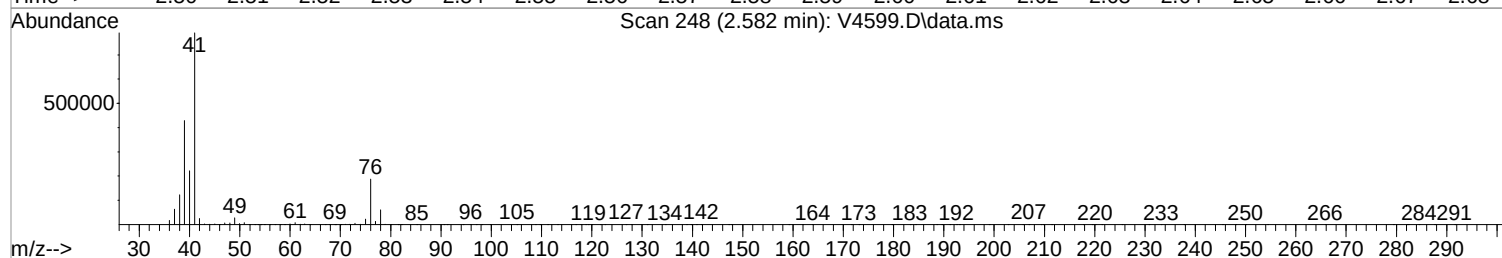
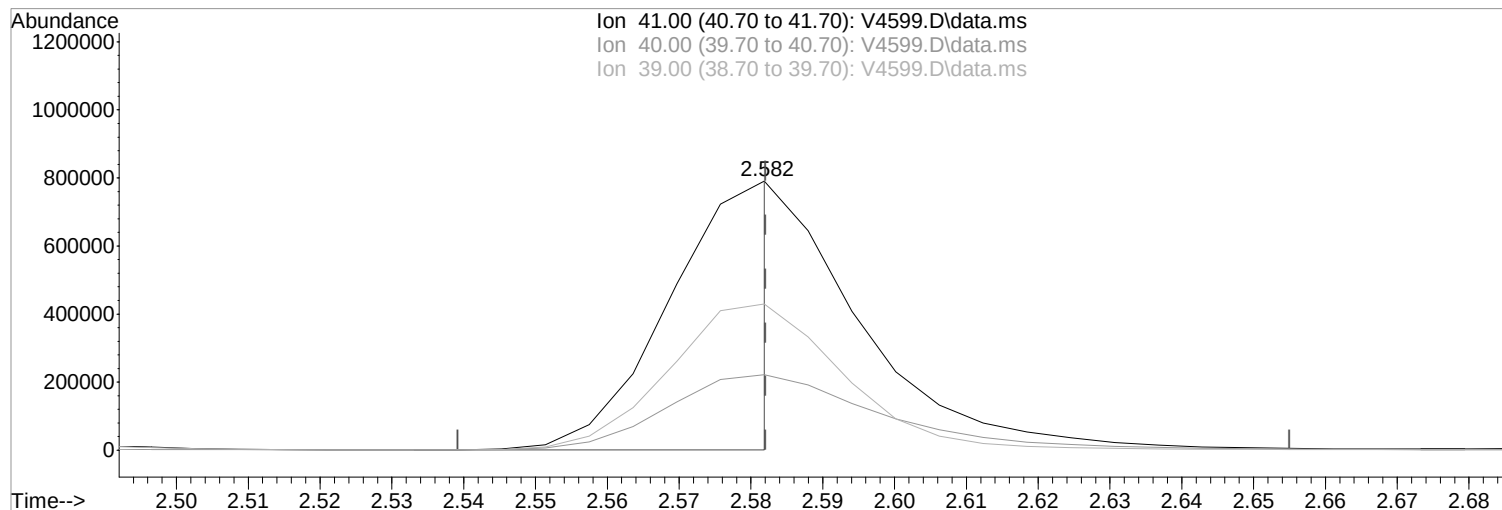
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4599.D  
Acq On : 10 Jun 2022 4:20 pm  
Operator : F.NAEGLER  
Sample : 100 PPB STD  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:29:39 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4599.D\data.ms

(19) Acetonitrile

2.582min (-0.000) 612.55 ug/L m

response 846445

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 28.06 |
| 39.00 | 51.10 | 54.34 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

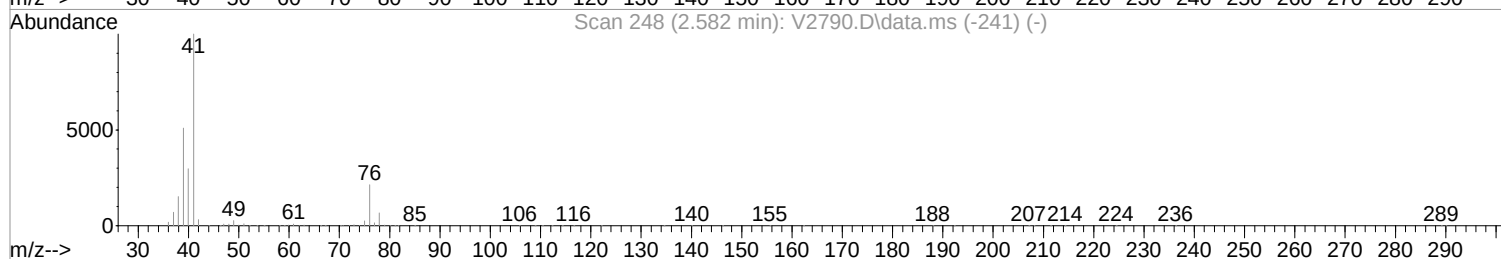
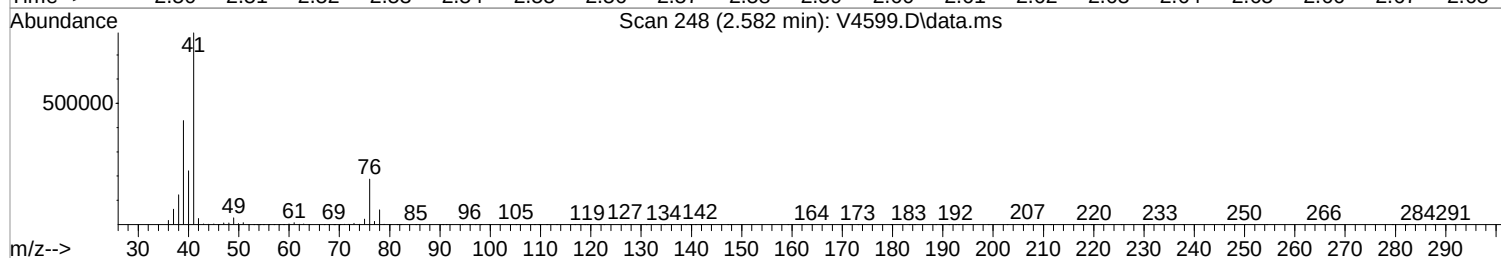
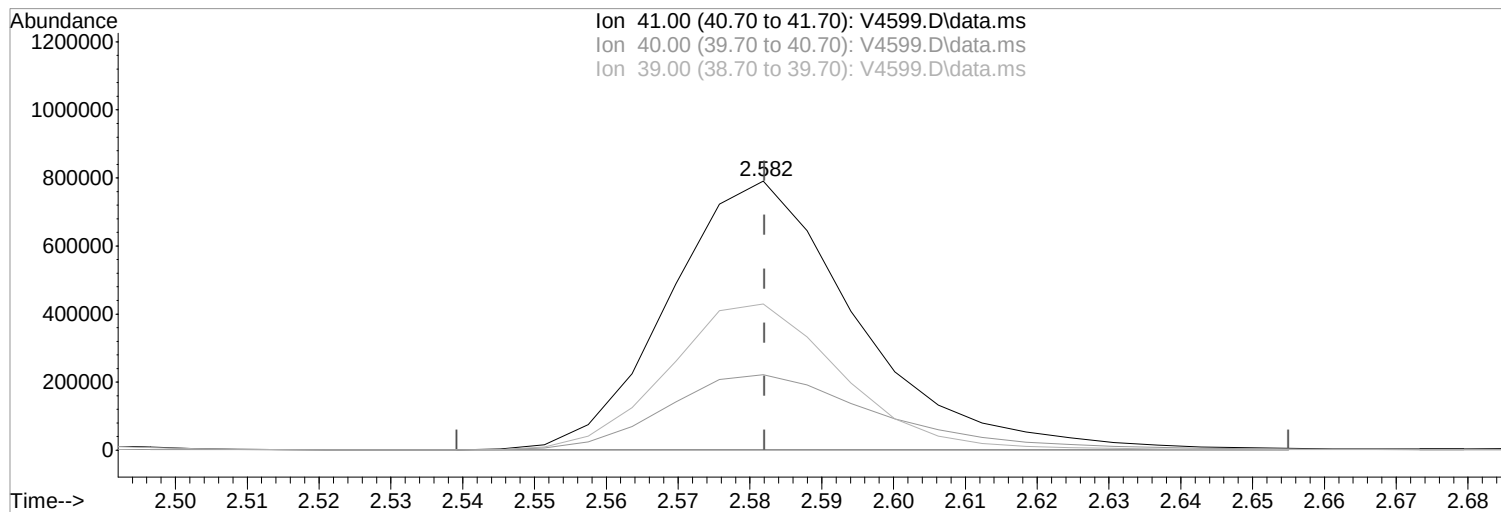
## Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4599.D  
Acq On : 10 Jun 2022 4:20 pm  
Operator : F.NAEGLER  
Sample : 100 PPB STD  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:29:39 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



(19) Acetonitrile

Manual Integration:

2.582min (-0.000) 1044.95 ug/L

Before

response 1443946

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 28.06 |
| 39.00 | 51.10 | 54.34 |
| 0.00  | 0.00  | 0.00  |

06/13/22

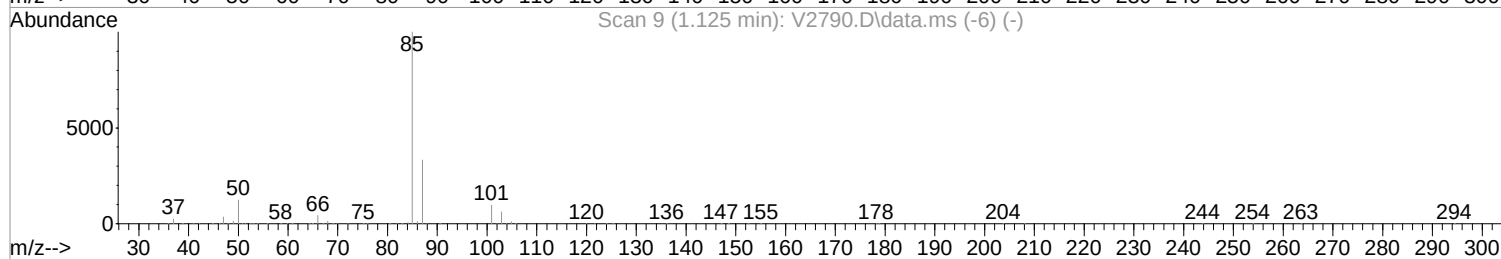
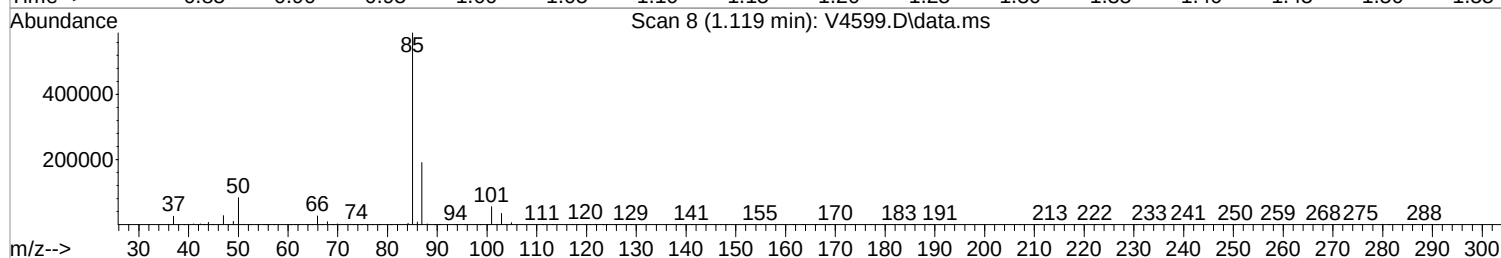
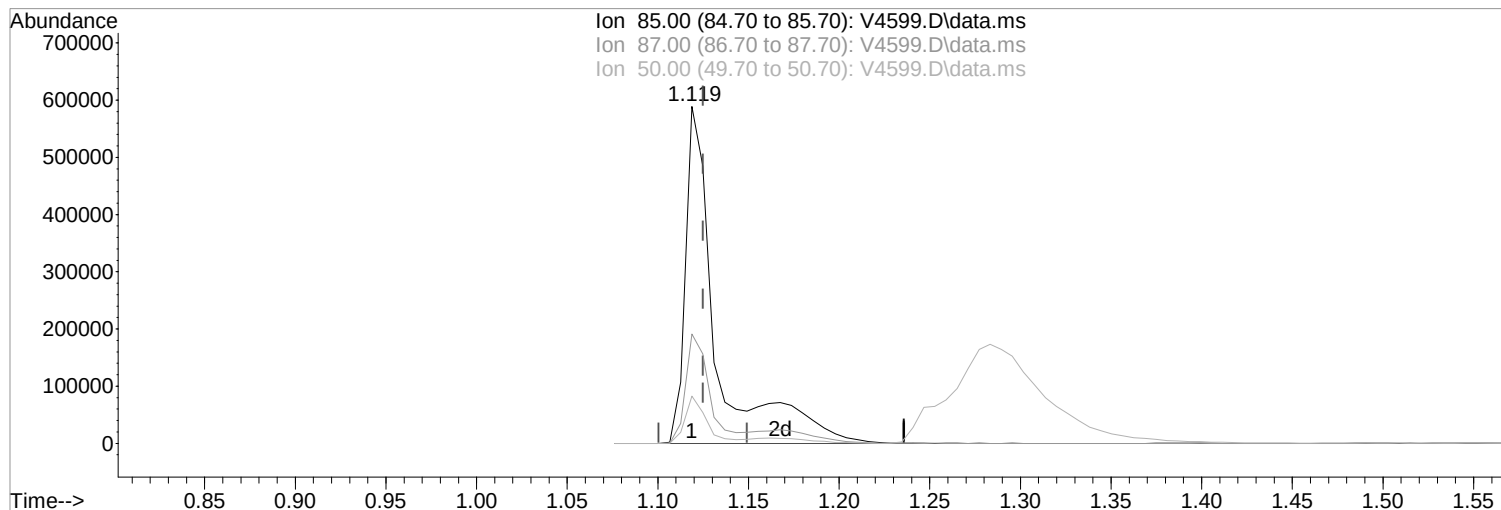
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4599.D  
Acq On : 10 Jun 2022 4:20 pm  
Operator : F.NAEGLER  
Sample : 100 PPB STD  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:29:39 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4599.D\data.ms

(2) Dichlorodifluoromethane (P)

1.119min (-0.006) 102.93 ug/L m

response 711551

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 32.44 |
| 50.00 | 12.40 | 14.08 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

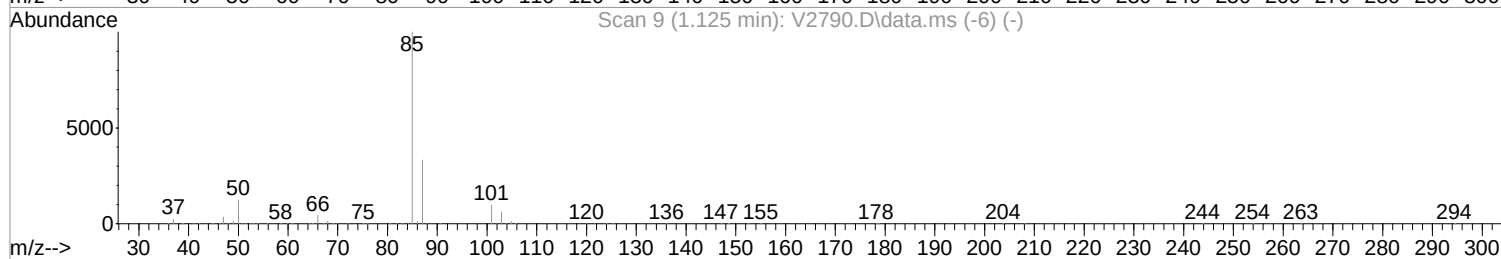
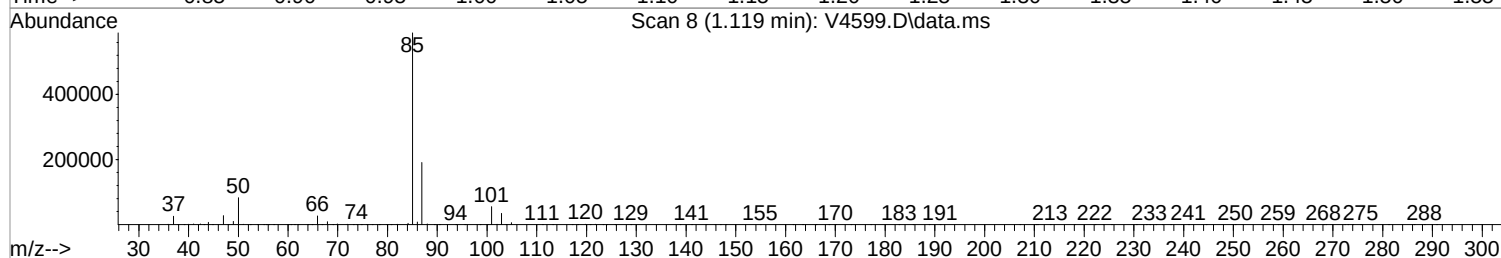
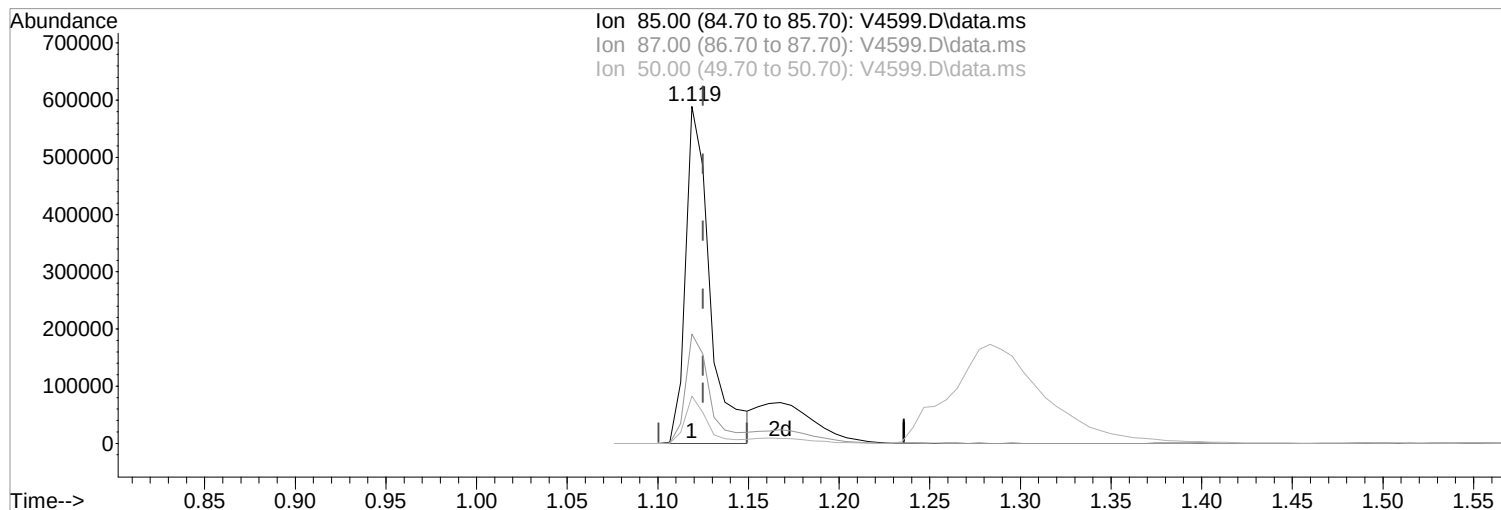
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4599.D  
Acq On : 10 Jun 2022 4:20 pm  
Operator : F.NAEGLER  
Sample : 100 PPB STD  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:29:39 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4599.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.119min (-0.006) 80.03 ug/L

Before

response 553240

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 32.44 |
| 50.00 | 12.40 | 14.08 |
| 0.00  | 0.00  | 0.00  |

06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4599.D  
 Acq On : 10 Jun 2022 4:20 pm  
 Operator : F.NAEGLER  
 Sample : 100 PPB STD  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:30:08 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc    | Units    | Dev(Min) |
|-------------------------------|--------|----------------|----------|---------|----------|----------|
| Internal Standards            |        |                |          |         |          |          |
| 1) Pentafluorobenzene         | 5.362  | 168            | 670452   | 50.00   | ug/L     | 0.00     |
| 42) 1,4-Difluorobenzene       | 6.490  | 114            | 967678   | 50.00   | ug/L     | 0.00     |
| 70) d5-Chlorobenzene          | 9.940  | 117            | 873464   | 50.00   | ug/L     | 0.00     |
| 90) 1,4-Dichlorobenzene-d4    | 12.037 | 152            | 497587   | 50.00   | ug/L     | 0.00     |
| System Monitoring Compounds   |        |                |          |         |          |          |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 626769   | 100.01  | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =       | 200.02%# |          |
| 47) surr1,1,2-dichloroetha... | 5.782  | 65             | 713341   | 95.59   | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =       | 191.18%# |          |
| 64) SURR3,Toluene-d8          | 8.373  | 98             | 2327857  | 100.25  | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =       | 200.50%# |          |
| 69) SURR2,BFB                 | 11.050 | 95             | 906971   | 101.75  | ug/L     | 0.00     |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =       | 203.50%# |          |
| Target Compounds              |        |                |          |         |          |          |
|                               |        |                |          |         |          | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.119  | 85             | 711551m  | 102.93  | ug/L     |          |
| 3) Chloromethane              | 1.283  | 50             | 620730   | 106.80  | ug/L     | 99       |
| 4) Vinyl Chloride             | 1.326  | 62             | 756332   | 110.08  | ug/L     | 99       |
| 5) Bromomethane               | 1.545  | 94             | 406423   | 101.85  | ug/L     | 96       |
| 6) Chloroethane               | 1.619  | 64             | 464494   | 111.28  | ug/L     | 100      |
| 7) Freon 21                   | 1.777  | 67             | 1000354  | 100.85  | ug/L     | 98       |
| 8) Trichlorofluoromethane     | 1.814  | 101            | 993441   | 119.55  | ug/L     | 98       |
| 9) Diethyl Ether              | 2.058  | 59             | 493147   | 100.00  | ug/L     | 97       |
| 10) Freon 123a                | 2.064  | 67             | 519357   | 90.71   | ug/L     | 97       |
| 11) Freon 123                 | 2.119  | 83             | 619721   | 91.80   | ug/L     | 98       |
| 12) Acrolein                  | 2.173  | 56             | 724581   | 538.30  | ug/L     | 98       |
| 13) 1,1-Dicethene             | 2.240  | 96             | 506749   | 108.59  | ug/L     | 94       |
| 14) Freon 113                 | 2.240  | 101            | 532726   | 112.51  | ug/L     | 96       |
| 15) Acetone                   | 2.320  | 43             | 293643   | 92.89   | ug/L     | 94       |
| 16) 2-Propanol                | 2.460  | 45             | 1485747  | 2238.44 | ug/L     | 99       |
| 17) Iodomethane               | 2.381  | 142            | 846422   | 103.57  | ug/L     | 96       |
| 18) Carbon Disulfide          | 2.429  | 76             | 1261046  | 94.50   | ug/L     | 98       |
| 19) Acetonitrile              | 2.582  | 41             | 846445m  | 612.55  | ug/L     |          |
| 20) Allyl Chloride            | 2.582  | 76             | 300785   | 102.46  | ug/L     | 97       |
| 21) Methyl Acetate            | 2.618  | 43             | 782427   | 105.26  | ug/L     | 99       |
| 22) Methylene Chloride        | 2.704  | 84             | 579141   | 100.33  | ug/L     | 98       |
| 23) TBA                       | 2.868  | 59             | 2704118  | 2293.47 | ug/L     | 100      |
| 24) Acrylonitrile             | 2.990  | 53             | 1759624  | 547.66  | ug/L     | 98       |
| 25) Methyl-t-Butyl Ether      | 3.003  | 73             | 1912520  | 100.06  | ug/L     | 99       |
| 26) trans-1,2-Dichloroethene  | 2.990  | 96             | 566799   | 107.05  | ug/L     | 96       |
| 27) 1,1-Dicethane             | 3.496  | 63             | 960429   | 104.02  | ug/L     | 100      |
| 28) Vinyl Acetate             | 3.594  | 86             | 117913   | 137.92  | ug/L #   | 78       |
| 29) DIPE                      | 3.606  | 45             | 1661215  | 106.59  | ug/L     | 93       |
| 30) 2-Chloro-1,3-Butadiene    | 3.606  | 53             | 739534   | 96.03   | ug/L     | 99       |
| 31) ETBE                      | 4.130  | 59             | 1661513  | 103.90  | ug/L     | 98       |
| 32) 2,2-Dichloropropane       | 4.325  | 77             | 820140   | 110.82  | ug/L     | 98       |
| 33) cis-1,2-Dichloroethene    | 4.344  | 96             | 640665   | 104.23  | ug/L     | 99       |
| 34) 2-Butanone                | 4.423  | 43             | 448816   | 104.64  | ug/L     | 96       |
| 35) Propionitrile             | 4.539  | 54             | 756434   | 563.15  | ug/L     | 98       |
| 36) Bromochloromethane        | 4.746  | 130            | 445106   | 102.19  | ug/L     | 99       |
| 37) Methacrylonitrile         | 4.789  | 67             | 366120   | 108.20  | ug/L     | 88       |
| 38) Tetrahydrofuran           | 4.850  | 42             | 296356   | 106.39  | ug/L     | 93       |
| 39) Chloroform                | 4.929  | 83             | 1015962  | 102.99  | ug/L     | 97       |
| 40) 1,1,1-Trichloroethane     | 5.203  | 97             | 892252   | 101.67  | ug/L     | 97       |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4599.D  
 Acq On : 10 Jun 2022 4:20 pm  
 Operator : F.NAEGLER  
 Sample : 100 PPB STD  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:30:08 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 41) TAME                       | 6.081  | 73   | 1690666  | 100.37  | ug/L  | 99       |
| 43) Cyclohexane                | 5.264  | 41   | 426463   | 93.66   | ug/L  | 96       |
| 45) Carbontetrachloride        | 5.478  | 117  | 780120   | 100.37  | ug/L  | 97       |
| 46) 1,1-Dichloropropene        | 5.502  | 75   | 738423   | 103.57  | ug/L  | 99       |
| 48) Benzene                    | 5.837  | 78   | 2203591  | 103.06  | ug/L  | 99       |
| 49) 1,2-Dichloroethane         | 5.904  | 62   | 826975   | 97.13   | ug/L  | 96       |
| 50) Iso-Butyl Alcohol          | 5.917  | 43   | 1067986  | 2358.30 | ug/L  | 97       |
| 51) n-Heptane                  | 6.313  | 43   | 621544   | 121.93  | ug/L  | 96       |
| 52) 1-Butanol                  | 6.910  | 56   | 1755203  | 5839.39 | ug/L  | 100      |
| 53) Trichloroethene            | 6.819  | 130  | 647604   | 96.58   | ug/L  | 97       |
| 54) Methylcyclohexane          | 7.038  | 55   | 567552   | 95.15   | ug/L  | 98       |
| 55) 1,2-Dichloropropane        | 7.130  | 63   | 573969   | 100.90  | ug/L  | 99       |
| 56) Dibromomethane             | 7.276  | 93   | 436005   | 101.45  | ug/L  | 90       |
| 57) 1,4-Dioxane                | 7.355  | 88   | 319591   | 2401.84 | ug/L  | 98       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 595775   | 110.34  | ug/L  | 99       |
| 59) Bromodichloromethane       | 7.514  | 83   | 818004   | 100.23  | ug/L  | 97       |
| 60) 2-Nitropropane             | 7.837  | 41   | 501193   | 212.08  | ug/L  | 96       |
| 61) 2-Chloroethylvinyl Ether   | 7.941  | 63   | 431735   | 98.95   | ug/L  | 96       |
| 62) cis-1,3-Dichloropropene    | 8.081  | 75   | 959264   | 99.20   | ug/L  | 97       |
| 63) 4-Methyl-2-pentanone       | 8.306  | 43   | 914075   | 112.80  | ug/L  | 96       |
| 65) Toluene                    | 8.453  | 91   | 2488228  | 104.12  | ug/L  | 97       |
| 66) trans-1,3-Dichloropropene  | 8.751  | 75   | 903301   | 101.16  | ug/L  | 100      |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 1019365  | 111.09  | ug/L  | 98       |
| 68) 1,1,2-Trichloroethane      | 8.953  | 97   | 607335   | 101.99  | ug/L  | 99       |
| 71) Tetrachloroethene          | 9.062  | 164  | 515203   | 105.91  | ug/L  | 98       |
| 72) 2-Hexanone                 | 9.263  | 43   | 693502   | 116.51  | ug/L  | 98       |
| 73) 1,3-Dichloropropane        | 9.129  | 76   | 1023623  | 103.01  | ug/L  | 99       |
| 74) Dibromochloromethane       | 9.367  | 129  | 715051   | 103.31  | ug/L  | 99       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 1288271  | 111.90  | ug/L  | 98       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 692392   | 106.54  | ug/L  | 99       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 873615   | 95.34   | ug/L  | 97       |
| 78) Chlorobenzene              | 9.965  | 112  | 1700789  | 103.72  | ug/L  | 97       |
| 79) 4-Chlorobenzotrifluoride   | 10.050 | 180  | 784669   | 95.21   | ug/L  | 96       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 634087   | 103.32  | ug/L  | 98       |
| 81) Ethylbenzene               | 10.086 | 106  | 880601   | 108.29  | ug/L  | 96       |
| 82) (m+p)Xylene                | 10.202 | 106  | 2219616  | 216.78  | ug/L  | 93       |
| 83) o-Xylene                   | 10.574 | 106  | 1070187  | 107.46  | ug/L  | 98       |
| 84) Styrene                    | 10.592 | 104  | 1907701  | 108.59  | ug/L  | 99       |
| 85) Bromoform                  | 10.757 | 173  | 566058   | 108.79  | ug/L  | 99       |
| 86) 2-Chlorobenzotrifluoride   | 10.836 | 180  | 883740   | 94.80   | ug/L  | 97       |
| 87) Isopropylbenzene           | 10.916 | 105  | 2676706  | 110.25  | ug/L  | 100      |
| 88) Cyclohexanone              | 11.007 | 55   | 3570968  | 2955.23 | ug/L  | 98       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 311098   | 123.20  | ug/L  | 97       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 1016508  | 115.23  | ug/L  | 100      |
| 92) Bromobenzene               | 11.172 | 156  | 832099   | 101.18  | ug/L  | 98       |
| 93) 1,2,3-Trichloropropane     | 11.233 | 110  | 336258   | 97.10   | ug/L  | 99       |
| 94) n-Propylbenzene            | 11.281 | 91   | 3374406  | 108.24  | ug/L  | 99       |
| 95) 2-Chlorotoluene            | 11.342 | 91   | 1958824  | 101.35  | ug/L  | 99       |
| 96) 3-Chlorotoluene            | 11.403 | 91   | 1868312  | 90.56   | ug/L  | 99       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 2299209  | 103.69  | ug/L  | 98       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 2453162  | 105.38  | ug/L  | 99       |
| 99) tert-Butylbenzene          | 11.708 | 119  | 2061262  | 103.57  | ug/L  | 97       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 2438965  | 105.94  | ug/L  | 99       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 726180   | 90.36   | ug/L  | 97       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 2993882  | 109.54  | ug/L  | 99       |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 2672225  | 110.24  | ug/L  | 99       |



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4599.D  
 Acq On : 10 Jun 2022 4:20 pm  
 Operator : F.NAEGLER  
 Sample : 100 PPB STD  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:30:08 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 104) 1,3-Dclbenz               | 11.982 | 146  | 1468010  | 102.75 | ug/L  | 99       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 1513578  | 102.90 | ug/L  | 98       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 674834   | 92.95  | ug/L  | 99       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 749329   | 92.49  | ug/L  | 99       |
| 108) n-Butylbenzene            | 12.354 | 91   | 2402538  | 120.58 | ug/L  | 99       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 1502373  | 105.71 | ug/L  | 99       |
| 110) 1,2-Dibromo-3-chloropr... | 13.007 | 157  | 315556   | 120.69 | ug/L  | 97       |
| 111) Trielution Dichlorotol... | 13.116 | 125  | 3567060  | 300.45 | ug/L  | 99       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 1073878  | 101.54 | ug/L  | 99       |
| 113) Coelution Dichlorotoluene | 13.446 | 125  | 2683666  | 207.24 | ug/L  | 99       |
| 114) 1,2,4-Tcbenzene           | 13.653 | 180  | 1234664  | 120.06 | ug/L  | 98       |
| 115) Hexachlorobt              | 13.781 | 225  | 498569   | 111.57 | ug/L  | 98       |
| 116) Naphthalen                | 13.848 | 128  | 3740624  | 123.76 | ug/L  | 99       |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 1241995  | 120.62 | ug/L  | 99       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 737435   | 110.56 | ug/L  | 98       |
| 119) 2,3,6-Trichlorotoluene    | 14.701 | 159  | 639022   | 102.40 | ug/L  | 98       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

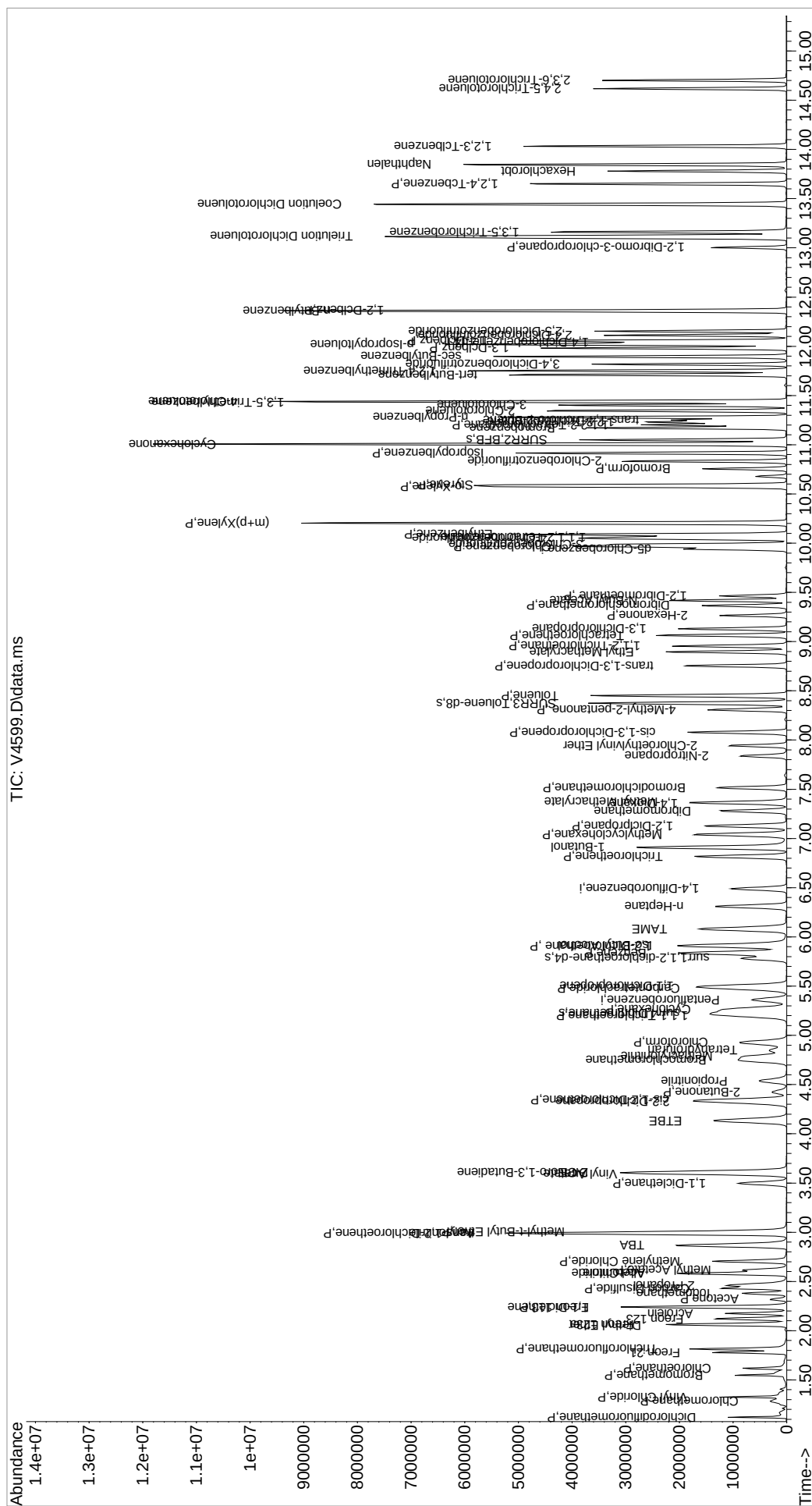
## Quantitation Report (QT Reviewed)

|           |   |   |                                  |
|-----------|---|---|----------------------------------|
| Data Path | : | : | I:\ACQUDATA\MSVOA14\Data\061022\ |
| Data File | : | : | V4599.D                          |
| Acq On    | : | : | 10 Jun 2022 4:20 pm              |
| Operator  | : | : | F.NAEGLER                        |
| Sample    | : | : | 100 PPB STD                      |
| Misc      | : | : |                                  |
| ALS Vial  | : | : | 8 Sample Multiplier: 1           |

Inst : MSV0A14

ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 13 09:30:08 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



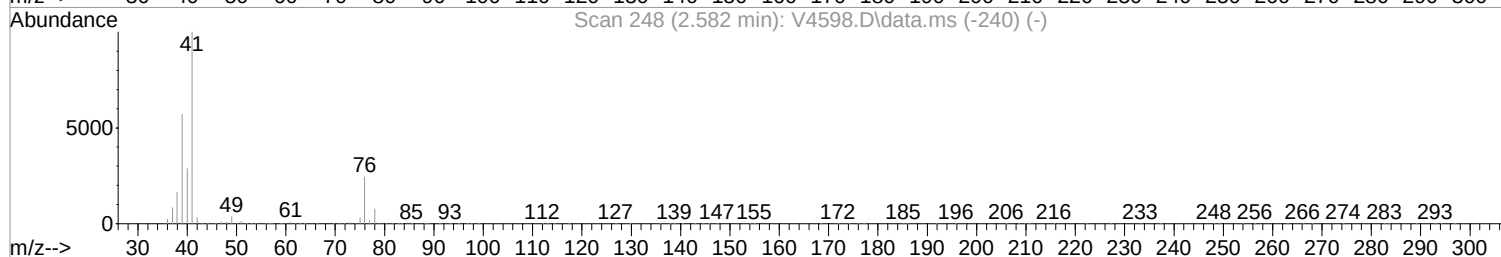
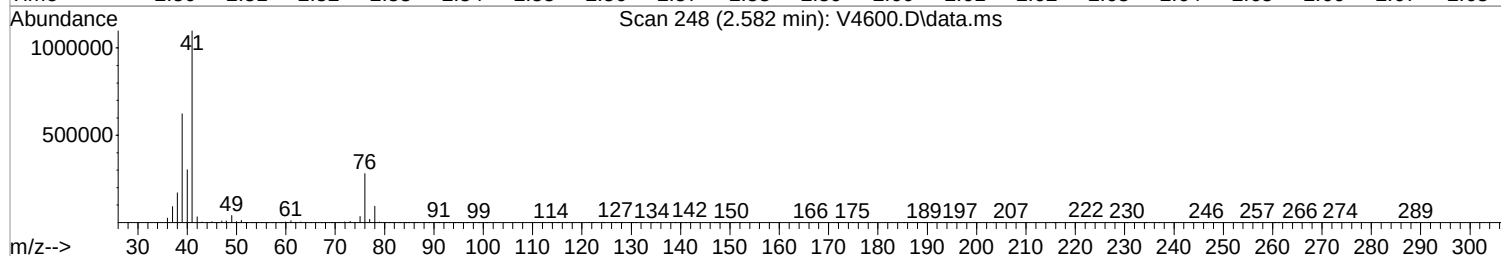
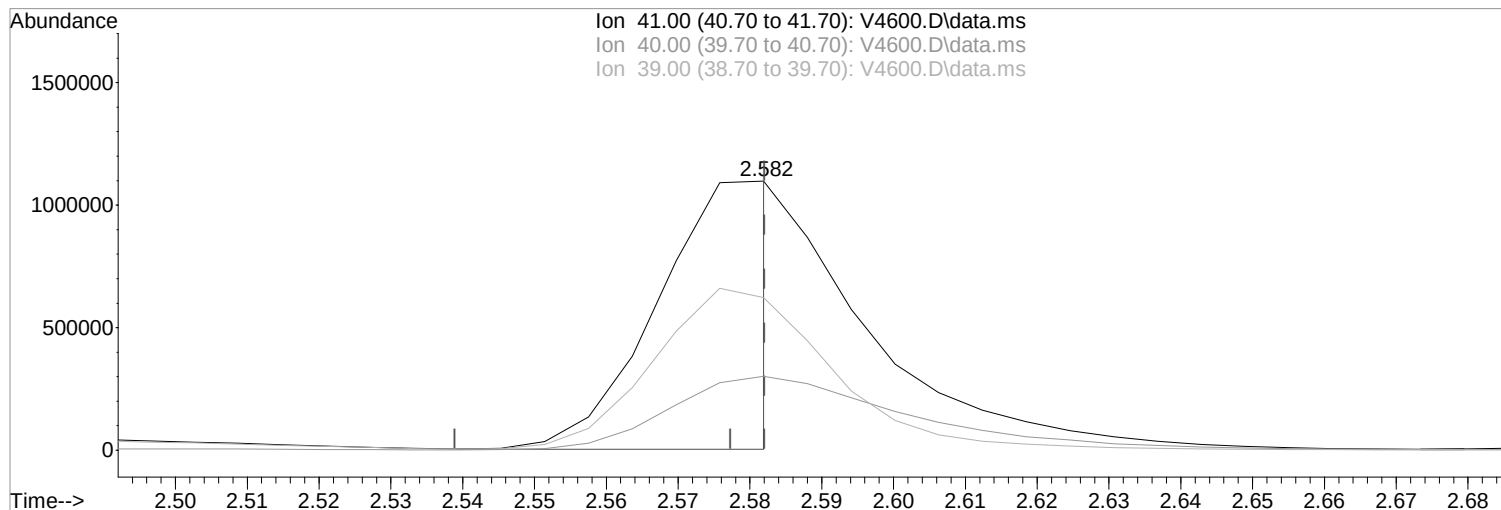
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4600.D  
Acq On : 10 Jun 2022 4:43 pm  
Operator : F.NAEGLER  
Sample : 150 PPB STD  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:31:32 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4600.D\data.ms

(19) Acetonitrile

2.582min (-0.000) 917.35 ug/L m

response 1278707

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 27.48 |
| 39.00 | 51.10 | 56.69 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

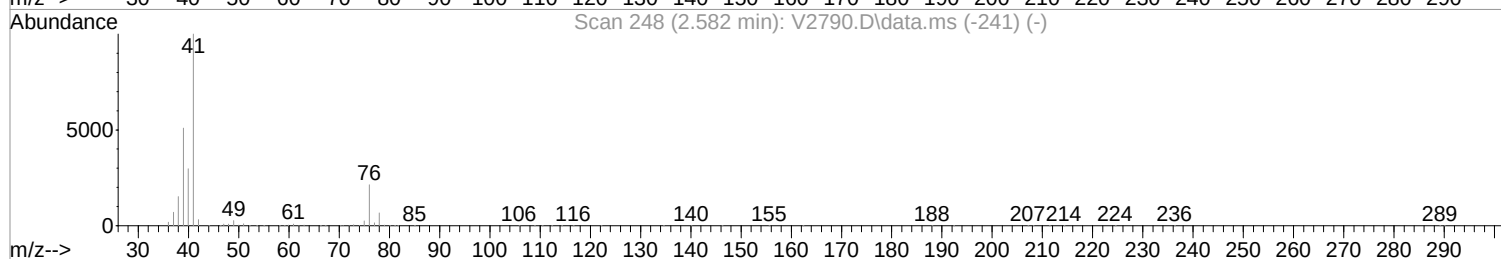
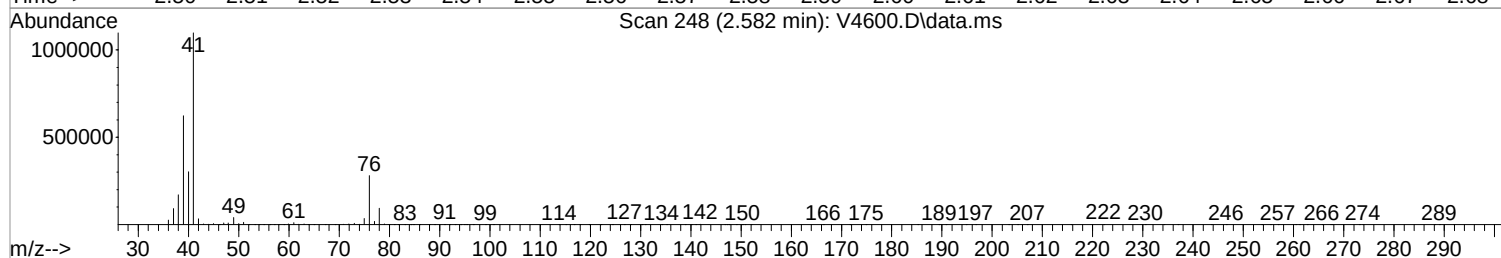
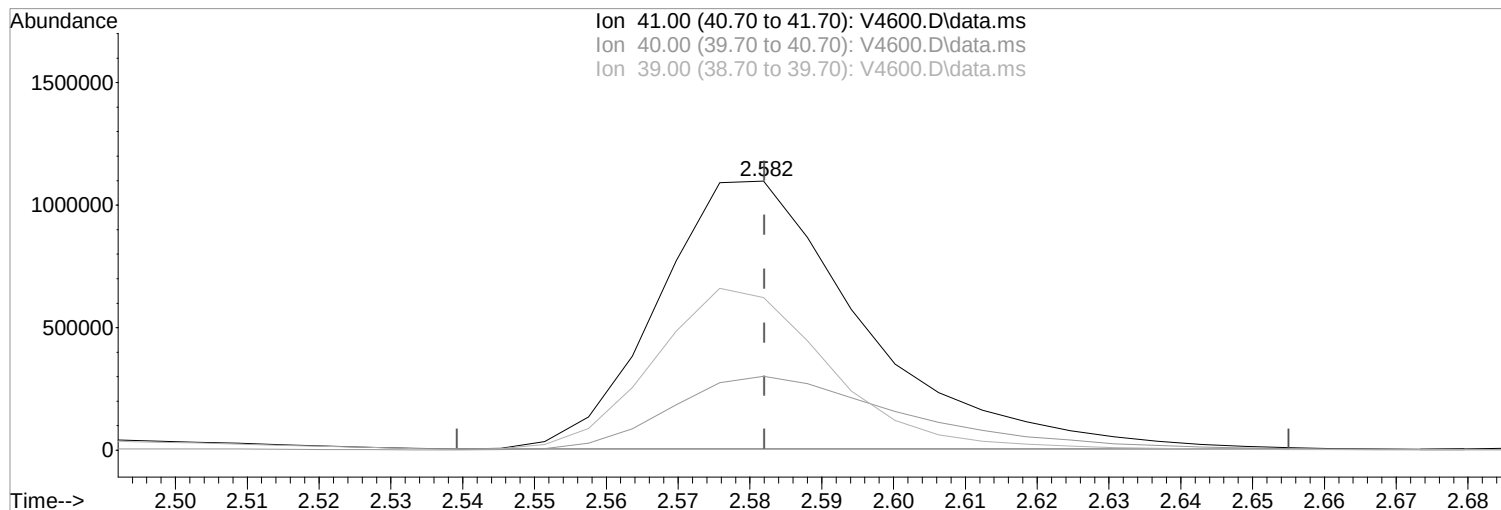
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4600.D  
Acq On : 10 Jun 2022 4:43 pm  
Operator : F.NAEGLER  
Sample : 150 PPB STD  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:30:58 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4600.D\data.ms

(19) Acetonitrile

Manual Integration:

2.582min (-0.000) 1562.85 ug/L

Before

response 2178477

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 27.48 |
| 39.00 | 51.10 | 56.69 |
| 0.00  | 0.00  | 0.00  |

06/13/22

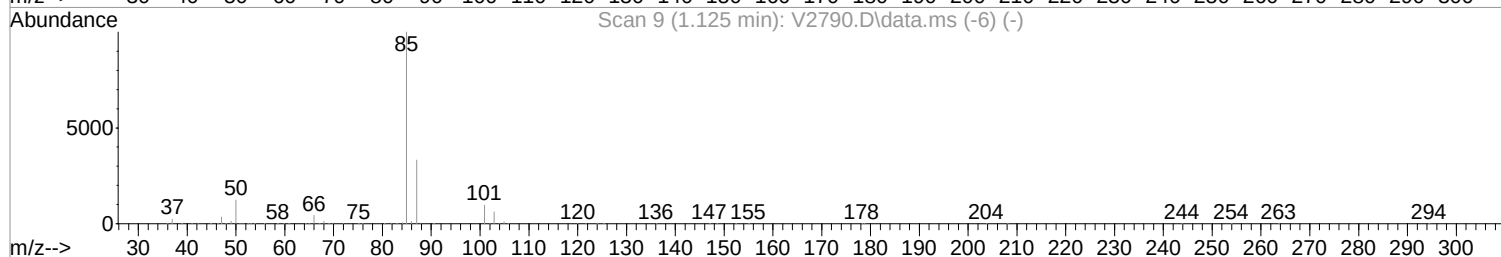
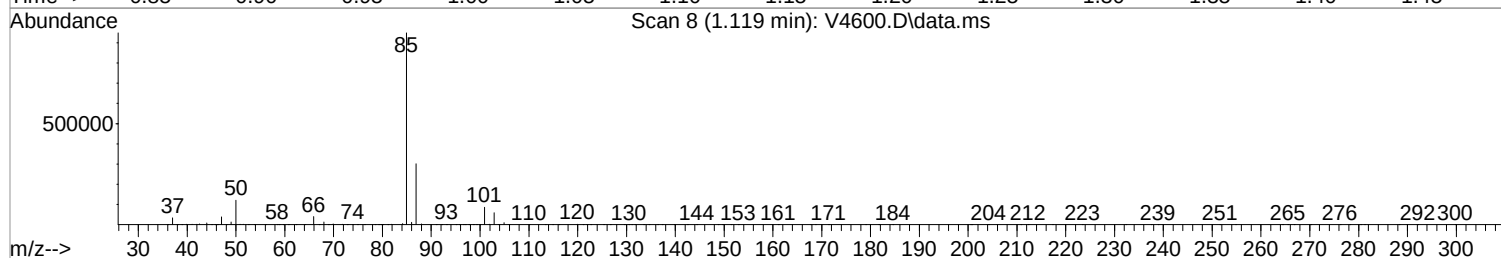
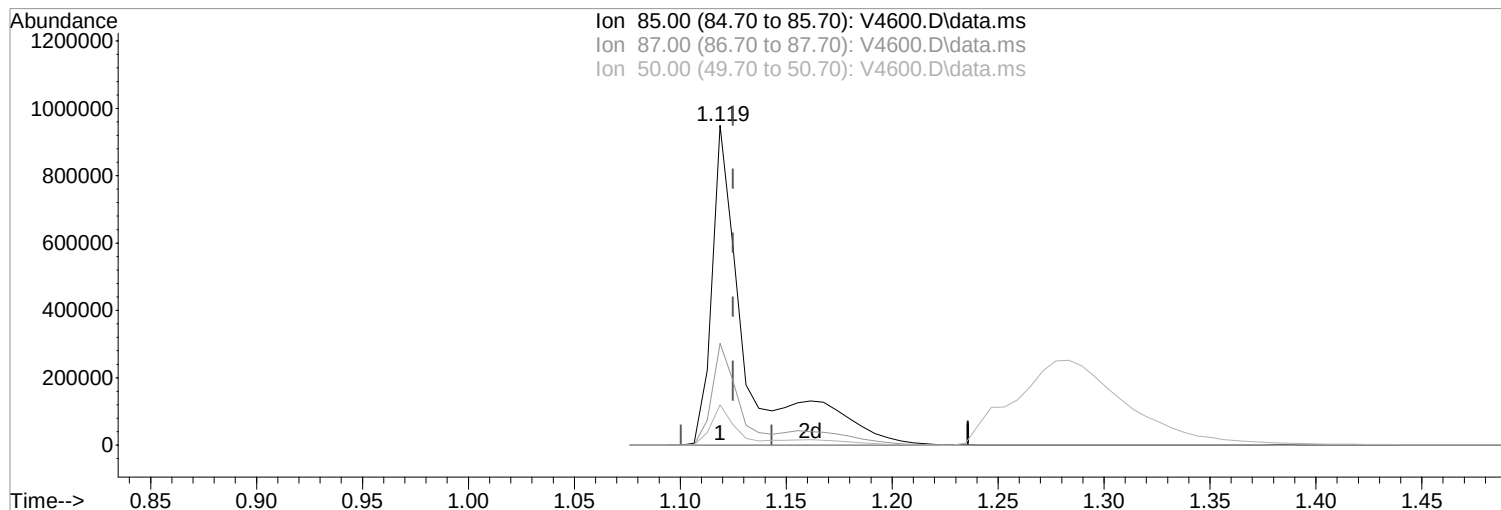
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4600.D  
Acq On : 10 Jun 2022 4:43 pm  
Operator : F.NAEGLER  
Sample : 150 PPB STD  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:30:58 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4600.D\data.ms

(2) Dichlorodifluoromethane (P)

1.119min (-0.006) 156.19 ug/L m

response 1089175

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 31.80 |
| 50.00 | 12.40 | 12.63 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

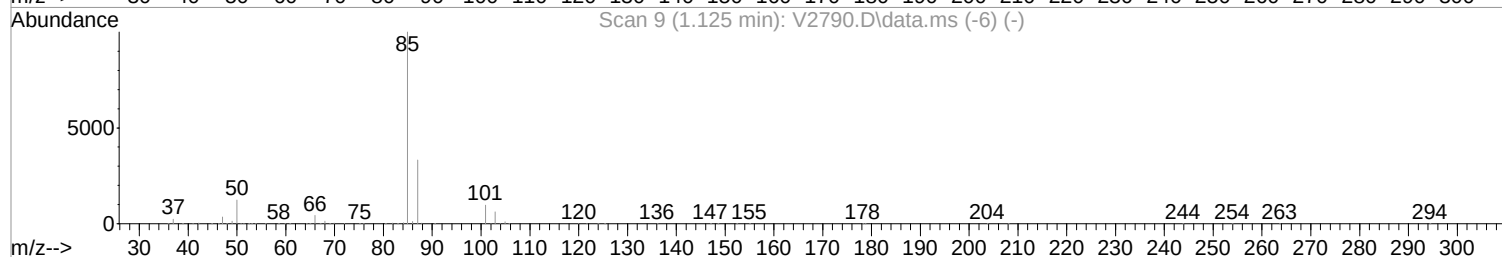
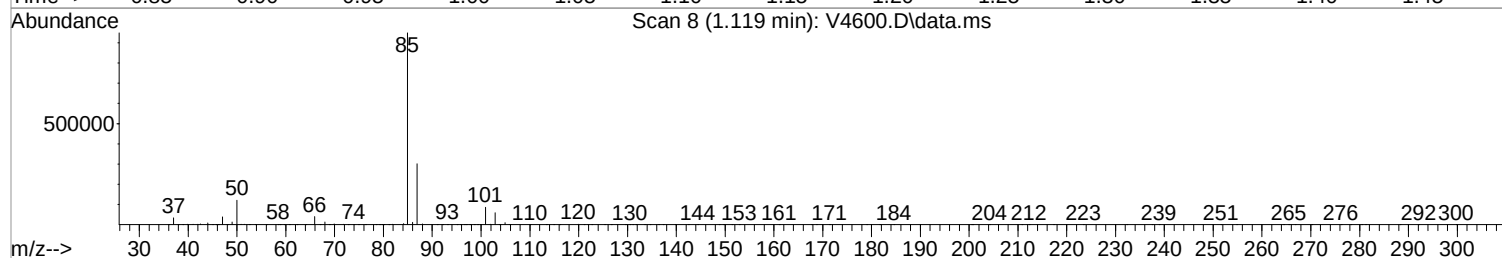
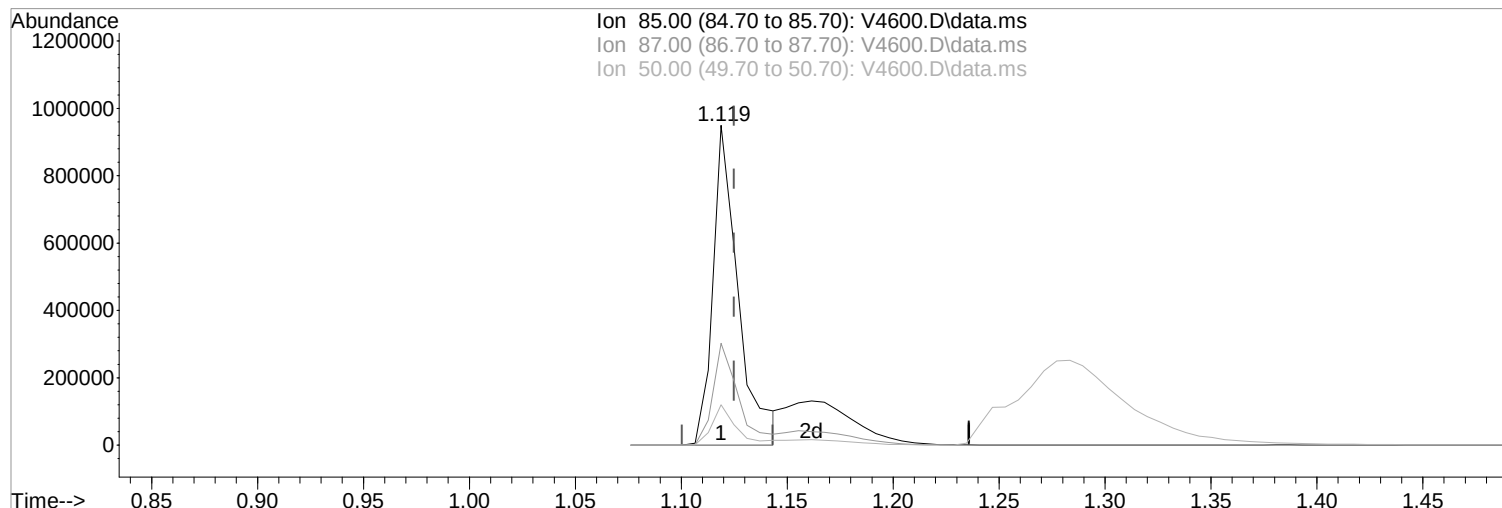
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4600.D  
Acq On : 10 Jun 2022 4:43 pm  
Operator : F.NAEGLER  
Sample : 150 PPB STD  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:30:58 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4600.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.119min (-0.006) 113.38 ug/L

Before

response 790695

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 31.80 |
| 50.00 | 12.40 | 12.63 |
| 0.00  | 0.00  | 0.00  |

06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4600.D  
 Acq On : 10 Jun 2022 4:43 pm  
 Operator : F.NAEGLER  
 Sample : 150 PPB STD  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:42:37 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 676314   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 971679   | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 877291   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.037 | 152  | 498058   | 50.00 | ug/L  | 0.00     |

|                               |        |       |          |          |      |          |
|-------------------------------|--------|-------|----------|----------|------|----------|
| System Monitoring Compounds   |        |       |          |          |      |          |
| 44) surr4,Dibrflmethane       | 5.228  | 113   | 1208458  | 192.02   | ug/L | 0.00     |
| Spiked Amount                 | 50.000 | Range | 80 - 116 | Recovery | =    | 384.04%# |
| 47) surr1,1,2-dichloroetha... | 5.782  | 65    | 1390500  | 185.57   | ug/L | 0.00     |
| Spiked Amount                 | 50.000 | Range | 73 - 125 | Recovery | =    | 371.14%# |
| 64) SURR3,Toluene-d8          | 8.373  | 98    | 4614204  | 197.89   | ug/L | 0.00     |
| Spiked Amount                 | 50.000 | Range | 87 - 121 | Recovery | =    | 395.78%# |
| 69) SURR2,BFB                 | 11.050 | 95    | 1754198  | 195.98   | ug/L | 0.00     |
| Spiked Amount                 | 50.000 | Range | 85 - 122 | Recovery | =    | 391.96%# |

|                              |       |     |          |         |      |        |
|------------------------------|-------|-----|----------|---------|------|--------|
| Target Compounds             |       |     |          |         |      | Qvalue |
| 2) Dichlorodifluoromethane   | 1.119 | 85  | 1089175m | 156.19  | ug/L |        |
| 3) Chloromethane             | 1.283 | 50  | 925792   | 157.91  | ug/L | 99     |
| 4) Vinyl Chloride            | 1.326 | 62  | 1058105  | 152.67  | ug/L | 100    |
| 5) Bromomethane              | 1.546 | 94  | 558026   | 138.63  | ug/L | 95     |
| 6) Chloroethane              | 1.613 | 64  | 567074   | 134.68  | ug/L | 99     |
| 7) Freon 21                  | 1.777 | 67  | 1674235  | 167.32  | ug/L | 98     |
| 8) Trichlorofluoromethane    | 1.808 | 101 | 1429937  | 170.59  | ug/L | 99     |
| 9) Diethyl Ether             | 2.058 | 59  | 727777   | 146.29  | ug/L | 95     |
| 10) Freon 123a               | 2.064 | 67  | 899548   | 155.75  | ug/L | 98     |
| 11) Freon 123                | 2.119 | 83  | 1078843  | 158.43  | ug/L | 99     |
| 12) Acrolein                 | 2.173 | 56  | 1149375  | 846.48  | ug/L | 95     |
| 13) 1,1-Dicethene            | 2.240 | 96  | 728634   | 154.79  | ug/L | 95     |
| 14) Freon 113                | 2.234 | 101 | 768311   | 160.85  | ug/L | 98     |
| 15) Acetone                  | 2.320 | 43  | 447445   | 140.32  | ug/L | 95     |
| 16) 2-Propanol               | 2.472 | 45  | 2296689  | 3430.22 | ug/L | 98     |
| 17) Iodomethane              | 2.375 | 142 | 1360477  | 165.03  | ug/L | 95     |
| 18) Carbon Disulfide         | 2.430 | 76  | 2143423  | 159.23  | ug/L | 99     |
| 19) Acetonitrile             | 2.582 | 41  | 1278707m | 917.35  | ug/L |        |
| 20) Allyl Chloride           | 2.576 | 76  | 475811   | 160.68  | ug/L | # 84   |
| 21) Methyl Acetate           | 2.618 | 43  | 1203161  | 160.46  | ug/L | 99     |
| 22) Methylene Chloride       | 2.704 | 84  | 847489   | 145.55  | ug/L | 97     |
| 23) TBA                      | 2.875 | 59  | 3974601  | 3341.79 | ug/L | 100    |
| 24) Acrylonitrile            | 2.990 | 53  | 2622551  | 809.17  | ug/L | 100    |
| 25) Methyl-t-Butyl Ether     | 3.003 | 73  | 2868382  | 148.77  | ug/L | 99     |
| 26) trans-1,2-Dichloroethene | 2.984 | 96  | 828946   | 155.20  | ug/L | 98     |
| 27) 1,1-Dicethane            | 3.496 | 63  | 1404056  | 150.75  | ug/L | 99     |
| 28) Vinyl Acetate            | 3.594 | 86  | 198464   | 230.13  | ug/L | # 72   |
| 29) DIPE                     | 3.606 | 45  | 2654472  | 168.85  | ug/L | 91     |
| 30) 2-Chloro-1,3-Butadiene   | 3.606 | 53  | 1242380  | 159.92  | ug/L | 100    |
| 31) ETBE                     | 4.130 | 59  | 2599347  | 161.14  | ug/L | 99     |
| 32) 2,2-Dichloropropane      | 4.319 | 77  | 1241536  | 166.30  | ug/L | 99     |
| 33) cis-1,2-Dichloroethene   | 4.338 | 96  | 936553   | 151.05  | ug/L | 98     |
| 34) 2-Butanone               | 4.423 | 43  | 692947   | 160.16  | ug/L | 97     |
| 35) Propionitrile            | 4.539 | 54  | 1095701  | 808.66  | ug/L | 98     |
| 36) Bromochloromethane       | 4.746 | 130 | 641917   | 146.09  | ug/L | 97     |
| 37) Methacrylonitrile        | 4.789 | 67  | 537244   | 157.40  | ug/L | 96     |
| 38) Tetrahydrofuran          | 4.844 | 42  | 436614   | 155.39  | ug/L | 99     |
| 39) Chloroform               | 4.929 | 83  | 1469427  | 147.67  | ug/L | 97     |
| 40) 1,1,1-Trichloroethane    | 5.203 | 97  | 1282767  | 144.91  | ug/L | 99     |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4600.D  
 Acq On : 10 Jun 2022 4:43 pm  
 Operator : F.NAEGLER  
 Sample : 150 PPB STD  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:42:37 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc    | Units | Dev(Min) |
|--------------------------------|--------|------|----------|---------|-------|----------|
| 41) TAME                       | 6.081  | 73   | 2633672  | 155.00  | ug/L  | 99       |
| 43) Cyclohexane                | 5.264  | 41   | 742925   | 162.48  | ug/L  | 98       |
| 45) Carbontetrachloride        | 5.478  | 117  | 1120992  | 143.63  | ug/L  | 99       |
| 46) 1,1-Dichloropropene        | 5.496  | 75   | 1049610  | 146.61  | ug/L  | 99       |
| 48) Benzene                    | 5.837  | 78   | 3177535  | 148.00  | ug/L  | 98       |
| 49) 1,2-Dichloroethane         | 5.904  | 62   | 1204623  | 140.90  | ug/L  | 97       |
| 50) Iso-Butyl Alcohol          | 5.923  | 43   | 1570504  | 3453.67 | ug/L  | 99       |
| 51) n-Heptane                  | 6.307  | 43   | 944400   | 184.50  | ug/L  | 98       |
| 52) 1-Butanol                  | 6.929  | 56   | 2769189  | 9174.88 | ug/L  | 99       |
| 53) Trichloroethene            | 6.813  | 130  | 921983   | 136.93  | ug/L  | 98       |
| 54) Methylcyclohexane          | 7.038  | 55   | 1004819  | 167.76  | ug/L  | 95       |
| 55) 1,2-Dichloropropane        | 7.130  | 63   | 845883   | 148.08  | ug/L  | 98       |
| 56) Dibromomethane             | 7.276  | 93   | 636593   | 147.51  | ug/L  | 94       |
| 57) 1,4-Dioxane                | 7.361  | 88   | 473646   | 3544.95 | ug/L  | 99       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 883252   | 162.91  | ug/L  | 98       |
| 59) Bromodichloromethane       | 7.514  | 83   | 1207352  | 147.33  | ug/L  | 98       |
| 60) 2-Nitropropane             | 7.837  | 41   | 750265   | 316.16  | ug/L  | 99       |
| 61) 2-Chloroethylvinyl Ether   | 7.947  | 63   | 684358   | 156.21  | ug/L  | 95       |
| 62) cis-1,3-Dichloropropene    | 8.081  | 75   | 1414894  | 145.72  | ug/L  | 98       |
| 63) 4-Methyl-2-pentanone       | 8.306  | 43   | 1428555  | 175.56  | ug/L  | 97       |
| 65) Toluene                    | 8.453  | 91   | 3629130  | 151.24  | ug/L  | 97       |
| 66) trans-1,3-Dichloropropene  | 8.758  | 75   | 1358341  | 151.49  | ug/L  | 97       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 1516026  | 164.54  | ug/L  | 100      |
| 68) 1,1,2-Trichloroethane      | 8.959  | 97   | 887252   | 148.39  | ug/L  | 99       |
| 71) Tetrachloroethene          | 9.062  | 164  | 745973   | 152.68  | ug/L  | 97       |
| 72) 2-Hexanone                 | 9.264  | 43   | 1092576  | 182.76  | ug/L  | 99       |
| 73) 1,3-Dichloropropane        | 9.129  | 76   | 1509096  | 151.20  | ug/L  | 99       |
| 74) Dibromochloromethane       | 9.367  | 129  | 1065361  | 153.25  | ug/L  | 98       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 2029516  | 175.52  | ug/L  | 96       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 1020404  | 156.33  | ug/L  | 99       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 1460902  | 158.73  | ug/L  | 98       |
| 78) Chlorobenzene              | 9.971  | 112  | 2482509  | 150.73  | ug/L  | 98       |
| 79) 4-Chlorobenzotrifluoride   | 10.044 | 180  | 1308551  | 158.09  | ug/L  | 98       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 943144   | 153.01  | ug/L  | 97       |
| 81) Ethylbenzene               | 10.087 | 106  | 1267003  | 155.13  | ug/L  | 95       |
| 82) (m+p)Xylene                | 10.208 | 106  | 3213002  | 312.42  | ug/L  | 96       |
| 83) o-Xylene                   | 10.574 | 106  | 1559190  | 155.88  | ug/L  | 98       |
| 84) Styrene                    | 10.593 | 104  | 2766369  | 156.77  | ug/L  | 100      |
| 85) Bromoform                  | 10.757 | 173  | 834273   | 159.63  | ug/L  | 100      |
| 86) 2-Chlorobenzotrifluoride   | 10.836 | 180  | 1448177  | 154.67  | ug/L  | 97       |
| 87) Isopropylbenzene           | 10.916 | 105  | 3813161  | 156.38  | ug/L  | 100      |
| 88) Cyclohexanone              | 11.007 | 55   | 5377666  | 4430.99 | ug/L  | 95       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 462443   | 182.34  | ug/L  | 97       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 1496728  | 169.51  | ug/L  | 99       |
| 92) Bromobenzene               | 11.172 | 156  | 1186341  | 144.12  | ug/L  | 99       |
| 93) 1,2,3-Trichloropropane     | 11.233 | 110  | 475995   | 137.33  | ug/L  | 97       |
| 94) n-Propylbenzene            | 11.281 | 91   | 4824965  | 154.62  | ug/L  | 99       |
| 95) 2-Chlorotoluene            | 11.348 | 91   | 2818769  | 145.71  | ug/L  | 97       |
| 96) 3-Chlorotoluene            | 11.403 | 91   | 2963769  | 143.53  | ug/L  | 99       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 3331437  | 150.10  | ug/L  | 100      |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 3530263  | 151.50  | ug/L  | 100      |
| 99) tert-Butylbenzene          | 11.708 | 119  | 2941337  | 147.65  | ug/L  | 98       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 3526254  | 153.03  | ug/L  | 99       |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 1203192  | 149.57  | ug/L  | 99       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 4289248  | 156.78  | ug/L  | 100      |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 3820492  | 157.46  | ug/L  | 99       |



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4600.D  
 Acq On : 10 Jun 2022 4:43 pm  
 Operator : F.NAEGLER  
 Sample : 150 PPB STD  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:42:37 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 2124052  | 148.52 | ug/L  | 99       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 2168316  | 147.28 | ug/L  | 97       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 1105476  | 152.12 | ug/L  | 99       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 1241563  | 153.10 | ug/L  | 99       |
| 108) n-Butylbenzene            | 12.354 | 91   | 3486764  | 174.83 | ug/L  | 98       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 2194728  | 154.28 | ug/L  | 99       |
| 110) 1,2-Dibromo-3-chloropr... | 13.007 | 157  | 466437   | 178.23 | ug/L  | 96       |
| 111) Trielution Dichlorotol... | 13.116 | 125  | 5921447  | 498.29 | ug/L  | 99       |
| 112) 1,3,5-Trichlorobenzene    | 13.159 | 180  | 1766983  | 166.92 | ug/L  | 99       |
| 113) Coelution Dichlorotoluene | 13.446 | 125  | 4419581  | 340.97 | ug/L  | 99       |
| 114) 1,2,4-Tcbenzene           | 13.653 | 180  | 1835063  | 178.28 | ug/L  | 99       |
| 115) Hexachlorobt              | 13.781 | 225  | 739655   | 165.36 | ug/L  | 99       |
| 116) Naphthalen                | 13.848 | 128  | 5497240  | 181.71 | ug/L  | 100      |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 1824045  | 176.98 | ug/L  | 99       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 1210008  | 181.24 | ug/L  | 99       |
| 119) 2,3,6-Trichlorotoluene    | 14.701 | 159  | 1061816  | 169.98 | ug/L  | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

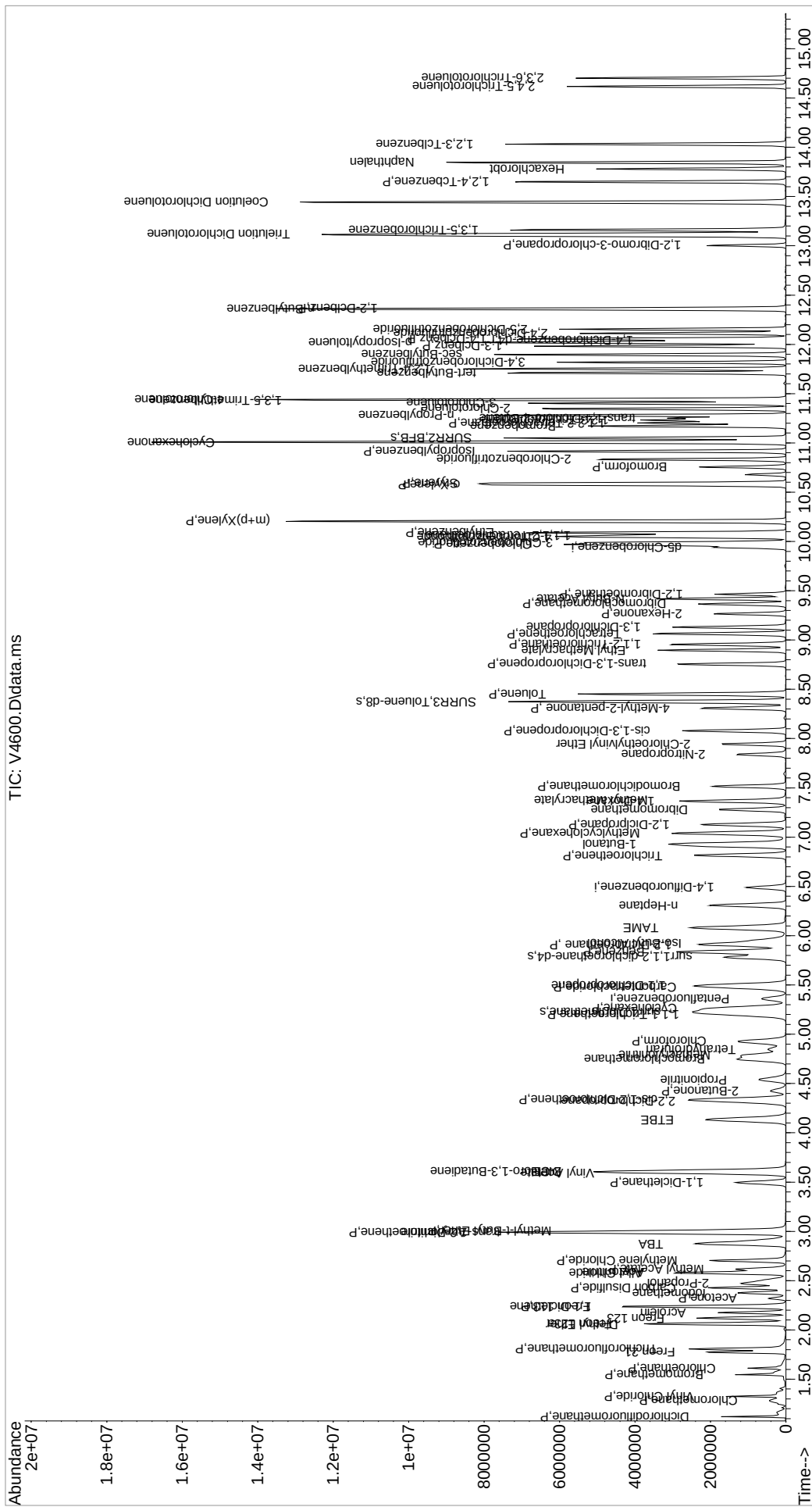
## Quantitation Report (QT Reviewed)

|           |   |   |                                  |
|-----------|---|---|----------------------------------|
| Data Path | : | : | I:\ACQUDATA\MSV0A14\Data\061022\ |
| Data File | : | : | V4600.D                          |
| Acq On    | : | : | 10 Jun 2022 4:43 pm              |
| Operator  | : | : | F.NAEGLER                        |
| Sample    | : | : | 150 PPB STD                      |
| Misc      | : | : |                                  |
| ALS Vial  | : | : | 9 Sample Multiplier: 1           |

Inst : MSV0A14

ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 13 09:42:37 2022  
Quant Method : I:\ACQDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



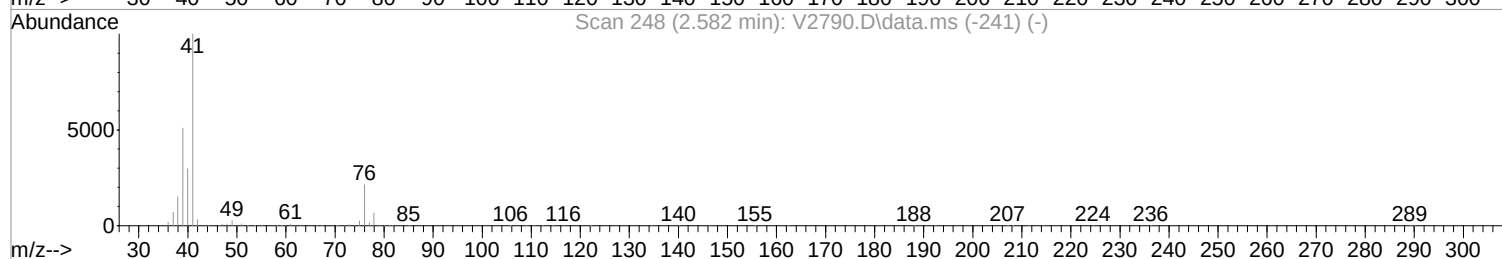
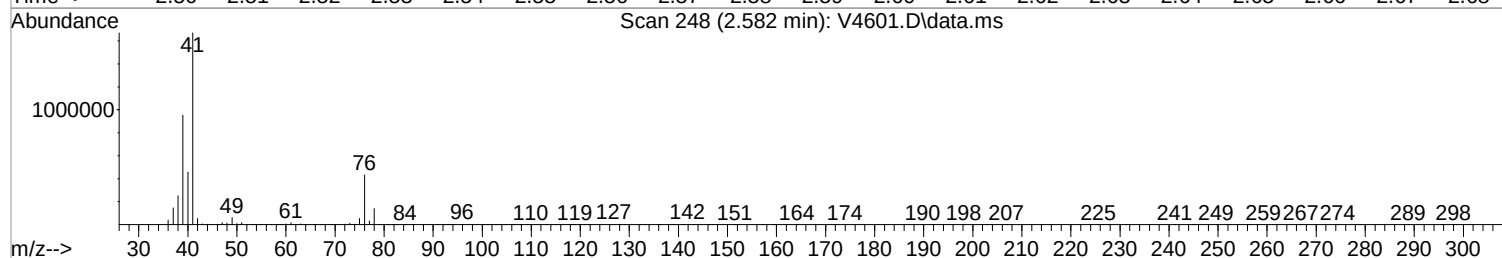
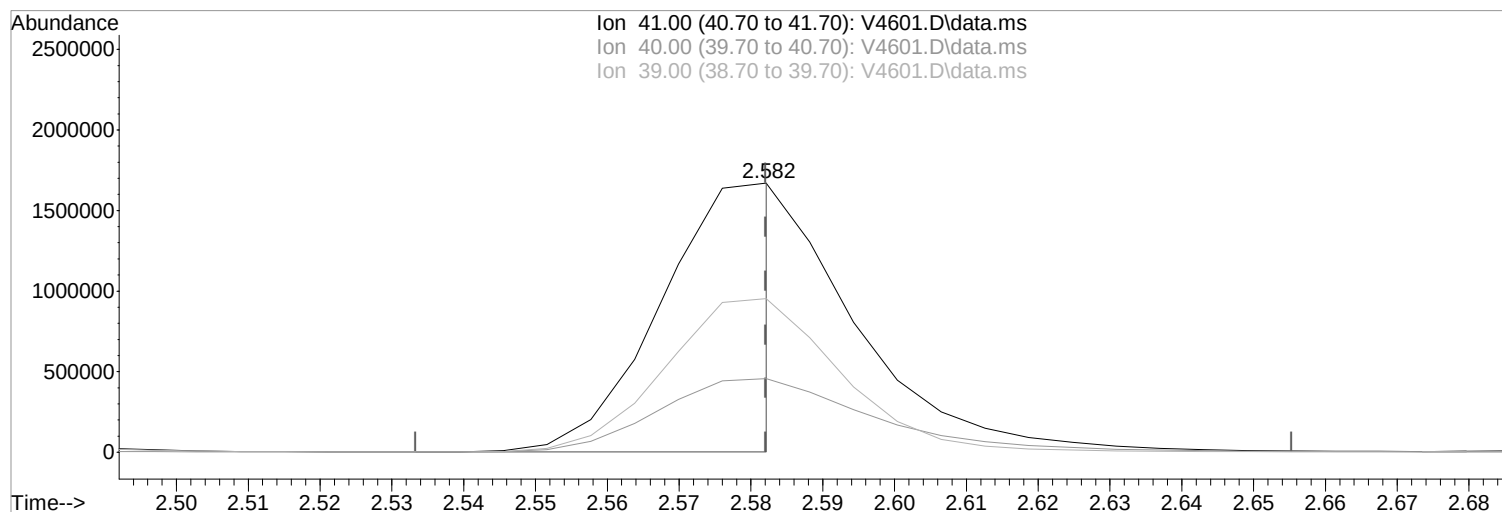
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4601.D  
Acq On : 10 Jun 2022 5:05 pm  
Operator : F.NAEGLER  
Sample : 200 PPB STD  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:32:57 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4601.D\data.ms

(19) Acetonitrile

2.582min (+0.000) 1353.10 ug/L m

response 1940307

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 27.38 |
| 39.00 | 51.10 | 57.10 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

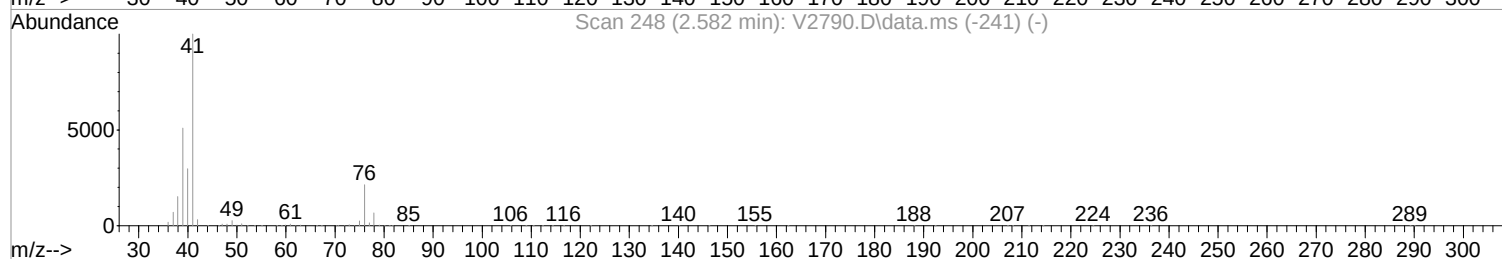
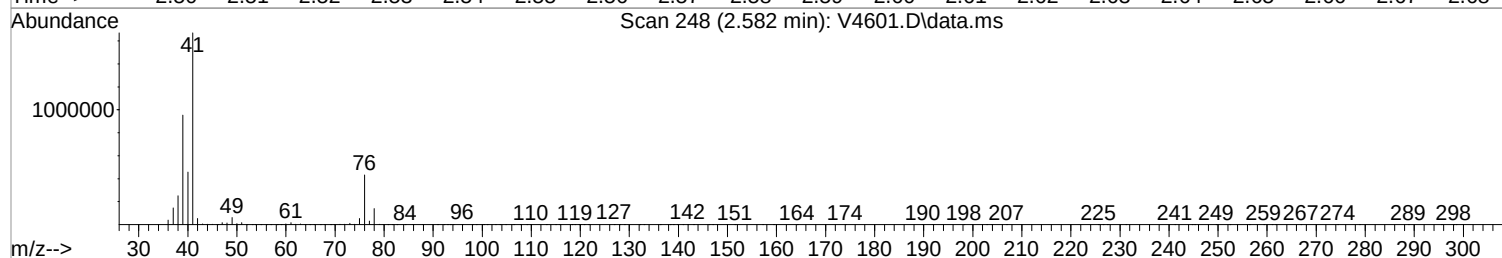
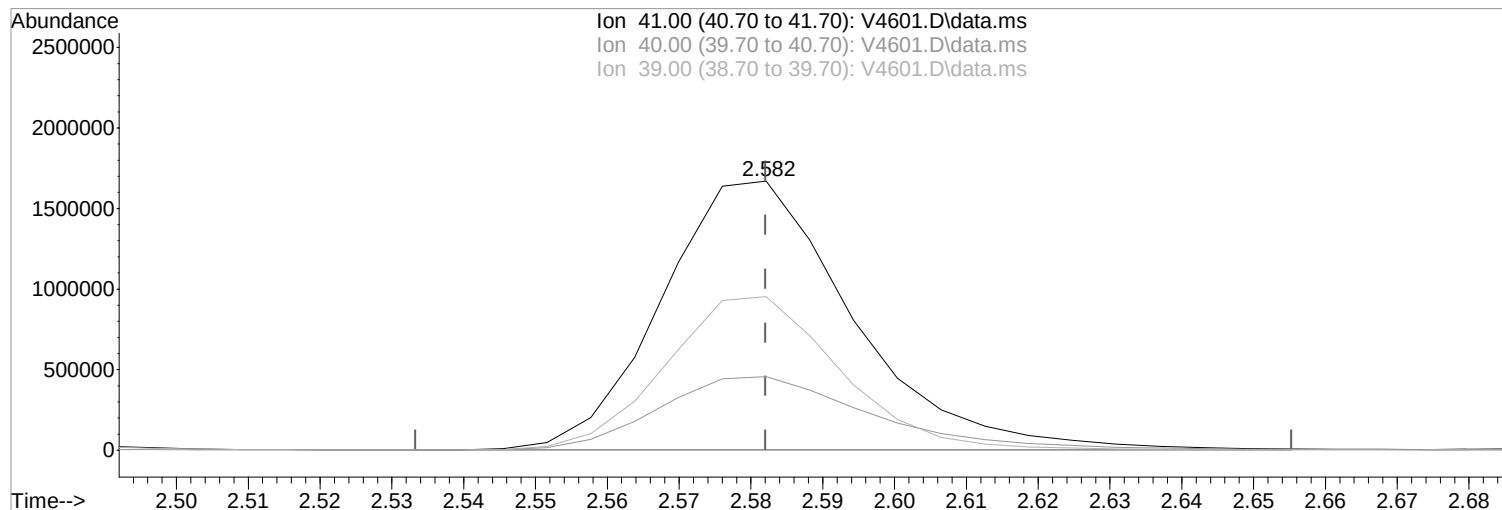
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4601.D  
Acq On : 10 Jun 2022 5:05 pm  
Operator : F.NAEGLER  
Sample : 200 PPB STD  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:32:57 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4601.D\data.ms

(19) Acetonitrile

Manual Integration:

2.582min (+0.000) 2166.42 ug/L

Before

response 3106575

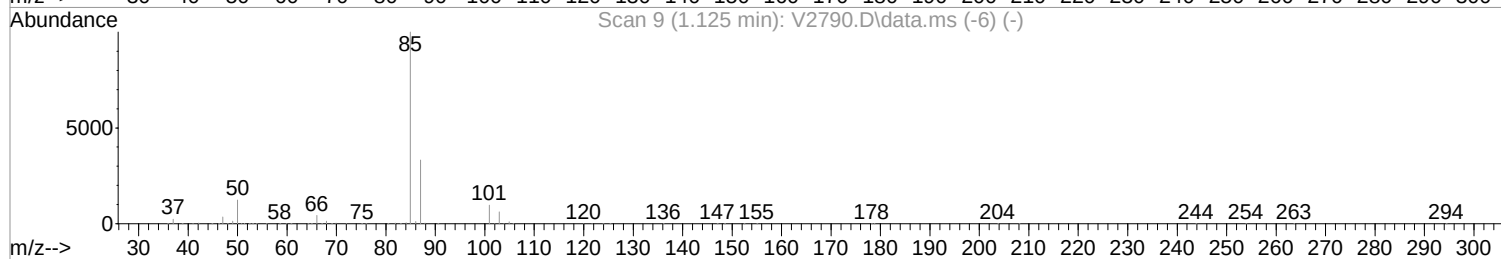
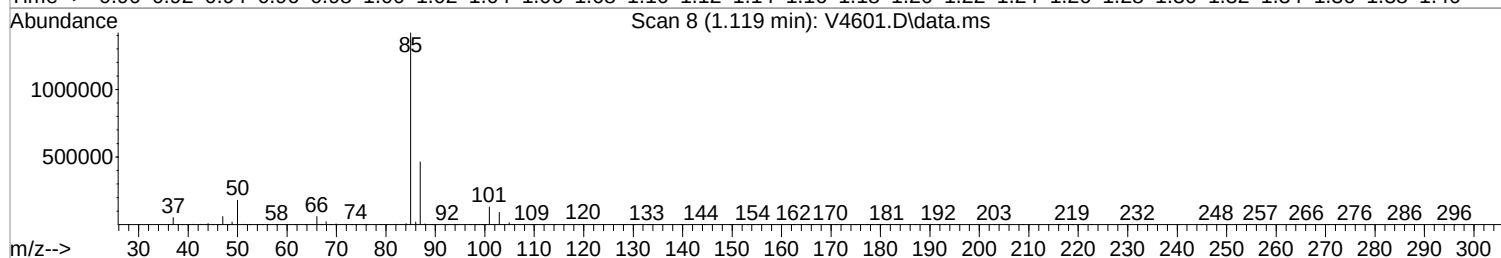
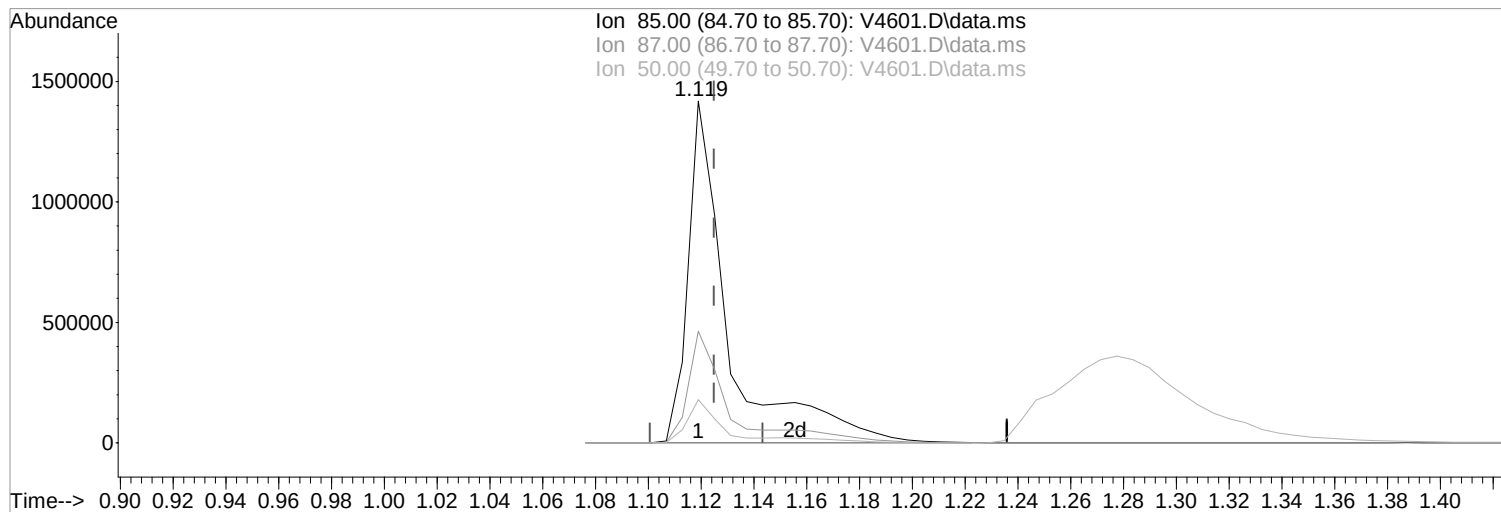
| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 30.10 | 27.38 |
| 39.00 | 51.10 | 57.10 |
| 0.00  | 0.00  | 0.00  |

06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4601.D  
Acq On : 10 Jun 2022 5:05 pm  
Operator : F.NAEGLER  
Sample : 200 PPB STD  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:32:57 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4601.D\data.ms

(2) Dichlorodifluoromethane (P)

1.119min (-0.006) 212.93 ug/L m

response 1527523

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 32.69 |
| 50.00 | 12.40 | 12.64 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

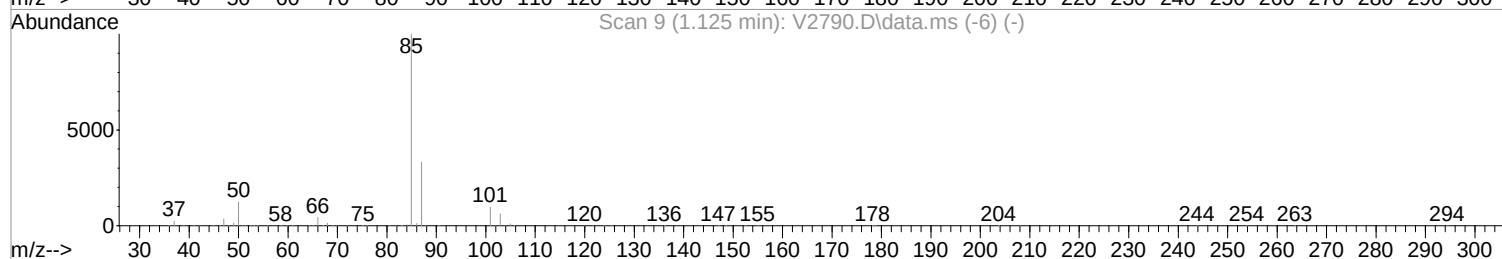
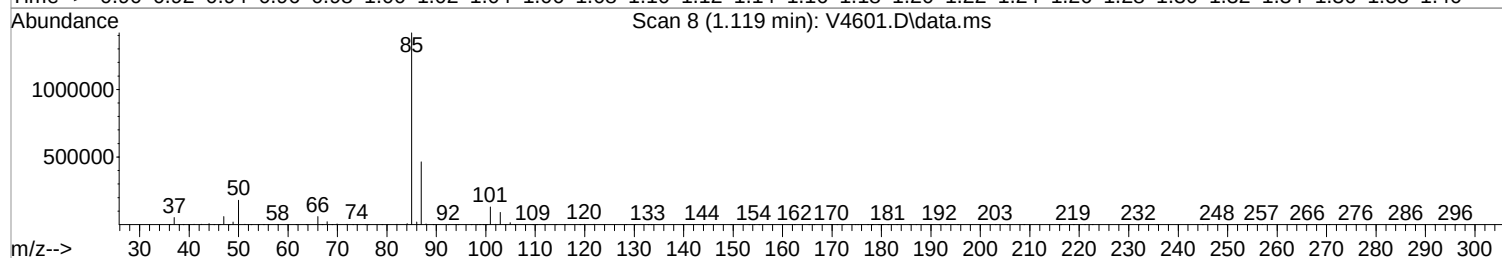
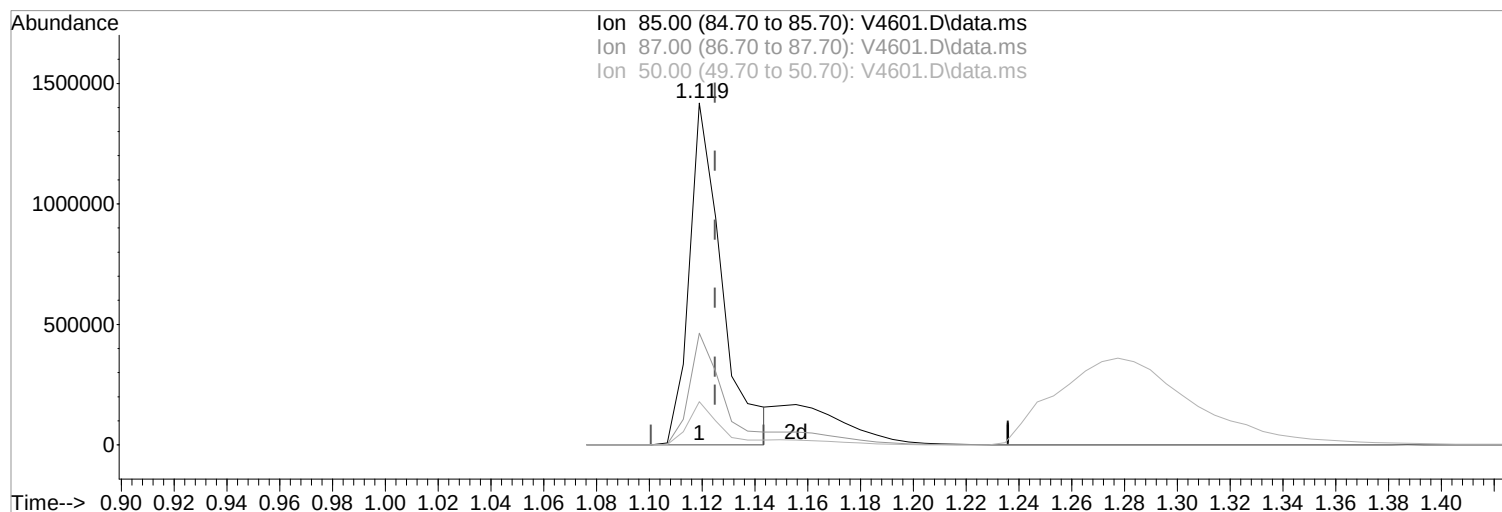
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4601.D  
Acq On : 10 Jun 2022 5:05 pm  
Operator : F.NAEGLER  
Sample : 200 PPB STD  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:32:57 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



TIC: V4601.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.119min (-0.006) 169.24 ug/L

Before

response 1214121

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 85.00 | 100   | 100   |
| 87.00 | 33.20 | 32.69 |
| 50.00 | 12.40 | 12.64 |
| 0.00  | 0.00  | 0.00  |

06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4601.D  
 Acq On : 10 Jun 2022 5:05 pm  
 Operator : F.NAEGLER  
 Sample : 200 PPB STD  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:35:20 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                   | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|--------|------|----------|-------|-------|----------|
| -----                      |        |      |          |       |       |          |
| Internal Standards         |        |      |          |       |       |          |
| 1) Pentafluorobenzene      | 5.362  | 168  | 695747   | 50.00 | ug/L  | 0.00     |
| 42) 1,4-Difluorobenzene    | 6.490  | 114  | 1006163  | 50.00 | ug/L  | 0.00     |
| 70) d5-Chlorobenzene       | 9.940  | 117  | 910512   | 50.00 | ug/L  | 0.00     |
| 90) 1,4-Dichlorobenzene-d4 | 12.038 | 152  | 503123   | 50.00 | ug/L  | 0.00     |

|                               |        |                |          |       |         |      |
|-------------------------------|--------|----------------|----------|-------|---------|------|
| System Monitoring Compounds   |        |                |          |       |         |      |
| 44) surr4,Dibrflmethane       | 5.228  | 113            | 326155   | 50.05 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 80 - 116 | Recovery | =     | 100.10% |      |
| 47) surr1,1,2-dichloroetha... | 5.783  | 65             | 370293   | 47.72 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 73 - 125 | Recovery | =     | 95.44%  |      |
| 64) SURR3,Toluene-d8          | 8.374  | 98             | 1207072  | 49.99 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 87 - 121 | Recovery | =     | 99.98%  |      |
| 69) SURR2,BFB                 | 11.050 | 95             | 470488   | 50.76 | ug/L    | 0.00 |
| Spiked Amount                 | 50.000 | Range 85 - 122 | Recovery | =     | 101.52% |      |

|                              |       |     |          |         |      |        |
|------------------------------|-------|-----|----------|---------|------|--------|
| Target Compounds             |       |     |          |         |      | Qvalue |
| 2) Dichlorodifluoromethane   | 1.119 | 85  | 1527523m | 212.93  | ug/L |        |
| 3) Chloromethane             | 1.277 | 50  | 1304001  | 216.21  | ug/L | 100    |
| 4) Vinyl Chloride            | 1.326 | 62  | 1563541  | 219.30  | ug/L | 100    |
| 5) Bromomethane              | 1.546 | 94  | 814816   | 196.77  | ug/L | 96     |
| 6) Chloroethane              | 1.619 | 64  | 992337   | 229.09  | ug/L | 99     |
| 7) Freon 21                  | 1.777 | 67  | 2318653  | 225.25  | ug/L | 97     |
| 8) Trichlorofluoromethane    | 1.814 | 101 | 1959164  | 227.19  | ug/L | 97     |
| 9) Diethyl Ether             | 2.058 | 59  | 1034769  | 202.19  | ug/L | 96     |
| 10) Freon 123a               | 2.064 | 67  | 1250396  | 210.45  | ug/L | 96     |
| 11) Freon 123                | 2.119 | 83  | 1507817  | 215.24  | ug/L | 99     |
| 12) Acrolein                 | 2.174 | 56  | 1540264  | 1102.68 | ug/L | 97     |
| 13) 1,1-Dicethene            | 2.241 | 96  | 1039352  | 214.63  | ug/L | 97     |
| 14) Freon 113                | 2.241 | 101 | 1073223  | 218.42  | ug/L | 97     |
| 15) Acetone                  | 2.314 | 43  | 591704   | 180.37  | ug/L | 95     |
| 16) 2-Propanol               | 2.460 | 45  | 3017634  | 4381.10 | ug/L | 99     |
| 17) Iodomethane              | 2.381 | 142 | 2046027  | 241.25  | ug/L | 95     |
| 18) Carbon Disulfide         | 2.430 | 76  | 3145803  | 227.17  | ug/L | 99     |
| 19) Acetonitrile             | 2.582 | 41  | 1940307m | 1353.10 | ug/L |        |
| 20) Allyl Chloride           | 2.582 | 76  | 682547   | 224.05  | ug/L | # 89   |
| 21) Methyl Acetate           | 2.613 | 43  | 1615211  | 209.39  | ug/L | 97     |
| 22) Methylene Chloride       | 2.704 | 84  | 1198826  | 200.13  | ug/L | 98     |
| 23) TBA                      | 2.863 | 59  | 5321063  | 4348.92 | ug/L | 99     |
| 24) Acrylonitrile            | 2.991 | 53  | 3603387  | 1080.74 | ug/L | 100    |
| 25) Methyl-t-Butyl Ether     | 2.997 | 73  | 4069263  | 205.15  | ug/L | 100    |
| 26) trans-1,2-Dichloroethene | 2.991 | 96  | 1172518  | 213.39  | ug/L | 97     |
| 27) 1,1-Dicethane            | 3.497 | 63  | 1991221  | 207.83  | ug/L | 98     |
| 28) Vinyl Acetate            | 3.594 | 86  | 263989   | 297.57  | ug/L | # 92   |
| 29) DIPE                     | 3.606 | 45  | 3754410  | 232.14  | ug/L | 92     |
| 30) 2-Chloro-1,3-Butadiene   | 3.606 | 53  | 1811625  | 226.68  | ug/L | 99     |
| 31) ETBE                     | 4.131 | 59  | 3677795  | 221.63  | ug/L | 99     |
| 32) 2,2-Dichloropropane      | 4.326 | 77  | 1744157  | 227.10  | ug/L | 98     |
| 33) cis-1,2-Dichloroethene   | 4.338 | 96  | 1325003  | 207.74  | ug/L | 98     |
| 34) 2-Butanone               | 4.423 | 43  | 934191   | 209.89  | ug/L | 97     |
| 35) Propionitrile            | 4.539 | 54  | 1512845  | 1085.34 | ug/L | 98     |
| 36) Bromochloromethane       | 4.746 | 130 | 909694   | 201.25  | ug/L | 97     |
| 37) Methacrylonitrile        | 4.789 | 67  | 743769   | 211.82  | ug/L | 95     |
| 38) Tetrahydrofuran          | 4.844 | 42  | 628411   | 217.40  | ug/L | 95     |
| 39) Chloroform               | 4.929 | 83  | 2099572  | 205.10  | ug/L | 96     |
| 40) 1,1,1-Trichloroethane    | 5.204 | 97  | 1821300  | 200.00  | ug/L | 98     |

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4601.D  
 Acq On : 10 Jun 2022 5:05 pm  
 Operator : F.NAEGLER  
 Sample : 200 PPB STD  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:35:20 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc     | Units | Dev(Min) |
|--------------------------------|--------|------|----------|----------|-------|----------|
| 41) TAME                       | 6.081  | 73   | 3728705  | 213.32   | ug/L  | 99       |
| 43) Cyclohexane                | 5.265  | 41   | 1044216  | 220.55   | ug/L  | 96       |
| 45) Carbontetrachloride        | 5.478  | 117  | 1594406  | 197.28   | ug/L  | 99       |
| 46) 1,1-Dichloropropene        | 5.502  | 75   | 1490224  | 201.02   | ug/L  | 99       |
| 48) Benzene                    | 5.838  | 78   | 4530131  | 203.76   | ug/L  | 99       |
| 49) 1,2-Dichloroethane         | 5.905  | 62   | 1713015  | 193.50   | ug/L  | 97       |
| 50) Iso-Butyl Alcohol          | 5.917  | 43   | 2147466  | 4560.61  | ug/L  | 97       |
| 51) n-Heptane                  | 6.307  | 43   | 1279117  | 241.32   | ug/L  | 99       |
| 52) 1-Butanol                  | 6.917  | 56   | 3718379  | 11897.51 | ug/L  | 99       |
| 53) Trichloroethene            | 6.819  | 130  | 1312547  | 188.26   | ug/L  | 99       |
| 54) Methylcyclohexane          | 7.039  | 55   | 1382073  | 222.83   | ug/L  | 96       |
| 55) 1,2-Dicloropropane         | 7.130  | 63   | 1200834  | 203.02   | ug/L  | 99       |
| 56) Dibromomethane             | 7.282  | 93   | 896069   | 200.52   | ug/L  | 98       |
| 57) 1,4-Dioxane                | 7.356  | 88   | 614719   | 4443.12  | ug/L  | 98       |
| 58) Methyl Methacrylate        | 7.368  | 69   | 1232555  | 219.55   | ug/L  | 98       |
| 59) Bromodichloromethane       | 7.514  | 83   | 1721923  | 202.92   | ug/L  | 98       |
| 60) 2-Nitropropane             | 7.837  | 41   | 1053916  | 428.90   | ug/L  | 100      |
| 61) 2-Chloroethylvinyl Ether   | 7.941  | 63   | 948866   | 209.16   | ug/L  | 94       |
| 62) cis-1,3-Dichloropropene    | 8.081  | 75   | 2048944  | 203.79   | ug/L  | 97       |
| 63) 4-Methyl-2-pentanone       | 8.307  | 43   | 1932857  | 229.40   | ug/L  | 97       |
| 65) Toluene                    | 8.453  | 91   | 5116403  | 205.91   | ug/L  | 97       |
| 66) trans-1,3-Dichloropropene  | 8.758  | 75   | 1950603  | 210.08   | ug/L  | 99       |
| 67) Ethyl Methacrylate         | 8.898  | 69   | 2144376  | 224.76   | ug/L  | 100      |
| 68) 1,1,2-Trichloroethane      | 8.959  | 97   | 1252334  | 202.27   | ug/L  | 99       |
| 71) Tetrachloroethene          | 9.063  | 164  | 1045987  | 206.27   | ug/L  | 97       |
| 72) 2-Hexanone                 | 9.264  | 43   | 1471283  | 237.13   | ug/L  | 98       |
| 73) 1,3-Dichloropropane        | 9.130  | 76   | 2127645  | 205.39   | ug/L  | 99       |
| 74) Dibromochloromethane       | 9.367  | 129  | 1516706  | 210.21   | ug/L  | 99       |
| 75) N-Butyl Acetate            | 9.416  | 43   | 2807498  | 233.94   | ug/L  | 97       |
| 76) 1,2-Dibromoethane          | 9.465  | 107  | 1439696  | 212.51   | ug/L  | 99       |
| 77) 3-Chlorobenzotrifluoride   | 9.989  | 180  | 2050521  | 214.66   | ug/L  | 98       |
| 78) Chlorobenzene              | 9.971  | 112  | 3540720  | 207.14   | ug/L  | 100      |
| 79) 4-Chlorobenzotrifluoride   | 10.050 | 180  | 1833598  | 213.44   | ug/L  | 99       |
| 80) 1,1,1,2-Tetrachloroethane  | 10.062 | 131  | 1347237  | 210.59   | ug/L  | 98       |
| 81) Ethylbenzene               | 10.093 | 106  | 1787908  | 210.93   | ug/L  | 98       |
| 82) (m+p)Xylene                | 10.209 | 106  | 4543601  | 425.69   | ug/L  | 95       |
| 83) o-Xylene                   | 10.574 | 106  | 2194149  | 211.35   | ug/L  | 96       |
| 84) Styrene                    | 10.593 | 104  | 3921824  | 214.14   | ug/L  | 99       |
| 85) Bromoform                  | 10.757 | 173  | 1193758  | 220.09   | ug/L  | 100      |
| 86) 2-Chlorobenzotrifluoride   | 10.837 | 180  | 2041377  | 210.08   | ug/L  | 97       |
| 87) Isopropylbenzene           | 10.916 | 105  | 5444563  | 215.14   | ug/L  | 99       |
| 88) Cyclohexanone              | 11.007 | 55   | 7143099  | 5670.90  | ug/L  | 96       |
| 89) trans-1,4-Dichloro-2-B...  | 11.251 | 53   | 647795   | 246.10   | ug/L  | 97       |
| 91) 1,1,2,2-Tetrachloroethane  | 11.202 | 83   | 2067065  | 231.75   | ug/L  | 99       |
| 92) Bromobenzene               | 11.172 | 156  | 1669520  | 200.78   | ug/L  | 98       |
| 93) 1,2,3-Trichloropropane     | 11.233 | 110  | 663123   | 189.39   | ug/L  | 98       |
| 94) n-Propylbenzene            | 11.282 | 91   | 6845082  | 217.16   | ug/L  | 99       |
| 95) 2-Chlorotoluene            | 11.349 | 91   | 3968506  | 203.08   | ug/L  | 98       |
| 96) 3-Chlorotoluene            | 11.404 | 91   | 4219776  | 202.30   | ug/L  | 99       |
| 97) 4-Chlorotoluene            | 11.440 | 91   | 4776999  | 213.07   | ug/L  | 99       |
| 98) 1,3,5-Trimethylbenzene     | 11.434 | 105  | 5056036  | 214.80   | ug/L  | 99       |
| 99) tert-Butylbenzene          | 11.714 | 119  | 4216432  | 209.53   | ug/L  | 97       |
| 100) 1,2,4-Trimethylbenzene    | 11.751 | 105  | 5023094  | 215.79   | ug/L  | 100      |
| 101) 3,4-Dichlorobenzotrifl... | 11.818 | 214  | 1687090  | 207.62   | ug/L  | 98       |
| 102) sec-Butylbenzene          | 11.897 | 105  | 6113045  | 221.20   | ug/L  | 100      |
| 103) p-Isopropyltoluene        | 12.019 | 119  | 5443015  | 222.07   | ug/L  | 100      |



Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4601.D  
 Acq On : 10 Jun 2022 5:05 pm  
 Operator : F.NAEGLER  
 Sample : 200 PPB STD  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 09:35:20 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Tue Apr 05 09:30:47 2022  
 Response via : Initial Calibration

| Compound                       | R.T.   | QIon | Response | Conc   | Units | Dev(Min) |
|--------------------------------|--------|------|----------|--------|-------|----------|
| 104) 1,3-Dclbenz               | 11.983 | 146  | 3025823  | 209.45 | ug/L  | 99       |
| 105) 1,4-Dclbenz               | 12.056 | 146  | 3104698  | 208.75 | ug/L  | 97       |
| 106) 2,4-Dichlorobenzotrifl... | 12.111 | 214  | 1564044  | 213.05 | ug/L  | 99       |
| 107) 2,5-Dichlorobenzotrifl... | 12.153 | 214  | 1743283  | 212.80 | ug/L  | 99       |
| 108) n-Butylbenzene            | 12.355 | 91   | 4943106  | 245.36 | ug/L  | 98       |
| 109) 1,2-Dclbenz               | 12.367 | 146  | 3091234  | 215.11 | ug/L  | 100      |
| 110) 1,2-Dibromo-3-chloropr... | 13.007 | 157  | 644433   | 243.76 | ug/L  | 97       |
| 111) Trielution Dichlorotol... | 13.117 | 125  | 8368645  | 697.14 | ug/L  | 99       |
| 112) 1,3,5-Trichlorobenzene    | 13.165 | 180  | 2443999  | 228.55 | ug/L  | 97       |
| 113) Coelution Dichlorotoluene | 13.446 | 125  | 6182077  | 472.14 | ug/L  | 99       |
| 114) 1,2,4-Tcbenzene           | 13.653 | 180  | 2510618  | 241.45 | ug/L  | 98       |
| 115) Hexachlorobt              | 13.781 | 225  | 1004306  | 222.27 | ug/L  | 99       |
| 116) Naphthalen                | 13.848 | 128  | 7569160  | 247.68 | ug/L  | 100      |
| 117) 1,2,3-Tclbenzene          | 14.031 | 180  | 2492931  | 239.44 | ug/L  | 99       |
| 118) 2,4,5-Trichlorotoluene    | 14.616 | 159  | 1669336  | 247.52 | ug/L  | 98       |
| 119) 2,3,6-Trichlorotoluene    | 14.702 | 159  | 1484107  | 235.19 | ug/L  | 98       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

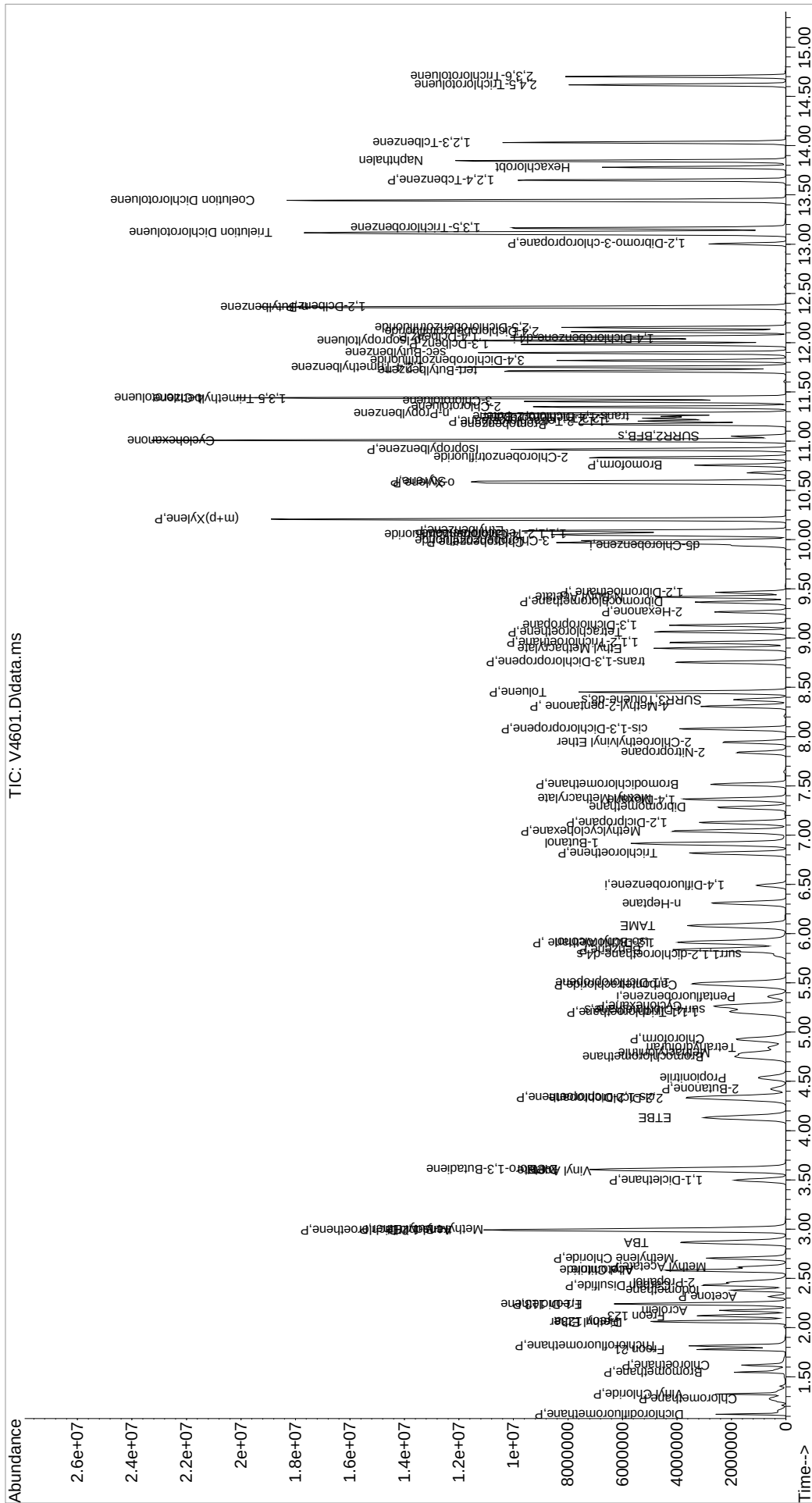
## Quantitation Report (QT Reviewed)

|           |   |                                  |
|-----------|---|----------------------------------|
| Data Path | : | I:\ACQUDATA\MSV0A14\Data\061022\ |
| Data File | : | V4601.D                          |
| Acq On    | : | 10 Jun 2022 5:05 pm              |
| Operator  | : | F.NAEGLER                        |
| Sample    | : | 200 PPB STD                      |
| Misc      | : |                                  |
| ALS Vial  | : | 10 Sample Multiplier: 1          |

Inst : MSV0A14

ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 13 09:35:20 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Tue Apr 05 09:30:47 2022  
Response via : Initial Calibration



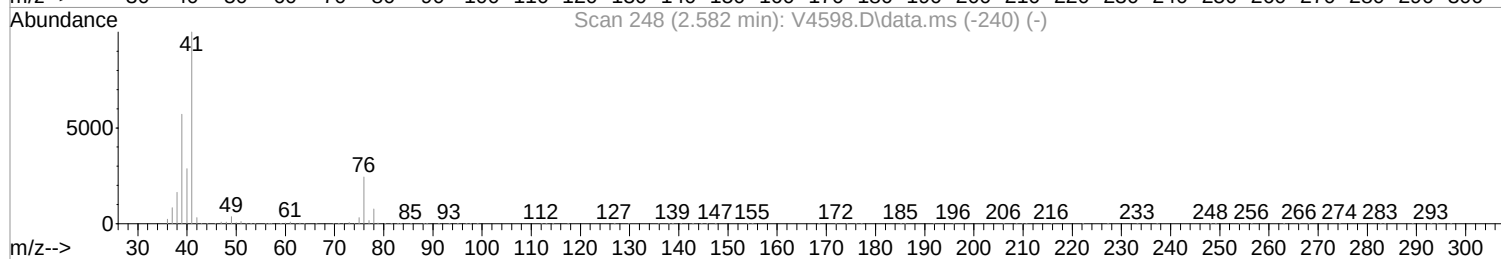
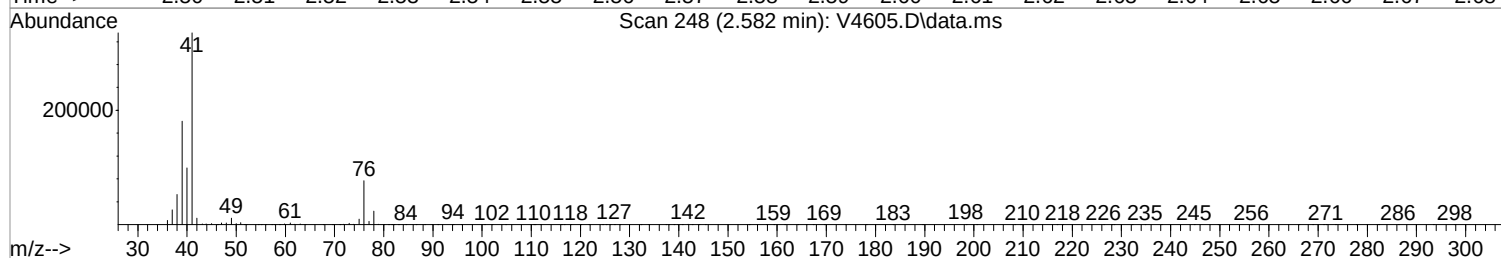
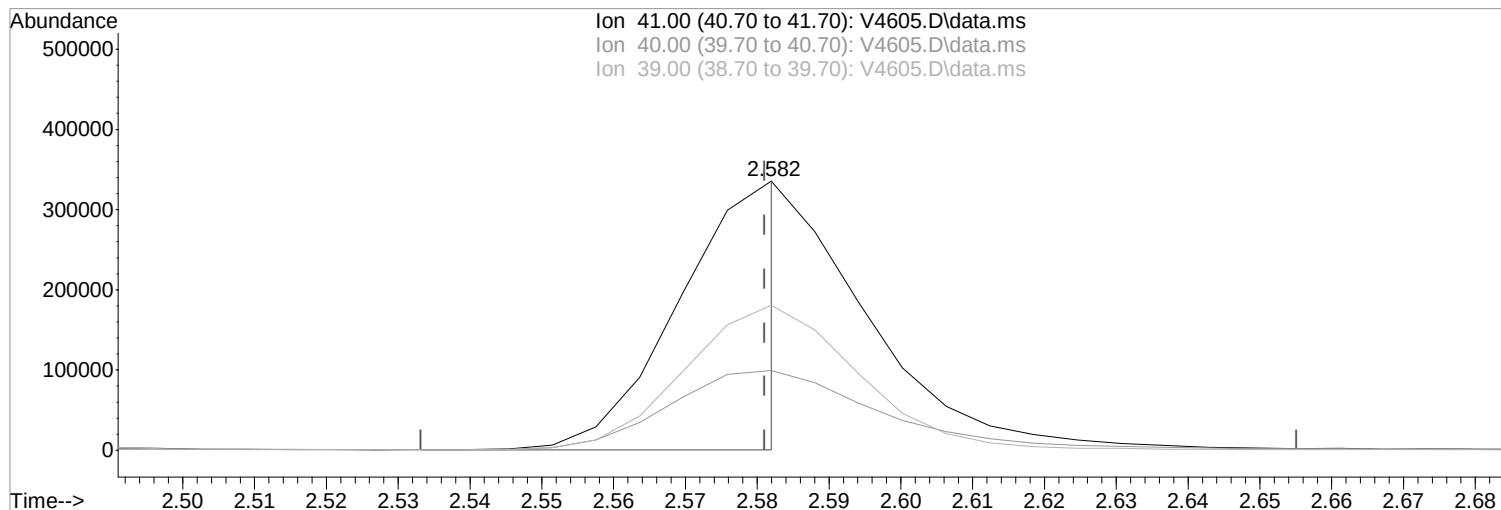
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4605.D  
Acq On : 10 Jun 2022 6:34 pm  
Operator : F.NAEGLER  
Sample : 50 PPB ICV  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:07:18 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V4605.D\data.ms

(19) Acetonitrile

2.582min (+0.001) 218.11 ug/L m

response 349913

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 29.59 |
| 39.00 | 57.20 | 53.90 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

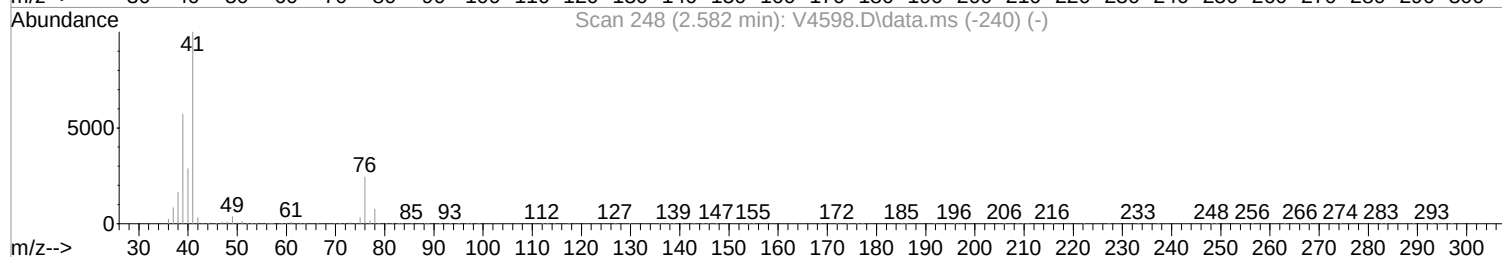
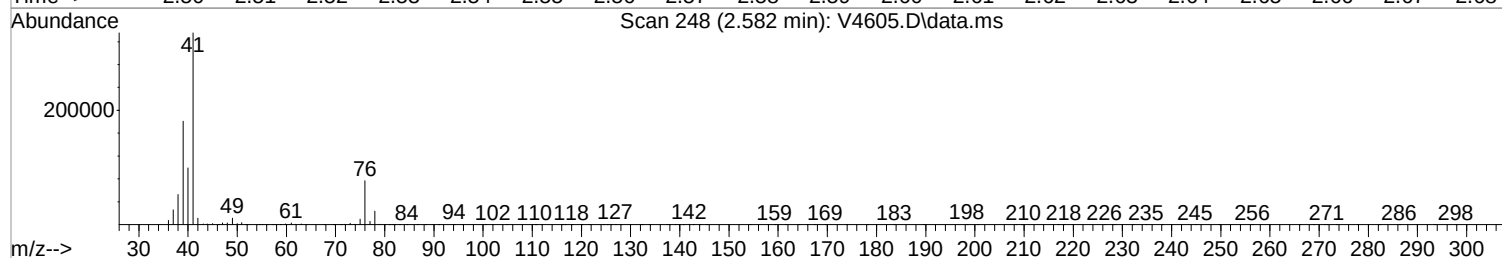
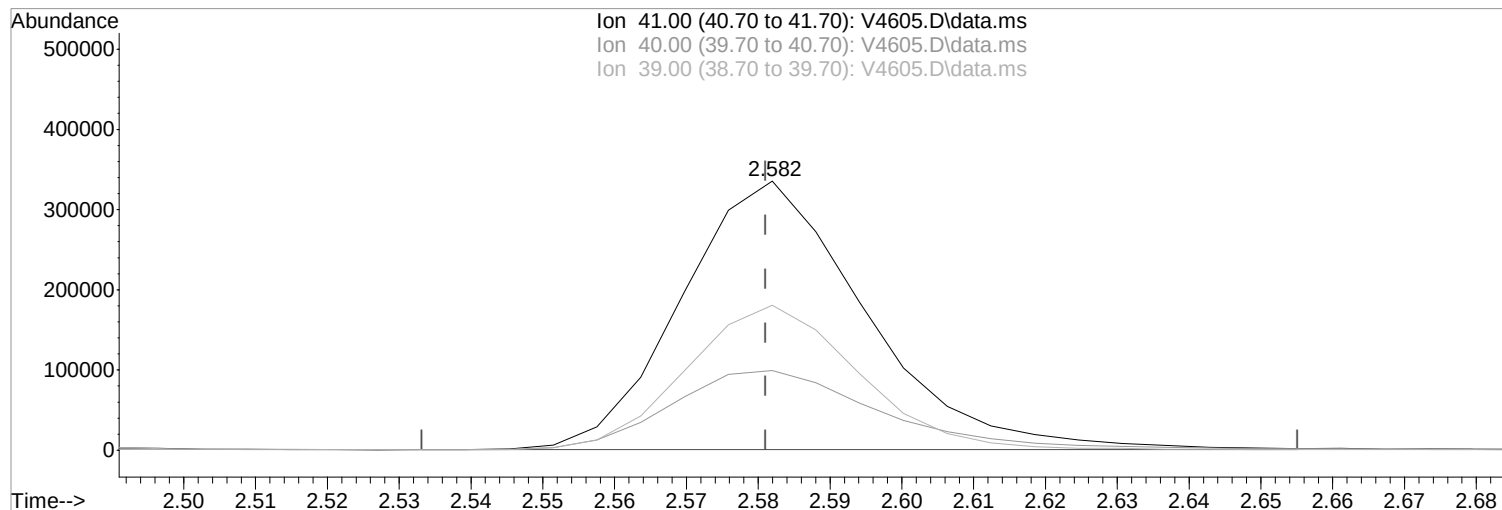
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4605.D  
Acq On : 10 Jun 2022 6:34 pm  
Operator : F.NAEGLER  
Sample : 50 PPB ICV  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:07:18 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V4605.D\data.ms

(19) Acetonitrile

Manual Integration:

2.582min (+0.001) 375.85 ug/L

Before

response 602968

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 41.00 | 100   | 100   |
| 40.00 | 28.90 | 29.59 |
| 39.00 | 57.20 | 53.90 |
| 0.00  | 0.00  | 0.00  |

06/13/22

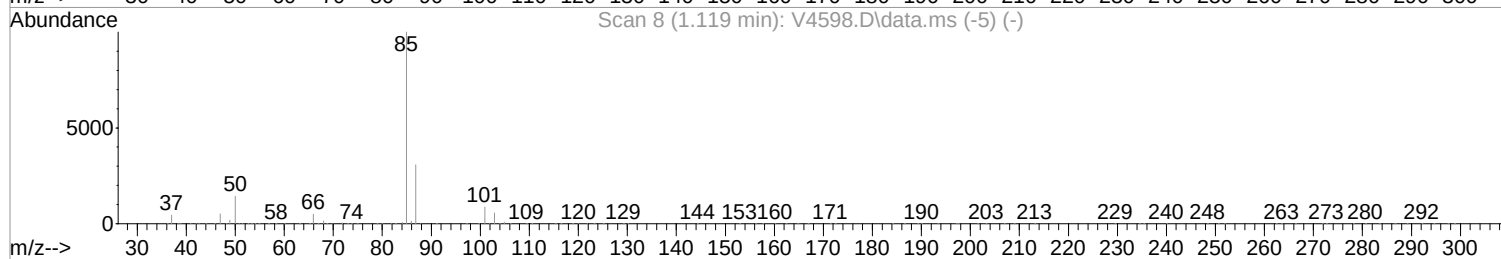
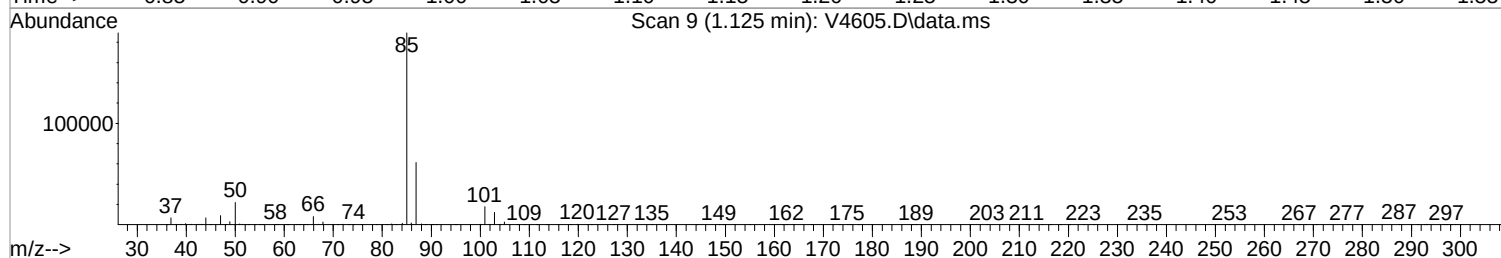
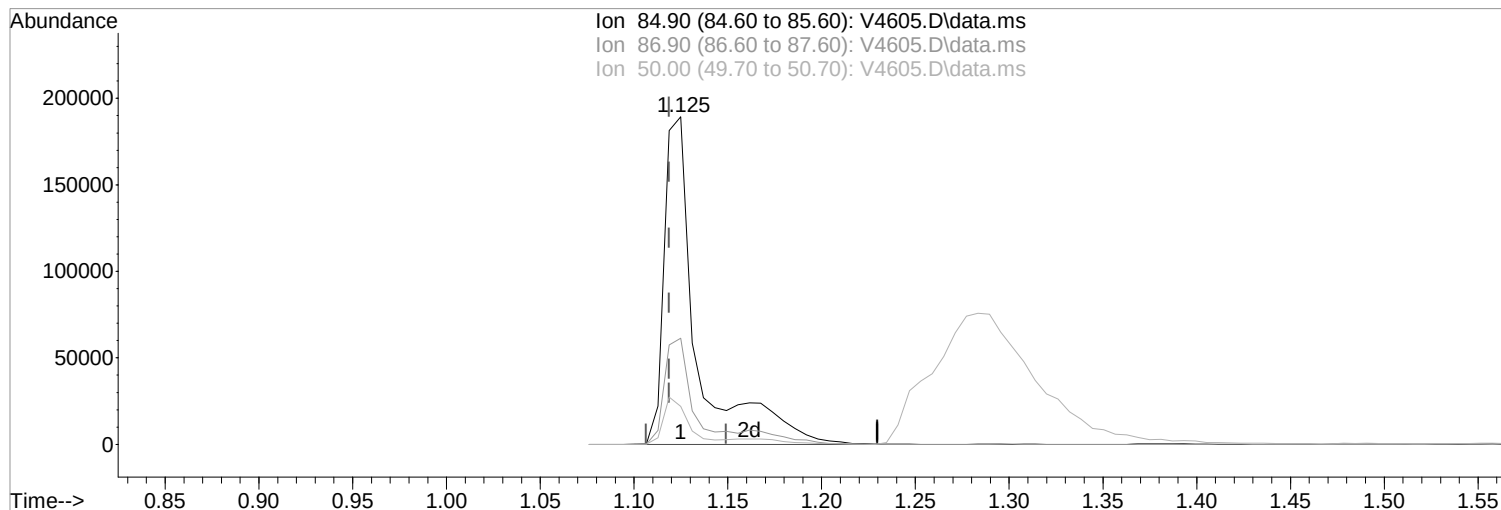
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4605.D  
Acq On : 10 Jun 2022 6:34 pm  
Operator : F.NAEGLER  
Sample : 50 PPB ICV  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:07:18 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



(2) Dichlorodifluoromethane (P)

1.125min (+0.006) 38.77 ug/L m

response 235915

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 32.41 |
| 50.00 | 14.40 | 11.61 |
| 0.00  | 0.00  | 0.00  |

Manual Integration:

After

Poor integration.

06/13/22

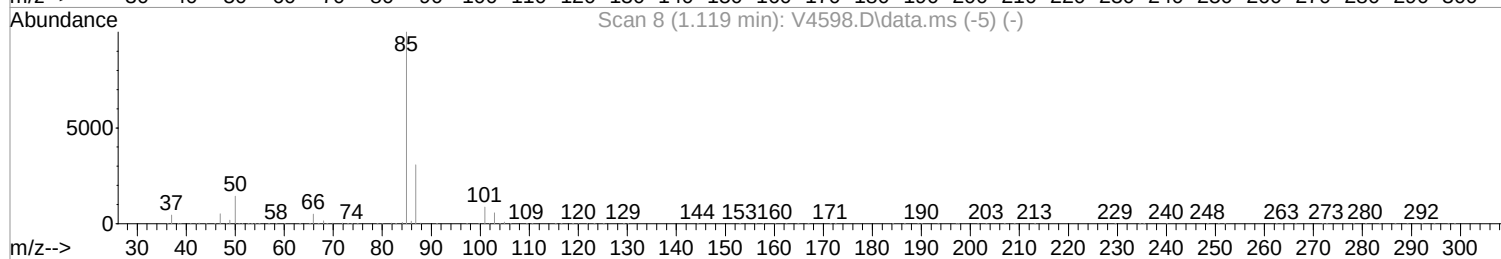
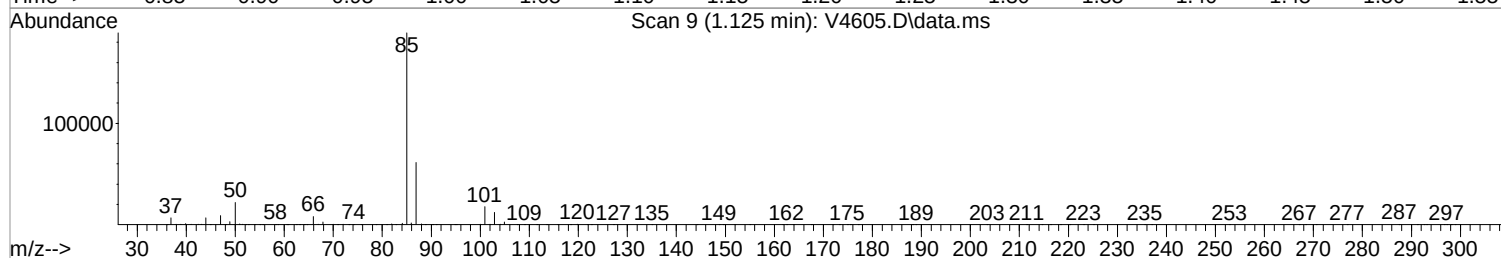
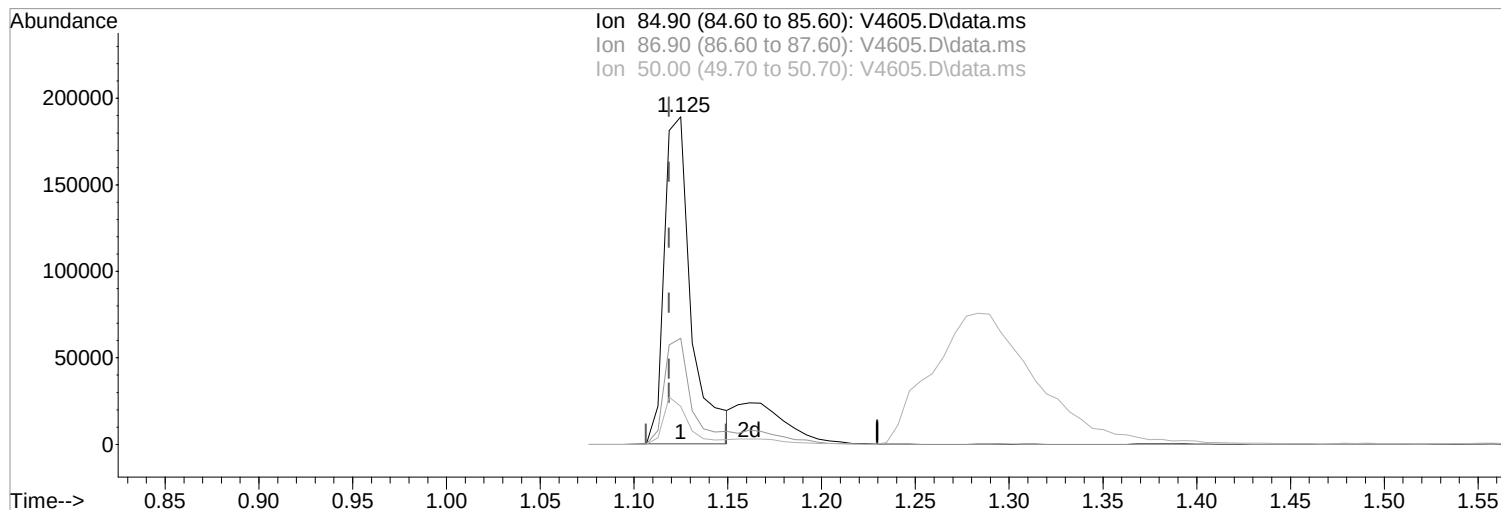
# Quantitation Report (Qedit)

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
Data File : V4605.D  
Acq On : 10 Jun 2022 6:34 pm  
Operator : F.NAEGLER  
Sample : 50 PPB ICV  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:07:18 2022  
Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
Quant Title : MS#14 - 8260 WATERS 5mL Purge  
QLast Update : Mon Jun 13 09:38:11 2022  
Response via : Initial Calibration



TIC: V4605.D\data.ms

(2) Dichlorodifluoromethane (P)

Manual Integration:

1.125min (+0.006) 31.11 ug/L

Before

response 189325

| Ion   | Exp%  | Act%  |
|-------|-------|-------|
| 84.90 | 100   | 100   |
| 86.90 | 30.80 | 32.41 |
| 50.00 | 14.40 | 11.61 |
| 0.00  | 0.00  | 0.00  |

06/13/22

## Evaluate Continuing Calibration Report

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4605.D  
 Acq On : 10 Jun 2022 6:34 pm  
 Operator : F.NAEGLER  
 Sample : 50 PPB ICV  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:08:03 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                    | Amount   | Calc.    | %Dev  | Area% | Dev(min) |
|------|-----------------------------|----------|----------|-------|-------|----------|
| 1 i  | Pentafluorobenzene          | 50.000   | 50.000   | 0.0   | 101   | 0.00     |
| 2 P  | Dichlorodifluoromethane     | 50.000   | 38.768   | 22.5# | 74    | 0.00     |
| 3 P  | Chloromethane               | 50.000   | 47.992   | 4.0   | 103   | 0.00     |
| 4 P  | Vinyl Chloride              | 50.000   | 41.025   | 18.0  | 80    | 0.00     |
| 5 P  | Bromomethane                | 50.000   | 46.668   | 6.7   | 99    | 0.00     |
| 6 P  | Chloroethane                | 50.000   | 45.009   | 10.0  | 88    | 0.00     |
| 7    | Freon 21                    | 50.000   | 46.843   | 6.3   | 91    | 0.00     |
| 8 P  | Trichlorofluoromethane      | 50.000   | 44.336   | 11.3  | 86    | 0.00     |
| 9    | Diethyl Ether               | 50.000   | 45.960   | 8.1   | 95    | 0.00     |
| 10   | Freon 123a                  | 50.000   | 56.518   | -13.0 | 110   | 0.00     |
| 11   | Freon 123                   | 50.000   | 57.328   | -14.7 | 107   | 0.00     |
| 12   | Acrolein                    | 250.000  | 100.283  | 59.9# | 40    | 0.00     |
| 13   | 1,1-Dicethene               | 50.000   | 46.196   | 7.6   | 87    | 0.00     |
| 14 P | Freon 113                   | 50.000   | 43.316   | 13.4  | 84    | 0.00     |
| 15 P | Acetone                     | 50.000   | 54.118   | -8.2  | 108   | 0.00     |
| 16   | 2-Propanol                  | 1000.000 | 1094.323 | -9.4  | 106   | 0.00     |
| 17   | Iodomethane                 | 50.000   | 41.219   | 17.6  | 75    | 0.00     |
| 18 P | Carbon Disulfide            | 50.000   | 44.104   | 11.8  | 85    | 0.00     |
| 19   | Acetonitrile                | 250.000  | 218.112  | 12.8  | 88    | 0.00     |
| 20   | Allyl Chloride              | 50.000   | 40.681   | 18.6  | 81    | 0.00     |
| 21 P | Methyl Acetate              | 50.000   | 42.761   | 14.5  | 88    | 0.00     |
| 22 P | Methylene Chloride          | 50.000   | 44.467   | 11.1  | 89    | 0.00     |
| 23   | TBA                         | 1000.000 | 976.754  | 2.3   | 94    | 0.00     |
| 24   | Acrylonitrile               | 250.000  | 240.626  | 3.7   | 95    | 0.00     |
| 25 P | Methyl-t-Butyl Ether        | 50.000   | 46.214   | 7.6   | 93    | 0.00     |
| 26 P | trans-1,2-Dichloroethene    | 50.000   | 46.418   | 7.2   | 89    | 0.00     |
| 27 P | 1,1-Dicethane               | 50.000   | 45.608   | 8.8   | 89    | 0.00     |
| 28   | Vinyl Acetate               | 50.000   | 51.663   | -3.3  | 98    | 0.00     |
| 29   | DIPE                        | 50.000   | 48.558   | 2.9   | 101   | 0.00     |
| 30   | 2-Chloro-1,3-Butadiene      | 50.000   | 45.986   | 8.0   | 89    | 0.00     |
| 31   | ETBE                        | 50.000   | 45.894   | 8.2   | 94    | 0.00     |
| 32   | 2,2-Dichloropropane         | 50.000   | 42.944   | 14.1  | 84    | 0.00     |
| 33 P | cis-1,2-Dichloroethene      | 50.000   | 45.483   | 9.0   | 90    | 0.00     |
| 34 P | 2-Butanone                  | 50.000   | 48.334   | 3.3   | 95    | 0.00     |
| 35   | Propionitrile               | 250.000  | 236.951  | 5.2   | 96    | 0.00     |
| 36   | Bromochloromethane          | 50.000   | 45.052   | 9.9   | 90    | 0.00     |
| 37   | Methacrylonitrile           | 50.000   | 47.553   | 4.9   | 94    | 0.00     |
| 38   | Tetrahydrofuran             | 50.000   | 47.042   | 5.9   | 96    | 0.00     |
| 39 P | Chloroform                  | 50.000   | 44.420   | 11.2  | 89    | 0.00     |
| 40 P | 1,1,1-Trichloroethane       | 50.000   | 44.446   | 11.1  | 89    | 0.00     |
| 41   | TAME                        | 50.000   | 49.548   | 0.9   | 101   | 0.00     |
| 42 i | 1,4-Difluorobenzene         | 50.000   | 50.000   | 0.0   | 101   | 0.00     |
| 43 P | Cyclohexane                 | 50.000   | 56.134   | -12.3 | 107   | 0.00     |
| 44 s | surr4,Dibrflmethane         | 50.000   | 51.147   | -2.3  | 102   | 0.00     |
| 45 P | Carbontetrachloride         | 50.000   | 46.482   | 7.0   | 87    | 0.00     |
| 46   | 1,1-Dichloropropene         | 50.000   | 45.416   | 9.2   | 88    | 0.00     |
| 47 s | surr1,1,2-dichloroethane-d4 | 50.000   | 50.487   | -1.0  | 102   | 0.00     |
| 48 P | Benzene                     | 50.000   | 45.769   | 8.5   | 87    | 0.00     |
| 49 P | 1,2-Dichloroethane          | 50.000   | 46.267   | 7.5   | 93    | 0.00     |
| 50   | Iso-Butyl Alcohol           | 1000.000 | 976.478  | 2.4   | 92    | 0.00     |
| 51   | n-Heptane                   | 50.000   | 41.886   | 16.2  | 86    | 0.00     |

## Evaluate Continuing Calibration Report

1st *FJ* 06/13/22  
2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4605.D  
 Acq On : 10 Jun 2022 6:34 pm  
 Operator : F.NAEGLER  
 Sample : 50 PPB ICV  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:08:03 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                    | Amount   | Calc.    | %Dev  | Area% | Dev(min) |
|------|-----------------------------|----------|----------|-------|-------|----------|
| 52   | 1-Butanol                   | 2500.000 | 2699.764 | -8.0  | 98    | 0.00     |
| 53 P | Trichloroethene             | 50.000   | 46.688   | 6.6   | 90    | 0.00     |
| 54 P | Methylcyclohexane           | 50.000   | 57.932   | -15.9 | 109   | 0.00     |
| 55 P | 1,2-Dichloropropane         | 50.000   | 46.117   | 7.8   | 91    | 0.00     |
| 56   | Dibromomethane              | 50.000   | 47.324   | 5.4   | 94    | 0.00     |
| 57   | 1,4-Dioxane                 | 1000.000 | 987.568  | 1.2   | 96    | 0.00     |
| 58   | Methyl Methacrylate         | 50.000   | 51.147   | -2.3  | 96    | 0.00     |
| 59 P | Bromodichloromethane        | 50.000   | 47.017   | 6.0   | 91    | 0.00     |
| 60   | 2-Nitropropane              | 100.000  | 99.373   | 0.6   | 94    | 0.00     |
| 61   | 2-Chloroethylvinyl Ether    | 50.000   | 50.879   | -1.8  | 94    | 0.00     |
| 62 P | cis-1,3-Dichloropropene     | 50.000   | 48.999   | 2.0   | 92    | 0.00     |
| 63 P | 4-Methyl-2-pentanone        | 50.000   | 50.805   | -1.6  | 99    | 0.00     |
| 64 s | SURR3, Toluene-d8           | 50.000   | 50.635   | -1.3  | 102   | 0.00     |
| 65 P | Toluene                     | 50.000   | 45.490   | 9.0   | 87    | 0.00     |
| 66 P | trans-1,3-Dichloropropene   | 50.000   | 51.108   | -2.2  | 97    | 0.00     |
| 67   | Ethyl Methacrylate          | 50.000   | 44.293   | 11.4  | 82    | 0.00     |
| 68 P | 1,1,2-Trichloroethane       | 50.000   | 47.945   | 4.1   | 94    | 0.00     |
| 69 s | SURR2, BFB                  | 50.000   | 50.689   | -1.4  | 101   | 0.00     |
| 70 i | d5-Chlorobenzene            | 50.000   | 50.000   | 0.0   | 100   | 0.00     |
| 71 P | Tetrachloroethene           | 50.000   | 46.612   | 6.8   | 89    | 0.00     |
| 72 P | 2-Hexanone                  | 50.000   | 53.162   | -6.3  | 100   | 0.00     |
| 73   | 1,3-Dichloropropane         | 50.000   | 48.825   | 2.3   | 96    | 0.00     |
| 74 P | Dibromochloromethane        | 50.000   | 47.893   | 4.2   | 87    | 0.00     |
| 75   | N-Butyl Acetate             | 50.000   | 56.353   | -12.7 | 105   | 0.00     |
| 76 P | 1,2-Dibromoethane           | 50.000   | 49.953   | 0.1   | 94    | 0.00     |
| 77   | 3-Chlorobenzotrifluoride    | 50.000   | 55.944   | -11.9 | 107   | 0.00     |
| 78 P | Chlorobenzene               | 50.000   | 45.944   | 8.1   | 89    | 0.00     |
| 79   | 4-Chlorobenzotrifluoride    | 50.000   | 57.473   | -14.9 | 109   | 0.00     |
| 80   | 1,1,1,2-Tetrachloroethane   | 50.000   | 49.828   | 0.3   | 92    | 0.00     |
| 81 P | Ethylbenzene                | 50.000   | 46.157   | 7.7   | 89    | 0.00     |
| 82 P | (m+p)Xylene                 | 100.000  | 93.560   | 6.4   | 88    | 0.00     |
| 83 P | o-Xylene                    | 50.000   | 47.611   | 4.8   | 91    | 0.00     |
| 84 P | Styrene                     | 50.000   | 48.318   | 3.4   | 90    | 0.00     |
| 85 P | Bromoform                   | 50.000   | 50.952   | -1.9  | 93    | 0.00     |
| 86   | 2-Chlorobenzotrifluoride    | 50.000   | 57.928   | -15.9 | 110   | 0.00     |
| 87 P | Isopropylbenzene            | 50.000   | 47.309   | 5.4   | 90    | 0.00     |
| 88   | Cyclohexanone               | 1000.000 | 989.580  | 1.0   | 89    | 0.00     |
| 89   | trans-1,4-Dichloro-2-Butene | 50.000   | 44.116   | 11.8  | 81    | 0.00     |
| 90 i | 1,4-Dichlorobenzene-d4      | 50.000   | 50.000   | 0.0   | 100   | 0.00     |
| 91 P | 1,1,2,2-Tetrachloroethane   | 50.000   | 48.149   | 3.7   | 92    | 0.00     |
| 92   | Bromobenzene                | 50.000   | 45.135   | 9.7   | 89    | 0.00     |
| 93   | 1,2,3-Trichloropropane      | 50.000   | 46.439   | 7.1   | 93    | 0.00     |
| 94   | n-Propylbenzene             | 50.000   | 45.789   | 8.4   | 89    | 0.00     |
| 95   | 2-Chlorotoluene             | 50.000   | 44.091   | 11.8  | 87    | 0.00     |
| 96   | 3-Chlorotoluene             | 50.000   | 53.264   | -6.5  | 107   | 0.00     |
| 97   | 4-Chlorotoluene             | 50.000   | 44.766   | 10.5  | 88    | 0.00     |
| 98   | 1,3,5-Trimethylbenzene      | 50.000   | 45.022   | 10.0  | 88    | 0.00     |
| 99   | tert-Butylbenzene           | 50.000   | 45.159   | 9.7   | 89    | 0.00     |
| 100  | 1,2,4-Trimethylbenzene      | 50.000   | 45.589   | 8.8   | 89    | 0.00     |
| 101  | 3,4-Dichlorobenzotrifluorid | 50.000   | 55.961   | -11.9 | 108   | 0.00     |



## Evaluate Continuing Calibration Report

 1st *FJ* 06/13/22  
 2nd *RL* 06/13/22

Data Path : I:\ACQUDATA\MSVOA14\Data\061022\  
 Data File : V4605.D  
 Acq On : 10 Jun 2022 6:34 pm  
 Operator : F.NAEGLER  
 Sample : 50 PPB ICV  
 Misc :  
 ALS Vial : 14 Sample Multiplier: 1

Inst : MSVOA14

Quant Time: Jun 13 10:08:03 2022  
 Quant Method : I:\ACQUDATA\MSVOA14\Methods\W061022.m  
 Quant Title : MS#14 - 8260 WATERS 5mL Purge  
 QLast Update : Mon Jun 13 09:38:11 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|       | Compound                    | Amount  | Calc.   | %Dev  | Area% | Dev(min) |
|-------|-----------------------------|---------|---------|-------|-------|----------|
| 102   | sec-Butylbenzene            | 50.000  | 45.387  | 9.2   | 88    | 0.00     |
| 103   | p-Isopropyltoluene          | 50.000  | 45.358  | 9.3   | 88    | 0.00     |
| 104 P | 1,3-Dclbenz                 | 50.000  | 45.612  | 8.8   | 89    | 0.00     |
| 105 P | 1,4-Dclbenz                 | 50.000  | 44.602  | 10.8  | 91    | 0.00     |
| 106   | 2,4-Dichlorobenzotrifluorid | 50.000  | 57.922  | -15.8 | 110   | 0.00     |
| 107   | 2,5-Dichlorobenzotrifluorid | 50.000  | 56.734  | -13.5 | 107   | 0.00     |
| 108   | n-Butylbenzene              | 50.000  | 45.239  | 9.5   | 88    | 0.00     |
| 109 P | 1,2-Dclbenz                 | 50.000  | 45.592  | 8.8   | 89    | 0.00     |
| 110 P | 1,2-Dibromo-3-chloropropane | 50.000  | 50.229  | -0.5  | 90    | 0.00     |
| 111   | Trielution Dichlorotoluene  | 150.000 | 162.334 | -8.2  | 107   | 0.00     |
| 112   | 1,3,5-Trichlorobenzene      | 50.000  | 54.490  | -9.0  | 105   | 0.00     |
| 113   | Coelution Dichlorotoluene   | 100.000 | 108.748 | -8.7  | 106   | 0.00     |
| 114 P | 1,2,4-Tcbenzene             | 50.000  | 45.286  | 9.4   | 87    | 0.00     |
| 115   | Hexachlorobt                | 50.000  | 47.664  | 4.7   | 93    | 0.00     |
| 116   | Naphthalen                  | 50.000  | 48.217  | 3.6   | 89    | 0.00     |
| 117   | 1,2,3-Tclbenzene            | 50.000  | 45.073  | 9.9   | 86    | 0.00     |
| 118   | 2,4,5-Trichlorotoluene      | 50.000  | 56.073  | -12.1 | 106   | 0.00     |
| 119   | 2,3,6-Trichlorotoluene      | 50.000  | 53.687  | -7.4  | 97    | 0.00     |

(# ) = Out of Range

SPCC's out = 0 CCC's out = 0

ALS Group USA, Corp.

DBA ALS Environmental

QC/QC Report

Date Analyzed: 6/10/22 13:08

ICAL Tune Summary  
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\MSVOA14\Data\061022\V4591.D  
Instrument ID: R-MS-14

Analytical Method: 8260C/624.1

| Target Mass | Relative to Mass | Lower Limit % | Upper Limit % | Relative Abundance % | Raw Abundance | Results Pass/Fail |
|-------------|------------------|---------------|---------------|----------------------|---------------|-------------------|
| 50          | 95               | 15            | 40            | 19.0                 | 48890         | PASS              |
| 75          | 95               | 30            | 60            | 50.2                 | 129159        | PASS              |
| 95          | 95               | 100           | 100           | 100.0                | 257515        | PASS              |
| 96          | 95               | 5             | 9             | 6.5                  | 16665         | PASS              |
| 173         | 174              | 0             | 2             | 1.3                  | 3039          | PASS              |
| 174         | 95               | 50            | 120           | 91.8                 | 236501        | PASS              |
| 175         | 174              | 5             | 9             | 7.5                  | 17820         | PASS              |
| 176         | 174              | 95            | 101           | 96.9                 | 229163        | PASS              |
| 177         | 176              | 5             | 9             | 6.3                  | 14530         | PASS              |

| Sample Name | Lab Code    | File ID:                                | Date Analyzes: Q |
|-------------|-------------|-----------------------------------------|------------------|
| ICALBLK     | ICALBLK     | I:\ACQUDATA\MSVOA14\Data\061022\V4592.D | 6/10/22 13:45    |
| 0.5 PPB STD | 0.5 PPB STD | I:\ACQUDATA\MSVOA14\DATA\061022\V4593.D | 6/10/22 14:07    |
| 1.0 PPB STD | 1.0 PPB STD | I:\ACQUDATA\MSVOA14\DATA\061022\V4594.D | 6/10/22 14:29    |
| 2.0 PPB STD | 2.0 PPB STD | I:\ACQUDATA\MSVOA14\DATA\061022\V4595.D | 6/10/22 14:52    |
| 5.0 PPB STD | 5.0 PPB STD | I:\ACQUDATA\MSVOA14\DATA\061022\V4596.D | 6/10/22 15:14    |
| 20 PPB STD  | 20 PPB STD  | I:\ACQUDATA\MSVOA14\DATA\061022\V4597.D | 6/10/22 15:36    |
| 50 PPB STD  | 50 PPB STD  | I:\ACQUDATA\MSVOA14\DATA\061022\V4598.D | 6/10/22 15:58    |
| 100 PPB STD | 100 PPB STD | I:\ACQUDATA\MSVOA14\DATA\061022\V4599.D | 6/10/22 16:20    |
| 150 PPB STD | 150 PPB STD | I:\ACQUDATA\MSVOA14\DATA\061022\V4600.D | 6/10/22 16:43    |
| 200 PPB STD | 200 PPB STD | I:\ACQUDATA\MSVOA14\DATA\061022\V4601.D | 6/10/22 17:05    |
| 50 PPB ICV  | 50 PPB ICV  | I:\ACQUDATA\MSVOA14\DATA\061022\V4605.D | 6/10/22 18:34    |

Analysis: 8260/624 Analyst: F. Naegele pH strips: — Tune Method: W061022.M  
 Date: 6/10/22 Balance ID: — ResCl strips: — Run Method: ↓  
 Instr: M514 50 mL Class A used for dilution FV Syringes: 210903 / 218377 LIMS Run#: —  
 Data Path: j:\acq\data\msvoa\inst\ID\Date

| Pos. | Sample      | Diln. | Diln. Prep. | RL | Vial | HS | CI | pH | File# | OK? | Comments |
|------|-------------|-------|-------------|----|------|----|----|----|-------|-----|----------|
| 1    | TUNE        |       |             |    |      |    |    |    | V4541 | Y   |          |
| 1    | ICAL BLK    |       |             |    |      |    |    |    | 42    | Y   |          |
| 2    | 0.5 ppb std |       |             |    |      |    |    |    | 43    | Y   |          |
| 3    | 1.0         |       |             |    |      |    |    |    | 44    | Y   |          |
| 4    | 2.0         |       |             |    |      |    |    |    | 45    | Y   |          |
| 5    | 5.0         |       |             |    |      |    |    |    | 46    | Y   |          |
| 6    | 20          |       |             |    |      |    |    |    | 47    | Y   |          |
| 7    | 50          |       |             |    |      |    |    |    | 48    | Y   |          |
| 8    | 100         |       |             |    |      |    |    |    | 49    | Y   |          |
| 9    | 150         |       |             |    |      |    |    |    | 50    | Y   |          |
| 10   | 200         |       |             |    |      |    |    |    | V4600 | Y   |          |
| 11   | BLK         |       |             |    |      |    |    |    | 01    | Y   |          |
| 12   | ↓           |       |             |    |      |    |    |    | 02    | Y   |          |
| 13   | ↓           |       |             |    |      |    |    |    | 03    | Y   |          |
| 14   | 50 ppb ICA  |       |             |    |      |    |    |    | 04    | Y   |          |
| 15   | BLK         |       |             |    |      |    |    |    | 05    | Y   |          |
| 16   | ↓           |       |             |    |      |    |    |    | 06    | Y   |          |
|      |             |       |             |    |      |    |    |    | 07    | Y   |          |

### WATER ICAL TABLE

| CONC (PPB)          | 0.5                       | 1.0                       | 2.0                       | 5.0                       | 20                       | 50                         | 100                       | 150                         | 200                        |
|---------------------|---------------------------|---------------------------|---------------------------|---------------------------|--------------------------|----------------------------|---------------------------|-----------------------------|----------------------------|
| 1° T/G = 223401     | 10µl / 1mL<br>5µl / 500µL | 10µl / 1mL<br>5µl / 500µL | 10µl / 1mL<br>5µl / 500µL | 10µl / 1mL<br>5µl / 500µL | 2µl / 50µL<br>1µl / 25µL | 5µl / 50µL<br>2.5µl / 25µL | 10µl / 50µL<br>5µl / 25µL | 15µl / 50µL<br>7.5µl / 25µL | 20µl / 50µL<br>10µl / 25µL |
| 1° HSL = 223305     | ↓                         | ↓                         | ↓                         | ↓                         | ↓                        | ↓                          | ↓                         | ↓                           | ↓                          |
| 1° FC = 223131      | ↓                         | ↓                         | ↓                         | ↓                         | ↓                        | ↓                          | ↓                         | ↓                           | ↓                          |
| 1° OCC = 222495     | ↓                         | ↓                         | ↓                         | ↓                         | ↓                        | ↓                          | ↓                         | ↓                           | ↓                          |
| 1° 236-TCF = 222565 | ↓                         | ↓                         | ↓                         | ↓                         | ↓                        | ↓                          | ↓                         | ↓                           | ↓                          |

All samples = 5 mL + 5 µL combined IS/

Primary SEE TABLE ABOVE

Primary  
Primary  
Primary  
Primary

5 mL purged

FC Secondary 200 : 223413  
 T/G Secondary 500 : 223132  
 HSL Secondary : 223243  
 OCC Secondary : 222494  
 236-TCF Secondary : 222565

Combined IS/Surf :  
 Surrogate 50 : 223489  
 Internal Std 50 : 223490

Reagents: MeOH : 220607

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

| #  | Lab Code     | Sample Name | File Location                           | Acquisition Date |
|----|--------------|-------------|-----------------------------------------|------------------|
| 01 | RC2200058-01 | 0.5 PPB STD | I:\ACQUDATA\MSVOA14\Data\061022\V4593.D | 06/10/2022 14:07 |
| 02 | RC2200058-02 | 1.0 PPB STD | I:\ACQUDATA\MSVOA14\Data\061022\V4594.D | 06/10/2022 14:29 |
| 03 | RC2200058-03 | 2.0 PPB STD | I:\ACQUDATA\MSVOA14\Data\061022\V4595.D | 06/10/2022 14:52 |
| 04 | RC2200058-04 | 5.0 PPB STD | I:\ACQUDATA\MSVOA14\Data\061022\V4596.D | 06/10/2022 15:14 |
| 05 | RC2200058-05 | 20 PPB STD  | I:\ACQUDATA\MSVOA14\Data\061022\V4597.D | 06/10/2022 15:36 |
| 06 | RC2200058-06 | 50 PPB STD  | I:\ACQUDATA\MSVOA14\Data\061022\V4598.D | 06/10/2022 15:58 |
| 07 | RC2200058-07 | 100 PPB STD | I:\ACQUDATA\MSVOA14\Data\061022\V4599.D | 06/10/2022 16:20 |
| 08 | RC2200058-08 | 150 PPB STD | I:\ACQUDATA\MSVOA14\Data\061022\V4600.D | 06/10/2022 16:43 |
| 09 | RC2200058-09 | 200 PPB STD | I:\ACQUDATA\MSVOA14\Data\061022\V4601.D | 06/10/2022 17:05 |

**Analyte**

**1,1,1,2-Tetrachloroethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF    | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|-------|----|---------|--------|
| 01 | 0.500   | 0.2841 | 02 | 1.000  | 0.2915 | 03 | 2.000   | 0.288 | 04 | 5.000   | 0.3113 |
| 05 | 20.000  | 0.3171 | 06 | 50.000 | 0.3546 | 07 | 100.000 | 0.363 | 08 | 150.000 | 0.3584 |
| 09 | 200.000 | 0.3699 |    |        |        |    |         |       |    |         |        |

**1,1,1-Trichloroethane (TCA)**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.6724 | 02 | 1.000  | 0.6525 | 03 | 2.000   | 0.6036 | 04 | 5.000   | 0.6428 |
| 05 | 20.000  | 0.5666 | 06 | 50.000 | 0.6441 | 07 | 100.000 | 0.6654 | 08 | 150.000 | 0.6322 |
| 09 | 200.000 | 0.6544 |    |        |        |    |         |        |    |         |        |

**1,1,2,2-Tetrachloroethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF    | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|-------|----|---------|--------|
| 01 | 0.500   | 0.9432 | 02 | 1.000  | 0.9042 | 03 | 2.000   | 0.933 | 04 | 5.000   | 0.9005 |
| 05 | 20.000  | 0.8884 | 06 | 50.000 | 1.007  | 07 | 100.000 | 1.021 | 08 | 150.000 | 1.002  |
| 09 | 200.000 | 1.027  |    |        |        |    |         |       |    |         |        |

**1,1,2-Trichloroethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.2914 | 02 | 1.000  | 0.285  | 03 | 2.000   | 0.2887 | 04 | 5.000   | 0.2987 |
| 05 | 20.000  | 0.2863 | 06 | 50.000 | 0.3086 | 07 | 100.000 | 0.3138 | 08 | 150.000 | 0.3044 |
| 09 | 200.000 | 0.3112 |    |        |        |    |         |        |    |         |        |

**1,1-Dichloroethane (1,1-DCA)**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.6812 | 02 | 1.000  | 0.6585 | 03 | 2.000   | 0.6794 | 04 | 5.000   | 0.6902 |
| 05 | 20.000  | 0.6578 | 06 | 50.000 | 0.7122 | 07 | 100.000 | 0.7163 | 08 | 150.000 | 0.692  |
| 09 | 200.000 | 0.7155 |    |        |        |    |         |        |    |         |        |

**1,1-Dichloroethene (1,1-DCE)**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.3059 | 02 | 1.000  | 0.3387 | 03 | 2.000   | 0.2966 | 04 | 5.000   | 0.333  |
| 05 | 20.000  | 0.3032 | 06 | 50.000 | 0.3631 | 07 | 100.000 | 0.3779 | 08 | 150.000 | 0.3591 |
| 09 | 200.000 | 0.3735 |    |        |        |    |         |        |    |         |        |

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

**Analyte**

**1,2,3-Trichloropropane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.4175 | 02 | 1.000  | 0.323  | 03 | 2.000   | 0.3453 | 04 | 5.000   | 0.3319 |
| 05 | 20.000  | 0.2927 | 06 | 50.000 | 0.3369 | 07 | 100.000 | 0.3379 | 08 | 150.000 | 0.3186 |
| 09 | 200.000 | 0.3295 |    |        |        |    |         |        |    |         |        |

**1,2-Dibromo-3-chloropropane (DBCP)**

| #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|--------|--------|----|---------|--------|----|---------|--------|----|---------|--------|
| 02 | 1.000  | 0.2396 | 03 | 2.000   | 0.2172 | 04 | 5.000   | 0.2302 | 05 | 20.000  | 0.2428 |
| 06 | 50.000 | 0.3043 | 07 | 100.000 | 0.3171 | 08 | 150.000 | 0.3122 | 09 | 200.000 | 0.3202 |

**1,2-Dibromoethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.3157 | 02 | 1.000  | 0.3452 | 03 | 2.000   | 0.3414 | 04 | 5.000   | 0.3624 |
| 05 | 20.000  | 0.3445 | 06 | 50.000 | 0.3895 | 07 | 100.000 | 0.3963 | 08 | 150.000 | 0.3877 |
| 09 | 200.000 | 0.3953 |    |        |        |    |         |        |    |         |        |

**1,2-Dichlorobenzene**

| #  | Amount  | RF    | #  | Amount | RF    | #  | Amount  | RF    | #  | Amount  | RF    |
|----|---------|-------|----|--------|-------|----|---------|-------|----|---------|-------|
| 01 | 0.500   | 1.279 | 02 | 1.000  | 1.41  | 03 | 2.000   | 1.395 | 04 | 5.000   | 1.463 |
| 05 | 20.000  | 1.36  | 06 | 50.000 | 1.465 | 07 | 100.000 | 1.51  | 08 | 150.000 | 1.469 |
| 09 | 200.000 | 1.536 |    |        |       |    |         |       |    |         |       |

**1,2-Dichloroethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.4321 | 02 | 1.000  | 0.4124 | 03 | 2.000   | 0.4195 | 04 | 5.000   | 0.4288 |
| 05 | 20.000  | 0.4064 | 06 | 50.000 | 0.4234 | 07 | 100.000 | 0.4273 | 08 | 150.000 | 0.4132 |
| 09 | 200.000 | 0.4256 |    |        |        |    |         |        |    |         |        |

**1,2-Dichloropropane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.2549 | 02 | 1.000  | 0.2846 | 03 | 2.000   | 0.2769 | 04 | 5.000   | 0.2791 |
| 05 | 20.000  | 0.2736 | 06 | 50.000 | 0.2886 | 07 | 100.000 | 0.2966 | 08 | 150.000 | 0.2902 |
| 09 | 200.000 | 0.2984 |    |        |        |    |         |        |    |         |        |

**1,4-Dichlorobenzene**

| #  | Amount  | RF    | #  | Amount | RF    | #  | Amount  | RF    | #  | Amount  | RF    |
|----|---------|-------|----|--------|-------|----|---------|-------|----|---------|-------|
| 01 | 0.500   | 1.542 | 02 | 1.000  | 1.546 | 03 | 2.000   | 1.423 | 04 | 5.000   | 1.489 |
| 05 | 20.000  | 1.343 | 06 | 50.000 | 1.449 | 07 | 100.000 | 1.521 | 08 | 150.000 | 1.451 |
| 09 | 200.000 | 1.543 |    |        |       |    |         |       |    |         |       |

**2-Butanone (MEK)**

| #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     |
|----|---------|--------|----|---------|--------|----|--------|--------|----|---------|--------|
| 04 | 5.000   | 0.3116 | 05 | 20.000  | 0.2942 | 06 | 50.000 | 0.3337 | 07 | 100.000 | 0.3347 |
| 08 | 150.000 | 0.3415 | 09 | 200.000 | 0.3357 |    |        |        |    |         |        |

**2-Hexanone**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 03 | 2.000  | 0.3083 | 04 | 5.000  | 0.3068 | 05 | 20.000 | 0.3221 | 06 | 50.000 | 0.3863 |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

**Analyte**

|                             |          |        |    |         |        |    |         |        |    |         |        |
|-----------------------------|----------|--------|----|---------|--------|----|---------|--------|----|---------|--------|
| <b>2-Hexanone</b>           |          |        |    |         |        |    |         |        |    |         |        |
| #                           | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
| 07                          | 100.000  | 0.397  | 08 | 150.000 | 0.4151 | 09 | 200.000 | 0.404  |    |         |        |
| <b>4-Bromofluorobenzene</b> |          |        |    |         |        |    |         |        |    |         |        |
| #                           | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
| 04                          | 10.000   | 0.482  | 05 | 20.000  | 0.4377 | 06 | 50.000  | 0.4644 | 07 | 100.000 | 0.4686 |
| 08                          | 200.000  | 0.4513 |    |         |        |    |         |        |    |         |        |
| <b>4-Methyl-2-pentanone</b> |          |        |    |         |        |    |         |        |    |         |        |
| #                           | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
| 03                          | 2.000    | 0.386  | 04 | 5.000   | 0.4051 | 05 | 20.000  | 0.3963 | 06 | 50.000  | 0.4553 |
| 07                          | 100.000  | 0.4723 | 08 | 150.000 | 0.4901 | 09 | 200.000 | 0.4803 |    |         |        |
| <b>Acetone</b>              |          |        |    |         |        |    |         |        |    |         |        |
| #                           | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
| 04                          | 5.000    | 0.2187 | 05 | 20.000  | 0.1955 | 06 | 50.000  | 0.2155 | 07 | 100.000 | 0.219  |
| 08                          | 150.000  | 0.2205 | 09 | 200.000 | 0.2126 |    |         |        |    |         |        |
| <b>Acrylonitrile</b>        |          |        |    |         |        |    |         |        |    |         |        |
| #                           | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
| 01                          | 2.500    | 0.2431 | 02 | 5.000   | 0.2506 | 03 | 10.000  | 0.2329 | 04 | 25.000  | 0.2398 |
| 05                          | 100.000  | 0.2344 | 06 | 250.000 | 0.2552 | 07 | 500.000 | 0.2625 | 08 | 750.000 | 0.2585 |
| 09                          | 1000.000 | 0.259  |    |         |        |    |         |        |    |         |        |
| <b>Benzene</b>              |          |        |    |         |        |    |         |        |    |         |        |
| #                           | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
| 01                          | 0.500    | 0.9314 | 02 | 1.000   | 1.028  | 03 | 2.000   | 1.009  | 04 | 5.000   | 1.094  |
| 05                          | 20.000   | 1.03   | 06 | 50.000  | 1.128  | 07 | 100.000 | 1.139  | 08 | 150.000 | 1.09   |
| 09                          | 200.000  | 1.126  |    |         |        |    |         |        |    |         |        |
| <b>Bromochloromethane</b>   |          |        |    |         |        |    |         |        |    |         |        |
| #                           | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
| 01                          | 0.500    | 0.3414 | 02 | 1.000   | 0.3289 | 03 | 2.000   | 0.314  | 04 | 5.000   | 0.3252 |
| 05                          | 20.000   | 0.3076 | 06 | 50.000  | 0.3293 | 07 | 100.000 | 0.3319 | 08 | 150.000 | 0.3164 |
| 09                          | 200.000  | 0.3269 |    |         |        |    |         |        |    |         |        |
| <b>Bromodichloromethane</b> |          |        |    |         |        |    |         |        |    |         |        |
| #                           | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
| 01                          | 0.500    | 0.3787 | 02 | 1.000   | 0.3672 | 03 | 2.000   | 0.3537 | 04 | 5.000   | 0.3807 |
| 05                          | 20.000   | 0.3741 | 06 | 50.000  | 0.4084 | 07 | 100.000 | 0.4227 | 08 | 150.000 | 0.4142 |
| 09                          | 200.000  | 0.4278 |    |         |        |    |         |        |    |         |        |
| <b>Bromoform</b>            |          |        |    |         |        |    |         |        |    |         |        |
| #                           | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
| 02                          | 1.000    | 0.2268 | 03 | 2.000   | 0.2228 | 04 | 5.000   | 0.2333 | 05 | 20.000  | 0.2463 |
| 06                          | 50.000   | 0.3027 | 07 | 100.000 | 0.324  | 08 | 150.000 | 0.317  | 09 | 200.000 | 0.3278 |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

**Analyte**

**Bromomethane**

| #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount | RF     |
|----|--------|--------|----|---------|--------|----|---------|--------|----|--------|--------|
| 02 | 1.000  | 0.4208 | 03 | 2.000   | 0.4402 | 04 | 5.000   | 0.4969 | 05 | 20.000 | 0.3634 |
| 06 | 50.000 | 0.3253 | 07 | 100.000 | 0.3031 | 08 | 150.000 | 0.275  |    |        |        |

**Carbon Disulfide**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.9478 | 02 | 1.000  | 0.8803 | 03 | 2.000   | 0.8608 | 04 | 5.000   | 0.9566 |
| 05 | 20.000  | 0.7811 | 06 | 50.000 | 1.002  | 07 | 100.000 | 0.9404 | 08 | 150.000 | 1.056  |
| 09 | 200.000 | 1.13   |    |        |        |    |         |        |    |         |        |

**Carbon Tetrachloride**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.3389 | 02 | 1.000  | 0.3242 | 03 | 2.000   | 0.308  | 04 | 5.000   | 0.3412 |
| 05 | 20.000  | 0.3255 | 06 | 50.000 | 0.3823 | 07 | 100.000 | 0.4031 | 08 | 150.000 | 0.3846 |
| 09 | 200.000 | 0.3962 |    |        |        |    |         |        |    |         |        |

**Chlorobenzene**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.8194 | 02 | 1.000  | 0.9332 | 03 | 2.000   | 0.8785 | 04 | 5.000   | 0.9471 |
| 05 | 20.000  | 0.8693 | 06 | 50.000 | 0.9544 | 07 | 100.000 | 0.9736 | 08 | 150.000 | 0.9432 |
| 09 | 200.000 | 0.9722 |    |        |        |    |         |        |    |         |        |

**Chloroethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.4259 | 02 | 1.000  | 0.3354 | 03 | 2.000   | 0.3589 | 04 | 5.000   | 0.3474 |
| 05 | 20.000  | 0.3385 | 06 | 50.000 | 0.3625 | 07 | 100.000 | 0.3464 | 08 | 150.000 | 0.2795 |
| 09 | 200.000 | 0.3566 |    |        |        |    |         |        |    |         |        |

**Chloroform**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.7693 | 02 | 1.000  | 0.8024 | 03 | 2.000   | 0.7063 | 04 | 5.000   | 0.7482 |
| 05 | 20.000  | 0.7175 | 06 | 50.000 | 0.7534 | 07 | 100.000 | 0.7577 | 08 | 150.000 | 0.7242 |
| 09 | 200.000 | 0.7544 |    |        |        |    |         |        |    |         |        |

**Chloromethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.5913 | 02 | 1.000  | 0.5334 | 03 | 2.000   | 0.4017 | 04 | 5.000   | 0.4003 |
| 05 | 20.000  | 0.3896 | 06 | 50.000 | 0.4323 | 07 | 100.000 | 0.4629 | 08 | 150.000 | 0.4563 |
| 09 | 200.000 | 0.4686 |    |        |        |    |         |        |    |         |        |

**Dibromochloromethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.2834 | 02 | 1.000  | 0.3199 | 03 | 2.000   | 0.3089 | 04 | 5.000   | 0.328  |
| 05 | 20.000  | 0.3431 | 06 | 50.000 | 0.3934 | 07 | 100.000 | 0.4093 | 08 | 150.000 | 0.4048 |
| 09 | 200.000 | 0.4164 |    |        |        |    |         |        |    |         |        |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

**Analyte**

**Dibromofluoromethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|--------|--------|----|---------|--------|
| 04 | 10.000  | 0.3436 | 05 | 20.000 | 0.3032 | 06 | 50.000 | 0.3255 | 07 | 100.000 | 0.3239 |
| 08 | 200.000 | 0.3109 |    |        |        |    |        |        |    |         |        |

**Dibromomethane**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.2355 | 02 | 1.000  | 0.2117 | 03 | 2.000   | 0.2113 | 04 | 5.000   | 0.2117 |
| 05 | 20.000  | 0.2068 | 06 | 50.000 | 0.2209 | 07 | 100.000 | 0.2253 | 08 | 150.000 | 0.2184 |
| 09 | 200.000 | 0.2226 |    |        |        |    |         |        |    |         |        |

**Ethylbenzene**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.4313 | 02 | 1.000  | 0.4552 | 03 | 2.000   | 0.4114 | 04 | 5.000   | 0.4612 |
| 05 | 20.000  | 0.4297 | 06 | 50.000 | 0.4805 | 07 | 100.000 | 0.5041 | 08 | 150.000 | 0.4814 |
| 09 | 200.000 | 0.4909 |    |        |        |    |         |        |    |         |        |

**Iodomethane**

| #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     |
|----|---------|--------|----|---------|--------|----|--------|--------|----|---------|--------|
| 04 | 5.000   | 0.3333 | 05 | 20.000  | 0.4408 | 06 | 50.000 | 0.6352 | 07 | 100.000 | 0.6312 |
| 08 | 150.000 | 0.6705 | 09 | 200.000 | 0.7352 |    |        |        |    |         |        |

**Methylene Chloride**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.4688 | 02 | 1.000  | 0.4008 | 03 | 2.000   | 0.4265 | 04 | 5.000   | 0.4309 |
| 05 | 20.000  | 0.3967 | 06 | 50.000 | 0.4293 | 07 | 100.000 | 0.4319 | 08 | 150.000 | 0.4177 |
| 09 | 200.000 | 0.4308 |    |        |        |    |         |        |    |         |        |

**Styrene**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.8517 | 02 | 1.000  | 0.8507 | 03 | 2.000   | 0.8293 | 04 | 5.000   | 0.9311 |
| 05 | 20.000  | 0.9344 | 06 | 50.000 | 1.038  | 07 | 100.000 | 1.092  | 08 | 150.000 | 1.051  |
| 09 | 200.000 | 1.077  |    |        |        |    |         |        |    |         |        |

**Tetrachloroethene (PCE)**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.2646 | 02 | 1.000  | 0.239  | 03 | 2.000   | 0.2522 | 04 | 5.000   | 0.271  |
| 05 | 20.000  | 0.2407 | 06 | 50.000 | 0.2828 | 07 | 100.000 | 0.2949 | 08 | 150.000 | 0.2834 |
| 09 | 200.000 | 0.2872 |    |        |        |    |         |        |    |         |        |

**Toluene**

| #  | Amount  | RF    | #  | Amount | RF    | #  | Amount  | RF    | #  | Amount  | RF    |
|----|---------|-------|----|--------|-------|----|---------|-------|----|---------|-------|
| 01 | 0.500   | 1.03  | 02 | 1.000  | 1.143 | 03 | 2.000   | 1.102 | 04 | 5.000   | 1.205 |
| 05 | 20.000  | 1.139 | 06 | 50.000 | 1.243 | 07 | 100.000 | 1.286 | 08 | 150.000 | 1.245 |
| 09 | 200.000 | 1.271 |    |        |       |    |         |       |    |         |       |

**Toluene-d8**

| #  | Amount | RF    | #  | Amount | RF    | #  | Amount | RF    | #  | Amount  | RF    |
|----|--------|-------|----|--------|-------|----|--------|-------|----|---------|-------|
| 04 | 10.000 | 1.293 | 05 | 20.000 | 1.128 | 06 | 50.000 | 1.203 | 07 | 100.000 | 1.203 |



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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

**Analyte**

| Toluene-d8                      |         |         |    |         |         |    |         |         |    |         |         |
|---------------------------------|---------|---------|----|---------|---------|----|---------|---------|----|---------|---------|
| #                               | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      |
| 08                              | 200.000 | 1.187   |    |         |         |    |         |         |    |         |         |
| Trichloroethene (TCE)           |         |         |    |         |         |    |         |         |    |         |         |
| #                               | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      |
| 01                              | 0.500   | 0.3049  | 02 | 1.000   | 0.3103  | 03 | 2.000   | 0.2852  | 04 | 5.000   | 0.3022  |
| 05                              | 20.000  | 0.2975  | 06 | 50.000  | 0.3256  | 07 | 100.000 | 0.3346  | 08 | 150.000 | 0.3163  |
| 09                              | 200.000 | 0.3261  |    |         |         |    |         |         |    |         |         |
| Trichlorofluoromethane (CFC 11) |         |         |    |         |         |    |         |         |    |         |         |
| #                               | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      |
| 01                              | 0.500   | 0.6796  | 02 | 1.000   | 0.7315  | 03 | 2.000   | 0.663   | 04 | 5.000   | 0.7034  |
| 05                              | 20.000  | 0.6366  | 06 | 50.000  | 0.7282  | 07 | 100.000 | 0.7409  | 08 | 150.000 | 0.7048  |
| 09                              | 200.000 | 0.704   |    |         |         |    |         |         |    |         |         |
| Vinyl Acetate                   |         |         |    |         |         |    |         |         |    |         |         |
| #                               | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      |
| 02                              | 1.000   | 0.06917 | 03 | 2.000   | 0.06718 | 04 | 5.000   | 0.07685 | 05 | 20.000  | 0.07891 |
| 06                              | 50.000  | 0.08785 | 07 | 100.000 | 0.08794 | 08 | 150.000 | 0.09782 | 09 | 200.000 | 0.09486 |
| Vinyl Chloride                  |         |         |    |         |         |    |         |         |    |         |         |
| #                               | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      |
| 01                              | 0.500   | 0.5573  | 02 | 1.000   | 0.5334  | 03 | 2.000   | 0.5189  | 04 | 5.000   | 0.5423  |
| 05                              | 20.000  | 0.5119  | 06 | 50.000  | 0.5645  | 07 | 100.000 | 0.564   | 08 | 150.000 | 0.5215  |
| 09                              | 200.000 | 0.5618  |    |         |         |    |         |         |    |         |         |
| cis-1,2-Dichloroethene          |         |         |    |         |         |    |         |         |    |         |         |
| #                               | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      |
| 01                              | 0.500   | 0.4672  | 02 | 1.000   | 0.4851  | 03 | 2.000   | 0.4592  | 04 | 5.000   | 0.4618  |
| 05                              | 20.000  | 0.4432  | 06 | 50.000  | 0.4774  | 07 | 100.000 | 0.4778  | 08 | 150.000 | 0.4616  |
| 09                              | 200.000 | 0.4761  |    |         |         |    |         |         |    |         |         |
| cis-1,3-Dichloropropene         |         |         |    |         |         |    |         |         |    |         |         |
| #                               | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      |
| 01                              | 0.500   | 0.4371  | 02 | 1.000   | 0.3721  | 03 | 2.000   | 0.3768  | 04 | 5.000   | 0.4088  |
| 05                              | 20.000  | 0.4272  | 06 | 50.000  | 0.4746  | 07 | 100.000 | 0.4957  | 08 | 150.000 | 0.4854  |
| 09                              | 200.000 | 0.5091  |    |         |         |    |         |         |    |         |         |
| m,p-Xylenes                     |         |         |    |         |         |    |         |         |    |         |         |
| #                               | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      |
| 01                              | 1.000   | 0.4808  | 02 | 2.000   | 0.5279  | 03 | 4.000   | 0.5176  | 04 | 10.000  | 0.552   |
| 05                              | 40.000  | 0.5395  | 06 | 100.000 | 0.5998  | 07 | 200.000 | 0.6353  | 08 | 300.000 | 0.6104  |
| 09                              | 400.000 | 0.6238  |    |         |         |    |         |         |    |         |         |
| o-Xylene                        |         |         |    |         |         |    |         |         |    |         |         |
| #                               | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      | #  | Amount  | RF      |
| 01                              | 0.500   | 0.523   | 02 | 1.000   | 0.5256  | 03 | 2.000   | 0.5125  | 04 | 5.000   | 0.5623  |
| 05                              | 20.000  | 0.5281  | 06 | 50.000  | 0.5864  | 07 | 100.000 | 0.6126  | 08 | 150.000 | 0.5924  |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

**Analyte**

**o-Xylene**

| #  | Amount  | RF     | # | Amount | RF | # | Amount | RF | # | Amount | RF |
|----|---------|--------|---|--------|----|---|--------|----|---|--------|----|
| 09 | 200.000 | 0.6024 |   |        |    |   |        |    |   |        |    |

**trans-1,2-Dichloroethene**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.394  | 02 | 1.000  | 0.3515 | 03 | 2.000   | 0.3657 | 04 | 5.000   | 0.3967 |
| 05 | 20.000  | 0.3722 | 06 | 50.000 | 0.4184 | 07 | 100.000 | 0.4227 | 08 | 150.000 | 0.4086 |
| 09 | 200.000 | 0.4213 |    |        |        |    |         |        |    |         |        |

**trans-1,3-Dichloropropene**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.37   | 02 | 1.000  | 0.3664 | 03 | 2.000   | 0.3768 | 04 | 5.000   | 0.3746 |
| 05 | 20.000  | 0.3898 | 06 | 50.000 | 0.4393 | 07 | 100.000 | 0.4667 | 08 | 150.000 | 0.466  |
| 09 | 200.000 | 0.4847 |    |        |        |    |         |        |    |         |        |

**trans-1,4-Dichloro-2-butene**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount  | RF     | #  | Amount  | RF     |
|----|---------|--------|----|--------|--------|----|---------|--------|----|---------|--------|
| 01 | 0.500   | 0.1602 | 02 | 1.000  | 0.1412 | 03 | 2.000   | 0.1253 | 04 | 5.000   | 0.1318 |
| 05 | 20.000  | 0.1397 | 06 | 50.000 | 0.1687 | 07 | 100.000 | 0.1781 | 08 | 150.000 | 0.1757 |
| 09 | 200.000 | 0.1779 |    |        |        |    |         |        |    |         |        |

**ALS Group USA, Corp.**  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

| Analyte Name                       | Compound Type | Calibration Evaluation |       |             |                  | Calibration Evaluation |             |
|------------------------------------|---------------|------------------------|-------|-------------|------------------|------------------------|-------------|
|                                    |               | Fit Type               | Eval  | Eval Result | Control Criteria | Average RRF            | Minimum RRF |
| 1,1,1,2-Tetrachloroethane          | TRG           | Average RF             | % RSD | 10.7        | ≤15              | 0.3264                 |             |
| 1,1,1-Trichloroethane (TCA)        | TRG           | Average RF             | % RSD | 5.2         | ≤15              | 0.6371                 | 0.100       |
| 1,1,2,2-Tetrachloroethane          | TRG           | Average RF             | % RSD | 5.8         | ≤15              | 0.9585                 | 0.300       |
| 1,1,2-Trichloroethane              | TRG           | Average RF             | % RSD | 3.8         | ≤15              | 0.2987                 | 0.100       |
| 1,1-Dichloroethane (1,1-DCA)       | TRG           | Average RF             | % RSD | 3.3         | ≤15              | 0.6892                 | 0.200       |
| 1,1-Dichloroethene (1,1-DCE)       | TRG           | Average RF             | % RSD | 9.3         | ≤15              | 0.339                  | 0.100       |
| 1,2,3-Trichloropropane             | TRG           | Average RF             | % RSD | 10.0        | ≤15              | 0.337                  |             |
| 1,2-Dibromo-3-chloropropane (DBCP) | TRG           | Quadratic              | COD   | 0.9945      | ≥0.99            | 0.273                  | 0.050       |
| 1,2-Dibromoethane                  | TRG           | Average RF             | % RSD | 8.0         | ≤15              | 0.3642                 | 0.100       |
| 1,2-Dichlorobenzene                | TRG           | Average RF             | % RSD | 5.6         | ≤15              | 1.432                  | 0.400       |
| 1,2-Dichloroethane                 | TRG           | Average RF             | % RSD | 2.1         | ≤15              | 0.421                  | 0.100       |
| 1,2-Dichloropropane                | TRG           | Average RF             | % RSD | 4.7         | ≤15              | 0.2825                 | 0.100       |
| 1,4-Dichlorobenzene                | TRG           | Average RF             | % RSD | 4.6         | ≤15              | 1.479                  | 0.500       |
| 2-Butanone (MEK)                   | TRG           | Average RF             | % RSD | 5.6         | ≤15              | 0.3252                 | 0.05        |
| 2-Hexanone                         | TRG           | Average RF             | % RSD | 13.3        | ≤15              | 0.3628                 | 0.05        |
| 4-Bromofluorobenzene               | SURR          | Average RF             | % RSD | 3.7         | ≤15              | 0.4608                 |             |
| 4-Methyl-2-pentanone               | TRG           | Average RF             | % RSD | 9.9         | ≤15              | 0.4408                 | 0.05        |
| Acetone                            | TRG           | Average RF             | % RSD | 4.4         | ≤15              | 0.2136                 | 0.05        |
| Acrylonitrile                      | TRG           | Average RF             | % RSD | 4.5         | ≤15              | 0.2484                 |             |
| Benzene                            | TRG           | Average RF             | % RSD | 6.5         | ≤15              | 1.064                  | 0.500       |
| Bromochloromethane                 | TRG           | Average RF             | % RSD | 3.2         | ≤15              | 0.3246                 |             |
| Bromodichloromethane               | TRG           | Average RF             | % RSD | 6.8         | ≤15              | 0.392                  | 0.200       |
| Bromoform                          | TRG           | Quadratic              | COD   | 0.9952      | ≥0.99            | 0.2751                 | 0.100       |
| Bromomethane                       | TRG           | Quadratic              | COD   | 0.9994      | ≥0.99            | 0.375                  | 0.100       |
| Carbon Disulfide                   | TRG           | Average RF             | % RSD | 11.0        | ≤15              | 0.9507                 | 0.100       |
| Carbon Tetrachloride               | TRG           | Average RF             | % RSD | 10.0        | ≤15              | 0.356                  | 0.05        |
| Chlorobenzene                      | TRG           | Average RF             | % RSD | 5.8         | ≤15              | 0.9212                 | 0.500       |
| Chloroethane                       | TRG           | Average RF             | % RSD | 10.8        | ≤15              | 0.3501                 | 0.100       |
| Chloroform                         | TRG           | Average RF             | % RSD | 3.9         | ≤15              | 0.7482                 | 0.200       |
| Chloromethane                      | TRG           | Average RF             | % RSD | 14.5        | ≤15              | 0.4596                 | 0.100       |
| Dibromochloromethane               | TRG           | Average RF             | % RSD | 14.0        | ≤15              | 0.3564                 | 0.100       |
| Dibromofluoromethane               | SURR          | Average RF             | % RSD | 4.8         | ≤15              | 0.3214                 |             |
| Dibromomethane                     | TRG           | Average RF             | % RSD | 4.1         | ≤15              | 0.2182                 |             |
| Ethylbenzene                       | TRG           | Average RF             | % RSD | 6.8         | ≤15              | 0.4606                 | 0.100       |

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

### Initial Calibration Summary Volatile Organic Compounds by GC/MS

**Calibration ID:** RC2200058

**Signal ID:** 1

**Instrument ID:** R-MS-14

| Analyte Name                    | Compound Type | Calibration Evaluation |       |             |                  | Calibration Evaluation |             |
|---------------------------------|---------------|------------------------|-------|-------------|------------------|------------------------|-------------|
|                                 |               | Fit Type               | Eval  | Eval Result | Control Criteria | Average RRF            | Minimum RRF |
| Iodomethane                     | TRG           | Quadratic              | COD   | 0.9988      | ≥0.99            | 0.5744                 |             |
| Methylene Chloride              | TRG           | Average RF             | % RSD | 4.9         | ≤15              | 0.4259                 | 0.100       |
| Styrene                         | TRG           | Average RF             | % RSD | 10.9        | ≤15              | 0.9617                 | 0.300       |
| Tetrachloroethene (PCE)         | TRG           | Average RF             | % RSD | 7.7         | ≤15              | 0.2684                 | 0.200       |
| Toluene                         | TRG           | Average RF             | % RSD | 7.3         | ≤15              | 1.185                  | 0.400       |
| Toluene-d8                      | SURR          | Average RF             | % RSD | 4.9         | ≤15              | 1.203                  |             |
| Trichloroethene (TCE)           | TRG           | Average RF             | % RSD | 5.1         | ≤15              | 0.3114                 | 0.200       |
| Trichlorofluoromethane (CFC 11) | TRG           | Average RF             | % RSD | 4.9         | ≤15              | 0.6991                 | 0.100       |
| Vinyl Acetate                   | TRG           | Average RF             | % RSD | 13.8        | ≤15              | 0.08257                |             |
| Vinyl Chloride                  | TRG           | Average RF             | % RSD | 3.9         | ≤15              | 0.5417                 | 0.100       |
| cis-1,2-Dichloroethene          | TRG           | Average RF             | % RSD | 2.7         | ≤15              | 0.4677                 | 0.100       |
| cis-1,3-Dichloropropene         | TRG           | Average RF             | % RSD | 11.5        | ≤15              | 0.443                  | 0.200       |
| m,p-Xylenes                     | TRG           | Average RF             | % RSD | 9.5         | ≤15              | 0.5652                 | 0.100       |
| o-Xylene                        | TRG           | Average RF             | % RSD | 6.9         | ≤15              | 0.5606                 | 0.300       |
| trans-1,2-Dichloroethene        | TRG           | Average RF             | % RSD | 6.6         | ≤15              | 0.3946                 | 0.100       |
| trans-1,3-Dichloropropene       | TRG           | Average RF             | % RSD | 11.7        | ≤15              | 0.4149                 | 0.100       |
| trans-1,4-Dichloro-2-butene     | TRG           | Average RF             | % RSD | 13.6        | ≤15              | 0.1554                 |             |

**ALS Group USA, Corp.**  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Verification Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

| #  | Lab Code     | Sample Name | File Location                          | Acquisition Date |
|----|--------------|-------------|----------------------------------------|------------------|
| 10 | RC2200058-10 | 50 PPB ICV  | I:\ACQDATA\MSVOA14\Data\061022\V4605.D | 06/10/2022 18:34 |

| Analyte Name                       | Expected | Result | Average RF | SSV<br>RF | % D     | Criteria | Curve Fit  |
|------------------------------------|----------|--------|------------|-----------|---------|----------|------------|
| 1,1,1,2-Tetrachloroethane          | 50.0     | 49.8   | 3.264E-1   | 3.253E-1  | -0.344  | ±20      | Average RF |
| 1,1,1-Trichloroethane (TCA)        | 50.0     | 44.4   | 6.371E-1   | 5.664E-1  | -11.108 | ±20      | Average RF |
| 1,1,2,2-Tetrachloroethane          | 50.0     | 48.1   | 9.585E-1   | 9.231E-1  | -3.703  | ±20      | Average RF |
| 1,1,2-Trichloroethane              | 50.0     | 47.9   | 2.987E-1   | 2.864E-1  | -4.110  | ±20      | Average RF |
| 1,1-Dichloroethane (1,1-DCA)       | 50.0     | 45.6   | 6.892E-1   | 6.287E-1  | -8.785  | ±20      | Average RF |
| 1,1-Dichloroethene (1,1-DCE)       | 50.0     | 46.2   | 3.39E-1    | 3.132E-1  | -7.608  | ±20      | Average RF |
| 1,2,3-Trichloropropane             | 50.0     | 46.4   | 3.37E-1    | 3.13E-1   | -7.121  | ±20      | Average RF |
| 1,2-Dibromo-3-chloropropane (DBCP) | 50.0     | 50.2   | 2.73E-1    | 2.723E-1  | 0.458   | ±20      | Quadratic  |
| 1,2-Dibromoethane                  | 50.0     | 50.0   | 3.642E-1   | 3.639E-1  | -0.093  | ±20      | Average RF |
| 1,2-Dichlorobenzene                | 50.0     | 45.6   | 1.432E0    | 1.306E0   | -8.817  | ±20      | Average RF |
| 1,2-Dichloroethane                 | 50.0     | 46.3   | 4.21E-1    | 3.895E-1  | -7.466  | ±20      | Average RF |
| 1,2-Dichloropropane                | 50.0     | 46.1   | 2.825E-1   | 2.606E-1  | -7.767  | ±20      | Average RF |
| 1,4-Dichlorobenzene                | 50.0     | 44.6   | 1.479E0    | 1.319E0   | -10.796 | ±20      | Average RF |
| 2-Butanone (MEK)                   | 50.0     | 48.3   | 3.252E-1   | 3.144E-1  | -3.332  | ±20      | Average RF |
| 2-Hexanone                         | 50.0     | 53.2   | 3.628E-1   | 3.857E-1  | 6.32    | ±20      | Average RF |
| 4-Methyl-2-pentanone               | 50.0     | 50.8   | 4.408E-1   | 4.479E-1  | 1.61    | ±20      | Average RF |
| Acetone                            | 50.0     | 54.1   | 2.136E-1   | 2.312E-1  | 8.24    | ±20      | Average RF |
| Acrylonitrile                      | 250      | 241    | 2.484E-1   | 2.391E-1  | -3.750  | ±20      | Average RF |
| Benzene                            | 50.0     | 45.8   | 1.064E0    | 9.737E-1  | -8.463  | ±20      | Average RF |
| Bromochloromethane                 | 50.0     | 45.1   | 3.246E-1   | 2.925E-1  | -9.895  | ±20      | Average RF |
| Bromodichloromethane               | 50.0     | 47.0   | 3.92E-1    | 3.686E-1  | -5.967  | ±20      | Average RF |
| Bromoform                          | 50.0     | 51.0   | 2.751E-1   | 2.814E-1  | 1.90    | ±20      | Quadratic  |
| Bromomethane                       | 50.0     | 46.7   | 3.75E-1    | 3.17E-1   | -6.664  | ±20      | Quadratic  |
| Carbon Disulfide                   | 50.0     | 44.1   | 9.507E-1   | 8.386E-1  | -11.793 | ±20      | Average RF |
| Carbon Tetrachloride               | 50.0     | 46.5   | 3.56E-1    | 3.309E-1  | -7.035  | ±20      | Average RF |
| Chlorobenzene                      | 50.0     | 45.9   | 9.212E-1   | 8.465E-1  | -8.112  | ±20      | Average RF |
| Chloroethane                       | 50.0     | 45.0   | 3.501E-1   | 3.152E-1  | -9.981  | ±20      | Average RF |
| Chloroform                         | 50.0     | 44.4   | 7.482E-1   | 6.647E-1  | -11.161 | ±20      | Average RF |
| Chloromethane                      | 50.0     | 48.0   | 4.596E-1   | 4.411E-1  | -4.016  | ±20      | Average RF |
| Dibromochloromethane               | 50.0     | 47.9   | 3.564E-1   | 3.413E-1  | -4.214  | ±20      | Average RF |
| Dibromomethane                     | 50.0     | 47.3   | 2.182E-1   | 2.066E-1  | -5.351  | ±20      | Average RF |
| Methylene Chloride                 | 50.0     | 44.5   | 4.259E-1   | 3.788E-1  | -11.065 | ±20      | Average RF |
| Ethylbenzene                       | 50.0     | 46.2   | 4.606E-1   | 4.252E-1  | -7.686  | ±20      | Average RF |

ALS Group USA, Corp.  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 6/10/2022

**Initial Calibration Verification Summary**  
**Volatile Organic Compounds by GC/MS**

**Calibration ID:** RC2200058  
**Instrument ID:** R-MS-14

**Signal ID:** 1

| Analyte Name                    | Expected | Result | Average RF | SSV<br>RF | % D     | Criteria | Curve Fit  |
|---------------------------------|----------|--------|------------|-----------|---------|----------|------------|
| Iodomethane                     | 50.0     | 41.2   | 5.744E-1   | 4.687E-1  | -17.561 | ±20      | Quadratic  |
| Styrene                         | 50.0     | 48.3   | 9.617E-1   | 9.294E-1  | -3.364  | ±20      | Average RF |
| Tetrachloroethene (PCE)         | 50.0     | 46.6   | 2.684E-1   | 2.502E-1  | -6.777  | ±20      | Average RF |
| Toluene                         | 50.0     | 45.5   | 1.185E0    | 1.078E0   | -9.019  | ±20      | Average RF |
| Trichloroethene (TCE)           | 50.0     | 46.7   | 3.114E-1   | 2.908E-1  | -6.624  | ±20      | Average RF |
| Trichlorofluoromethane (CFC 11) | 50.0     | 44.3   | 6.991E-1   | 6.199E-1  | -11.328 | ±20      | Average RF |
| Vinyl Acetate                   | 50.0     | 51.7   | 8.257E-2   | 8.532E-2  | 3.33    | ±20      | Average RF |
| Vinyl Chloride                  | 50.0     | 41.0   | 5.417E-1   | 4.445E-1  | -17.950 | ±20      | Average RF |
| cis-1,2-Dichloroethene          | 50.0     | 45.5   | 4.677E-1   | 4.255E-1  | -9.033  | ±20      | Average RF |
| cis-1,3-Dichloropropene         | 50.0     | 49.0   | 4.43E-1    | 4.341E-1  | -2.003  | ±20      | Average RF |
| m,p-Xylenes                     | 100      | 93.6   | 5.652E-1   | 5.288E-1  | -6.440  | ±20      | Average RF |
| o-Xylene                        | 50.0     | 47.6   | 5.606E-1   | 5.338E-1  | -4.778  | ±20      | Average RF |
| trans-1,2-Dichloroethene        | 50.0     | 46.4   | 3.946E-1   | 3.663E-1  | -7.165  | ±20      | Average RF |
| trans-1,3-Dichloropropene       | 50.0     | 51.1   | 4.149E-1   | 4.241E-1  | 2.22    | ±20      | Average RF |
| trans-1,4-Dichloro-2-butene     | 50.0     | 44.1   | 1.554E-1   | 1.371E-1  | -11.767 | ±20      | Average RF |

| Analyte Name         | Expected | Result | Average RF | SSV<br>RF | % D  | Criteria | Curve Fit  |
|----------------------|----------|--------|------------|-----------|------|----------|------------|
| 4-Bromofluorobenzene | 50.0     | 50.7   | 4.608E-1   | 4.672E-1  | 1.38 | ±20      | Average RF |
| Dibromofluoromethane | 50.0     | 51.1   | 3.214E-1   | 3.288E-1  | 2.29 | ±20      | Average RF |
| Toluene-d8           | 50.0     | 50.6   | 1.203E0    | 1.218E0   | 1.27 | ±20      | Average RF |

**ALS Group USA, Corp.**  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 10:06

**Continuing Calibration Verification (CCV) Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C

**Calibration Date:** 6/10/2022

**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5533.D\

**Calibration ID:** RC2200058

**Signal ID:** 1

**Analysis Lot:** 772031

**Units:** ug/L

| Analyte Name                       | Expected | Result | Average RF | CCV RF | % D   | % Drift | Criteria | Curve Fit  |
|------------------------------------|----------|--------|------------|--------|-------|---------|----------|------------|
| 1,1,1,2-Tetrachloroethane          | 50.0     | 50.4   | 0.3264     | 0.3289 | 0.8   | NA      | ±20      | Average RF |
| 1,1,1-Trichloroethane (TCA)        | 50.0     | 50.5   | 0.6371     | 0.643  | 0.9   | NA      | ±20      | Average RF |
| 1,1,2,2-Tetrachloroethane          | 50.0     | 47.4   | 0.9585     | 0.9081 | -5.3  | NA      | ±20      | Average RF |
| 1,1,2-Trichloroethane              | 50.0     | 51.1   | 0.2987     | 0.3054 | 2.3   | NA      | ±20      | Average RF |
| 1,1-Dichloroethane (1,1-DCA)       | 50.0     | 55.6   | 0.6892     | 0.7668 | 11.3  | NA      | ±20      | Average RF |
| 1,1-Dichloroethene (1,1-DCE)       | 50.0     | 57.6   | 0.339      | 0.3907 | 15.2  | NA      | ±20      | Average RF |
| 1,2,3-Trichloropropane             | 50.0     | 45.5   | 0.337      | 0.3065 | -9.0  | NA      | ±20      | Average RF |
| 1,2-Dibromo-3-chloropropane (DBCP) | 50.0     | 42.3   | 0.273      | 0.2264 | NA    | -15.4   | ±20      | Quadratic  |
| 1,2-Dibromoethane                  | 50.0     | 50.1   | 0.3642     | 0.3651 | 0.2   | NA      | ±20      | Average RF |
| 1,2-Dichlorobenzene                | 50.0     | 49.4   | 1.4318     | 1.4155 | -1.1  | NA      | ±20      | Average RF |
| 1,2-Dichloroethane                 | 50.0     | 49.0   | 0.421      | 0.4126 | -2.0  | NA      | ±20      | Average RF |
| 1,2-Dichloropropane                | 50.0     | 52.4   | 0.2825     | 0.296  | 4.8   | NA      | ±20      | Average RF |
| 1,4-Dichlorobenzene                | 50.0     | 49.6   | 1.4786     | 1.4675 | -0.8  | NA      | ±20      | Average RF |
| 2-Butanone (MEK)                   | 50.0     | 49.2   | 0.3252     | 0.3199 | -1.6  | NA      | ±20      | Average RF |
| 2-Hexanone                         | 50.0     | 44.0   | 0.3628     | 0.3191 | -12.0 | NA      | ±20      | Average RF |
| 4-Methyl-2-pentanone               | 50.0     | 43.6   | 0.4408     | 0.384  | -12.9 | NA      | ±20      | Average RF |
| Acetone                            | 50.0     | 58.2   | 0.2136     | 0.2488 | 16.4  | NA      | ±20      | Average RF |
| Acrylonitrile                      | 250      | 258    | 0.2484     | 0.256  | 3.0   | NA      | ±20      | Average RF |
| Benzene                            | 50.0     | 53.4   | 1.0638     | 1.1355 | 6.7   | NA      | ±20      | Average RF |
| Bromochloromethane                 | 50.0     | 53.4   | 0.3246     | 0.347  | 6.9   | NA      | ±20      | Average RF |
| Bromodichloromethane               | 50.0     | 50.6   | 0.392      | 0.3965 | 1.2   | NA      | ±20      | Average RF |
| Bromoform                          | 50.0     | 47.8   | 0.2751     | 0.2623 | NA    | -4.5    | ±20      | Quadratic  |
| Bromomethane                       | 50.0     | 58.6   | 0.375      | 0.3883 | NA    | 17.1    | ±20      | Quadratic  |
| Carbon Disulfide                   | 50.0     | 57.5   | 0.9507     | 1.0932 | 15.0  | NA      | ±20      | Average RF |
| Carbon Tetrachloride               | 50.0     | 50.0   | 0.356      | 0.356  | 0.0   | NA      | ±20      | Average RF |
| Chlorobenzene                      | 50.0     | 51.7   | 0.9212     | 0.952  | 3.3   | NA      | ±20      | Average RF |
| Chloroethane                       | 50.0     | 55.1   | 0.3501     | 0.3859 | 10.2  | NA      | ±20      | Average RF |
| Chloroform                         | 50.0     | 53.1   | 0.7482     | 0.7953 | 6.3   | NA      | ±20      | Average RF |
| Chloromethane                      | 50.0     | 44.3   | 0.4596     | 0.4071 | -11.4 | NA      | ±20      | Average RF |
| Dibromochloromethane               | 50.0     | 52.3   | 0.3564     | 0.3726 | 4.6   | NA      | ±20      | Average RF |
| Dibromomethane                     | 50.0     | 50.4   | 0.2182     | 0.2198 | 0.7   | NA      | ±20      | Average RF |
| Methylene Chloride                 | 50.0     | 55.7   | 0.4259     | 0.4741 | 11.3  | NA      | ±20      | Average RF |
| Ethylbenzene                       | 50.0     | 54.4   | 0.4606     | 0.5015 | 8.9   | NA      | ±20      | Average RF |
| Iodomethane                        | 50.0     | 53.8   | 0.5744     | 0.6319 | NA    | 7.7     | ±20      | Quadratic  |
| Styrene                            | 50.0     | 53.6   | 0.9617     | 1.0319 | 7.3   | NA      | ±20      | Average RF |
| Tetrachloroethene (PCE)            | 50.0     | 53.5   | 0.2684     | 0.2873 | 7.0   | NA      | ±20      | Average RF |
| Toluene                            | 50.0     | 53.8   | 1.1848     | 1.2739 | 7.5   | NA      | ±20      | Average RF |
| Trichloroethene (TCE)              | 50.0     | 52.6   | 0.3114     | 0.3279 | 5.3   | NA      | ±20      | Average RF |
| Trichlorofluoromethane (CFC 11)    | 50.0     | 53.3   | 0.6991     | 0.7446 | 6.5   | NA      | ±20      | Average RF |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 10:06

**Continuing Calibration Verification (CCV) Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C

**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5533.D\

**Signal ID:** 1

**Calibration Date:** 6/10/2022

**Calibration ID:** RC2200058

**Analysis Lot:** 772031

**Units:** ug/L

|                             |      |      |        |        |       |    |     |            |
|-----------------------------|------|------|--------|--------|-------|----|-----|------------|
| Vinyl Acetate               | 50.0 | 48.4 | 0.0826 | 0.0799 | -3.2  | NA | ±20 | Average RF |
| Vinyl Chloride              | 50.0 | 54.9 | 0.5417 | 0.5943 | 9.7   | NA | ±20 | Average RF |
| Xylenes, Total              | 150  | 165  | NA     | NA     | NA    | NA | ±20 |            |
| cis-1,2-Dichloroethene      | 50.0 | 55.4 | 0.4677 | 0.518  | 10.8  | NA | ±20 | Average RF |
| cis-1,3-Dichloropropene     | 50.0 | 52.1 | 0.443  | 0.4617 | 4.2   | NA | ±20 | Average RF |
| m,p-Xylenes                 | 100  | 111  | 0.5652 | 0.6261 | 10.8  | NA | ±20 | Average RF |
| o-Xylene                    | 50.0 | 54.3 | 0.5606 | 0.6083 | 8.5   | NA | ±20 | Average RF |
| trans-1,2-Dichloroethene    | 50.0 | 57.0 | 0.3946 | 0.4496 | 13.9  | NA | ±20 | Average RF |
| trans-1,3-Dichloropropene   | 50.0 | 48.8 | 0.4149 | 0.4052 | -2.3  | NA | ±20 | Average RF |
| trans-1,4-Dichloro-2-butene | 50.0 | 42.1 | 0.1554 | 0.1307 | -15.9 | NA | ±20 | Average RF |

| Analyte Name         | Expected | Result | Average RF | CCV RF | % D  | % Drift | Criteria | Curve Fit  |
|----------------------|----------|--------|------------|--------|------|---------|----------|------------|
| 4-Bromofluorobenzene | 50.0     | 47.7   | 0.4608     | 0.4397 | -4.6 | NA      | ±20      | Average RF |
| Dibromofluoromethane | 50.0     | 48.1   | 0.3214     | 0.3093 | -3.8 | NA      | ±20      | Average RF |
| Toluene-d8           | 50.0     | 48.6   | 1.2028     | 1.1689 | -2.8 | NA      | ±20      | Average RF |



**ALS Group USA, Corp.**  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 20:32

**Continuing Calibration Verification (CCV) Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C

**Calibration Date:** 6/10/2022

**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5560.D\

**Calibration ID:** RC2200058

**Signal ID:** 1

**Analysis Lot:** 772031

**Units:** ug/L

| Analyte Name                       | Expected | Result | Average RF | CCV RF | % D   | % Drift | Criteria | Curve Fit  |
|------------------------------------|----------|--------|------------|--------|-------|---------|----------|------------|
| 1,1,1,2-Tetrachloroethane          | 50.0     | 48.5   | 0.3264     | 0.3165 | -3.0  | NA      | ±50      | Average RF |
| 1,1,1-Trichloroethane (TCA)        | 50.0     | 45.5   | 0.6371     | 0.5795 | -9.0  | NA      | ±50      | Average RF |
| 1,1,2,2-Tetrachloroethane          | 50.0     | 52.3   | 0.9585     | 1.0035 | 4.7   | NA      | ±50      | Average RF |
| 1,1,2-Trichloroethane              | 50.0     | 50.0   | 0.2987     | 0.2985 | -0.1  | NA      | ±50      | Average RF |
| 1,1-Dichloroethane (1,1-DCA)       | 50.0     | 52.3   | 0.6892     | 0.7211 | 4.6   | NA      | ±50      | Average RF |
| 1,1-Dichloroethene (1,1-DCE)       | 50.0     | 53.8   | 0.339      | 0.3649 | 7.6   | NA      | ±50      | Average RF |
| 1,2,3-Trichloropropane             | 50.0     | 48.3   | 0.337      | 0.3258 | -3.3  | NA      | ±50      | Average RF |
| 1,2-Dibromo-3-chloropropane (DBCP) | 50.0     | 45.5   | 0.273      | 0.2448 | NA    | -9.0    | ±50      | Quadratic  |
| 1,2-Dibromoethane                  | 50.0     | 51.1   | 0.3642     | 0.3725 | 2.3   | NA      | ±50      | Average RF |
| 1,2-Dichlorobenzene                | 50.0     | 48.9   | 1.4318     | 1.3988 | -2.3  | NA      | ±50      | Average RF |
| 1,2-Dichloroethane                 | 50.0     | 48.7   | 0.421      | 0.4101 | -2.6  | NA      | ±50      | Average RF |
| 1,2-Dichloropropane                | 50.0     | 51.5   | 0.2825     | 0.2912 | 3.1   | NA      | ±50      | Average RF |
| 1,4-Dichlorobenzene                | 50.0     | 47.5   | 1.4786     | 1.4049 | -5.0  | NA      | ±50      | Average RF |
| 2-Butanone (MEK)                   | 50.0     | 47.2   | 0.3252     | 0.3073 | -5.5  | NA      | ±50      | Average RF |
| 2-Hexanone                         | 50.0     | 46.2   | 0.3628     | 0.3354 | -7.6  | NA      | ±50      | Average RF |
| 4-Methyl-2-pentanone               | 50.0     | 45.0   | 0.4408     | 0.3968 | -10.0 | NA      | ±50      | Average RF |
| Acetone                            | 50.0     | 49.2   | 0.2136     | 0.2101 | -1.6  | NA      | ±50      | Average RF |
| Acrylonitrile                      | 250      | 260    | 0.2484     | 0.2587 | 4.1   | NA      | ±50      | Average RF |
| Benzene                            | 50.0     | 51.0   | 1.0638     | 1.0847 | 2.0   | NA      | ±50      | Average RF |
| Bromochloromethane                 | 50.0     | 50.9   | 0.3246     | 0.3308 | 1.9   | NA      | ±50      | Average RF |
| Bromodichloromethane               | 50.0     | 48.0   | 0.392      | 0.3763 | -4.0  | NA      | ±50      | Average RF |
| Bromoform                          | 50.0     | 46.0   | 0.2751     | 0.2519 | NA    | -8.0    | ±50      | Quadratic  |
| Bromomethane                       | 50.0     | 57.1   | 0.375      | 0.38   | NA    | 14.3    | ±50      | Quadratic  |
| Carbon Disulfide                   | 50.0     | 54.5   | 0.9507     | 1.0371 | 9.1   | NA      | ±50      | Average RF |
| Carbon Tetrachloride               | 50.0     | 45.1   | 0.356      | 0.3208 | -9.9  | NA      | ±50      | Average RF |
| Chlorobenzene                      | 50.0     | 49.6   | 0.9212     | 0.9136 | -0.8  | NA      | ±50      | Average RF |
| Chloroethane                       | 50.0     | 48.9   | 0.3501     | 0.3427 | -2.1  | NA      | ±50      | Average RF |
| Chloroform                         | 50.0     | 49.8   | 0.7482     | 0.7459 | -0.3  | NA      | ±50      | Average RF |
| Chloromethane                      | 50.0     | 41.5   | 0.4596     | 0.381  | -17.1 | NA      | ±50      | Average RF |
| Dibromochloromethane               | 50.0     | 51.1   | 0.3564     | 0.3642 | 2.2   | NA      | ±50      | Average RF |
| Dibromomethane                     | 50.0     | 49.0   | 0.2182     | 0.2139 | -2.0  | NA      | ±50      | Average RF |
| Methylene Chloride                 | 50.0     | 52.3   | 0.4259     | 0.4455 | 4.6   | NA      | ±50      | Average RF |
| Ethylbenzene                       | 50.0     | 50.0   | 0.4606     | 0.4607 | 0.0   | NA      | ±50      | Average RF |
| Iodomethane                        | 50.0     | 47.5   | 0.5744     | 0.5498 | NA    | -4.9    | ±50      | Quadratic  |
| Styrene                            | 50.0     | 51.3   | 0.9617     | 0.9859 | 2.5   | NA      | ±50      | Average RF |
| Tetrachloroethene (PCE)            | 50.0     | 47.5   | 0.2684     | 0.2548 | -5.1  | NA      | ±50      | Average RF |
| Toluene                            | 50.0     | 49.7   | 1.1848     | 1.1777 | -0.6  | NA      | ±50      | Average RF |
| Trichloroethene (TCE)              | 50.0     | 48.4   | 0.3114     | 0.3012 | -3.3  | NA      | ±50      | Average RF |
| Trichlorofluoromethane (CFC 11)    | 50.0     | 47.0   | 0.6991     | 0.6576 | -5.9  | NA      | ±50      | Average RF |

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/28/22 20:32

**Continuing Calibration Verification (CCV) Summary**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:** 8260C

**Calibration Date:** 6/10/2022

**File ID:** I:\ACQUDATA\MSVOA14\Data\072822\V5560.D\

**Calibration ID:** RC2200058

**Signal ID:** 1

**Analysis Lot:** 772031

**Units:** ug/L

|                             |      |      |        |        |       |    |     |            |
|-----------------------------|------|------|--------|--------|-------|----|-----|------------|
| Vinyl Acetate               | 50.0 | 51.1 | 0.0826 | 0.0844 | 2.2   | NA | ±50 | Average RF |
| Vinyl Chloride              | 50.0 | 50.3 | 0.5417 | 0.545  | 0.6   | NA | ±50 | Average RF |
| Xylenes, Total              | 150  | 151  | NA     | NA     | NA    | NA | ±50 |            |
| cis-1,2-Dichloroethene      | 50.0 | 50.9 | 0.4677 | 0.4765 | 1.9   | NA | ±50 | Average RF |
| cis-1,3-Dichloropropene     | 50.0 | 48.9 | 0.443  | 0.433  | -2.3  | NA | ±50 | Average RF |
| m,p-Xylenes                 | 100  | 101  | 0.5652 | 0.5707 | 1.0   | NA | ±50 | Average RF |
| o-Xylene                    | 50.0 | 50.1 | 0.5606 | 0.5622 | 0.3   | NA | ±50 | Average RF |
| trans-1,2-Dichloroethene    | 50.0 | 52.2 | 0.3946 | 0.4118 | 4.4   | NA | ±50 | Average RF |
| trans-1,3-Dichloropropene   | 50.0 | 46.3 | 0.4149 | 0.3843 | -7.4  | NA | ±50 | Average RF |
| trans-1,4-Dichloro-2-butene | 50.0 | 40.4 | 0.1554 | 0.1255 | -19.3 | NA | ±50 | Average RF |

| Analyte Name         | Expected | Result | Average RF | CCV RF | % D  | % Drift | Criteria | Curve Fit  |
|----------------------|----------|--------|------------|--------|------|---------|----------|------------|
| 4-Bromofluorobenzene | 50.0     | 46.8   | 0.4608     | 0.4309 | -6.5 | NA      | ±50      | Average RF |
| Dibromofluoromethane | 50.0     | 49.5   | 0.3214     | 0.3183 | -1.0 | NA      | ±50      | Average RF |
| Toluene-d8           | 50.0     | 49.4   | 1.2028     | 1.1887 | -1.2 | NA      | ±50      | Average RF |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

**Analysis Run Log**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:**

**Analysis Lot:** 772031  
**Instrument ID:** R-MS-14

| Raw Data File                            | Sample Name                         | Lab Code     | Date Analyzed | Time Analyzed | Q |
|------------------------------------------|-------------------------------------|--------------|---------------|---------------|---|
| I:\ACQUDATA\MSVOA14\Data\072822\V5532.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 09:23:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5533.D\ | Continuing Calibration Verification | RQ2208816-02 | 7/28/2022     | 10:06:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5534.D\ | Lab Control Sample                  | RQ2208816-03 | 7/28/2022     | 10:40:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5537.D\ | Method Blank                        | RQ2208816-04 | 7/28/2022     | 12:01:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5538.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 12:23:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5539.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 12:45:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5540.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 13:08:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5541.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 13:30:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5542.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 13:52:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5543.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 14:14:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5544.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 14:36:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5545.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 14:59:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5546.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/28/2022     | 15:21:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5547.D\ | EB-07192022                         | R2206604-010 | 7/28/2022     | 15:43:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5548.D\ | TB-01-07192022                      | R2206604-011 | 7/28/2022     | 16:05:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5549.D\ | URS-2S-07192022                     | R2206604-001 | 7/28/2022     | 16:27:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5550.D\ | SW-4RE-07192022                     | R2206604-003 | 7/28/2022     | 16:50:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5551.D\ | SW-9-07192022                       | R2206604-005 | 7/28/2022     | 17:12:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5552.D\ | DW-9-07192022                       | R2206604-006 | 7/28/2022     | 17:34:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5553.D\ | DW-3-07192022                       | R2206604-007 | 7/28/2022     | 17:56:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5554.D\ | URS-3D-07192022                     | R2206604-008 | 7/28/2022     | 18:18:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5555.D\ | DUP-01-07192022                     | R2206604-009 | 7/28/2022     | 18:41:00      |   |
| I:\ACQUDATA\MSVOA14\Data\072822\V5556.D\ | URS-2D-07192022                     | R2206604-002 | 7/28/2022     | 19:03:00      |   |

**ALS Group USA, Corp.**

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:**R2206604

**Analysis Run Log**  
**Volatile Organic Compounds by GC/MS**

**Analysis Method:**

**Analysis Lot:**772031  
**Instrument ID:**R-MS-14

| <b>Raw Data File</b>                     | <b>Sample Name</b>           | <b>Lab Code</b> | <b>Date Analyzed</b> | <b>Time Analyzed</b> | <b>Q</b> |
|------------------------------------------|------------------------------|-----------------|----------------------|----------------------|----------|
| I:\ACQUDATA\MSVOA14\Data\072822\V5557.D\ | SW-7RE-07192022              | R2206604-004    | 7/28/2022            | 19:25:00             |          |
| I:\ACQUDATA\MSVOA14\Data\072822\V5558.D\ | URS-3D-07192022 MS           | RQ2208816-05    | 7/28/2022            | 19:47:00             |          |
| I:\ACQUDATA\MSVOA14\Data\072822\V5559.D\ | URS-3D-07192022 DMS          | RQ2208816-06    | 7/28/2022            | 20:10:00             |          |
| I:\ACQUDATA\MSVOA14\Data\072822\V5560.D\ | Continuing Cal. Verification | RQ2208816-07    | 7/28/2022            | 20:32:00             |          |

Analysis: 8260 Analyst: F. Nease pH strips: 222221 Tune Method: W061022M  
 Date: 7/28/22 Balance ID: --- ResCl strips: --- Run Method: ↓  
 Instr: M814 50 mL Class A used for dilution FV Syringes: 210903/218377 LIMS Run#: 712031

Data Path: J:\acq\data\msv\acq\InstID\VCDate)

| Pos. | Sample            | Diln. | Diln. Prep./ | RL    | Vial | HS | CI | pH | File# | OK? | Comments |
|------|-------------------|-------|--------------|-------|------|----|----|----|-------|-----|----------|
| 1    | Buk               |       |              |       |      |    |    |    | N5535 | Y   |          |
| 2    | ↓                 |       |              |       |      |    |    |    | 31    | Y   |          |
| 3    | TUVB              |       |              |       |      |    |    |    | 32    | Y   |          |
| 1    | CCV               |       |              |       |      |    |    |    | 33    | Y   |          |
| 2    | LC5-FP            |       |              |       |      |    |    |    | 34    | Y   |          |
| 3    | Buk               |       |              |       |      |    |    |    | 35    | Y   |          |
| 4    | M8UK-4UP          |       |              |       |      |    |    |    | 36    | Y   |          |
| 5    | M8UK-FP           |       |              |       |      |    |    |    | 37    | Y   |          |
| 6    | R2206448-003      | 2.0   | 25/Som       | 6556  | 2    | N  | -  | 42 | 38    | Y   |          |
| 7    | R2206763-018      | 1.0   |              | 6735  | 1    | N  | -  | 42 | 39    | Y   |          |
| 8    | R2206894-001      | 1.0   |              | 14819 | 1    | N  | -  | 42 | 40    | Y   |          |
| 9    | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 41    | Y   |          |
| 10   | R2206646-003      | 1.0   |              | 20941 | 1    | N  | -  | 42 | 42    | Y   |          |
| 11   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 43    | Y   |          |
| 12   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 44    | Y   |          |
| 13   | R2206655-002      | 1.0   |              | 8043  | 1    | N  | -  | 42 | 45    | Y   |          |
| 14   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 46    | Y   |          |
| 15   | R2206604-010      | 1.0   |              | 14519 | 1    | N  | -  | 42 | 47    | Y   |          |
| 16   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 48    | Y   |          |
| 17   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 49    | Y   |          |
| 18   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 50    | Y   |          |
| 19   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 51    | Y   |          |
| 20   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 52    | Y   |          |
| 21   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 53    | Y   |          |
| 22   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 54    | Y   |          |
| 23   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 55    | Y   |          |
| 24   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 56    | Y   |          |
| 25   | ↓                 | 1.0   |              | ↓     | 1    | N  | -  | 42 | 57    | Y   |          |
| 26   | ↓                 | 1.0   |              | ↓     | 2    | N  | -  | 42 | 58    | Y   |          |
| 27   | ↓                 | 1.0   |              | ↓     | 3    | N  | -  | 42 | 59    | Y   |          |
| 28   | Closing CCV (DDB) |       |              |       |      |    |    |    | 60    | Y   |          |
| 29   | Buk               |       |              |       |      |    |    |    | 61    | Y   |          |

All samples = 5 mL + 5 uL combined IS/ 5 mL purged

T16 Primary 500 223848 500/500  
 W6L Primary 223850  
 FR Primary 224020  
 DCL Primary 223946  
 236-CT Primary 224088

(CCV)

FR Secondary 200 223854 500  
 T16 Secondary 500 224139 24  
 W6L Secondary 224120  
 DCL Secondary 223941  
 236-CT Secondary 224089

500 500  
500 500  
500 500  
500 500  
500 500

Combined IS/Surr: ---  
 Surrogate 50 223862  
 Internal Std 50 223858  
 Reagents: ---



## Semivolatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** URS-2S-07192022  
**Lab Code:** R2206604-001

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:00  
**Date Received:** 07/20/22 07:40  
  
**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 3.2    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 11:44 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 98    | 64 - 124       | 07/29/22 11:44 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** URS-2D-07192022  
**Lab Code:** R2206604-002

**Service Request:** R2206604  
**Date Collected:** 07/19/22 15:37  
**Date Received:** 07/20/22 07:40  
  
**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 21     | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 12:01 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 95    | 64 - 124       | 07/29/22 12:01 |   |



ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:59  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-4RE-07192022  
**Lab Code:** R2206604-003

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 2.0    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 12:18 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 95    | 64 - 124       | 07/29/22 12:18 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:57  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-7RE-07192022  
**Lab Code:** R2206604-004

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 2.9    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 12:35 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 95    | 64 - 124       | 07/29/22 12:35 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 10:32  
**Date Received:** 07/20/22 07:40

**Sample Name:** SW-9-07192022  
**Lab Code:** R2206604-005

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.98   | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 12:53 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 93    | 64 - 124       | 07/29/22 12:53 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 12:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-9-07192022  
**Lab Code:** R2206604-006

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 8.7    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 13:10 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 92    | 64 - 124       | 07/29/22 13:10 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 13:33  
**Date Received:** 07/20/22 07:40

**Sample Name:** DW-3-07192022  
**Lab Code:** R2206604-007

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 6.5    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 13:27 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 90    | 64 - 124       | 07/29/22 13:27 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** URS-3D-07192022  
**Lab Code:** R2206604-008

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40  
  
**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 6.1    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 13:44 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 96    | 64 - 124       | 07/29/22 13:44 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-01-07192022  
**Lab Code:** R2206604-009

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 2.0    | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 14:36 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 85    | 64 - 124       | 07/29/22 14:36 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604  
**Date Collected:** 07/19/22 16:40  
**Date Received:** 07/20/22 07:40

**Sample Name:** EB-07192022  
**Lab Code:** R2206604-010

**Units:** ug/L  
**Basis:** NA

1,4-Dioxane by GC/MS

**Analysis Method:** 8270D  
**Prep Method:** EPA 3535A

| Analyte Name | Result  | LOQ   | LOD   | MDL   | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|---------|-------|-------|-------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.034 J | 0.040 | 0.027 | 0.027 | 1    | 07/29/22 14:54 | 7/26/22        |   |

| Surrogate Name           | % Rec | Control Limits | Date Analyzed  | Q |
|--------------------------|-------|----------------|----------------|---|
| Tetrahydrofuran-d8 (SUR) | 93    | 64 - 124       | 07/29/22 14:54 |   |



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH917.D  
Acq On : 29 Jul 2022 11:44 am  
Operator : MMCMAHON  
Sample : R2206604-001  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 12:44:45 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

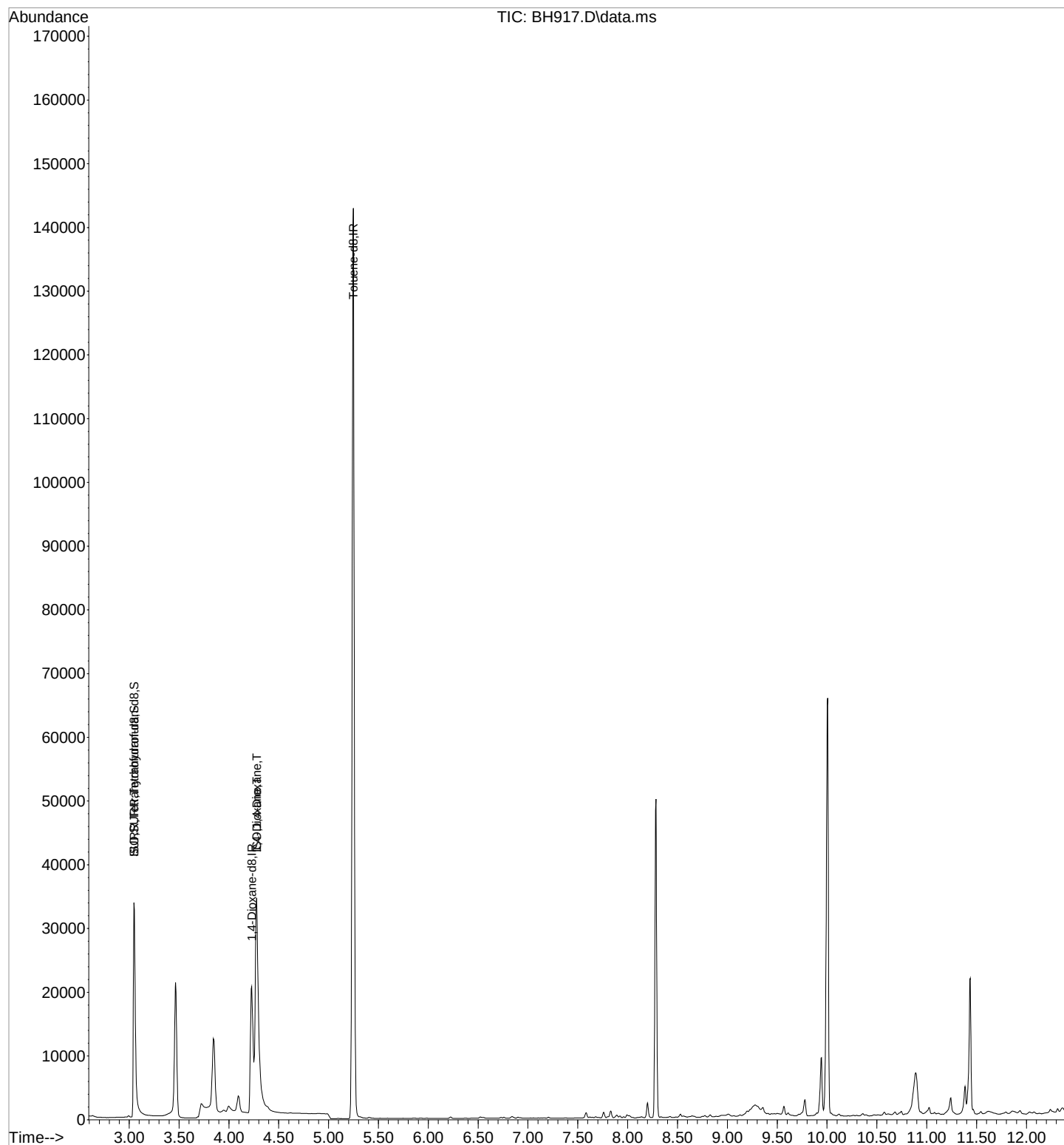
| Compound                       | R.T.           | QIon | Response | Conc   | Units   | Dev(Min)  |
|--------------------------------|----------------|------|----------|--------|---------|-----------|
| -----                          |                |      |          |        |         |           |
| Internal Standards             |                |      |          |        |         |           |
| 1) Toluene-d8                  | 5.247          | 98   | 121126   | 100.00 | ppb     | -0.03     |
| 4) 1,4-Dioxane-d8              | 4.229          | 96   | 22747    | 100.00 | ppb     | -0.05     |
| System Monitoring Compounds    |                |      |          |        |         |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.048          | 46   | 18556    | 92.19  | ppb     | -0.05     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 92.19%  |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.048          | 46   | 18556    | 106.02 | ppb     | -0.05     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 106.02% |           |
| Target Compounds               |                |      |          |        |         |           |
| 2) 1,4-Dioxane                 | 4.278          | 88   | 42923    | 159.89 | ppb     | Qvalue 87 |
| 5) ISO, 1,4-Dioxane            | 4.278          | 88   | 42923    | 183.75 | ppb     | 87        |
| -----                          |                |      |          |        |         |           |

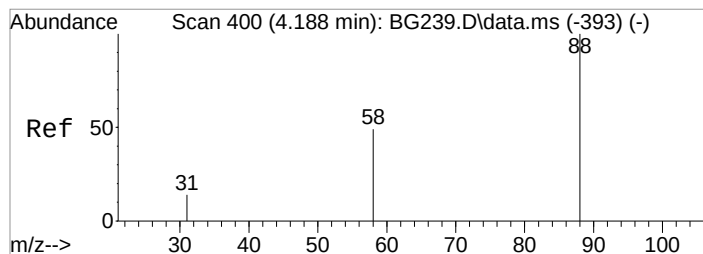
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH917.D  
Acq On : 29 Jul 2022 11:44 am  
Operator : MMCMAHON  
Sample : R2206604-001  
Misc :  
ALS Vial : 20 Sample Multiplier: 1

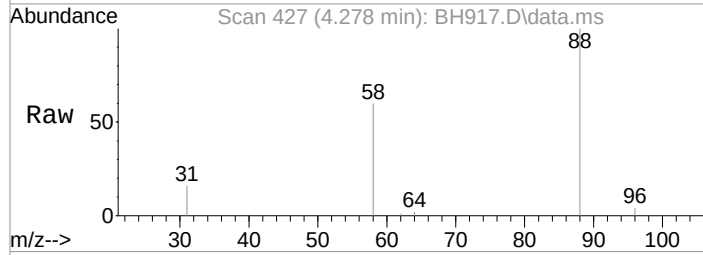
Inst : 5975 E

Quant Time: Jul 29 12:44:45 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

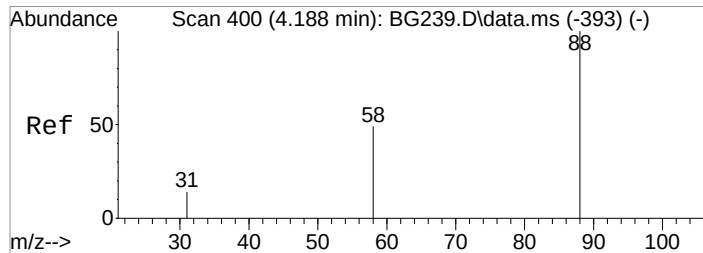
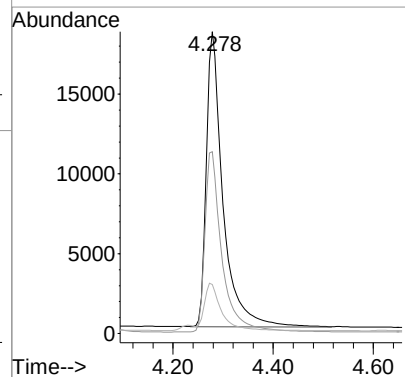
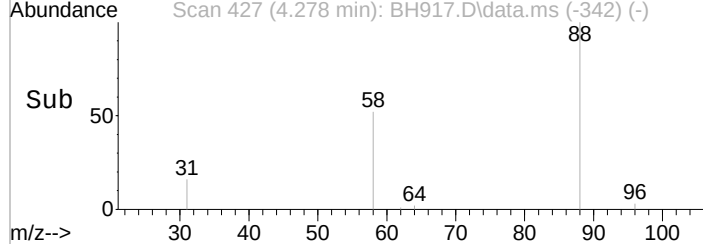




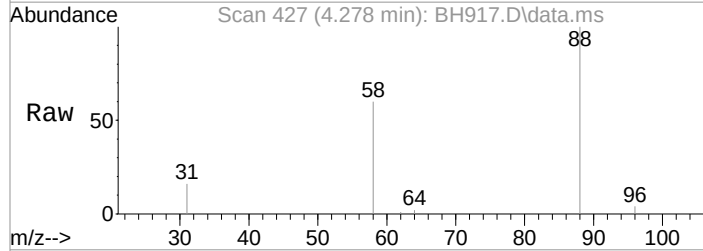
#2  
 1,4-Dioxane  
 Concen: 159.89 ppb  
 RT: 4.278 min Scan# 427  
 Delta R.T. -0.041 min  
 Lab File: BH917.D  
 Acq: 29 Jul 2022 11:44 am



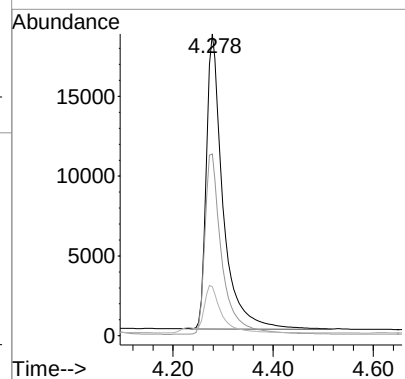
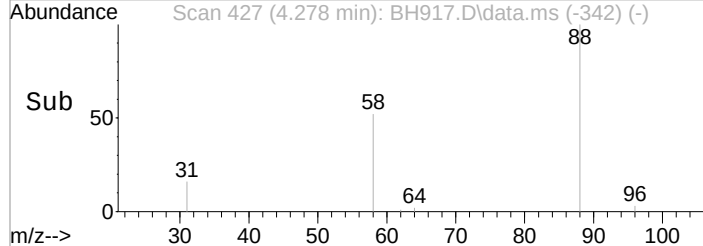
Tgt Ion: 88 Resp: 42923  
 Ion Ratio Lower Upper  
 88 100  
 58 61.0 29.4 69.4  
 31 14.8 0.0 35.0



#5  
 ISO,1,4-Dioxane  
 Concen: 183.75 ppb  
 RT: 4.278 min Scan# 427  
 Delta R.T. -0.041 min  
 Lab File: BH917.D  
 Acq: 29 Jul 2022 11:44 am



Tgt Ion: 88 Resp: 42923  
 Ion Ratio Lower Upper  
 88 100  
 58 61.0 29.4 69.4  
 31 14.8 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH918.D  
Acq On : 29 Jul 2022 12:01 pm  
Operator : MMCMAHON  
Sample : R2206604-002  
Misc :  
ALS Vial : 21 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 12:44:55 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

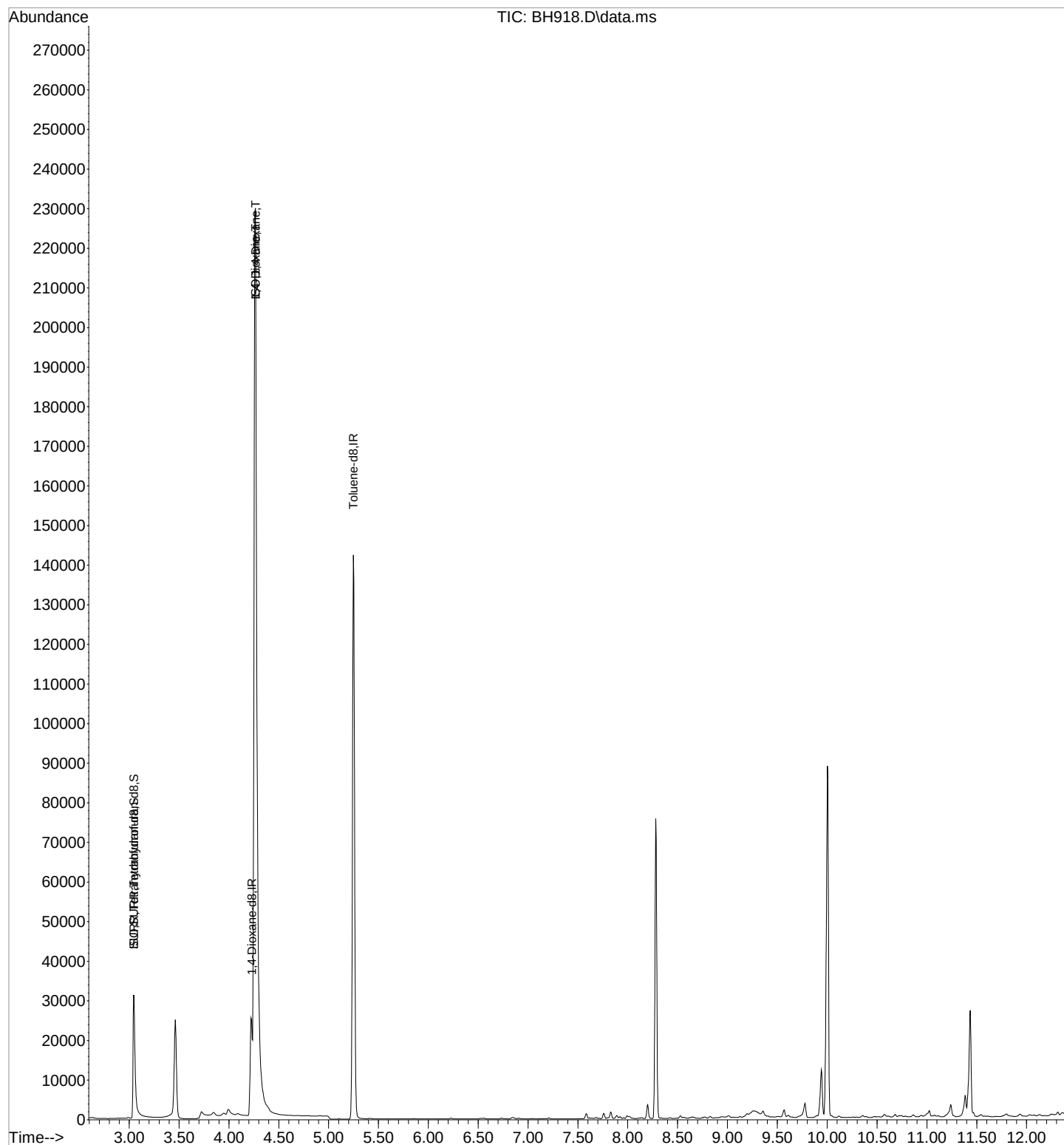
| Compound                       | R.T.    | QIon  | Response | Conc     | Units | Dev(Min)     |
|--------------------------------|---------|-------|----------|----------|-------|--------------|
| -----                          |         |       |          |          |       |              |
| Internal Standards             |         |       |          |          |       |              |
| 1) Toluene-d8                  | 5.249   | 98    | 120914   | 100.00   | ppb   | -0.03        |
| 4) 1,4-Dioxane-d8              | 4.227   | 96    | 22996    | 100.00   | ppb   | -0.05        |
| System Monitoring Compounds    |         |       |          |          |       |              |
| 3) SURR, Tetrahydrofuran-d8    | 3.045   | 46    | 18059    | 89.89    | ppb   | -0.05        |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 89.89%       |
| 6) ISO, SURR, Tetrahydrofur... | 3.045   | 46    | 18059    | 102.08   | ppb   | -0.05        |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 102.08%      |
| Target Compounds               |         |       |          |          |       |              |
| 2) 1,4-Dioxane                 | 4.265   | 88    | 274867   | 1042.67  | ppb   | Qvalue<br>89 |
| 5) ISO, 1,4-Dioxane            | 4.265   | 88    | 274867   | 1166.27  | ppb   | 89           |
| -----                          |         |       |          |          |       |              |

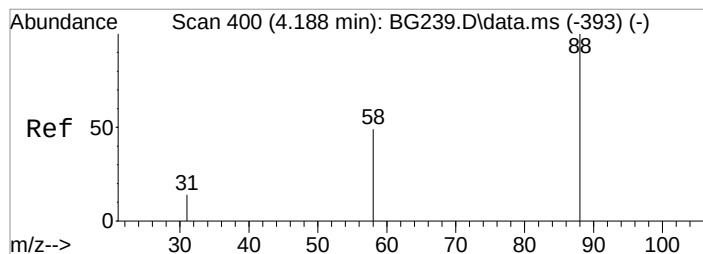
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH918.D  
Acq On : 29 Jul 2022 12:01 pm  
Operator : MMCMAHON  
Sample : R2206604-002  
Misc :  
ALS Vial : 21 Sample Multiplier: 1

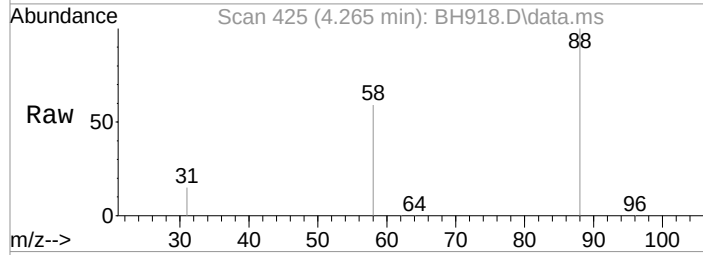
Inst : 5975 E

Quant Time: Jul 29 12:44:55 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

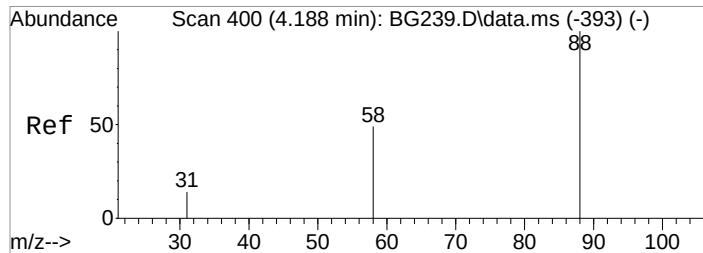
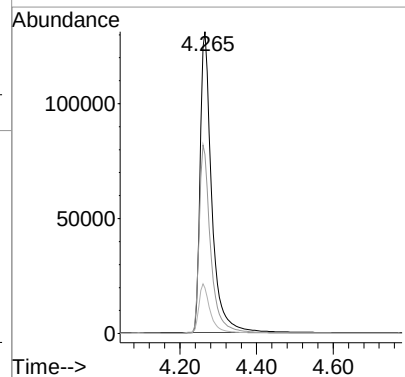
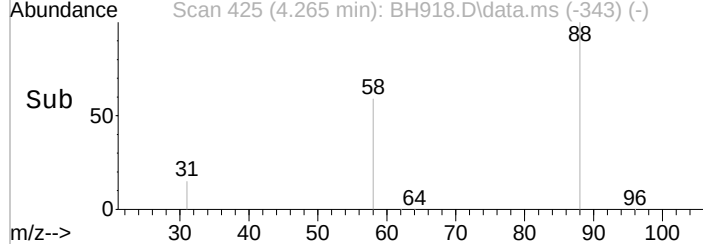




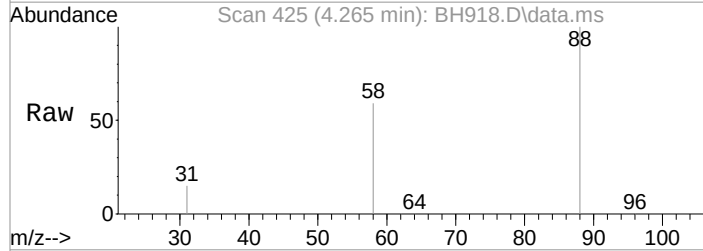
#2  
 1,4-Dioxane  
 Concen: 1042.67 ppb  
 RT: 4.265 min Scan# 425  
 Delta R.T. -0.054 min  
 Lab File: BH918.D  
 Acq: 29 Jul 2022 12:01 pm



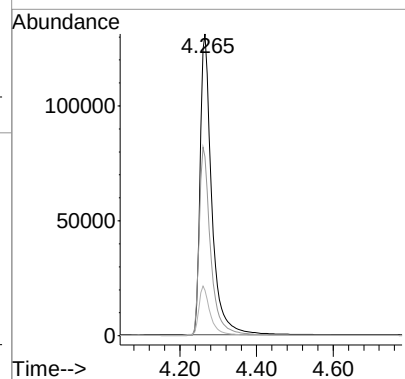
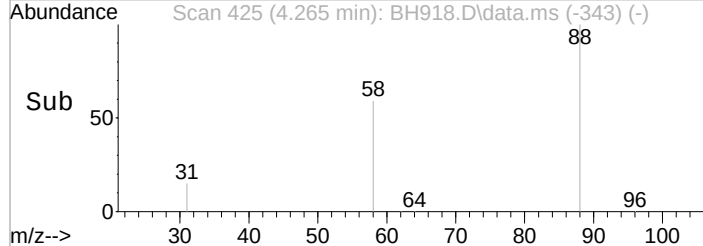
Tgt Ion: 88 Resp: 274867  
 Ion Ratio Lower Upper  
 88 100  
 58 59.4 29.4 69.4  
 31 14.9 0.0 35.0



#5  
 ISO,1,4-Dioxane  
 Concen: 1166.27 ppb  
 RT: 4.265 min Scan# 425  
 Delta R.T. -0.054 min  
 Lab File: BH918.D  
 Acq: 29 Jul 2022 12:01 pm



Tgt Ion: 88 Resp: 274867  
 Ion Ratio Lower Upper  
 88 100  
 58 59.4 29.4 69.4  
 31 14.9 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH919.D  
Acq On : 29 Jul 2022 12:18 pm  
Operator : MMCMAHON  
Sample : R2206604-003  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 12:45:07 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

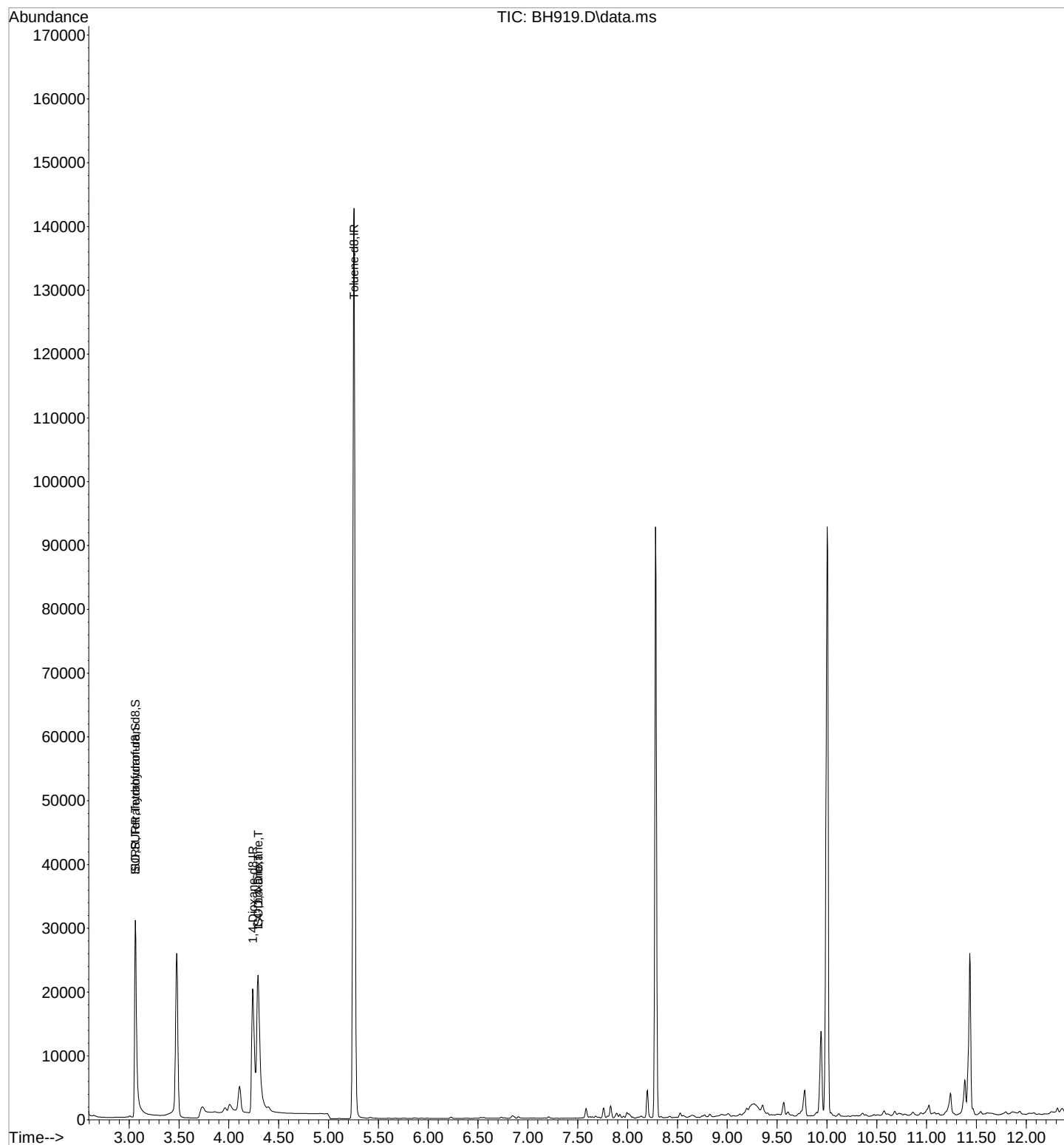
| Compound                       | R.T.    | QIon           | Response | Conc   | Units   | Dev(Min)  |
|--------------------------------|---------|----------------|----------|--------|---------|-----------|
| -----                          |         |                |          |        |         |           |
| Internal Standards             |         |                |          |        |         |           |
| 1) Toluene-d8                  | 5.255   | 98             | 120437   | 100.00 | ppb     | -0.02     |
| 4) 1,4-Dioxane-d8              | 4.238   | 96             | 21696    | 100.00 | ppb     | -0.04     |
| System Monitoring Compounds    |         |                |          |        |         |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.062   | 46             | 17994    | 89.92  | ppb     | -0.04     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 89.92%  |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.062   | 46             | 17994    | 107.78 | ppb     | -0.04     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 107.78% |           |
| Target Compounds               |         |                |          |        |         |           |
| 2) 1,4-Dioxane                 | 4.292   | 88             | 26513    | 99.25  | ppb     | Qvalue 87 |
| 5) ISO, 1,4-Dioxane            | 4.292   | 88             | 26513    | 118.98 | ppb     | 87        |
| -----                          |         |                |          |        |         |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

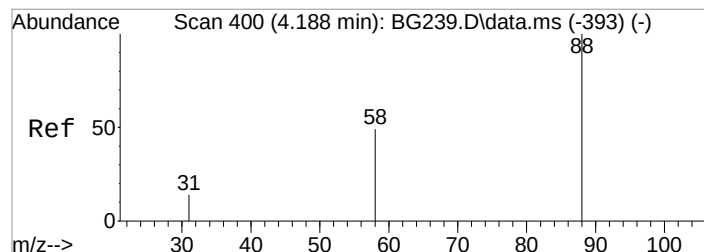
Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH919.D  
Acq On : 29 Jul 2022 12:18 pm  
Operator : MMCMAHON  
Sample : R2206604-003  
Misc :  
ALS Vial : 22 Sample Multiplier: 1

Inst : 5975 E

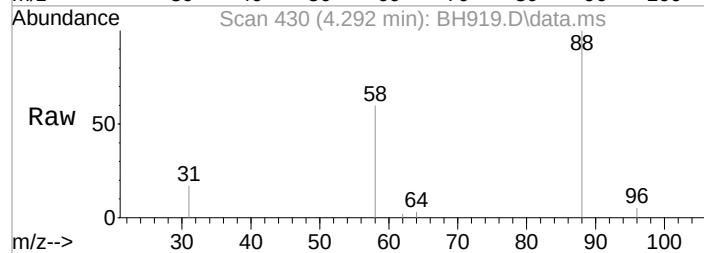
Quant Time: Jul 29 12:45:07 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration



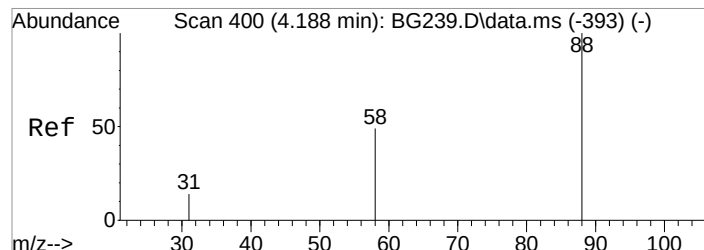
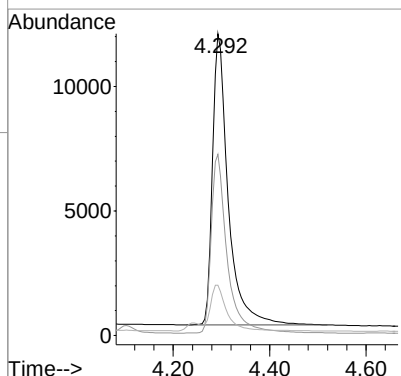
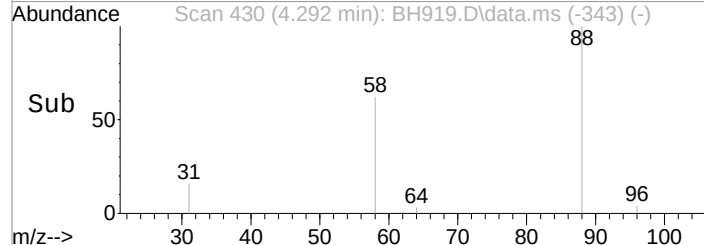




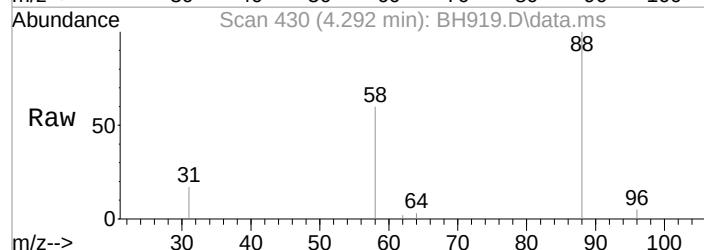
#2  
1,4-Dioxane  
Concen: 99.25 ppb  
RT: 4.292 min Scan# 430  
Delta R.T. -0.027 min  
Lab File: BH919.D  
Acq: 29 Jul 2022 12:18 pm



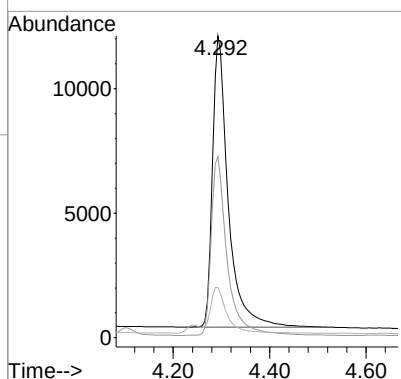
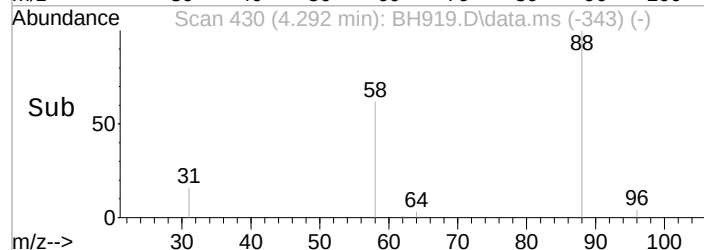
| Tgt Ion   | 88    | Resp  | 26513 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 61.3  | 29.4  | 69.4  |
| 31        | 15.0  | 0.0   | 35.0  |



#5  
ISO,1,4-Dioxane  
Concen: 118.98 ppb  
RT: 4.292 min Scan# 430  
Delta R.T. -0.027 min  
Lab File: BH919.D  
Acq: 29 Jul 2022 12:18 pm



| Tgt Ion   | 88    | Resp  | 26513 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 61.3  | 29.4  | 69.4  |
| 31        | 15.0  | 0.0   | 35.0  |



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH920.D  
Acq On : 29 Jul 2022 12:35 pm  
Operator : MMCMAHON  
Sample : R2206604-004  
Misc :  
ALS Vial : 23 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 14:01:28 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

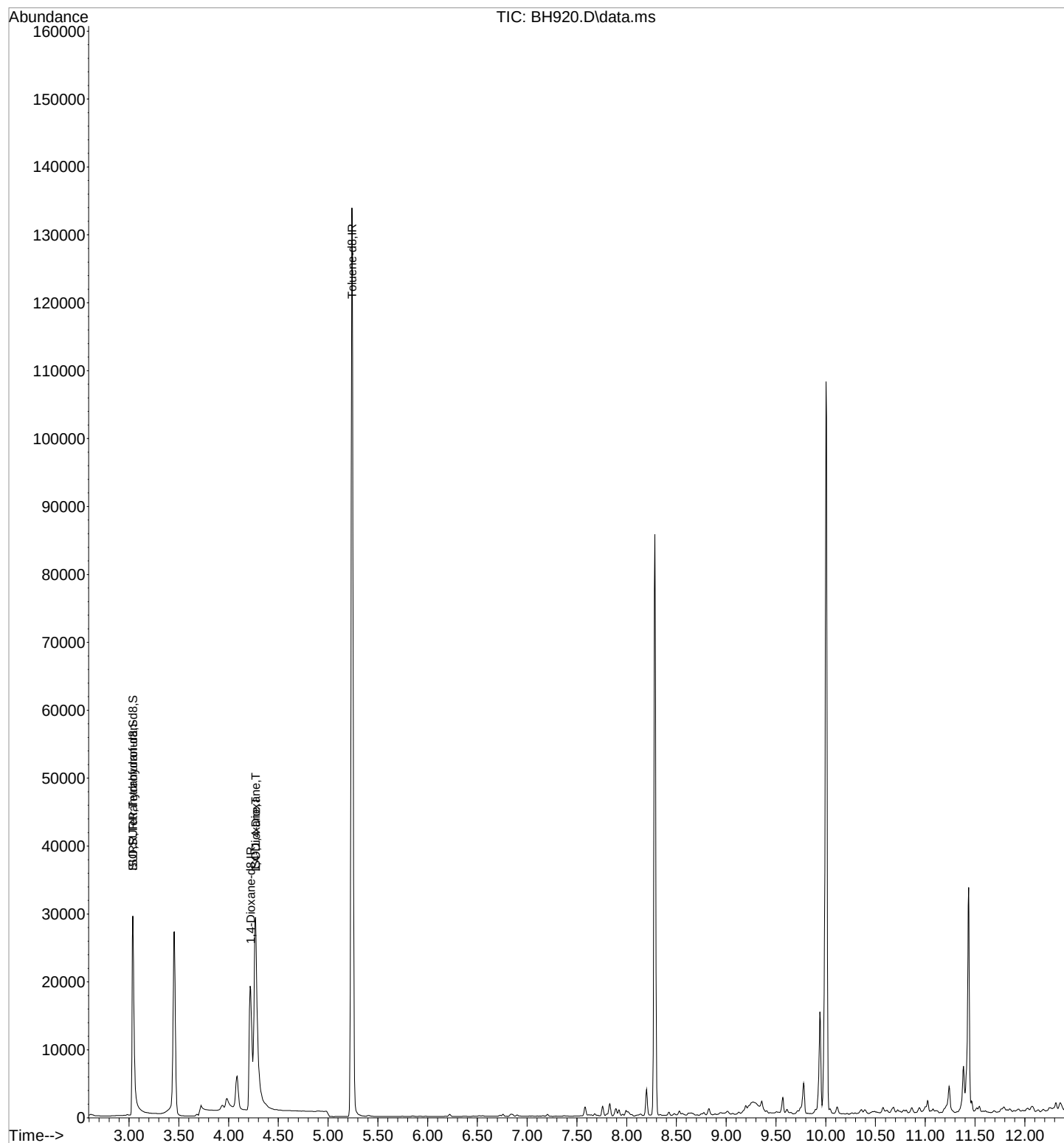
| Compound                       | R.T.    | QIon           | Response | Conc   | Units   | Dev(Min)  |
|--------------------------------|---------|----------------|----------|--------|---------|-----------|
| -----                          |         |                |          |        |         |           |
| Internal Standards             |         |                |          |        |         |           |
| 1) Toluene-d8                  | 5.240   | 98             | 113808   | 100.00 | ppb     | -0.04     |
| 4) 1,4-Dioxane-d8              | 4.222   | 96             | 21330    | 100.00 | ppb     | -0.05     |
| System Monitoring Compounds    |         |                |          |        |         |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.038   | 46             | 16940    | 89.58  | ppb     | -0.06     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 89.58%  |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.038   | 46             | 16940    | 103.23 | ppb     | -0.06     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 103.23% |           |
| Target Compounds               |         |                |          |        |         |           |
| 2) 1,4-Dioxane                 | 4.271   | 88             | 36924    | 146.36 | ppb     | Qvalue 87 |
| 5) ISO, 1,4-Dioxane            | 4.271   | 88             | 36924    | 168.56 | ppb     | 87        |
| -----                          |         |                |          |        |         |           |

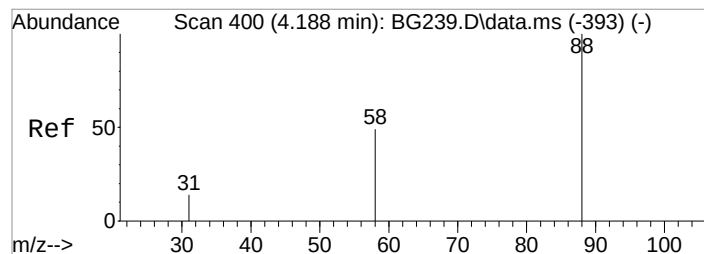
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH920.D  
Acq On : 29 Jul 2022 12:35 pm  
Operator : MMCMAHON  
Sample : R2206604-004  
Misc :  
ALS Vial : 23 Sample Multiplier: 1

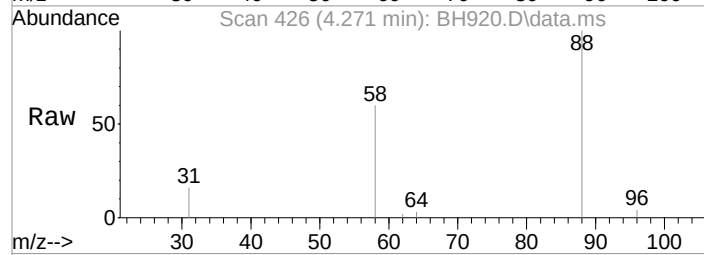
Inst : 5975 E

Quant Time: Jul 29 14:01:28 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

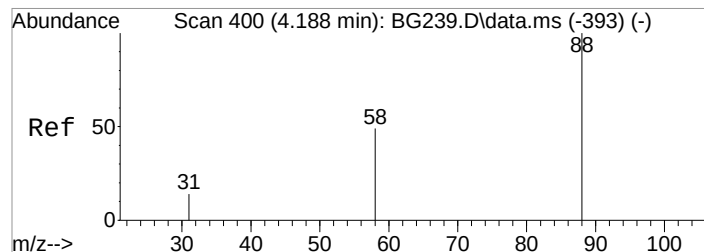
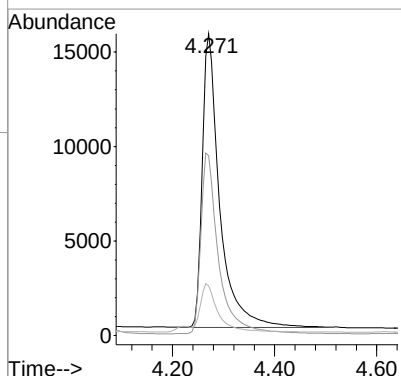
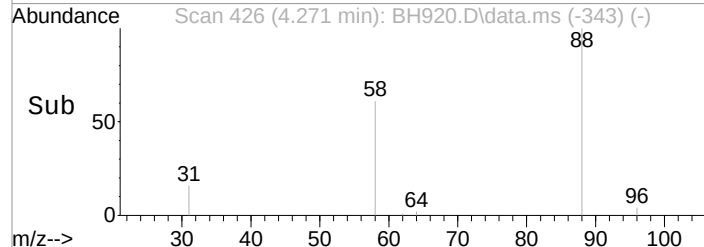




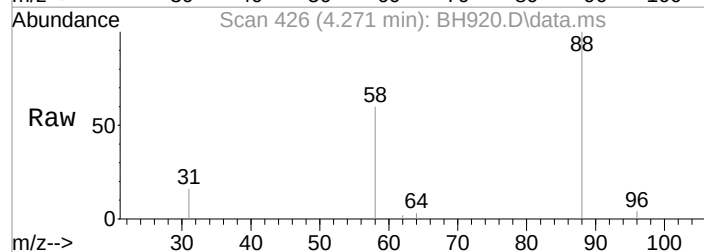
#2  
1,4-Dioxane  
Concen: 146.36 ppb  
RT: 4.271 min Scan# 426  
Delta R.T. -0.048 min  
Lab File: BH920.D  
Acq: 29 Jul 2022 12:35 pm



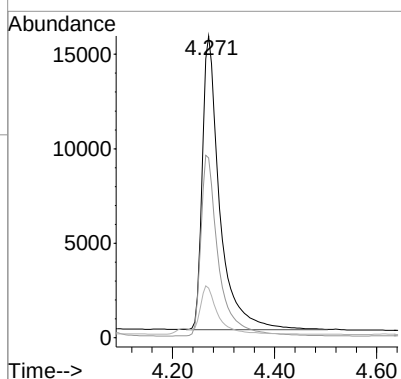
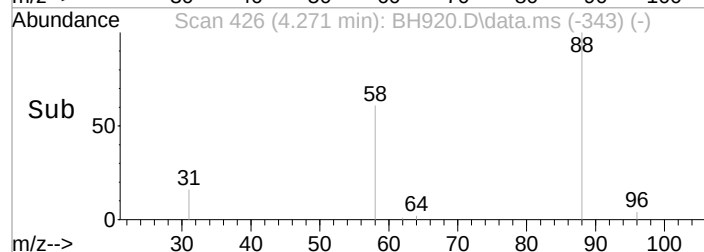
Tgt Ion: 88 Resp: 36924  
Ion Ratio Lower Upper  
88 100  
58 60.5 29.4 69.4  
31 14.8 0.0 35.0



#5  
ISO,1,4-Dioxane  
Concen: 168.56 ppb  
RT: 4.271 min Scan# 426  
Delta R.T. -0.048 min  
Lab File: BH920.D  
Acq: 29 Jul 2022 12:35 pm



Tgt Ion: 88 Resp: 36924  
Ion Ratio Lower Upper  
88 100  
58 60.5 29.4 69.4  
31 14.8 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH921.D  
Acq On : 29 Jul 2022 12:53 pm  
Operator : MMCMAHON  
Sample : R2206604-005  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 14:01:40 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

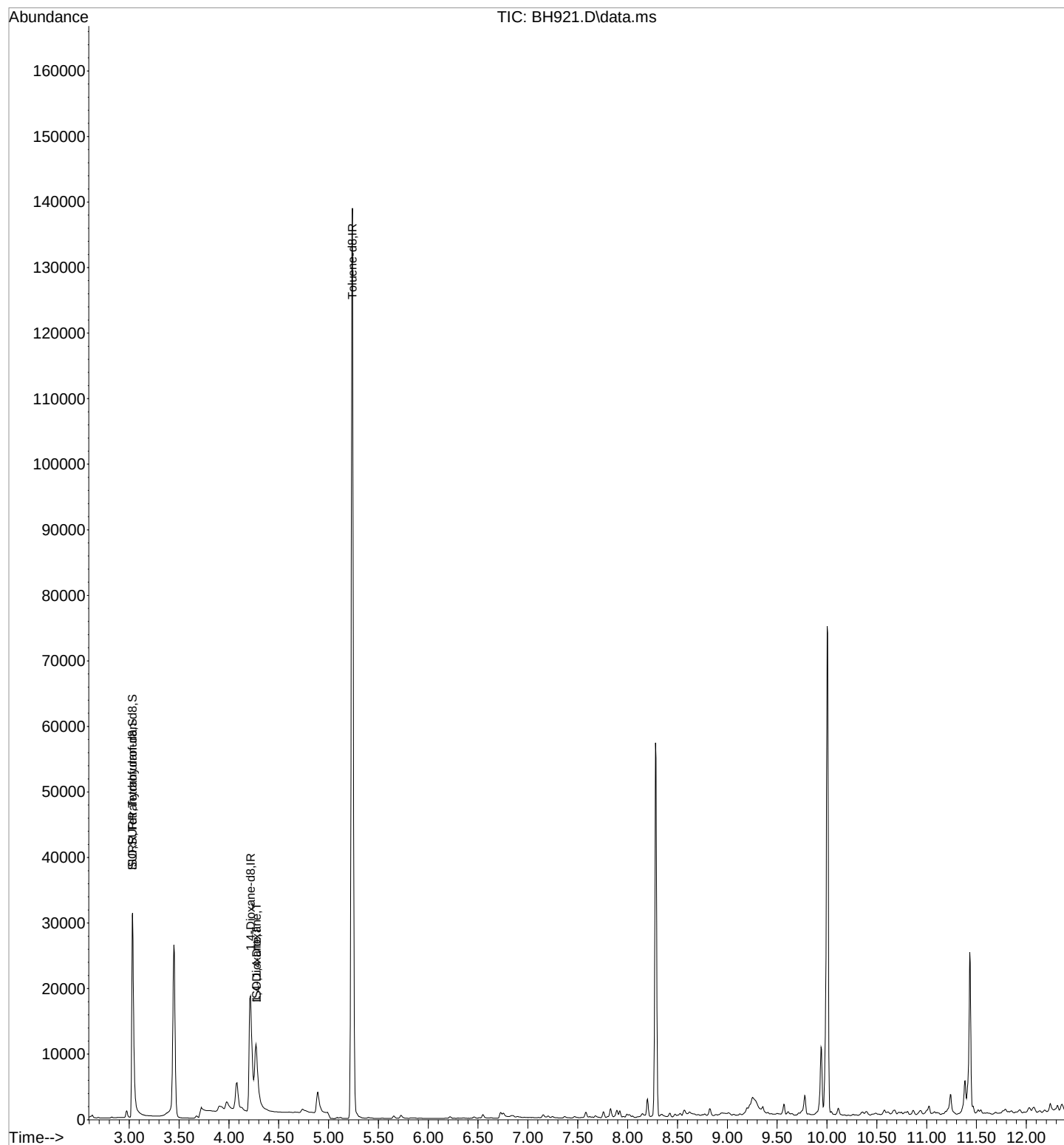
| Compound                       | R.T.    | QIon  | Response | Conc     | Units | Dev(Min)  |
|--------------------------------|---------|-------|----------|----------|-------|-----------|
| Internal Standards             |         |       |          |          |       |           |
| 1) Toluene-d8                  | 5.238   | 98    | 118861   | 100.00   | ppb   | -0.04     |
| 4) 1,4-Dioxane-d8              | 4.216   | 96    | 21607    | 100.00   | ppb   | -0.06     |
| System Monitoring Compounds    |         |       |          |          |       |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.031   | 46    | 17386    | 88.04    | ppb   | -0.07     |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 88.04%    |
| 6) ISO, SURR, Tetrahydrofur... | 3.031   | 46    | 17386    | 104.58   | ppb   | -0.07     |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 104.58%   |
| Target Compounds               |         |       |          |          |       |           |
| 2) 1,4-Dioxane                 | 4.276   | 88    | 12936    | 49.07    | ppb   | Qvalue 89 |
| 5) ISO, 1,4-Dioxane            | 4.276   | 88    | 12936    | 58.27    | ppb   | 89        |

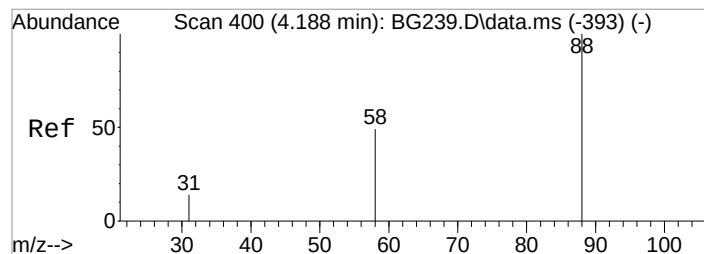
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH921.D  
Acq On : 29 Jul 2022 12:53 pm  
Operator : MMCMAHON  
Sample : R2206604-005  
Misc :  
ALS Vial : 24 Sample Multiplier: 1

Inst : 5975 E

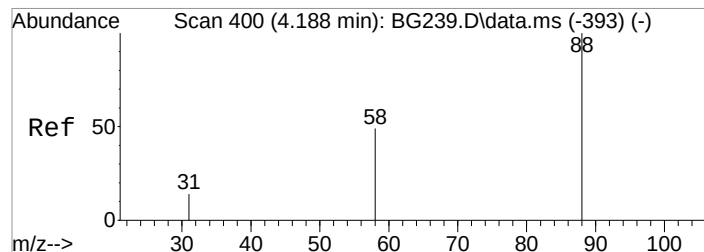
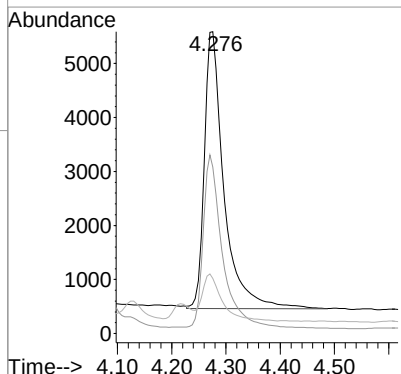
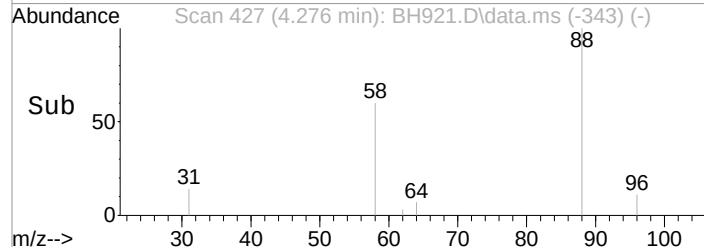
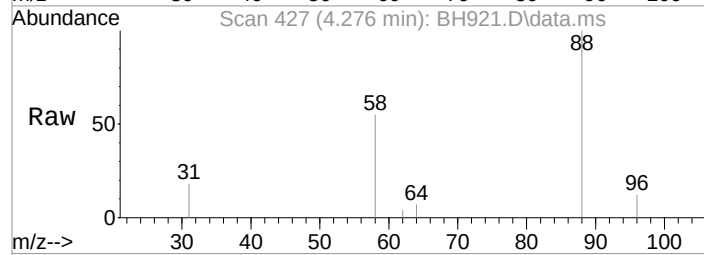
Quant Time: Jul 29 14:01:40 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration





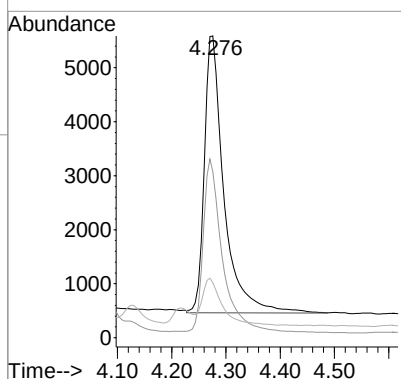
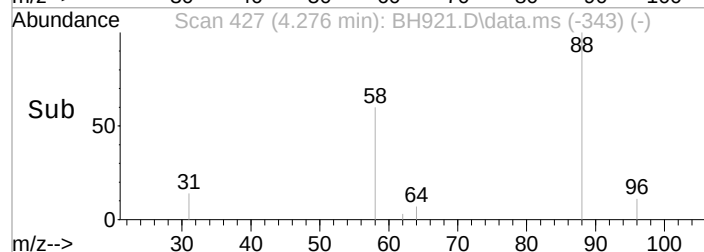
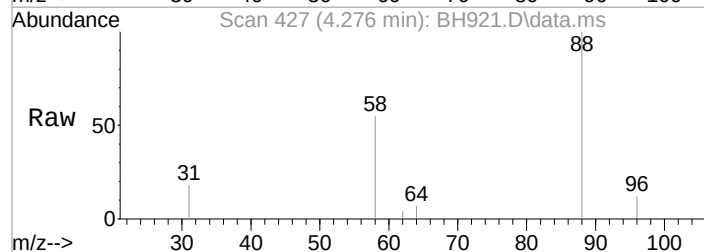
#2  
1,4-Dioxane  
Concen: 49.07 ppb  
RT: 4.276 min Scan# 427  
Delta R.T. -0.043 min  
Lab File: BH921.D  
Acq: 29 Jul 2022 12:53 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 88      | 100   |       |       |
| 58      | 58.2  | 29.4  | 69.4  |
| 31      | 12.8  | 0.0   | 35.0  |



#5  
ISO,1,4-Dioxane  
Concen: 58.27 ppb  
RT: 4.276 min Scan# 427  
Delta R.T. -0.043 min  
Lab File: BH921.D  
Acq: 29 Jul 2022 12:53 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 88      | 100   |       |       |
| 58      | 58.2  | 29.4  | 69.4  |
| 31      | 12.8  | 0.0   | 35.0  |



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH922.D  
Acq On : 29 Jul 2022 1:10 pm  
Operator : MMCMAHON  
Sample : R2206604-006  
Misc :  
ALS Vial : 25 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 14:02:02 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

| Compound                       | R.T.           | QIon | Response | Conc   | Units  | Dev(Min)  |
|--------------------------------|----------------|------|----------|--------|--------|-----------|
| -----                          |                |      |          |        |        |           |
| Internal Standards             |                |      |          |        |        |           |
| 1) Toluene-d8                  | 5.247          | 98   | 110919   | 100.00 | ppb    | -0.03     |
| 4) 1,4-Dioxane-d8              | 4.229          | 96   | 21263    | 100.00 | ppb    | -0.05     |
| System Monitoring Compounds    |                |      |          |        |        |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.052          | 46   | 16010    | 86.88  | ppb    | -0.05     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 86.88% |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.052          | 46   | 16010    | 97.90  | ppb    | -0.05     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 97.90% |           |
| Target Compounds               |                |      |          |        |        |           |
| 2) 1,4-Dioxane                 | 4.273          | 88   | 106521   | 435.42 | ppb    | Qvalue 87 |
| 5) ISO, 1,4-Dioxane            | 4.273          | 88   | 106521   | 488.15 | ppb    | 87        |
| -----                          |                |      |          |        |        |           |

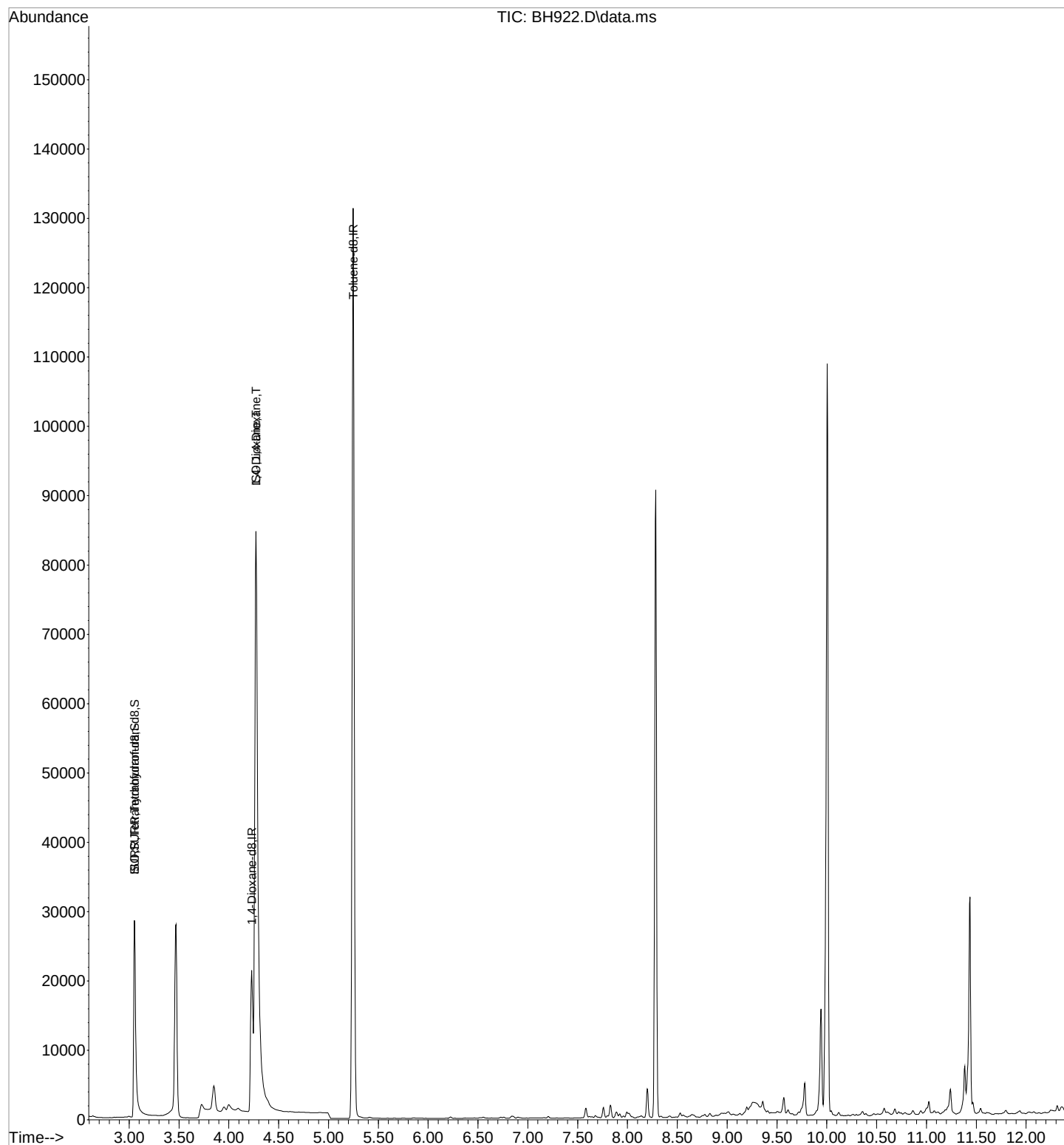
(#) = qualifier out of range (m) = manual integration (+) = signals summed

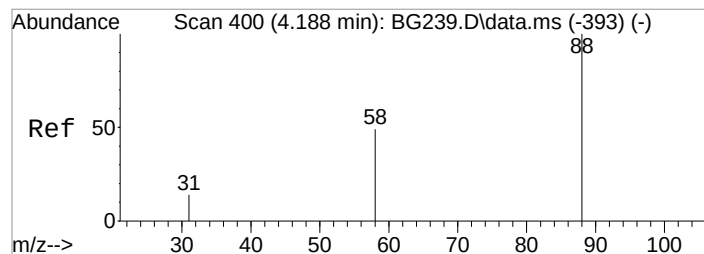


Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH922.D  
Acq On : 29 Jul 2022 1:10 pm  
Operator : MMCMAHON  
Sample : R2206604-006  
Misc :  
ALS Vial : 25 Sample Multiplier: 1

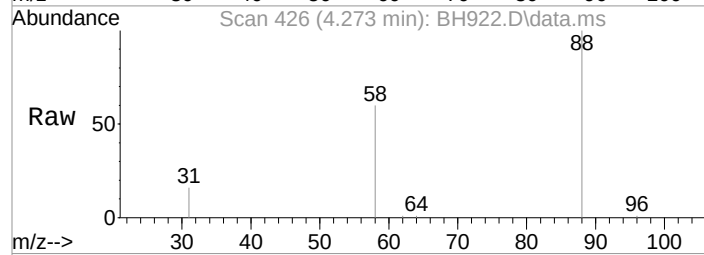
Inst : 5975 E

Quant Time: Jul 29 14:02:02 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

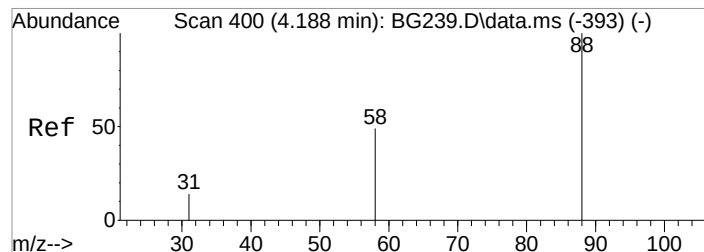
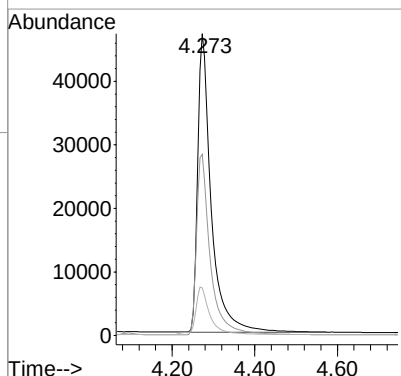
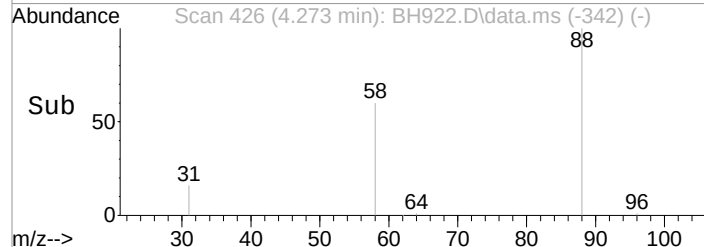




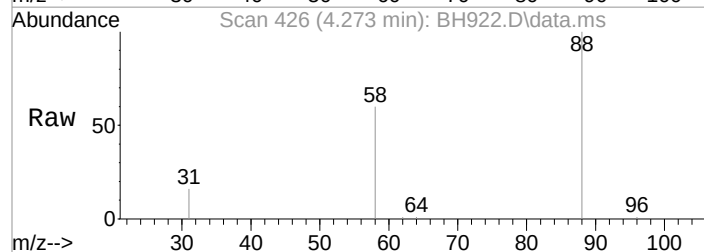
#2  
1,4-Dioxane  
Concen: 435.42 ppb  
RT: 4.273 min Scan# 426  
Delta R.T. -0.046 min  
Lab File: BH922.D  
Acq: 29 Jul 2022 1:10 pm



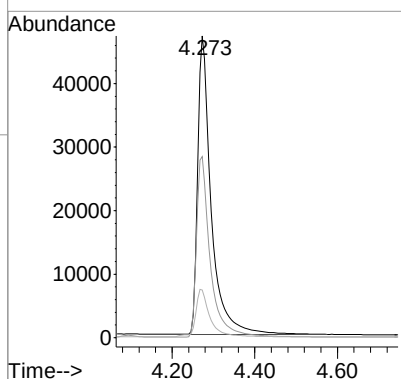
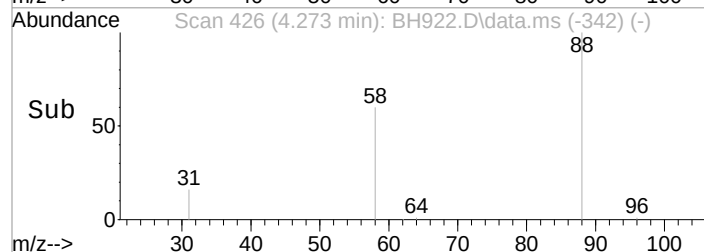
| Tgt Ion   | 88   | Resp  | 106521 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 58        | 60.5 | 29.4  | 69.4   |
| 31        | 15.3 | 0.0   | 35.0   |



#5  
ISO,1,4-Dioxane  
Concen: 488.15 ppb  
RT: 4.273 min Scan# 426  
Delta R.T. -0.046 min  
Lab File: BH922.D  
Acq: 29 Jul 2022 1:10 pm



| Tgt Ion   | 88   | Resp  | 106521 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 58        | 60.5 | 29.4  | 69.4   |
| 31        | 15.3 | 0.0   | 35.0   |



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH923.D  
Acq On : 29 Jul 2022 1:27 pm  
Operator : MMCMAHON  
Sample : R2206604-007  
Misc :  
ALS Vial : 26 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 14:02:11 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

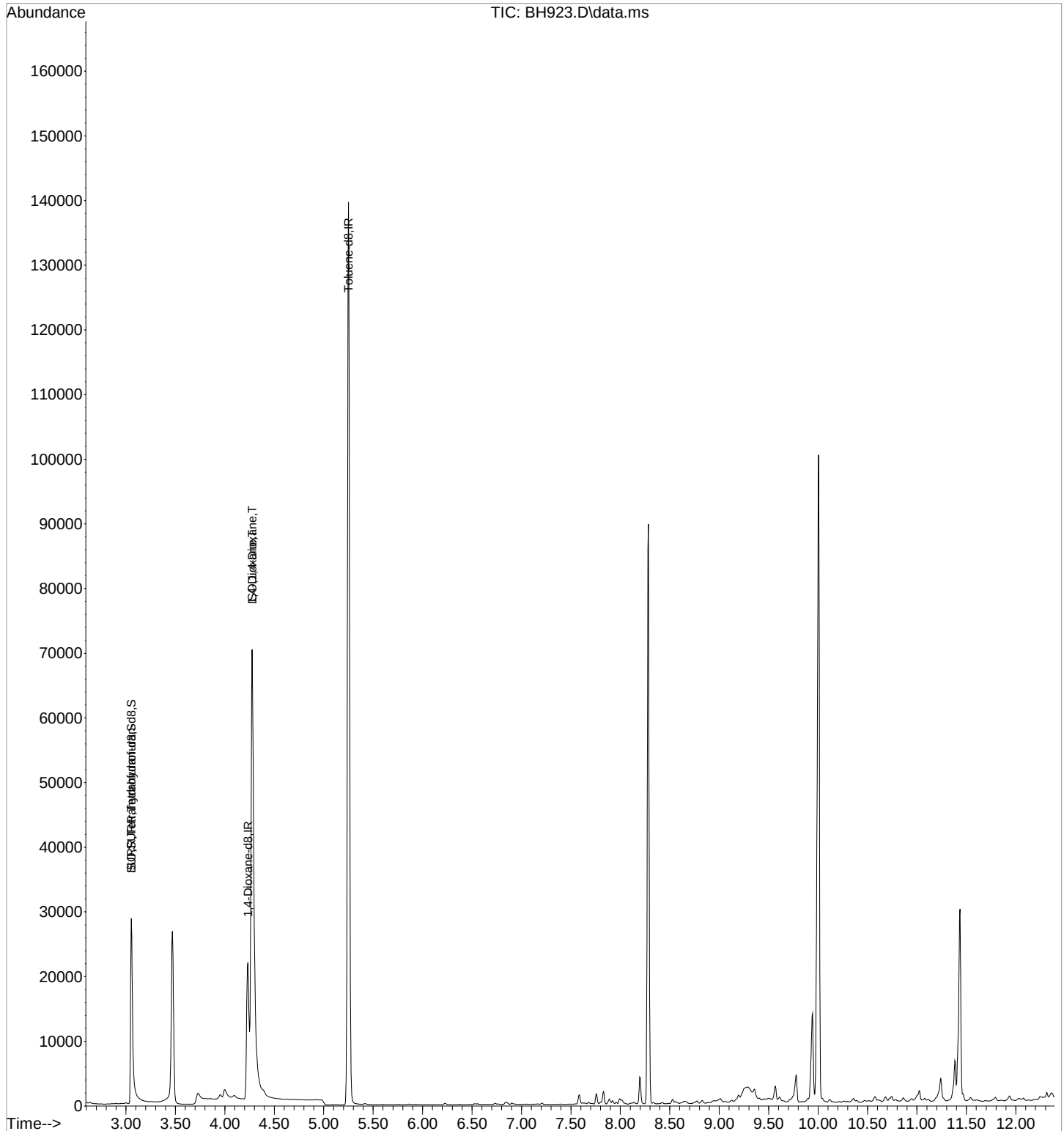
| Compound                       | R.T.    | QIon  | Response | Conc     | Units | Dev(Min)     |
|--------------------------------|---------|-------|----------|----------|-------|--------------|
| -----                          |         |       |          |          |       |              |
| Internal Standards             |         |       |          |          |       |              |
| 1) Toluene-d8                  | 5.250   | 98    | 118340   | 100.00   | ppb   | -0.03        |
| 4) 1,4-Dioxane-d8              | 4.233   | 96    | 21992    | 100.00   | ppb   | -0.04        |
| System Monitoring Compounds    |         |       |          |          |       |              |
| 3) SURR, Tetrahydrofuran-d8    | 3.055   | 46    | 16713    | 85.02    | ppb   | -0.04        |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 85.02%       |
| 6) ISO, SURR, Tetrahydrofur... | 3.055   | 46    | 16713    | 98.80    | ppb   | -0.04        |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 98.80%       |
| Target Compounds               |         |       |          |          |       |              |
| 2) 1,4-Dioxane                 | 4.276   | 88    | 84662    | 323.70   | ppb   | Qvalue<br>87 |
| 5) ISO, 1,4-Dioxane            | 4.276   | 88    | 84662    | 375.03   | ppb   | 87           |
| -----                          |         |       |          |          |       |              |

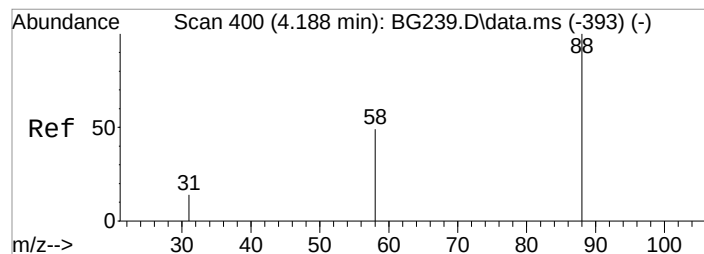
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH923.D  
Acq On : 29 Jul 2022 1:27 pm  
Operator : MMCMAHON  
Sample : R2206604-007  
Misc :  
ALS Vial : 26 Sample Multiplier: 1

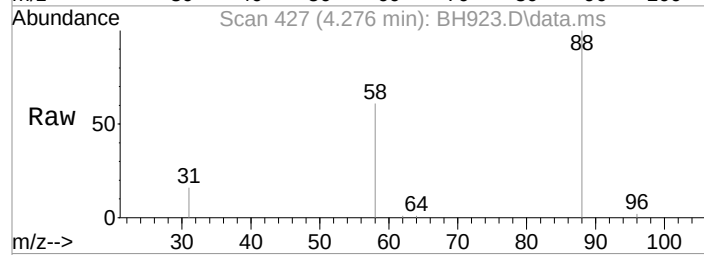
Inst : 5975 E

Quant Time: Jul 29 14:02:11 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

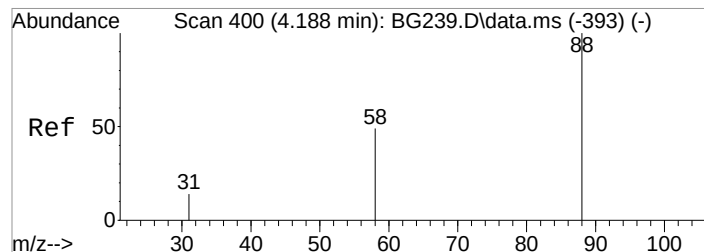
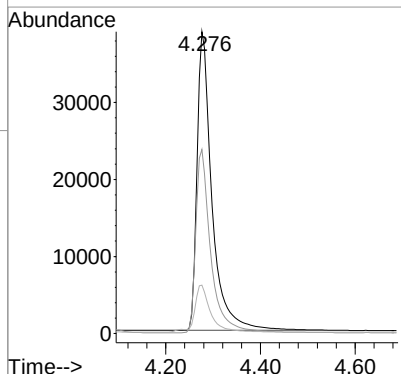
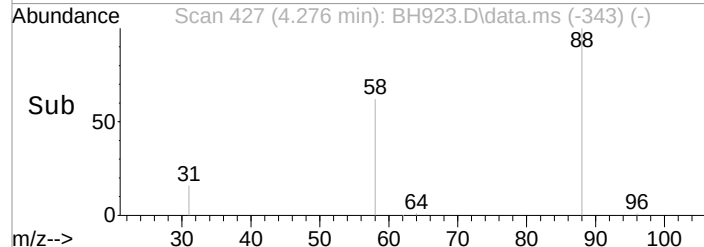




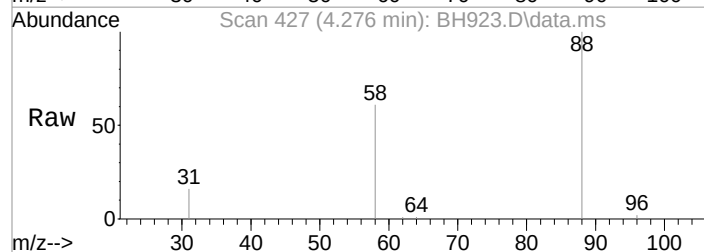
#2  
1,4-Dioxane  
Concen: 323.70 ppb  
RT: 4.276 min Scan# 427  
Delta R.T. -0.043 min  
Lab File: BH923.D  
Acq: 29 Jul 2022 1:27 pm



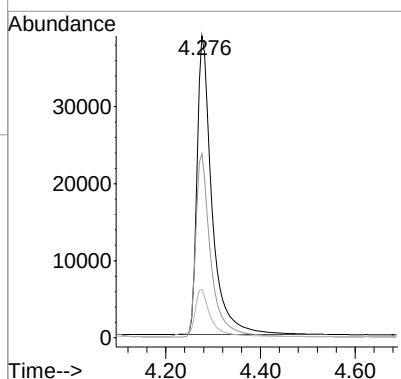
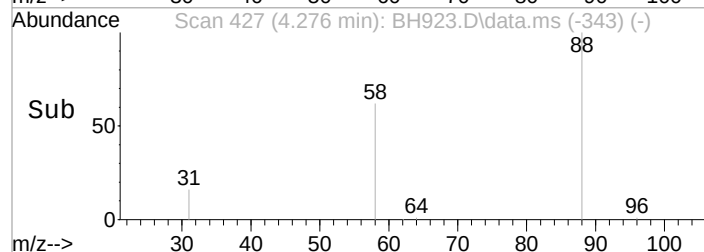
| Tgt Ion   | 88    | Resp  | 84662 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 61.3  | 29.4  | 69.4  |
| 31        | 15.3  | 0.0   | 35.0  |



#5  
ISO,1,4-Dioxane  
Concen: 375.03 ppb  
RT: 4.276 min Scan# 427  
Delta R.T. -0.043 min  
Lab File: BH923.D  
Acq: 29 Jul 2022 1:27 pm



| Tgt Ion   | 88    | Resp  | 84662 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 61.3  | 29.4  | 69.4  |
| 31        | 15.3  | 0.0   | 35.0  |



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH924.D  
Acq On : 29 Jul 2022 1:44 pm  
Operator : MMCMAHON  
Sample : R2206604-008  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 14:02:21 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

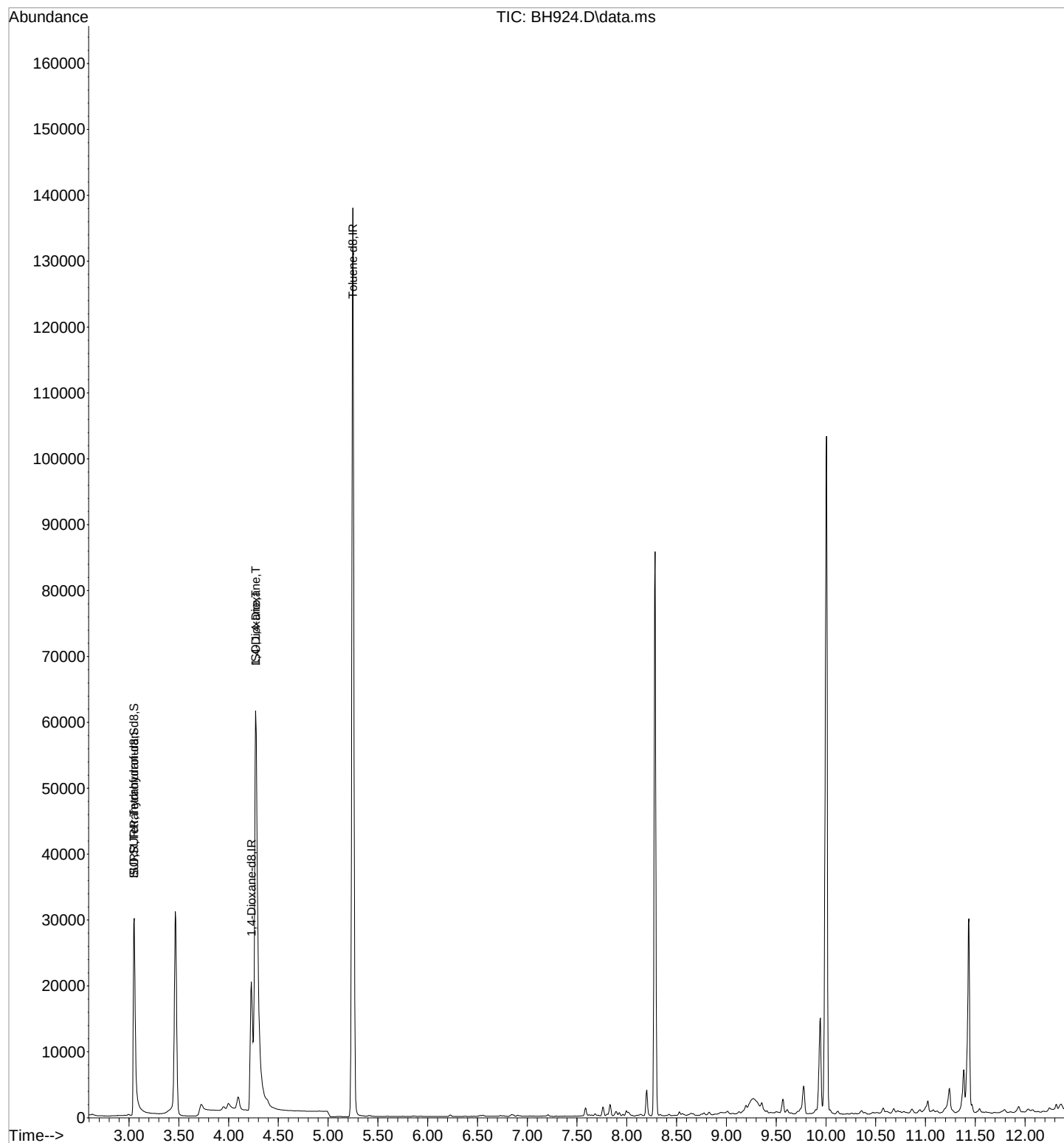
| Compound                       | R.T.    | QIon           | Response | Conc   | Units   | Dev(Min) |
|--------------------------------|---------|----------------|----------|--------|---------|----------|
| -----                          |         |                |          |        |         |          |
| Internal Standards             |         |                |          |        |         |          |
| 1) Toluene-d8                  | 5.247   | 98             | 116362   | 100.00 | ppb     | -0.03    |
| 4) 1,4-Dioxane-d8              | 4.229   | 96             | 21301    | 100.00 | ppb     | -0.05    |
| System Monitoring Compounds    |         |                |          |        |         |          |
| 3) SURR, Tetrahydrofuran-d8    | 3.048   | 46             | 17486    | 90.44  | ppb     | -0.05    |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 90.44%  |          |
| 6) ISO, SURR, Tetrahydrofur... | 3.048   | 46             | 17486    | 106.69 | ppb     | -0.05    |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 106.69% |          |
| Target Compounds               |         |                |          |        |         | Qvalue   |
| 2) 1,4-Dioxane                 | 4.272   | 88             | 78528    | 305.25 | ppb     | 85       |
| 5) ISO, 1,4-Dioxane            | 4.272   | 88             | 78528    | 359.13 | ppb     | 85       |
| -----                          |         |                |          |        |         |          |

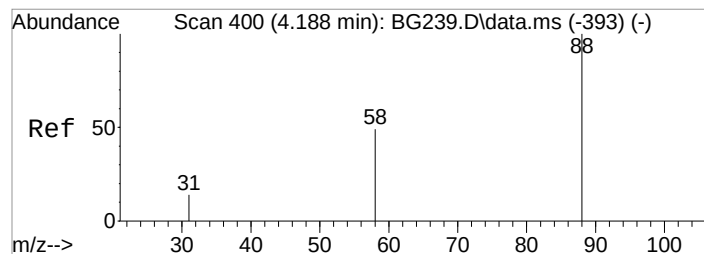
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH924.D  
Acq On : 29 Jul 2022 1:44 pm  
Operator : MMCMAHON  
Sample : R2206604-008  
Misc :  
ALS Vial : 27 Sample Multiplier: 1

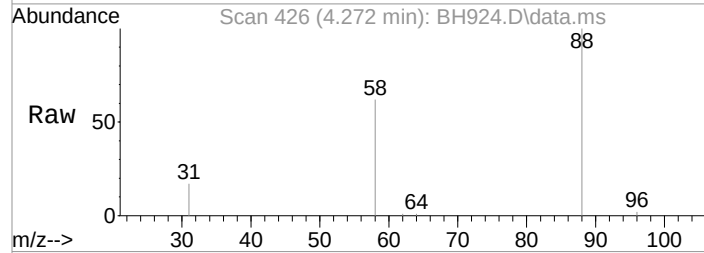
Inst : 5975 E

Quant Time: Jul 29 14:02:21 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

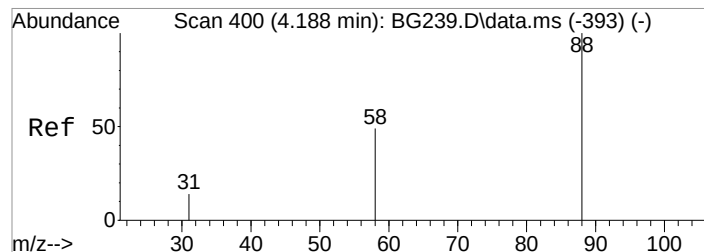
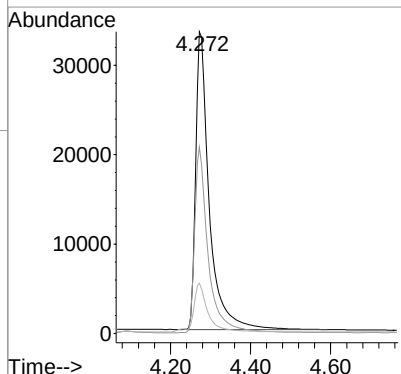
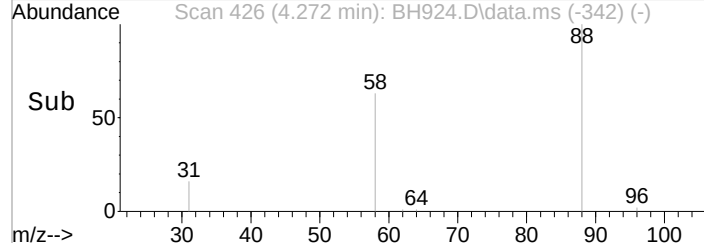




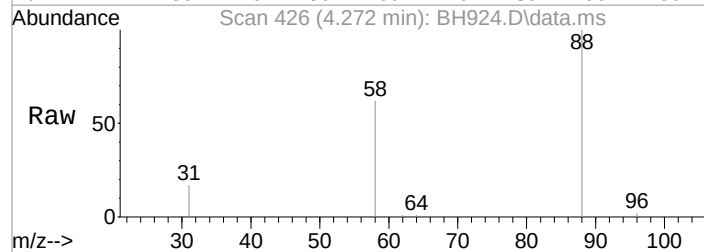
#2  
1,4-Dioxane  
Concen: 305.25 ppb  
RT: 4.272 min Scan# 426  
Delta R.T. -0.047 min  
Lab File: BH924.D  
Acq: 29 Jul 2022 1:44 pm



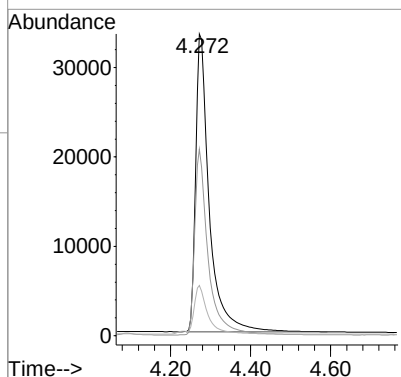
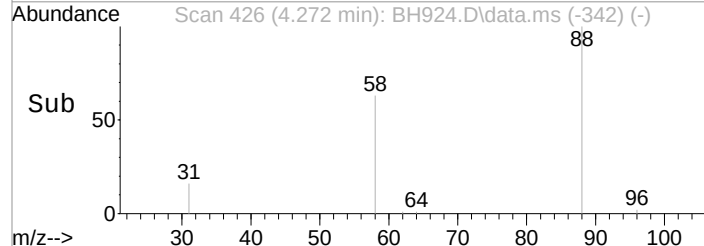
| Tgt Ion   | 88    | Resp  | 78528 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 62.3  | 29.4  | 69.4  |
| 31        | 15.9  | 0.0   | 35.0  |



#5  
ISO,1,4-Dioxane  
Concen: 359.13 ppb  
RT: 4.272 min Scan# 426  
Delta R.T. -0.047 min  
Lab File: BH924.D  
Acq: 29 Jul 2022 1:44 pm



| Tgt Ion   | 88    | Resp  | 78528 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 62.3  | 29.4  | 69.4  |
| 31        | 15.9  | 0.0   | 35.0  |





Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH927.D  
Acq On : 29 Jul 2022 2:36 pm  
Operator : MMCMAHON  
Sample : R2206604-009  
Misc :  
ALS Vial : 30 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 15:18:05 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

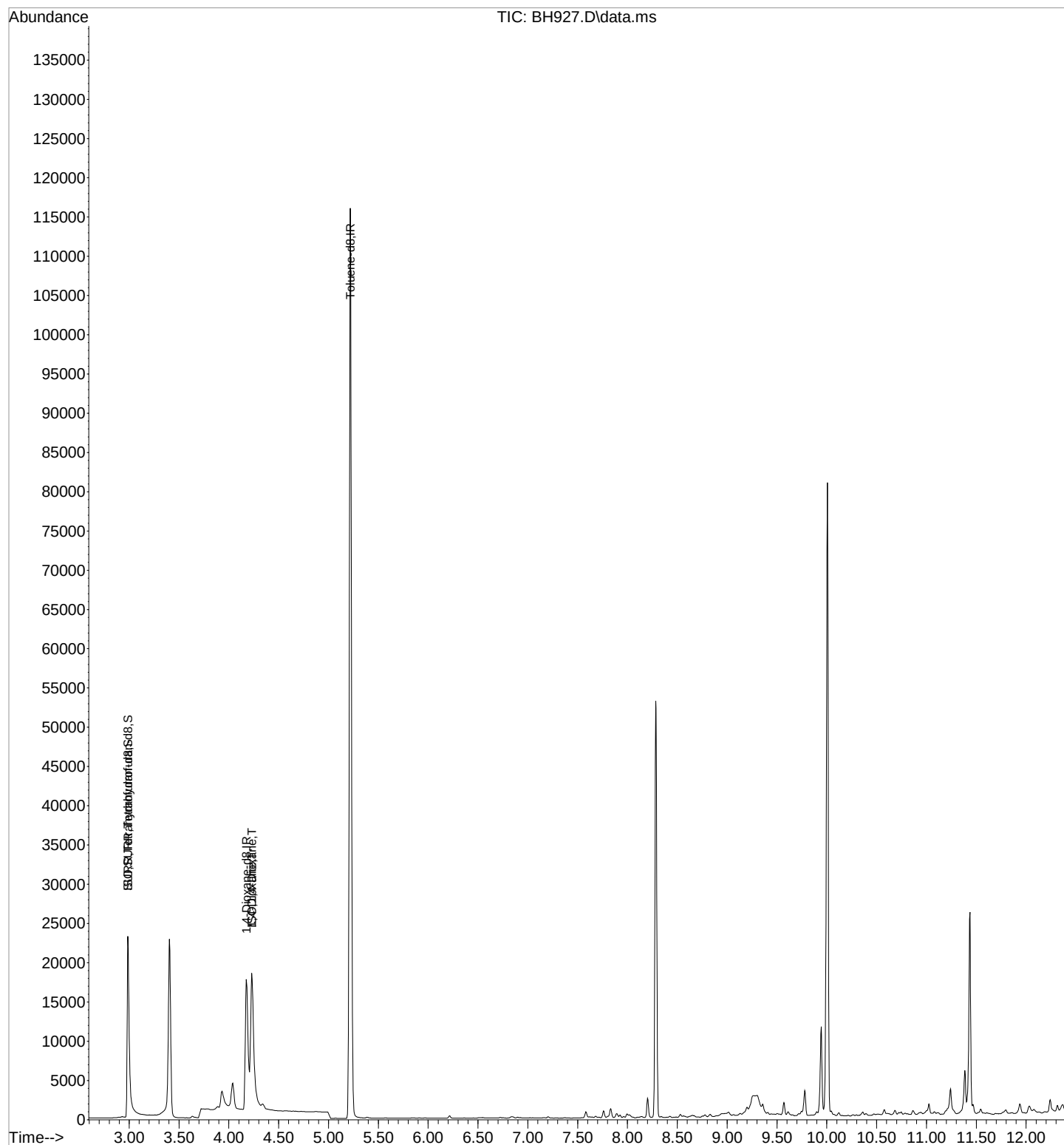
| Compound                       | R.T.           | QIon | Response | Conc   | Units  | Dev(Min)  |
|--------------------------------|----------------|------|----------|--------|--------|-----------|
| Internal Standards             |                |      |          |        |        |           |
| 1) Toluene-d8                  | 5.220          | 98   | 99353    | 100.00 | ppb    | -0.06     |
| 4) 1,4-Dioxane-d8              | 4.175          | 96   | 18736    | 100.00 | ppb    | -0.10     |
| System Monitoring Compounds    |                |      |          |        |        |           |
| 3) SURR, Tetrahydrofuran-d8    | 2.987          | 46   | 13277    | 80.47  | ppb    | -0.11     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 80.47% |           |
| 6) ISO, SURR, Tetrahydrofur... | 2.987          | 46   | 13277    | 92.17  | ppb    | -0.11     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 92.17% |           |
| Target Compounds               |                |      |          |        |        |           |
| 2) 1,4-Dioxane                 | 4.229          | 88   | 21890    | 99.33  | ppb    | Qvalue 85 |
| 5) ISO, 1,4-Dioxane            | 4.229          | 88   | 21890    | 113.75 | ppb    | 85        |

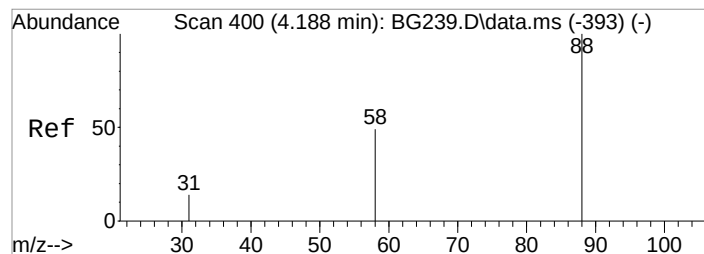
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH927.D  
Acq On : 29 Jul 2022 2:36 pm  
Operator : MMCMAHON  
Sample : R2206604-009  
Misc :  
ALS Vial : 30 Sample Multiplier: 1

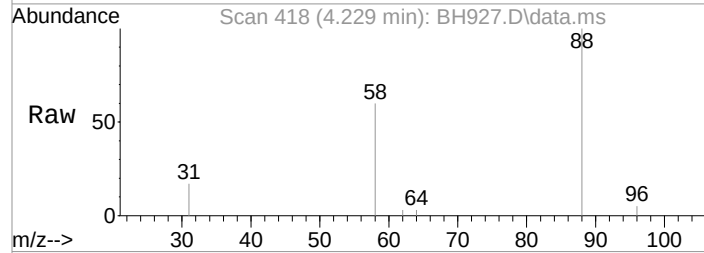
Inst : 5975 E

Quant Time: Jul 29 15:18:05 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

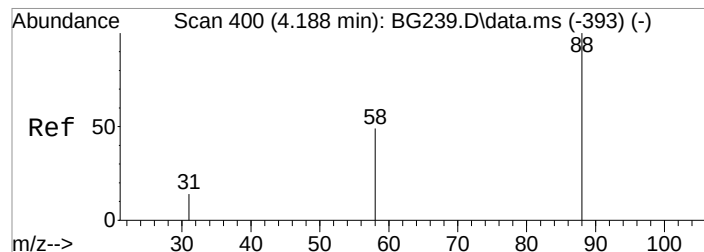
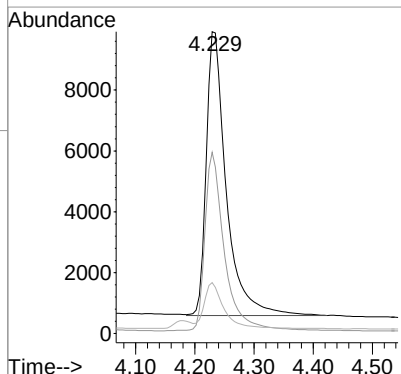
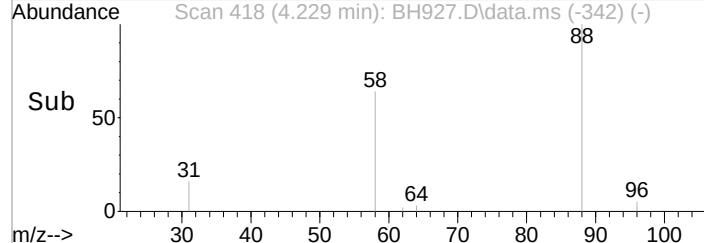




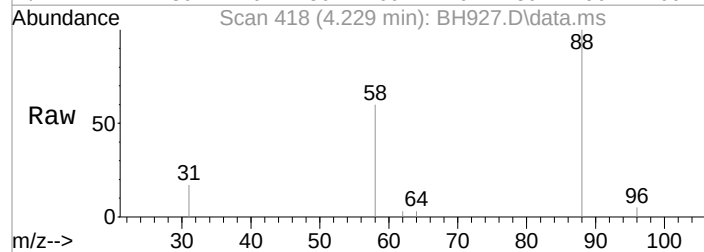
#2  
1,4-Dioxane  
Concen: 99.33 ppb  
RT: 4.229 min Scan# 418  
Delta R.T. -0.090 min  
Lab File: BH927.D  
Acq: 29 Jul 2022 2:36 pm



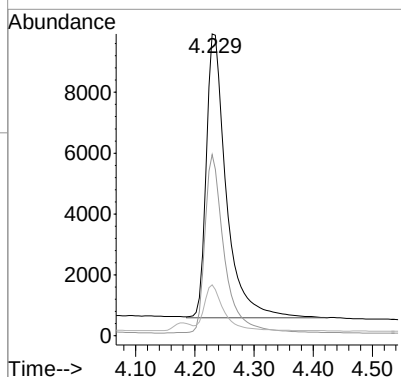
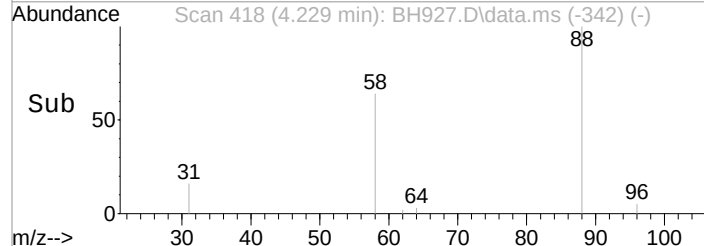
Tgt Ion: 88 Resp: 21890  
Ion Ratio Lower Upper  
88 100  
58 62.8 29.4 69.4  
31 14.9 0.0 35.0



#5  
ISO,1,4-Dioxane  
Concen: 113.75 ppb  
RT: 4.229 min Scan# 418  
Delta R.T. -0.090 min  
Lab File: BH927.D  
Acq: 29 Jul 2022 2:36 pm



Tgt Ion: 88 Resp: 21890  
Ion Ratio Lower Upper  
88 100  
58 62.8 29.4 69.4  
31 14.9 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH928.D  
Acq On : 29 Jul 2022 2:54 pm  
Operator : MMCMAHON  
Sample : R2206604-010  
Misc :  
ALS Vial : 31 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 15:18:16 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

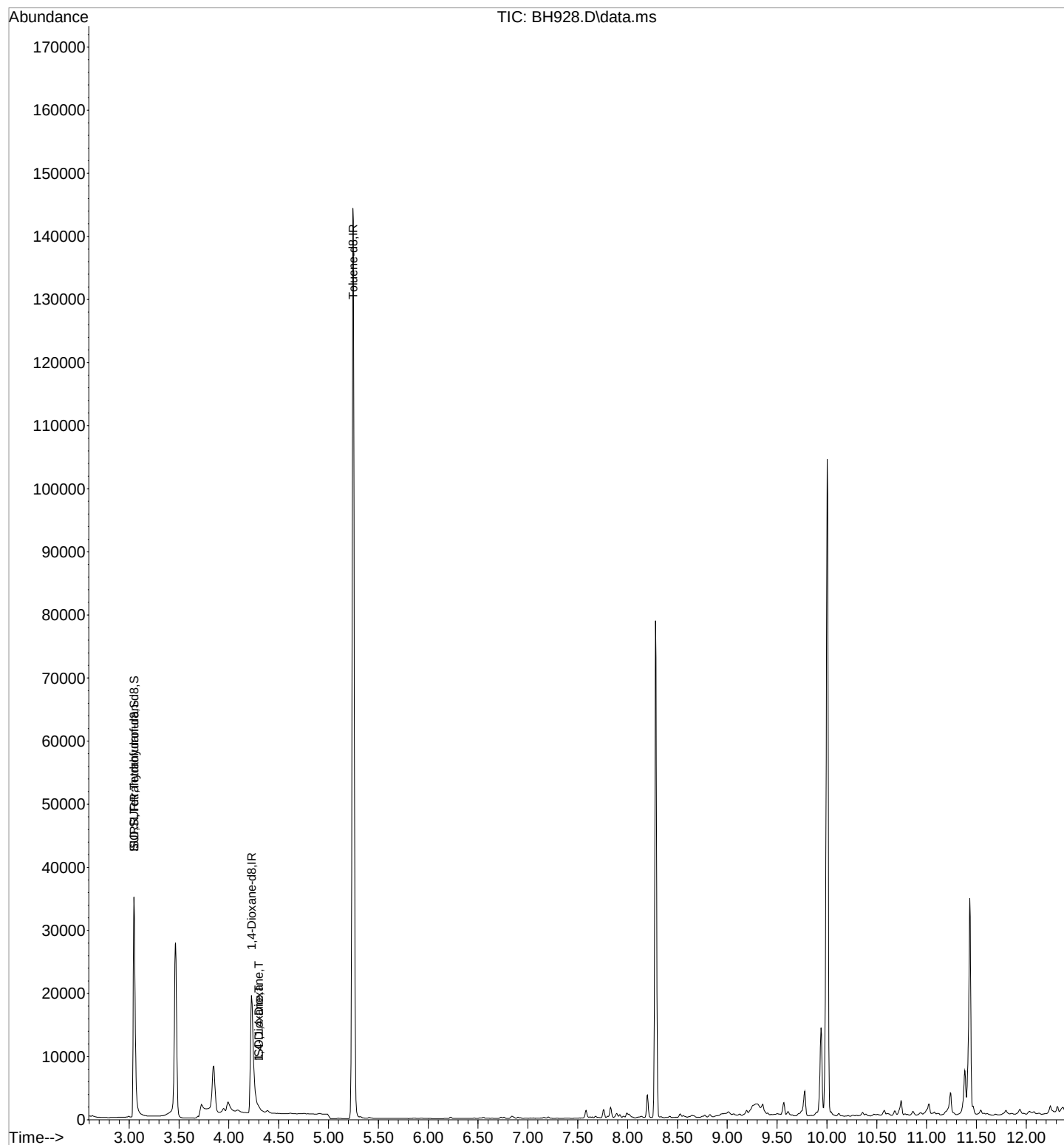
| Compound                       | R.T.    | QIon           | Response | Conc   | Units   | Dev(Min) |
|--------------------------------|---------|----------------|----------|--------|---------|----------|
| -----                          |         |                |          |        |         |          |
| Internal Standards             |         |                |          |        |         |          |
| 1) Toluene-d8                  | 5.245   | 98             | 123202   | 100.00 | ppb     | -0.03    |
| 4) 1,4-Dioxane-d8              | 4.227   | 96             | 22220    | 100.00 | ppb     | -0.05    |
| System Monitoring Compounds    |         |                |          |        |         |          |
| 3) SURR, Tetrahydrofuran-d8    | 3.049   | 46             | 17932    | 87.61  | ppb     | -0.05    |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 87.61%  |          |
| 6) ISO, SURR, Tetrahydrofur... | 3.049   | 46             | 17932    | 104.89 | ppb     | -0.05    |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 104.89% |          |
| Target Compounds               |         |                |          |        |         | Qvalue   |
| 2) 1,4-Dioxane                 | 4.298   | 88             | 440      | 1.71   | ppb     | 77       |
| 5) ISO, 1,4-Dioxane            | 4.298   | 88             | 440      | 1.91   | ppb     | 77       |
| -----                          |         |                |          |        |         |          |

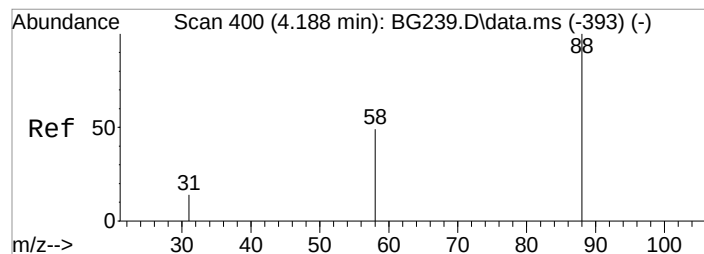
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH928.D  
Acq On : 29 Jul 2022 2:54 pm  
Operator : MMCMAHON  
Sample : R2206604-010  
Misc :  
ALS Vial : 31 Sample Multiplier: 1

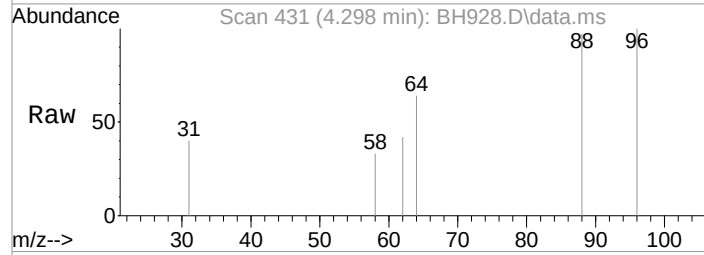
Inst : 5975 E

Quant Time: Jul 29 15:18:16 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

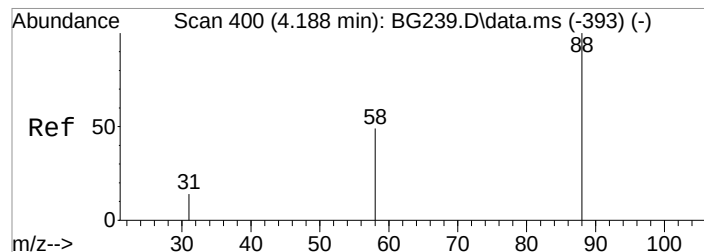
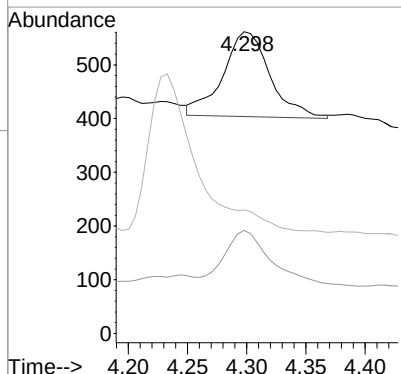
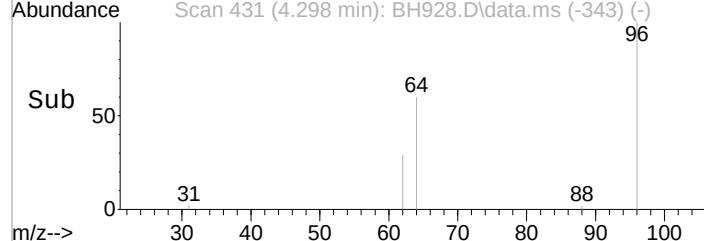




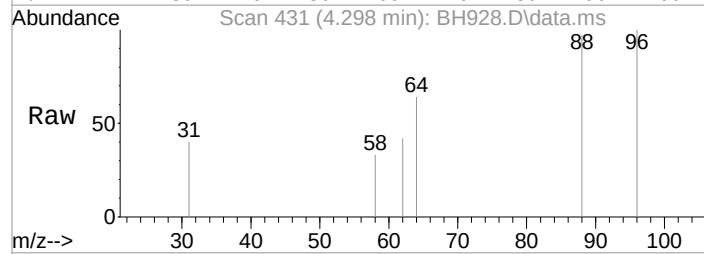
#2  
1,4-Dioxane  
Concen: 1.71 ppb  
RT: 4.298 min Scan# 431  
Delta R.T. -0.021 min  
Lab File: BH928.D  
Acq: 29 Jul 2022 2:54 pm



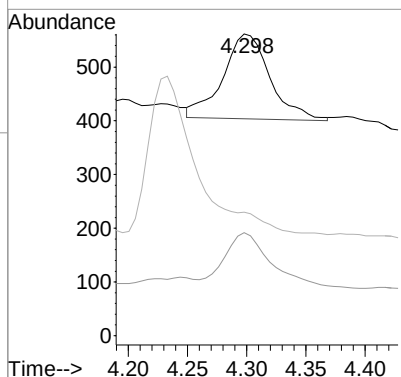
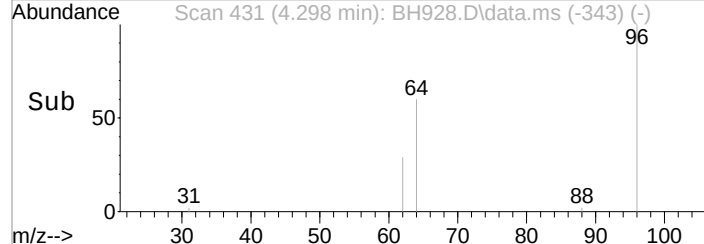
Tgt Ion: 88 Resp: 440  
Ion Ratio Lower Upper  
88 100  
58 62.5 29.4 69.4  
31 0.0 0.0 35.0



#5  
ISO,1,4-Dioxane  
Concen: 1.91 ppb  
RT: 4.298 min Scan# 431  
Delta R.T. -0.021 min  
Lab File: BH928.D  
Acq: 29 Jul 2022 2:54 pm



Tgt Ion: 88 Resp: 440  
Ion Ratio Lower Upper  
88 100  
58 62.5 29.4 69.4  
31 0.0 0.0 35.0



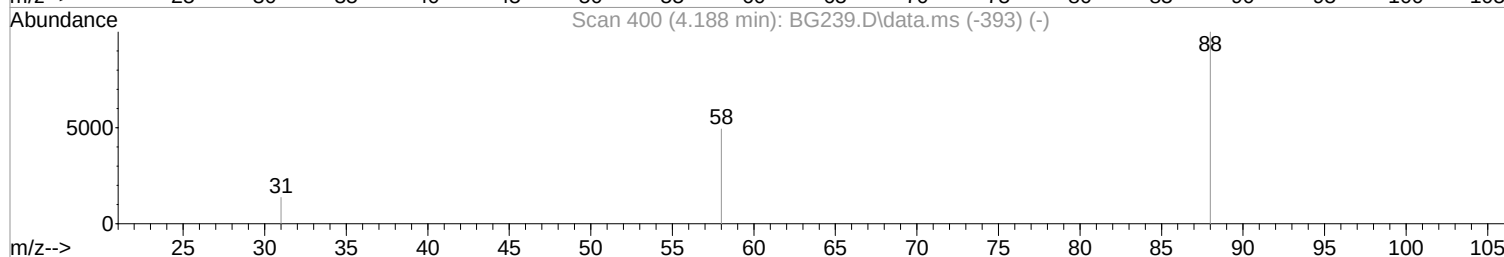
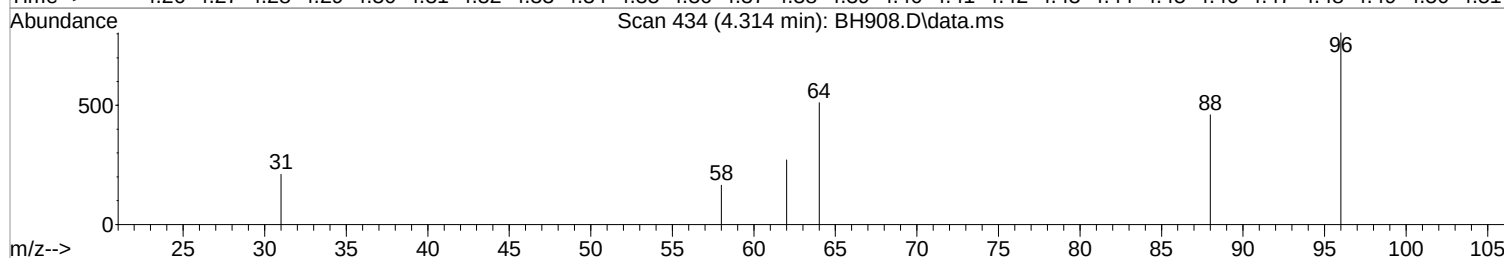
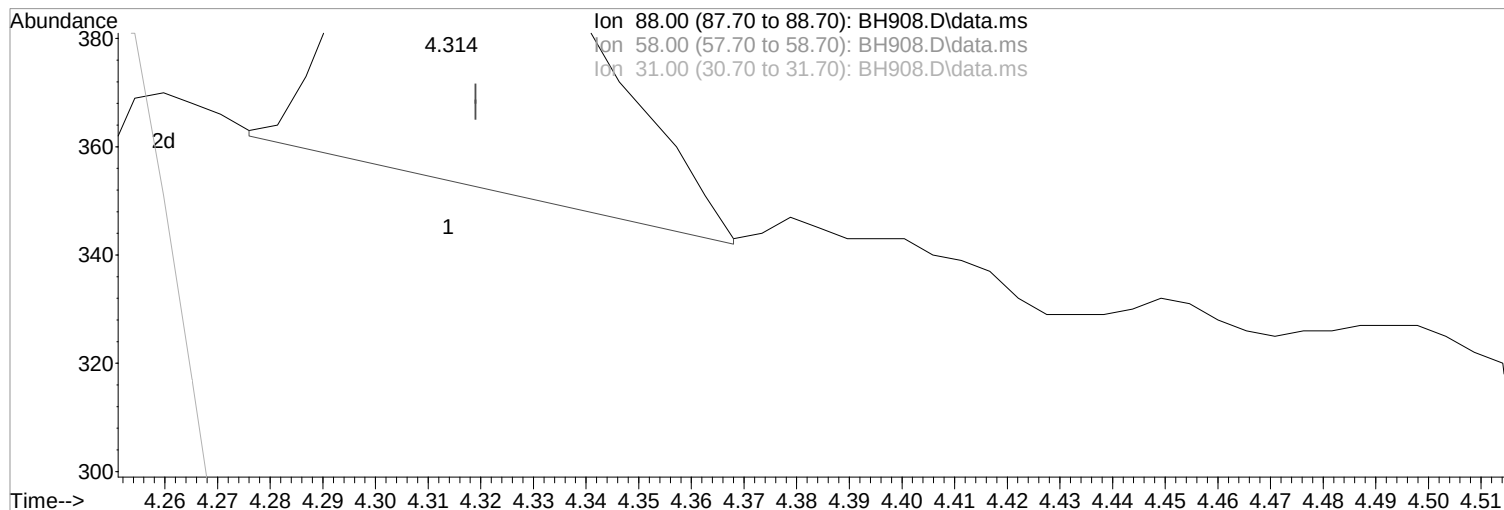
# Quantitation Report (Qedit)

1st MEM 08/02/22  
2nd *ml* 08/03/22

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH908.D  
Acq On : 29 Jul 2022 8:53 am  
Operator : MMCMAHON  
Sample : RQ2208649-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 09:05:39 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration



TIC: BH908.D\data.ms

## (2) 1,4-Dioxane (T)

4.314min (-0.005) 1.04 ppb m

response 246

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 49.40  | 35.87  |
| 31.00 | 15.00  | 45.87# |
| 0.00  | 0.00   | 0.00   |

Manual Integration:

After

Poor integration.

07/29/22

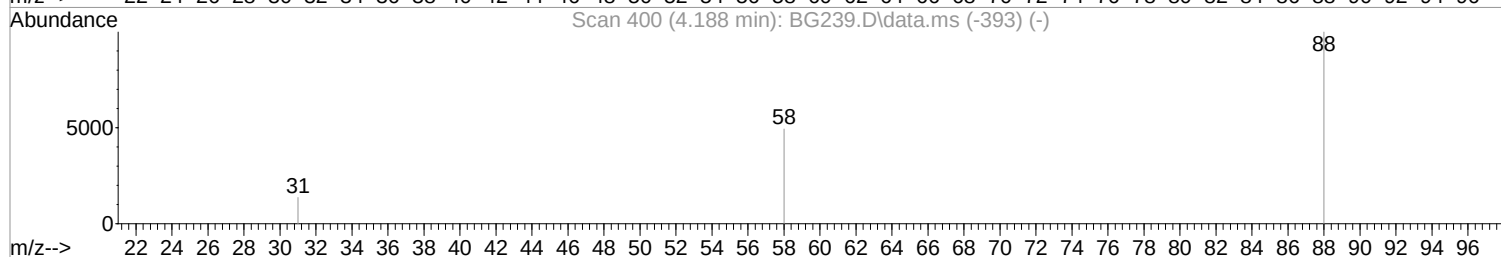
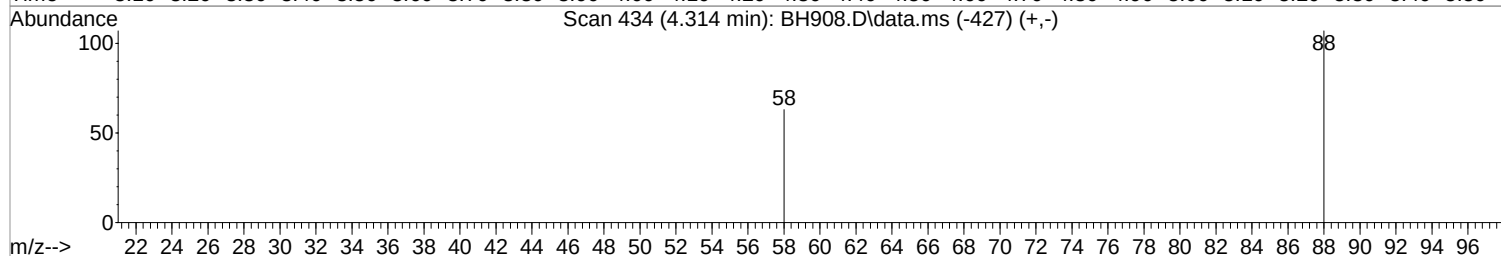
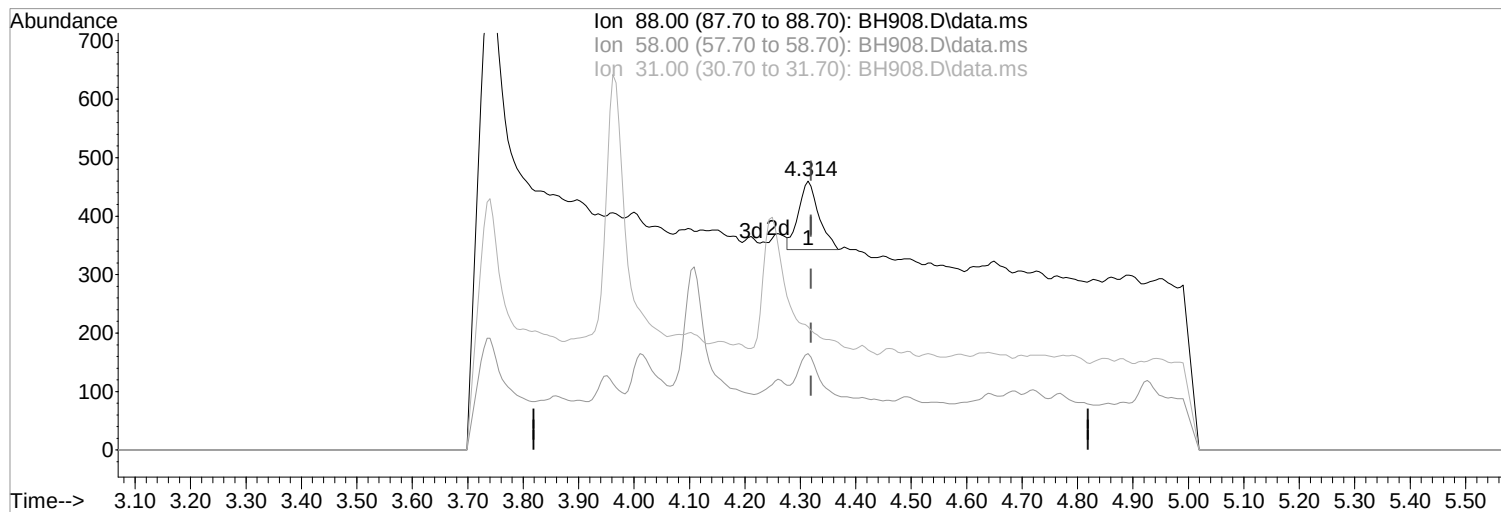
## Quantitation Report (Qedit)

1st MEM 08/02/22  
2nd *ref* 08/03/22

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH908.D  
Acq On : 29 Jul 2022 8:53 am  
Operator : MMCMAHON  
Sample : RQ2208649-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 09:05:39 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration



TIC: BH908.D\data.ms

## (2) 1,4-Dioxane (T)

4.314min (-0.005) 1.24 ppb

response 296

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 49.40  | 58.88  |
| 31.00 | 15.00  | 0.00   |
| 0.00  | 0.00   | 0.00   |

Manual Integration:

Before

07/29/22



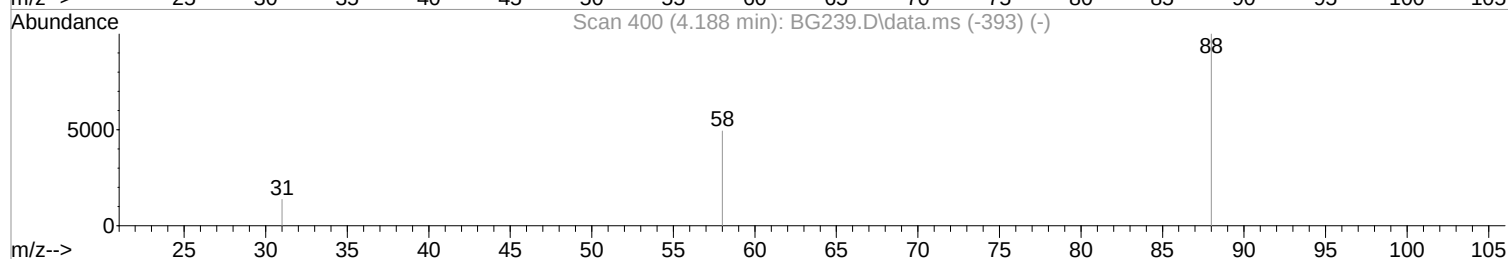
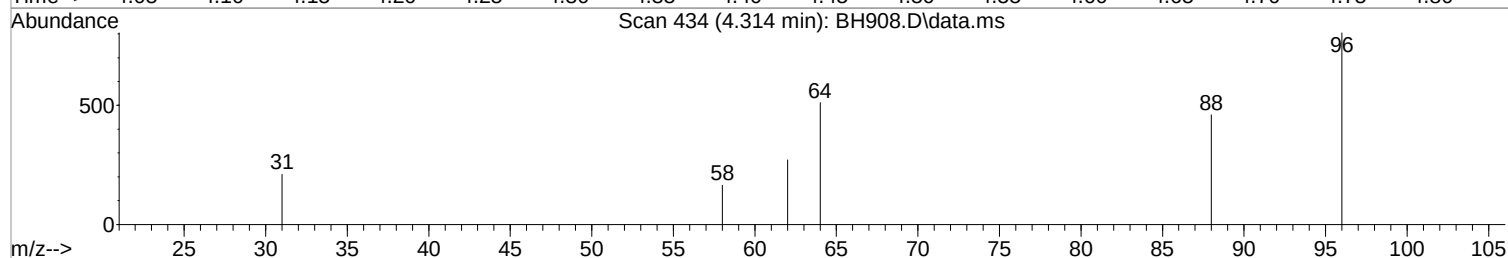
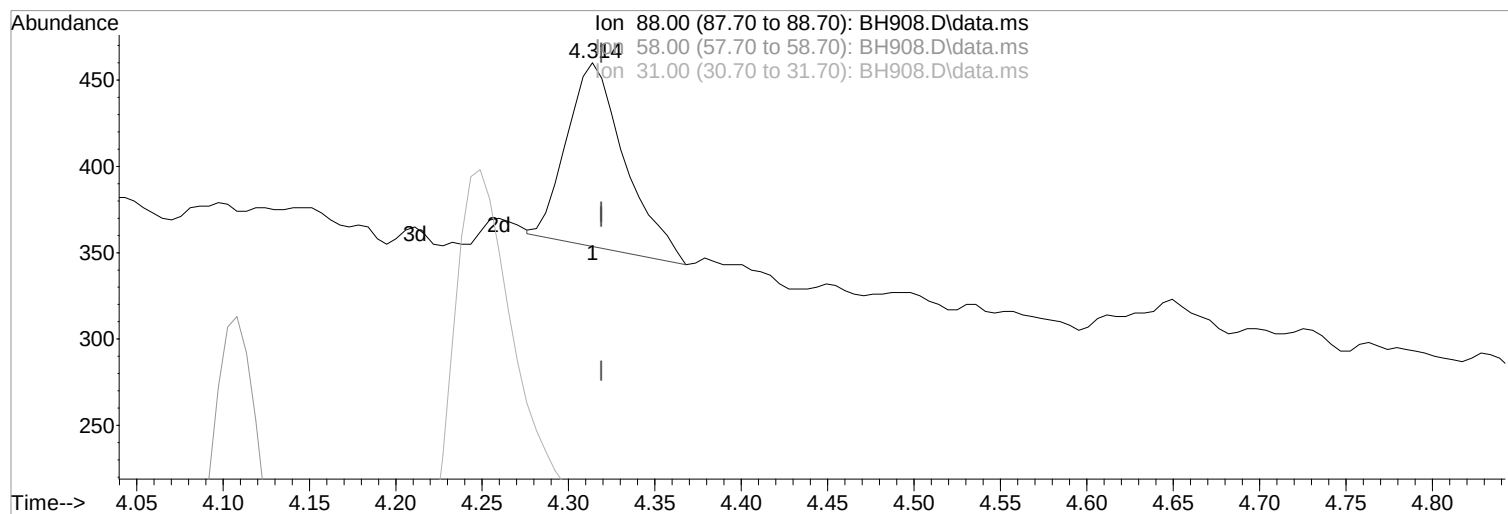
## Quantitation Report (Qedit)

1st MEM 08/02/22  
2nd *ml* 08/03/22

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH908.D  
Acq On : 29 Jul 2022 8:53 am  
Operator : MMCMAHON  
Sample : RQ2208649-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 09:05:39 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration



TIC: BH908.D\data.ms

## (5) ISO,1,4-Dioxane (T)

4.314min (-0.005) 1.23 ppb m

response 246

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 49.40  | 35.87  |
| 31.00 | 15.00  | 45.87# |
| 0.00  | 0.00   | 0.00   |

Manual Integration:

After

Poor integration.

07/29/22

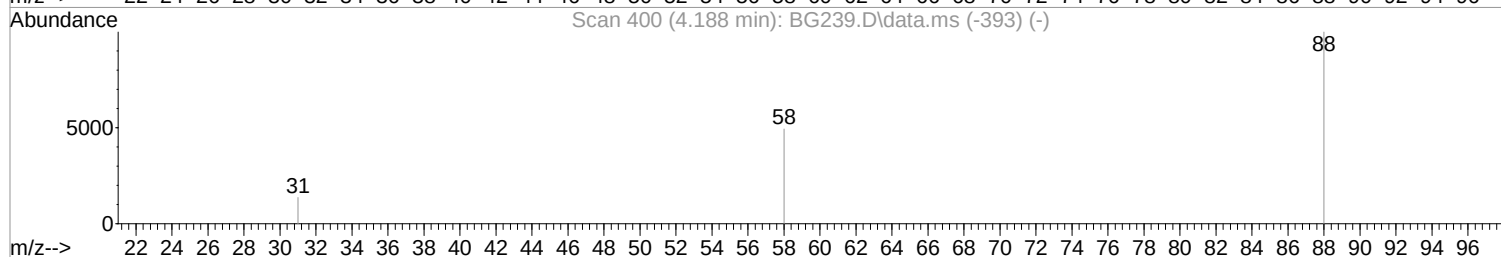
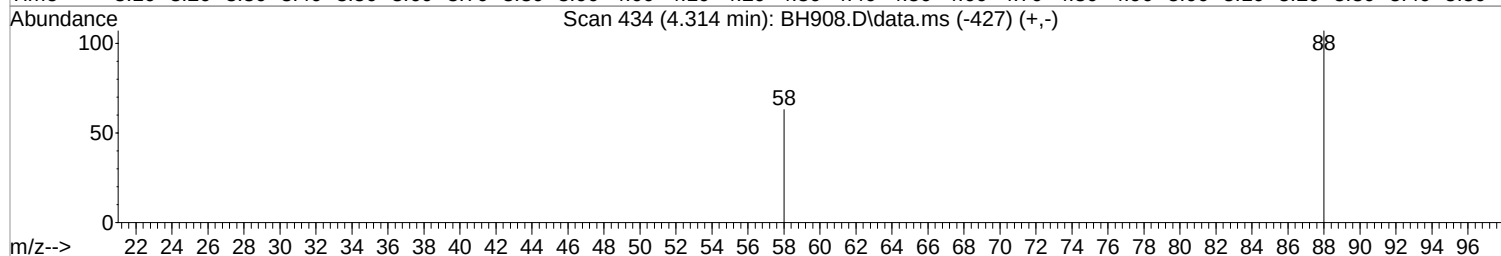
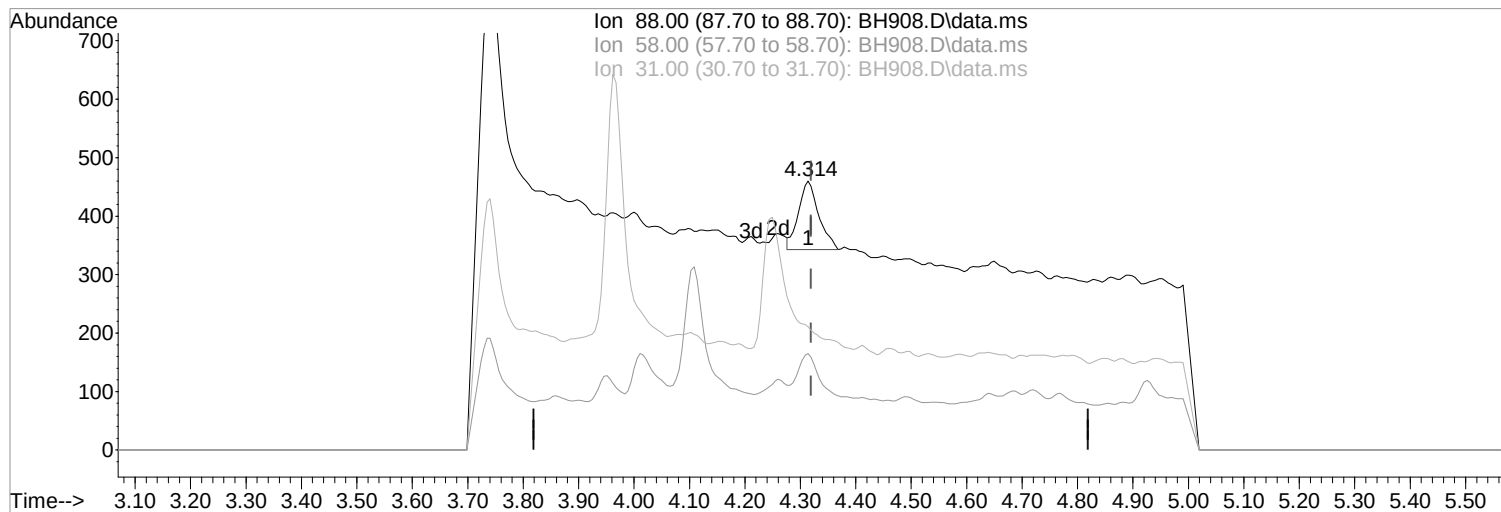
## Quantitation Report (Qedit)

1st MEM 08/02/22  
2nd *ref* 08/03/22

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH908.D  
Acq On : 29 Jul 2022 8:53 am  
Operator : MMCMAHON  
Sample : RQ2208649-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 09:05:39 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration



TIC: BH908.D\data.ms

## (5) ISO,1,4-Dioxane (T)

4.314min (-0.005) 1.49 ppb

response 296

Manual Integration:

Before

07/29/22

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 49.40  | 58.88  |
| 31.00 | 15.00  | 0.00   |
| 0.00  | 0.00   | 0.00   |

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH908.D  
Acq On : 29 Jul 2022 8:53 am  
Operator : MMCMAHON  
Sample : RQ2208649-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 09:06:26 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

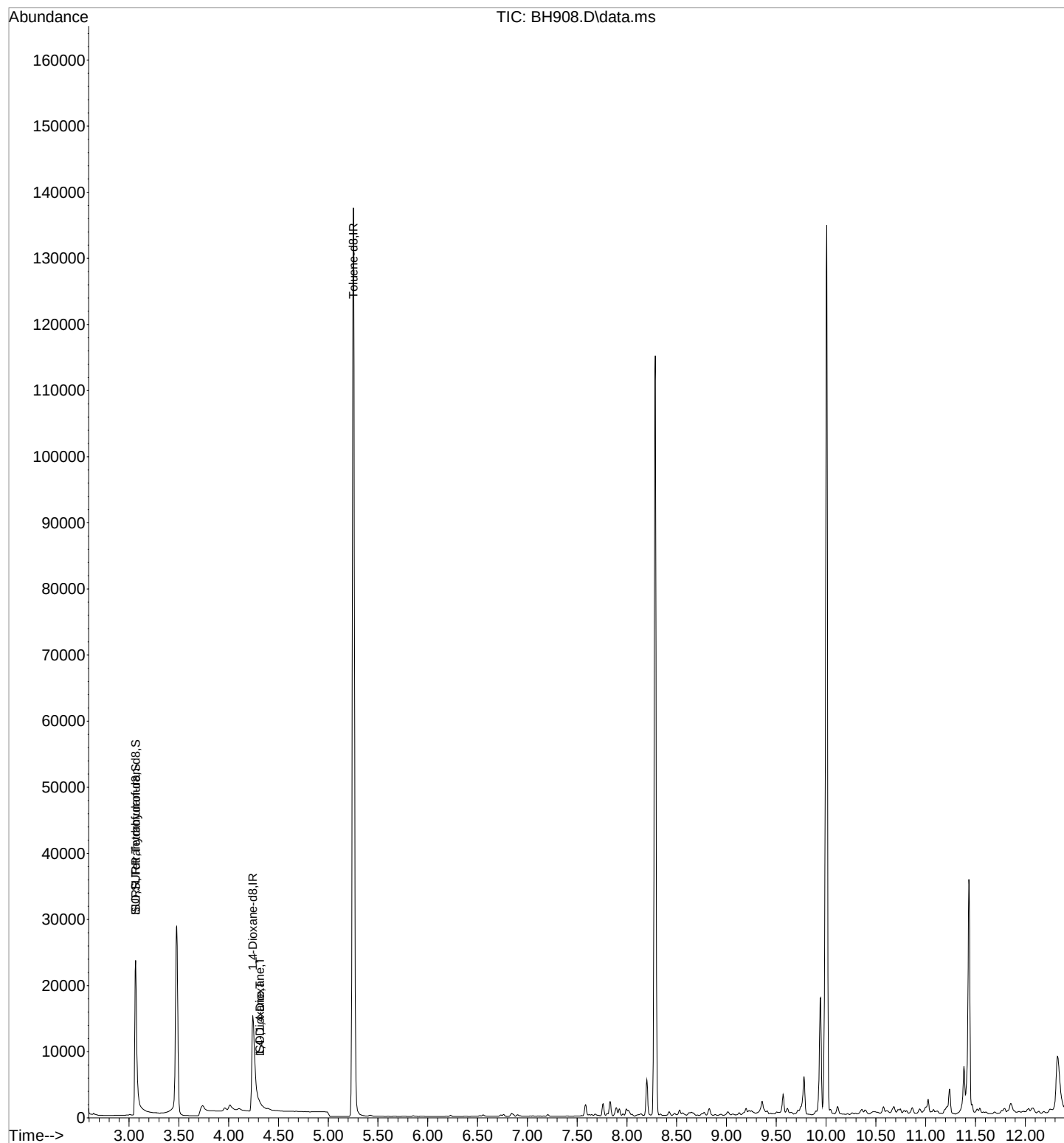
| Compound                       | R.T.    | QIon  | Response | Conc     | Units | Dev(Min) |
|--------------------------------|---------|-------|----------|----------|-------|----------|
| -----                          |         |       |          |          |       |          |
| Internal Standards             |         |       |          |          |       |          |
| 1) Toluene-d8                  | 5.252   | 98    | 117426   | 100.00   | ppb   | -0.02    |
| 4) 1,4-Dioxane-d8              | 4.243   | 96    | 19193    | 100.00   | ppb   | -0.03    |
| System Monitoring Compounds    |         |       |          |          |       |          |
| 3) SURR, Tetrahydrofuran-d8    | 3.065   | 46    | 14336    | 73.56    | ppb   | -0.03    |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 73.56%   |
| 6) ISO, SURR, Tetrahydrofur... | 3.065   | 46    | 14336    | 97.12    | ppb   | -0.03    |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 97.12%   |
| Target Compounds               |         |       |          |          |       |          |
| 2) 1,4-Dioxane                 | 4.314   | 88    | 246m     | 1.04     | ppb   | Qvalue   |
| 5) ISO, 1,4-Dioxane            | 4.314   | 88    | 246m     | 1.23     | ppb   |          |
| -----                          |         |       |          |          |       |          |

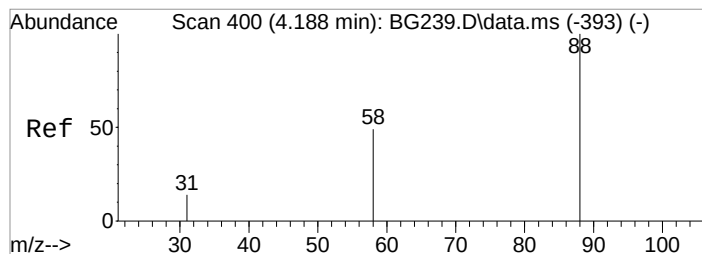
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH908.D  
Acq On : 29 Jul 2022 8:53 am  
Operator : MMCMAHON  
Sample : RQ2208649-01  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

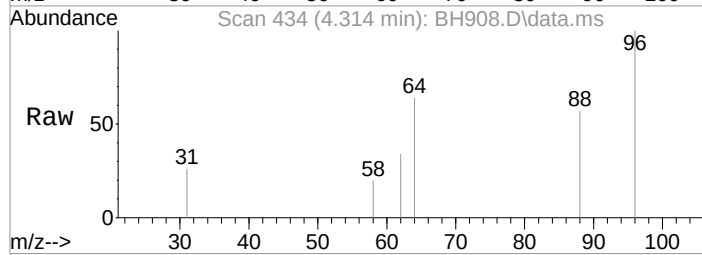
Inst : 5975 E

Quant Time: Jul 29 09:06:26 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

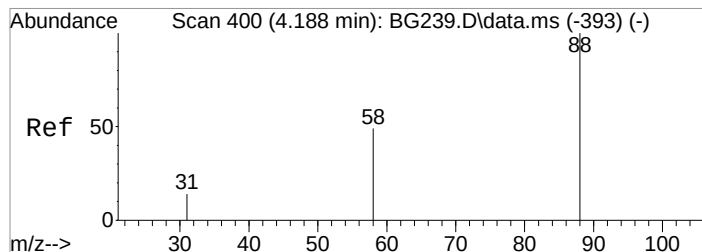
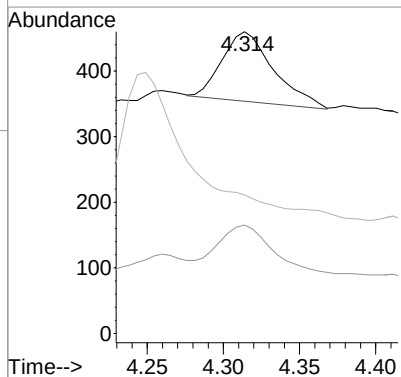
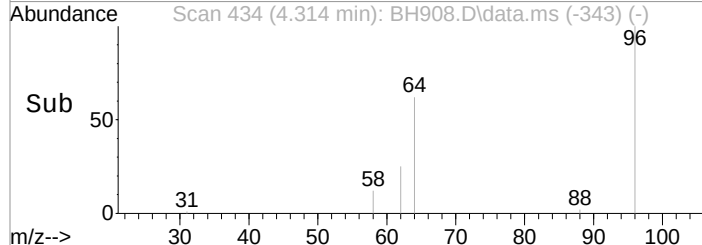




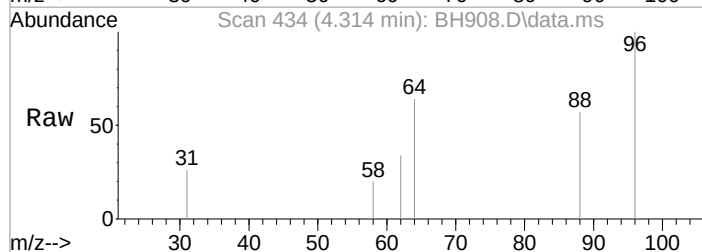
#2  
1,4-Dioxane  
Concen: 1.04 ppb m  
RT: 4.314 min Scan# 434  
Delta R.T. -0.005 min  
Lab File: BH908.D  
Acq: 29 Jul 2022 8:53 am



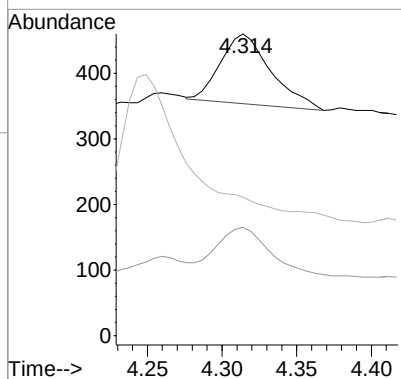
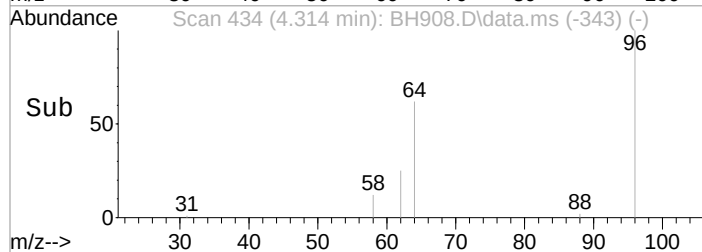
Tgt Ion: 88 Resp: 246  
Ion Ratio Lower Upper  
88 100  
58 35.9 29.4 69.4  
31 45.9 0.0 35.0#



#5  
ISO,1,4-Dioxane  
Concen: 1.23 ppb m  
RT: 4.314 min Scan# 434  
Delta R.T. -0.005 min  
Lab File: BH908.D  
Acq: 29 Jul 2022 8:53 am



Tgt Ion: 88 Resp: 246  
Ion Ratio Lower Upper  
88 100  
58 35.9 29.4 69.4  
31 45.9 0.0 35.0#



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH909.D  
Acq On : 29 Jul 2022 9:10 am  
Operator : MMCMAHON  
Sample : RQ2208649-02  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 09:26:19 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

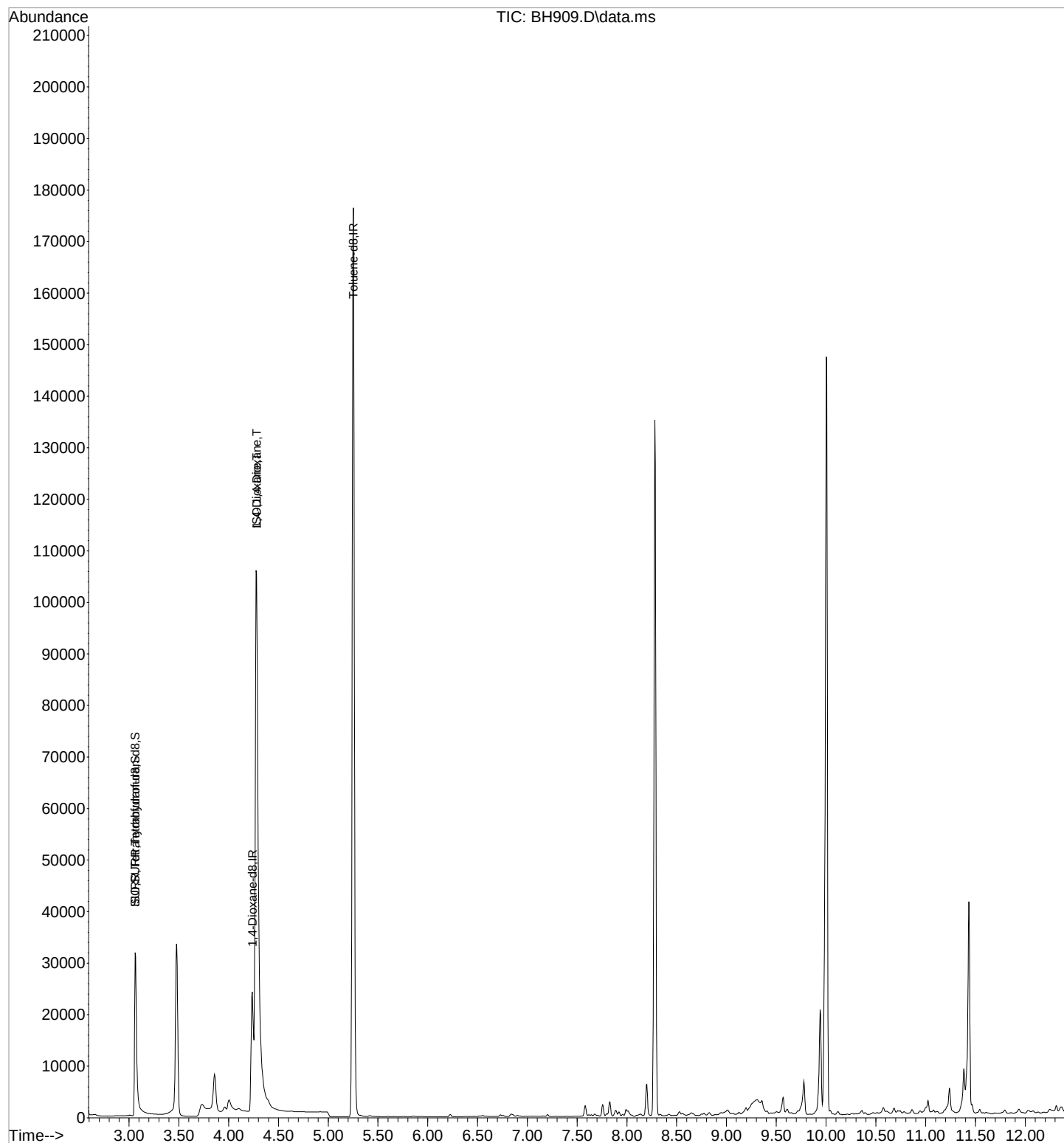
| Compound                       | R.T.           | QIon | Response | Conc   | Units  | Dev(Min)  |
|--------------------------------|----------------|------|----------|--------|--------|-----------|
| Internal Standards             |                |      |          |        |        |           |
| 1) Toluene-d8                  | 5.252          | 98   | 149796   | 100.00 | ppb    | -0.02     |
| 4) 1,4-Dioxane-d8              | 4.238          | 96   | 24232    | 100.00 | ppb    | -0.04     |
| System Monitoring Compounds    |                |      |          |        |        |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.062          | 46   | 18407    | 74.03  | ppb    | -0.04     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 74.03% |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.062          | 46   | 18407    | 98.76  | ppb    | -0.04     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 98.76% |           |
| Target Compounds               |                |      |          |        |        |           |
| 2) 1,4-Dioxane                 | 4.281          | 88   | 135420   | 409.68 | ppb    | Qvalue 89 |
| 5) ISO, 1,4-Dioxane            | 4.281          | 88   | 135420   | 544.61 | ppb    | 89        |

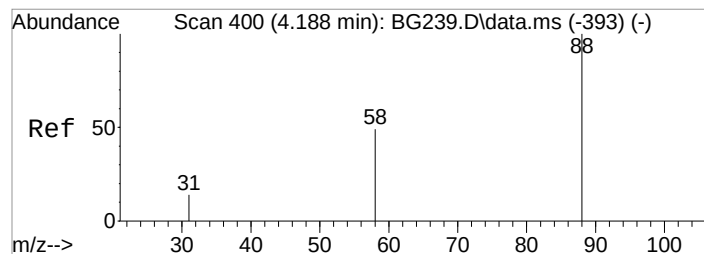
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH909.D  
Acq On : 29 Jul 2022 9:10 am  
Operator : MMCMAHON  
Sample : RQ2208649-02  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

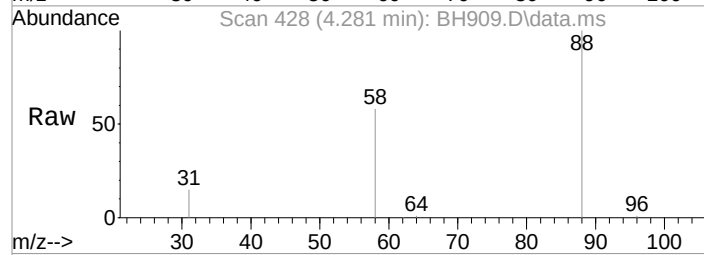
Inst : 5975 E

Quant Time: Jul 29 09:26:19 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

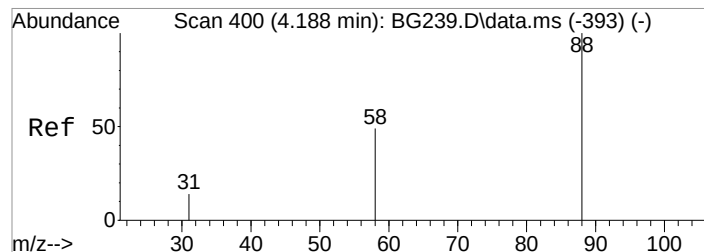
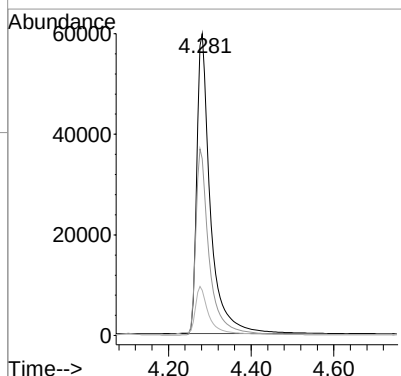
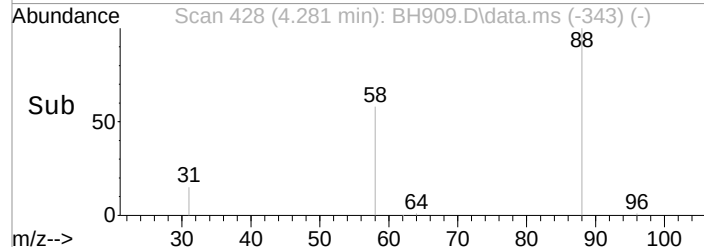




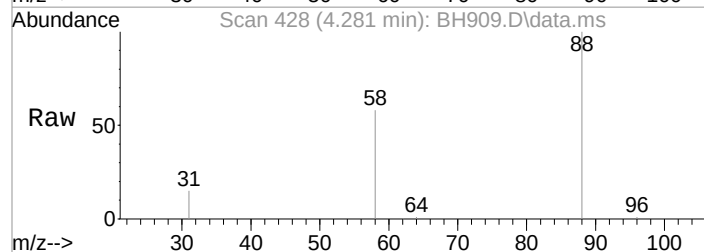
#2  
 1,4-Dioxane  
 Concen: 409.68 ppb  
 RT: 4.281 min Scan# 428  
 Delta R.T. -0.038 min  
 Lab File: BH909.D  
 Acq: 29 Jul 2022 9:10 am



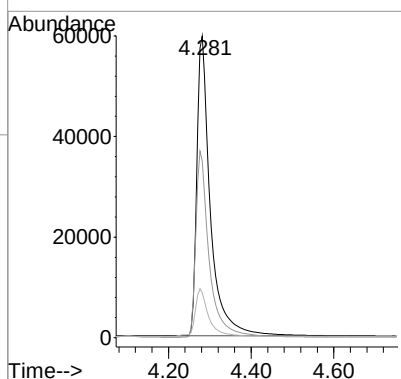
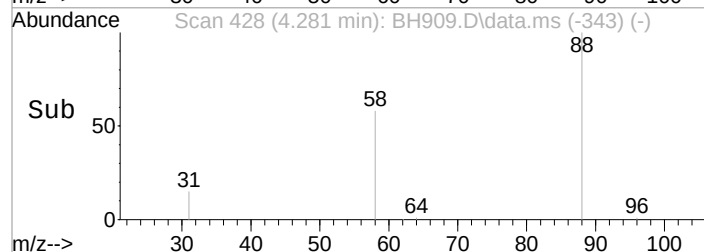
| Tgt Ion   | 88   | Resp  | 135420 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 58        | 58.7 | 29.4  | 69.4   |
| 31        | 14.4 | 0.0   | 35.0   |



#5  
 ISO,1,4-Dioxane  
 Concen: 544.61 ppb  
 RT: 4.281 min Scan# 428  
 Delta R.T. -0.038 min  
 Lab File: BH909.D  
 Acq: 29 Jul 2022 9:10 am



| Tgt Ion   | 88   | Resp  | 135420 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 58        | 58.7 | 29.4  | 69.4   |
| 31        | 14.4 | 0.0   | 35.0   |





Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH910.D  
Acq On : 29 Jul 2022 9:43 am  
Operator : MMCMAHON  
Sample : RQ2208649-03  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 10:00:24 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

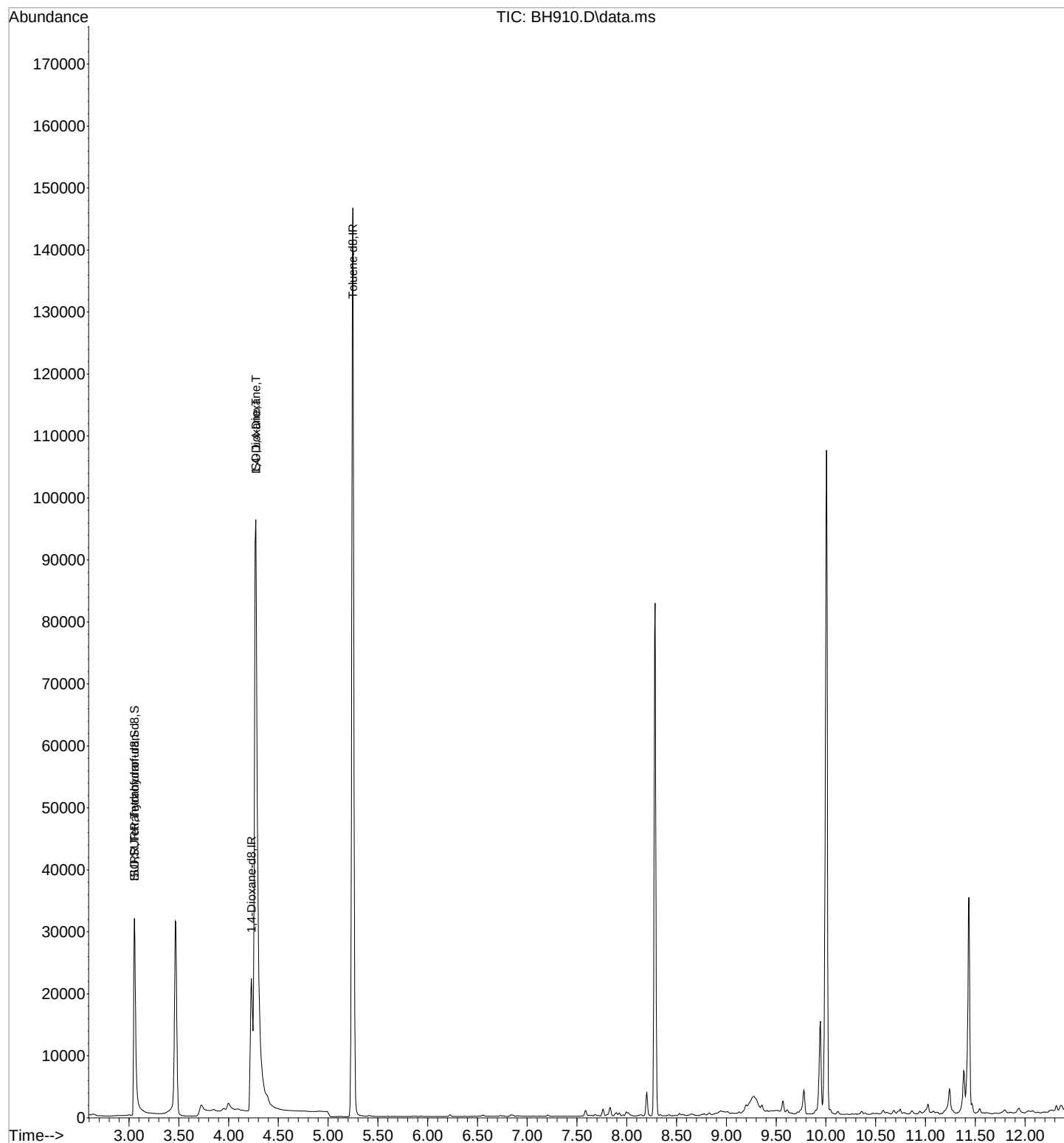
| Compound                       | R.T.    | QIon  | Response | Conc     | Units | Dev(Min)  |
|--------------------------------|---------|-------|----------|----------|-------|-----------|
| -----                          |         |       |          |          |       |           |
| Internal Standards             |         |       |          |          |       |           |
| 1) Toluene-d8                  | 5.247   | 98    | 124169   | 100.00   | ppb   | -0.03     |
| 4) 1,4-Dioxane-d8              | 4.229   | 96    | 22294    | 100.00   | ppb   | -0.05     |
| System Monitoring Compounds    |         |       |          |          |       |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.052   | 46    | 18385    | 89.11    | ppb   | -0.05     |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 89.11%    |
| 6) ISO, SURR, Tetrahydrofur... | 3.052   | 46    | 18385    | 107.17   | ppb   | -0.05     |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 107.17%   |
| Target Compounds               |         |       |          |          |       |           |
| 2) 1,4-Dioxane                 | 4.273   | 88    | 125348   | 457.89   | ppb   | Qvalue 88 |
| 5) ISO, 1,4-Dioxane            | 4.273   | 88    | 125348   | 547.93   | ppb   | 88        |
| -----                          |         |       |          |          |       |           |

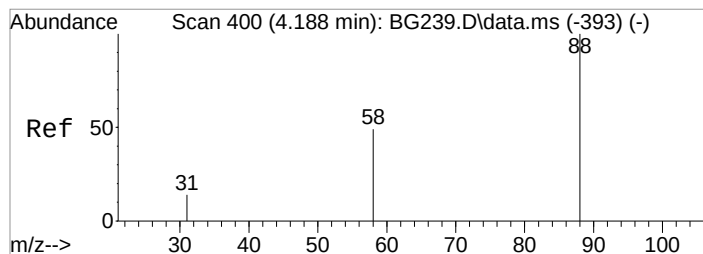
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH910.D  
Acq On : 29 Jul 2022 9:43 am  
Operator : MMCMAHON  
Sample : RQ2208649-03  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Inst : 5975 E

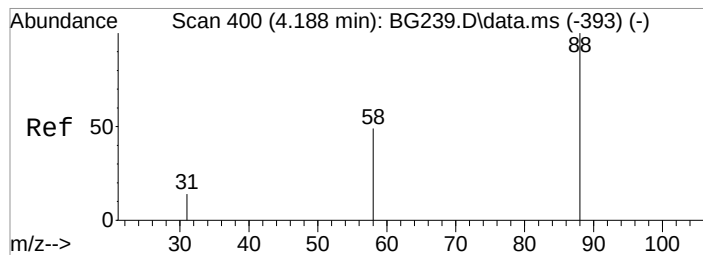
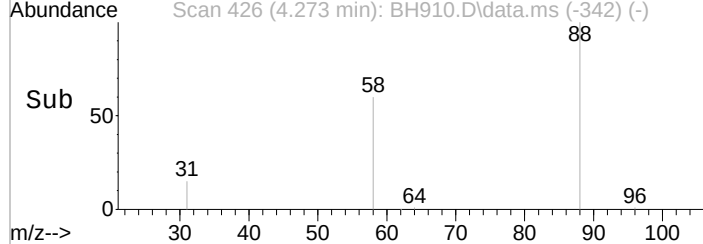
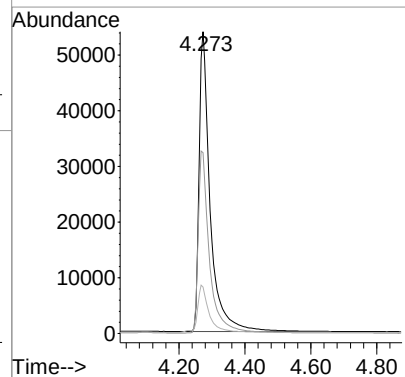
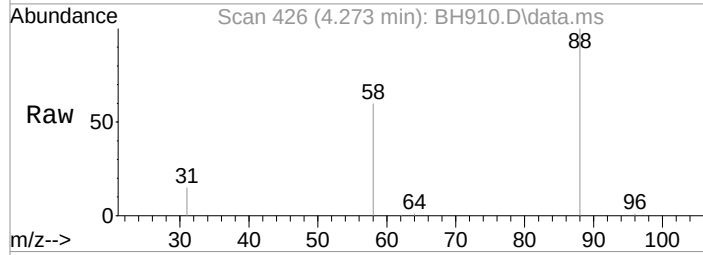
Quant Time: Jul 29 10:00:24 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration





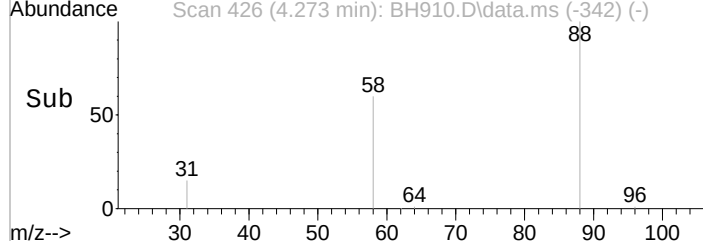
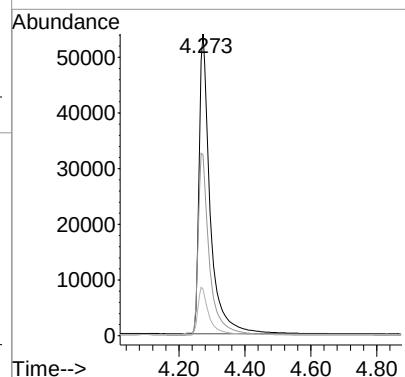
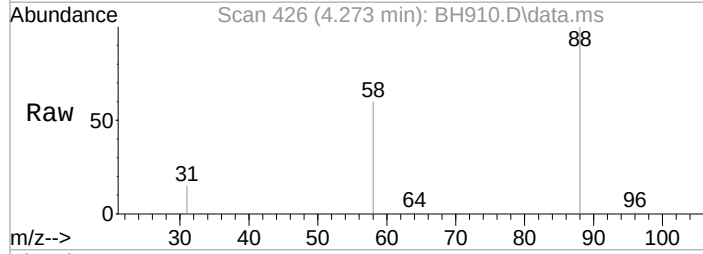
#2  
1,4-Dioxane  
Concen: 457.89 ppb  
RT: 4.273 min Scan# 426  
Delta R.T. -0.046 min  
Lab File: BH910.D  
Acq: 29 Jul 2022 9:43 am

| Tgt Ion   | 88    | Resp  | 125348 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 60.1  | 29.4  | 69.4   |
| 31        | 14.8  | 0.0   | 35.0   |



#5  
ISO,1,4-Dioxane  
Concen: 547.93 ppb  
RT: 4.273 min Scan# 426  
Delta R.T. -0.046 min  
Lab File: BH910.D  
Acq: 29 Jul 2022 9:43 am

| Tgt Ion   | 88    | Resp  | 125348 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 60.1  | 29.4  | 69.4   |
| 31        | 14.8  | 0.0   | 35.0   |



Data Path : I:\ACQUDATA\5975E\data\072922\  
 Data File : BH925.D  
 Acq On : 29 Jul 2022 2:02 pm  
 Operator : MMCMAHON  
 Sample : RQ2208649-06  
 Misc :  
 ALS Vial : 28 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 14:32:15 2022

Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M

Quant Title : 8270 BNA ANALYSIS

QLast Update : Thu Jul 28 15:14:28 2022

Response via : Initial Calibration

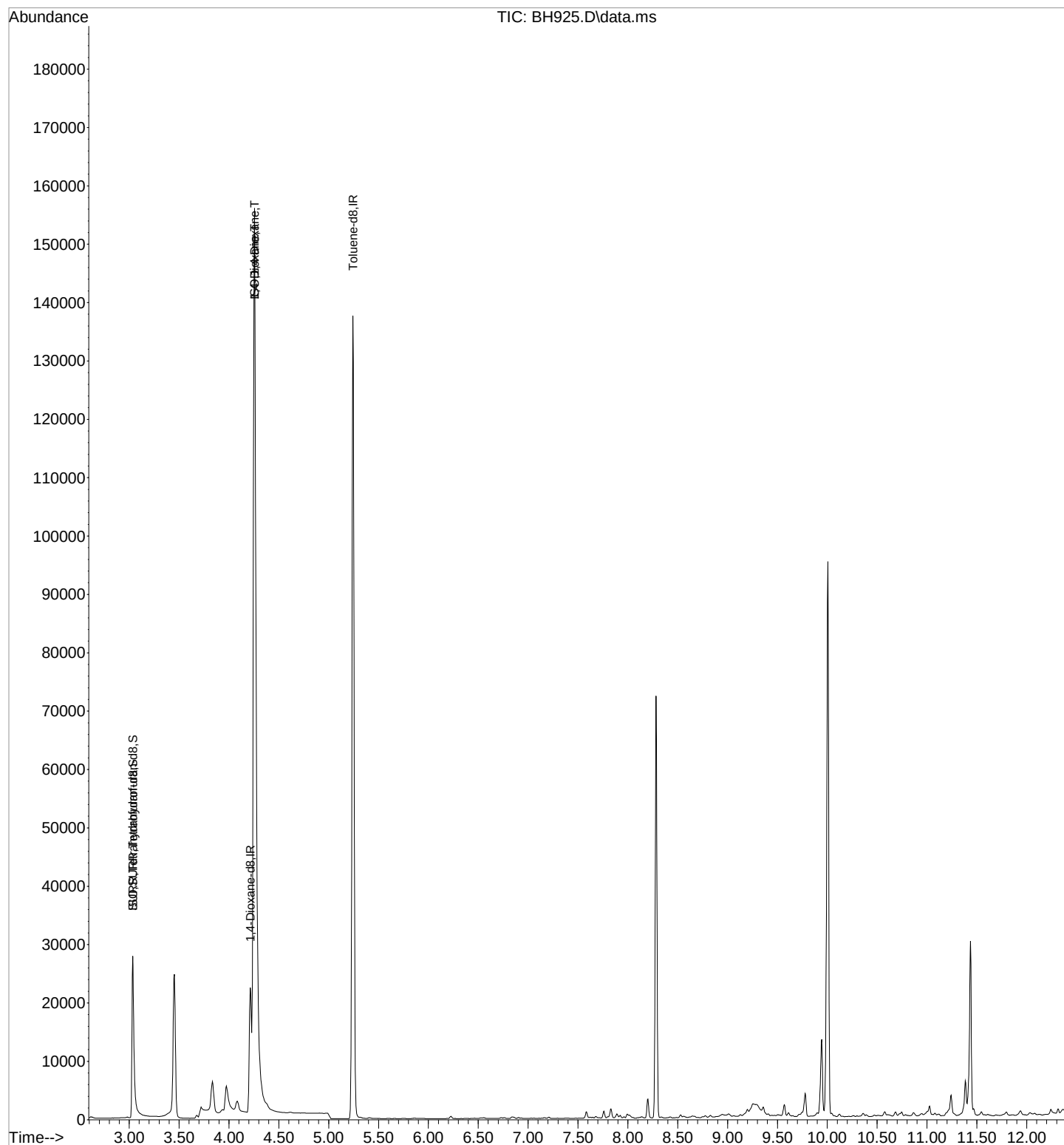
| Compound                       | R.T.  | QIon     | Response | Conc   | Units  | Dev(Min)  |
|--------------------------------|-------|----------|----------|--------|--------|-----------|
| -----                          |       |          |          |        |        |           |
| Internal Standards             |       |          |          |        |        |           |
| 1) Toluene-d8                  | 5.244 | 98       | 115691   | 100.00 | ppb    | -0.03     |
| 4) 1,4-Dioxane-d8              | 4.213 | 96       | 20448    | 100.00 | ppb    | -0.06     |
| System Monitoring Compounds    |       |          |          |        |        |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.035 | 46       | 15681    | 81.61  | ppb    | -0.06     |
| Spiked Amount 100.000          | Range | 70 - 130 | Recovery | =      | 81.61% |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.035 | 46       | 15681    | 99.70  | ppb    | -0.06     |
| Spiked Amount 100.000          | Range | 70 - 130 | Recovery | =      | 99.70% |           |
| Target Compounds               |       |          |          |        |        |           |
| 2) 1,4-Dioxane                 | 4.256 | 88       | 183375   | 722.56 | ppb    | Qvalue 88 |
| 5) ISO, 1,4-Dioxane            | 4.256 | 88       | 183375   | 874.51 | ppb    | 88        |
| -----                          |       |          |          |        |        |           |

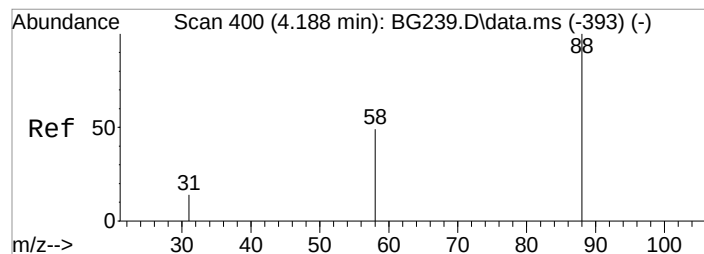
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH925.D  
Acq On : 29 Jul 2022 2:02 pm  
Operator : MMCMAHON  
Sample : RQ2208649-06  
Misc :  
ALS Vial : 28 Sample Multiplier: 1

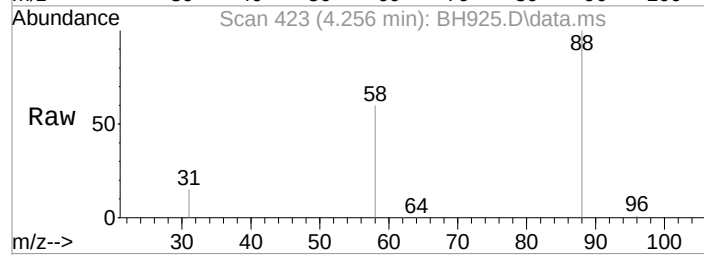
Inst : 5975 E

Quant Time: Jul 29 14:32:15 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

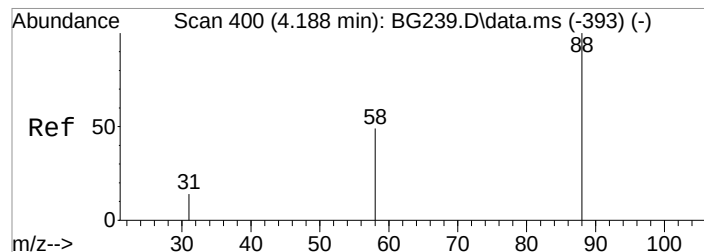
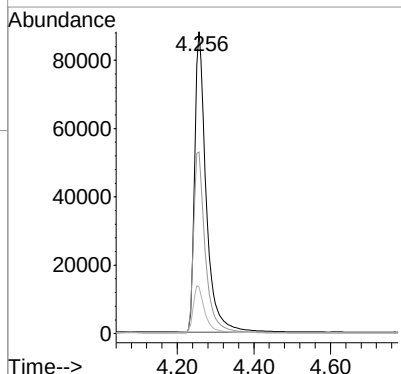
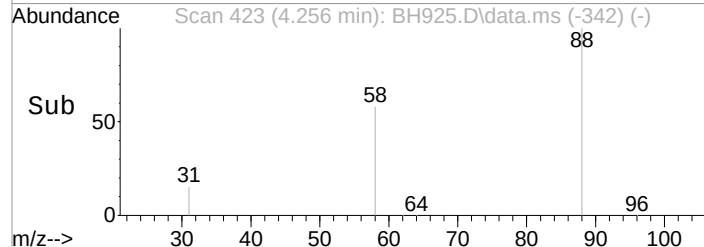




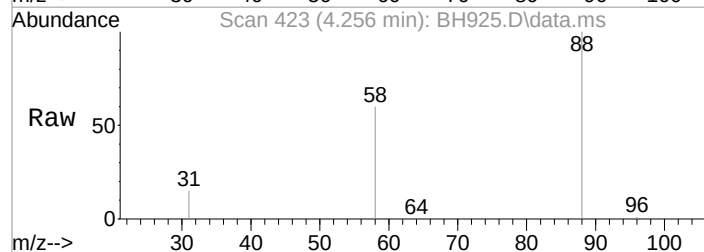
#2  
1,4-Dioxane  
Concen: 722.56 ppb  
RT: 4.256 min Scan# 423  
Delta R.T. -0.063 min  
Lab File: BH925.D  
Acq: 29 Jul 2022 2:02 pm



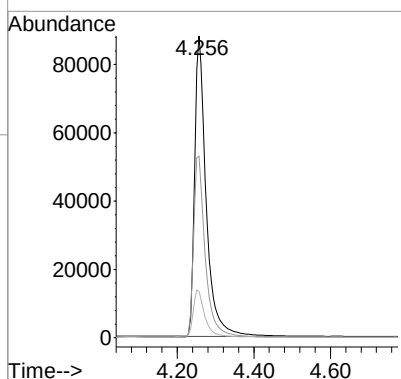
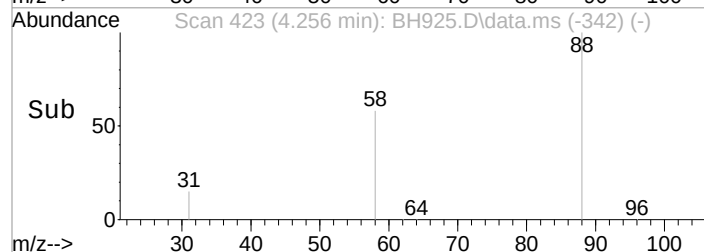
| Tgt Ion   | 88    | Resp  | 183375 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 60.2  | 29.4  | 69.4   |
| 31        | 15.1  | 0.0   | 35.0   |



#5  
ISO,1,4-Dioxane  
Concen: 874.51 ppb  
RT: 4.256 min Scan# 423  
Delta R.T. -0.063 min  
Lab File: BH925.D  
Acq: 29 Jul 2022 2:02 pm



| Tgt Ion   | 88    | Resp  | 183375 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 60.2  | 29.4  | 69.4   |
| 31        | 15.1  | 0.0   | 35.0   |



Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH926.D  
Acq On : 29 Jul 2022 2:19 pm  
Operator : MMCMAHON  
Sample : RQ2208649-07  
Misc :  
ALS Vial : 29 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 14:32:25 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

| Compound                       | R.T.           | QIon | Response | Conc   | Units   | Dev(Min)  |
|--------------------------------|----------------|------|----------|--------|---------|-----------|
| -----                          |                |      |          |        |         |           |
| Internal Standards             |                |      |          |        |         |           |
| 1) Toluene-d8                  | 5.255          | 98   | 127360   | 100.00 | ppb     | -0.02     |
| 4) 1,4-Dioxane-d8              | 4.238          | 96   | 21687    | 100.00 | ppb     | -0.04     |
| System Monitoring Compounds    |                |      |          |        |         |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.062          | 46   | 16709    | 79.01  | ppb     | -0.04     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 79.01%  |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.062          | 46   | 16709    | 100.16 | ppb     | -0.04     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 100.16% |           |
| Target Compounds               |                |      |          |        |         |           |
| 2) 1,4-Dioxane                 | 4.276          | 88   | 201738   | 722.08 | ppb     | Qvalue 87 |
| 5) ISO, 1,4-Dioxane            | 4.276          | 88   | 201738   | 907.18 | ppb     | 87        |
| -----                          |                |      |          |        |         |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Inst : 5975 E

Abundance

TIC: BH926.D\data.ms

Time-->

1,4-Dioxane-d8, S

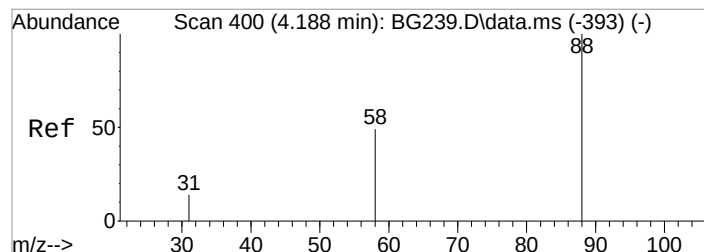
1,4-Dioxane-d8, IR

1,4-Dioxane-d8, S

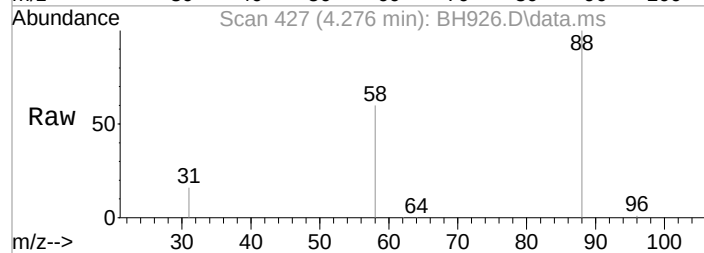
1,4-Dioxane-d8, IR

Toluene-d8, IR

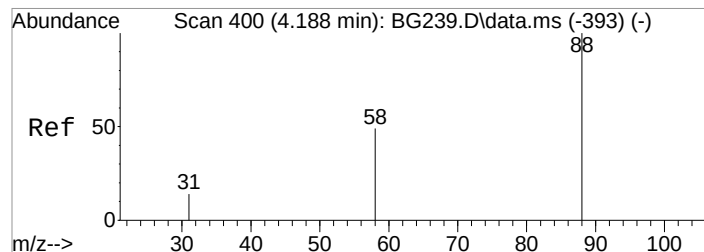
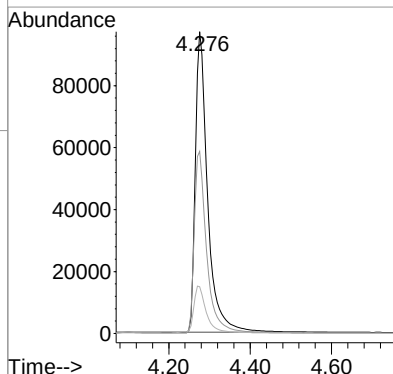
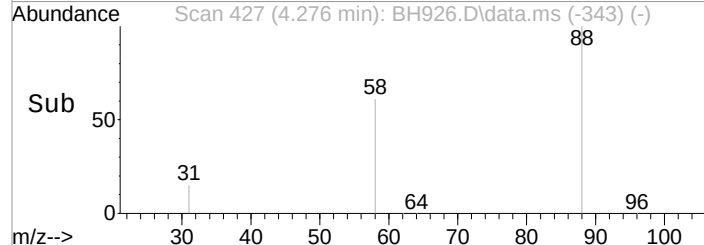




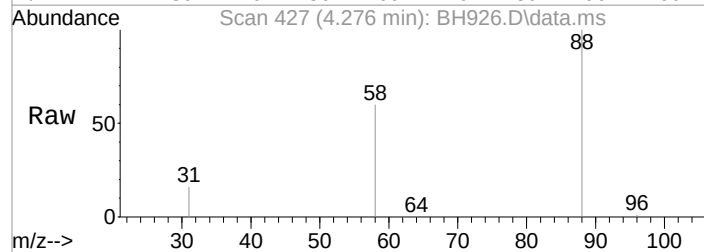
#2  
1,4-Dioxane  
Concen: 722.08 ppb  
RT: 4.276 min Scan# 427  
Delta R.T. -0.043 min  
Lab File: BH926.D  
Acq: 29 Jul 2022 2:19 pm



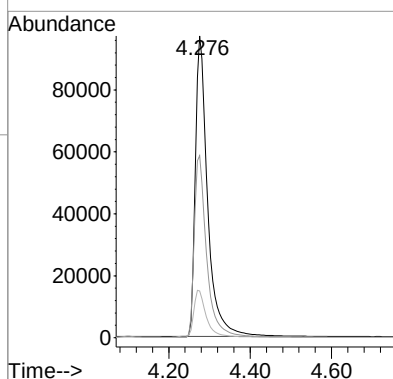
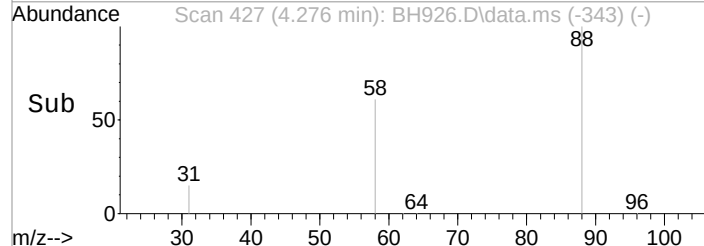
| Tgt Ion   | 88    | Resp  | 201738 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 60.5  | 29.4  | 69.4   |
| 31        | 15.2  | 0.0   | 35.0   |



#5  
ISO,1,4-Dioxane  
Concen: 907.18 ppb  
RT: 4.276 min Scan# 427  
Delta R.T. -0.043 min  
Lab File: BH926.D  
Acq: 29 Jul 2022 2:19 pm



| Tgt Ion   | 88    | Resp  | 201738 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 60.5  | 29.4  | 69.4   |
| 31        | 15.2  | 0.0   | 35.0   |



# Evaluate Continuing Calibration Report

1st *MEM* 08/02/22  
2nd *ref* 08/03/22

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH907.D  
Acq On : 29 Jul 2022 8:36 am  
Operator : MMCMAHON  
Sample : CCV .5 Inst : 5975 E  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 29 08:53:48 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                    | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|------|-----------------------------|---------|---------|------|-------|----------|
| 1 IR | Toluene-d8                  | 100.000 | 100.000 | 0.0  | 102   | -0.02    |
| 2 T  | 1,4-Dioxane                 | 500.000 | 519.620 | -3.9 | 105   | -0.02    |
| 3 S  | SURR,Tetrahydrofuran-d8     | 500.000 | 490.301 | 1.9  | 101   | -0.03    |
| 4 IR | 1,4-Dioxane-d8              | 100.000 | 100.000 | 0.0  | 104   | -0.02    |
| 5 T  | ISO,1,4-Dioxane             | 500.000 | 506.390 | -1.3 | 105   | -0.02    |
| 6 S  | ISO,SURR,Tetrahydrofuran-d8 | 500.000 | 478.291 | 4.3  | 101   | -0.03    |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

8270diox072822.M Fri Jul 29 08:54:05 2022

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH907.D  
Acq On : 29 Jul 2022 8:36 am  
Operator : MMCMAHON  
Sample : CCV .5  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 08:53:48 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

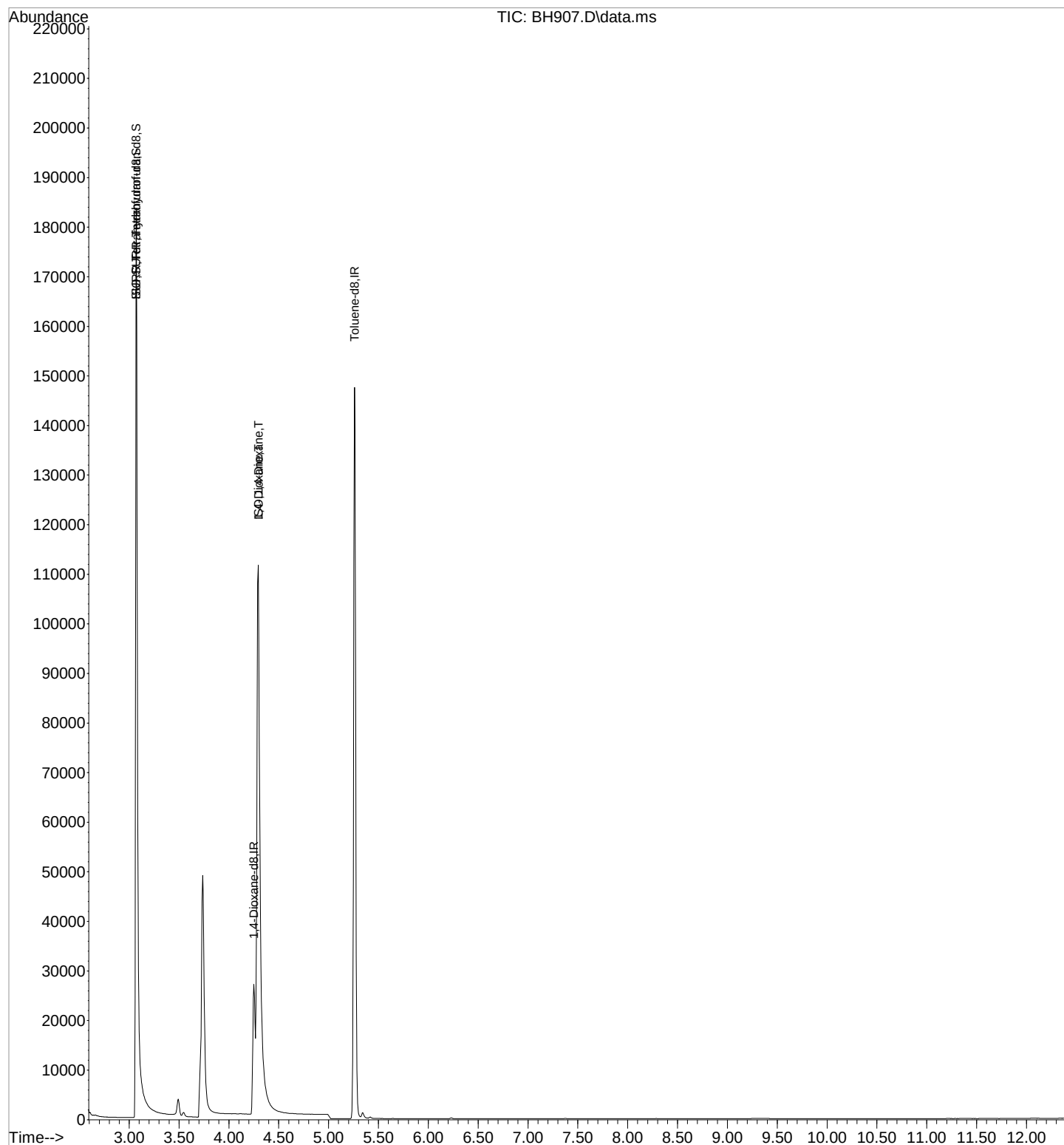
| Compound                       | R.T.           | QIon | Response | Conc       | Units | Dev(Min)  |
|--------------------------------|----------------|------|----------|------------|-------|-----------|
| -----                          |                |      |          |            |       |           |
| Internal Standards             |                |      |          |            |       |           |
| 1) Toluene-d8                  | 5.261          | 98   | 124947   | 100.00     | ppb   | -0.02     |
| 4) 1,4-Dioxane-d8              | 4.251          | 96   | 27512    | 100.00     | ppb   | -0.02     |
| System Monitoring Compounds    |                |      |          |            |       |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.069          | 46   | 101668   | 490.30     | ppb   | -0.03     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | = 490.30%# |       |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.069          | 46   | 101668   | 478.29     | ppb   | -0.03     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | = 478.29%# |       |           |
| Target Compounds               |                |      |          |            |       |           |
| 2) 1,4-Dioxane                 | 4.294          | 88   | 142972   | 519.62     | ppb   | Qvalue 89 |
| 5) ISO, 1,4-Dioxane            | 4.294          | 88   | 142972   | 506.39     | ppb   | 89        |
| -----                          |                |      |          |            |       |           |

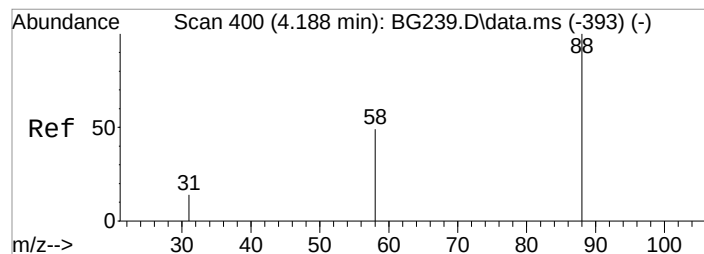
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH907.D  
Acq On : 29 Jul 2022 8:36 am  
Operator : MMCMAHON  
Sample : CCV .5  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

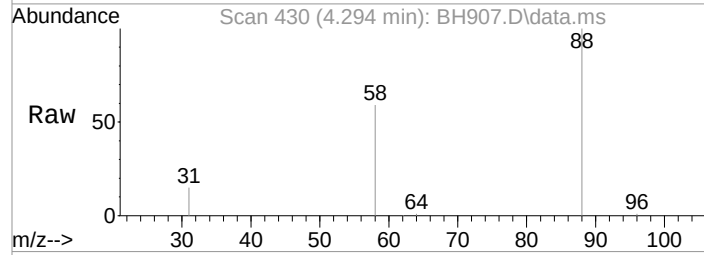
Inst : 5975 E

Quant Time: Jul 29 08:53:48 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

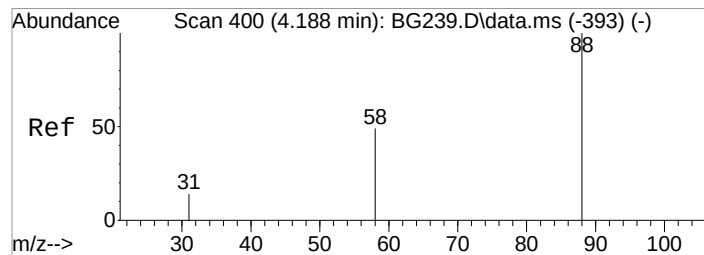
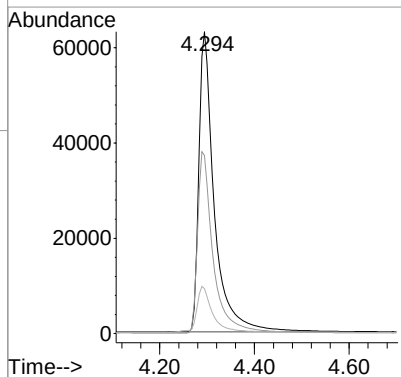
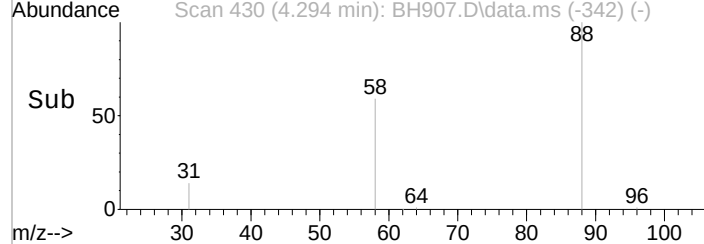




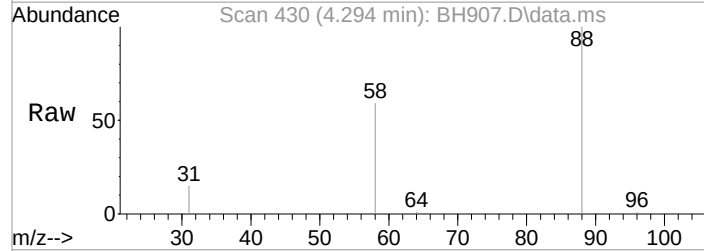
#2  
1,4-Dioxane  
Concen: 519.62 ppb  
RT: 4.294 min Scan# 430  
Delta R.T. -0.025 min  
Lab File: BH907.D  
Acq: 29 Jul 2022 8:36 am



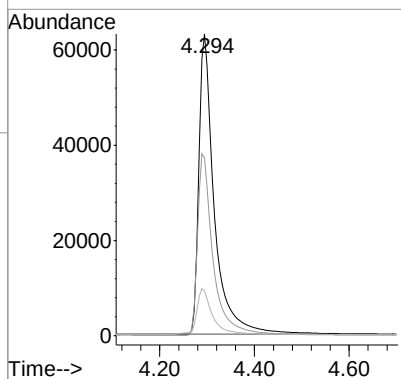
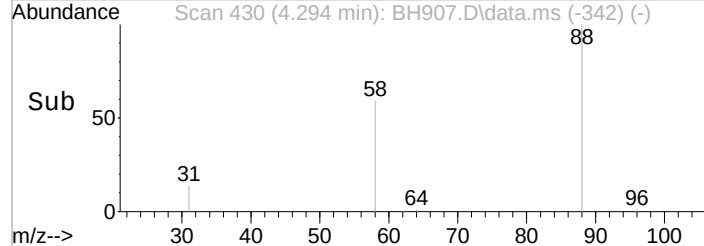
| Tgt Ion   | 88   | Resp  | 142972 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 58        | 59.1 | 29.4  | 69.4   |
| 31        | 14.3 | 0.0   | 35.0   |



#5  
ISO,1,4-Dioxane  
Concen: 506.39 ppb  
RT: 4.294 min Scan# 430  
Delta R.T. -0.025 min  
Lab File: BH907.D  
Acq: 29 Jul 2022 8:36 am



| Tgt Ion   | 88   | Resp  | 142972 |
|-----------|------|-------|--------|
| Ion Ratio | 100  | Lower | Upper  |
| 58        | 59.1 | 29.4  | 69.4   |
| 31        | 14.3 | 0.0   | 35.0   |



## Evaluate Continuing Calibration Report

1st MFM 08/02/22  
2nd *ref* 08/03/22

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH932.D  
Acq On : 29 Jul 2022 4:03 pm  
Operator : MMCMAHON  
Sample : CCV .5 Inst : 5975 E  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 30 15:02:29 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                    | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|------|-----------------------------|---------|---------|------|-------|----------|
| 1 IR | Toluene-d8                  | 100.000 | 100.000 | 0.0  | 96    | -0.03    |
| 2 T  | 1,4-Dioxane                 | 500.000 | 519.366 | -3.9 | 98    | -0.05    |
| 3 S  | SURR,Tetrahydrofuran-d8     | 500.000 | 500.852 | -0.2 | 97    | -0.07    |
| 4 IR | 1,4-Dioxane-d8              | 100.000 | 100.000 | 0.0  | 99    | -0.05    |
| 5 T  | ISO,1,4-Dioxane             | 500.000 | 497.799 | 0.4  | 98    | -0.05    |
| 6 S  | ISO,SURR,Tetrahydrofuran-d8 | 500.000 | 480.462 | 3.9  | 97    | -0.07    |

(# ) = Out of Range

SPCC's out = 0 CCC's out = 0

8270diox072822.M Sat Jul 30 15:02:45 2022

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH932.D  
Acq On : 29 Jul 2022 4:03 pm  
Operator : MMCMAHON  
Sample : CCV .5  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 30 15:02:29 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

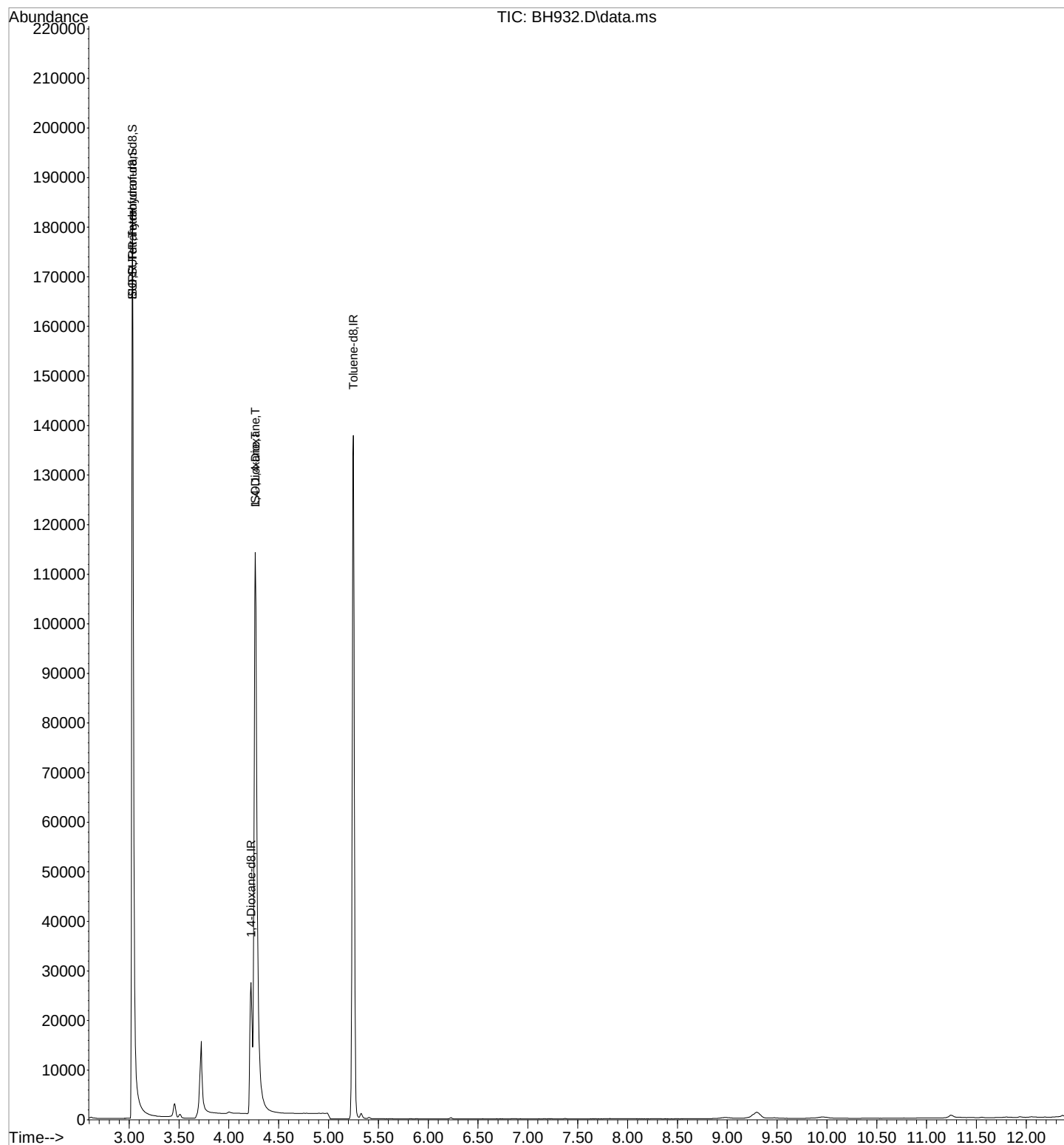
| Compound                       | R.T.    | QIon           | Response | Conc   | Units    | Dev(Min)  |
|--------------------------------|---------|----------------|----------|--------|----------|-----------|
| -----                          |         |                |          |        |          |           |
| Internal Standards             |         |                |          |        |          |           |
| 1) Toluene-d8                  | 5.249   | 98             | 116966   | 100.00 | ppb      | -0.03     |
| 4) 1,4-Dioxane-d8              | 4.222   | 96             | 26186    | 100.00 | ppb      | -0.05     |
| System Monitoring Compounds    |         |                |          |        |          |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.031   | 46             | 97208    | 500.85 | ppb      | -0.07     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 500.85%# |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.031   | 46             | 97208    | 480.46 | ppb      | -0.07     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 480.46%# |           |
| Target Compounds               |         |                |          |        |          |           |
| 2) 1,4-Dioxane                 | 4.265   | 88             | 133775   | 519.37 | ppb      | Qvalue 87 |
| 5) ISO, 1,4-Dioxane            | 4.265   | 88             | 133775   | 497.80 | ppb      | 87        |
| -----                          |         |                |          |        |          |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

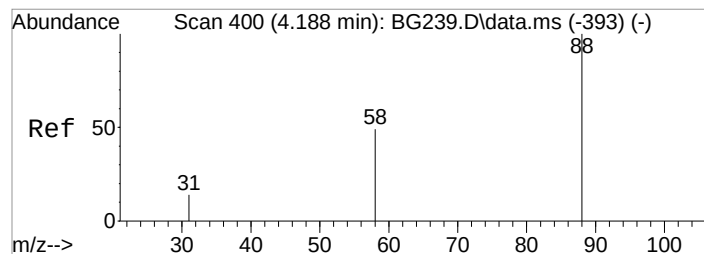
Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH932.D  
Acq On : 29 Jul 2022 4:03 pm  
Operator : MMCMAHON  
Sample : CCV .5  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : 5975 E

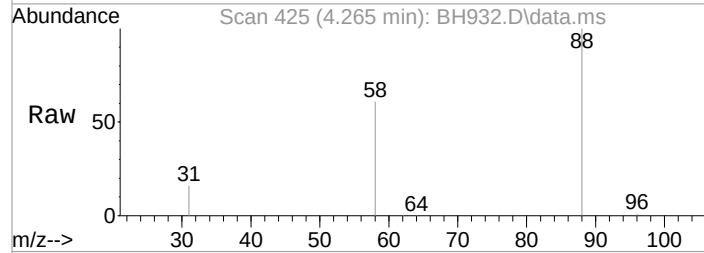
Quant Time: Jul 30 15:02:29 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration



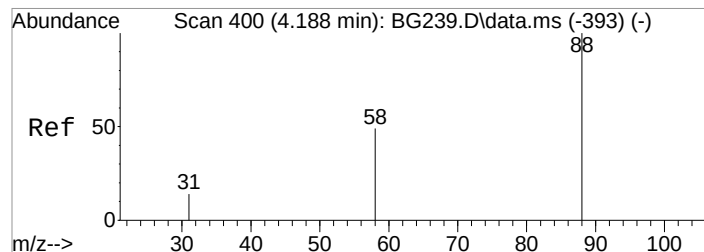
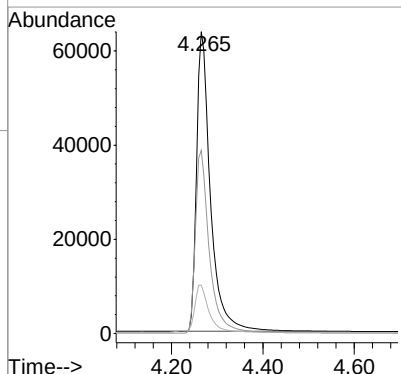
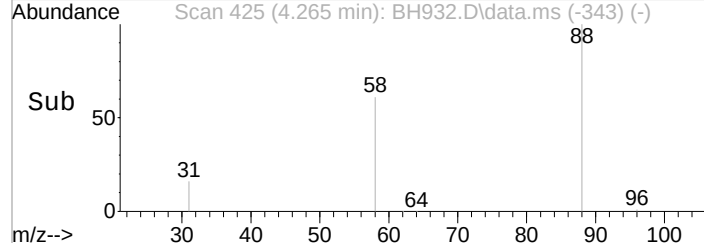




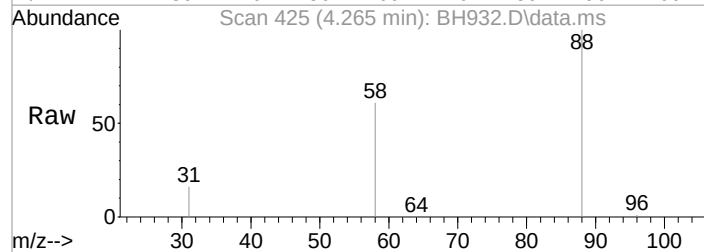
#2  
1,4-Dioxane  
Concen: 519.37 ppb  
RT: 4.265 min Scan# 425  
Delta R.T. -0.054 min  
Lab File: BH932.D  
Acq: 29 Jul 2022 4:03 pm



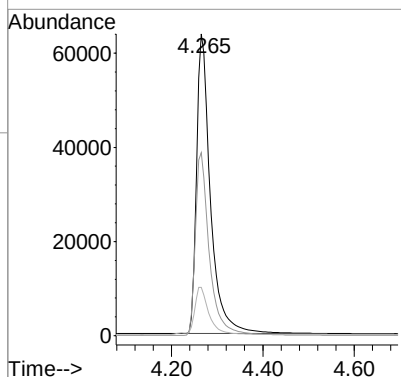
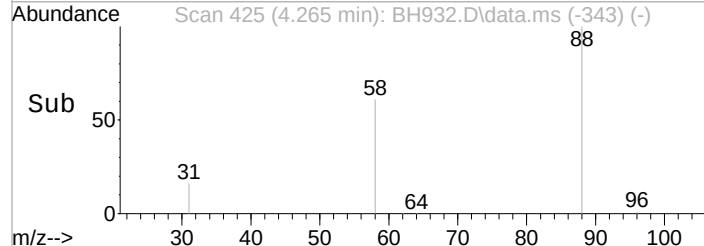
| Tgt Ion   | 88    | Resp  | 133775 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 60.9  | 29.4  | 69.4   |
| 31        | 15.5  | 0.0   | 35.0   |



#5  
ISO,1,4-Dioxane  
Concen: 497.80 ppb  
RT: 4.265 min Scan# 425  
Delta R.T. -0.054 min  
Lab File: BH932.D  
Acq: 29 Jul 2022 4:03 pm



| Tgt Ion   | 88    | Resp  | 133775 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 60.9  | 29.4  | 69.4   |
| 31        | 15.5  | 0.0   | 35.0   |



Data Path : I:\ACQUDATA\5975E\data\072922\  
 Data File : BH906.D  
 Acq On : 29 Jul 2022 8:10 am  
 Operator : MMCMAHON  
 Sample : TUNE Inst : 5975 E  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Integration File: events.e

Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M  
 Title :  
 Last Update : Tue Jul 20 10:09:20 2021

AutoFind: Scans 1964, 1965, 1966; Background Corrected with Scan 1951

| Target<br>Mass | Rel. to<br>Mass | Lower<br>Limit% | Upper<br>Limit% | Rel.<br>Abn% | Raw<br>Abn | Result<br>Pass/Fail |
|----------------|-----------------|-----------------|-----------------|--------------|------------|---------------------|
| 68             | 69              | 0.00            | 2               | 1.5          | 8826       | PASS                |
| 69             | 69              | 100             | 100             | 100.0        | 604347     | PASS                |
| 70             | 69              | 0.00            | 2               | 0.4          | 2534       | PASS                |
| 197            | 198             | 0.00            | 2               | 0.0          | 0          | PASS                |
| 198            | 198             | 100             | 100             | 100.0        | 1528491    | PASS                |
| 199            | 198             | 5               | 9               | 6.7          | 102715     | PASS                |
| 365            | 198             | 1               | 200             | 2.2          | 33405      | PASS                |
| 441            | 443             | 0.01            | 150             | 80.8         | 175083     | PASS                |
| 442            | 442             | 100             | 100             | 100.0        | 1120939    | PASS                |
| 443            | 442             | 15              | 24              | 19.3         | 216597     | PASS                |

DFTPPDIO.M Wed Aug 03 09:46:03 2022

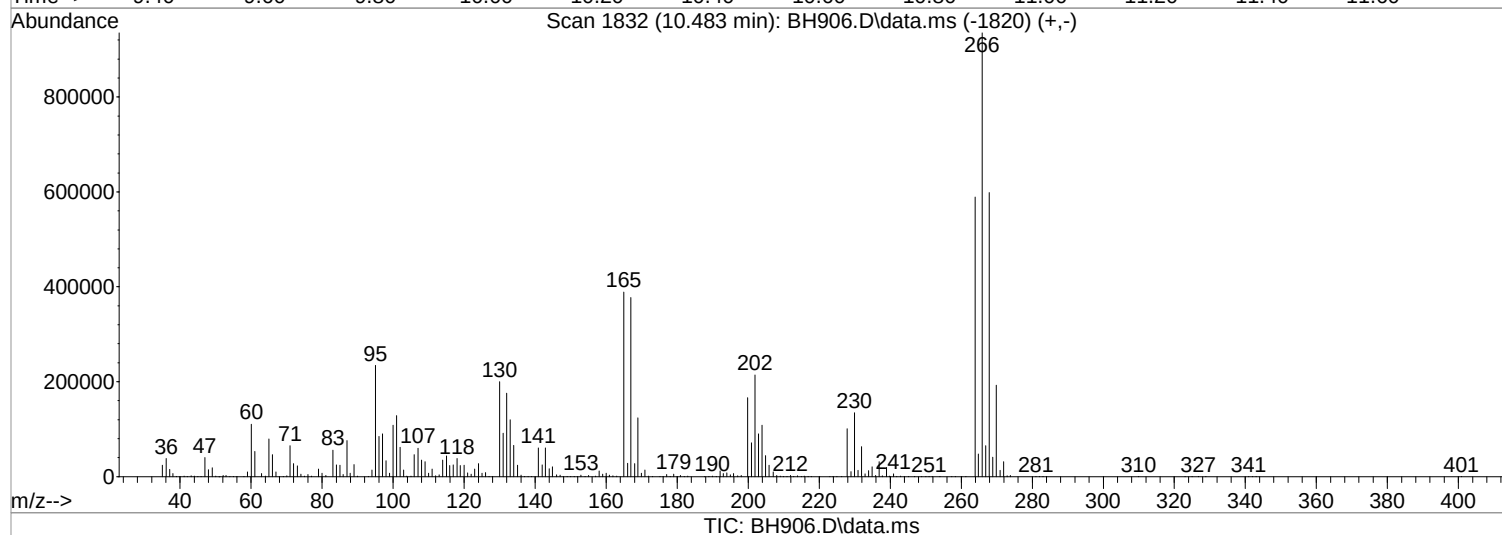
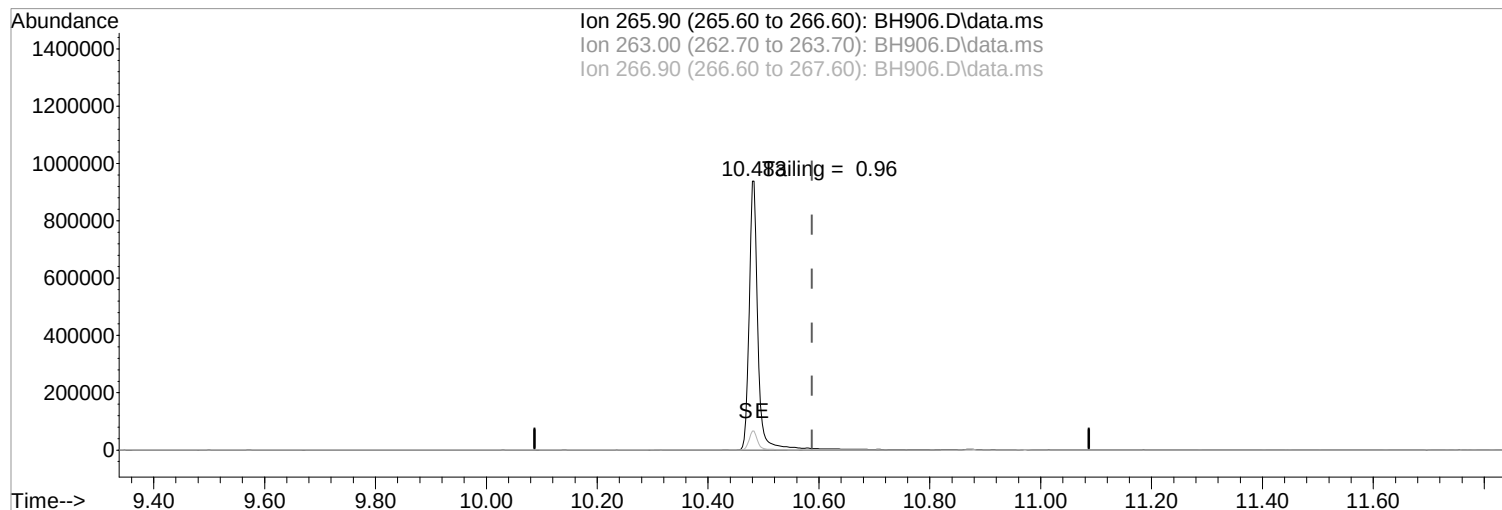
# Quantitation Report (Qedit)

1st *MEM* 08/02/22  
2nd *ref* 08/03/22

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH906.D  
Acq On : 29 Jul 2022 8:10 am  
Operator : MMCMAHON  
Sample : TUNE  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 08:34:05 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M  
Quant Title :  
QLast Update : Tue Jul 20 10:09:20 2021  
Response via : Initial Calibration



TIC: BH906.D\data.ms

## (5) Pentachlorophenol (T)

10.483min (-0.105) 63.35 ppm

response 9918459

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 265.90 | 100.00 | 100.00 |
| 263.00 | 0.00   | 0.00   |
| 266.90 | 7.70   | 6.96   |
| 0.00   | 0.00   | 0.00   |

## Manual Integration:

After

Other - TAILING

07/29/22

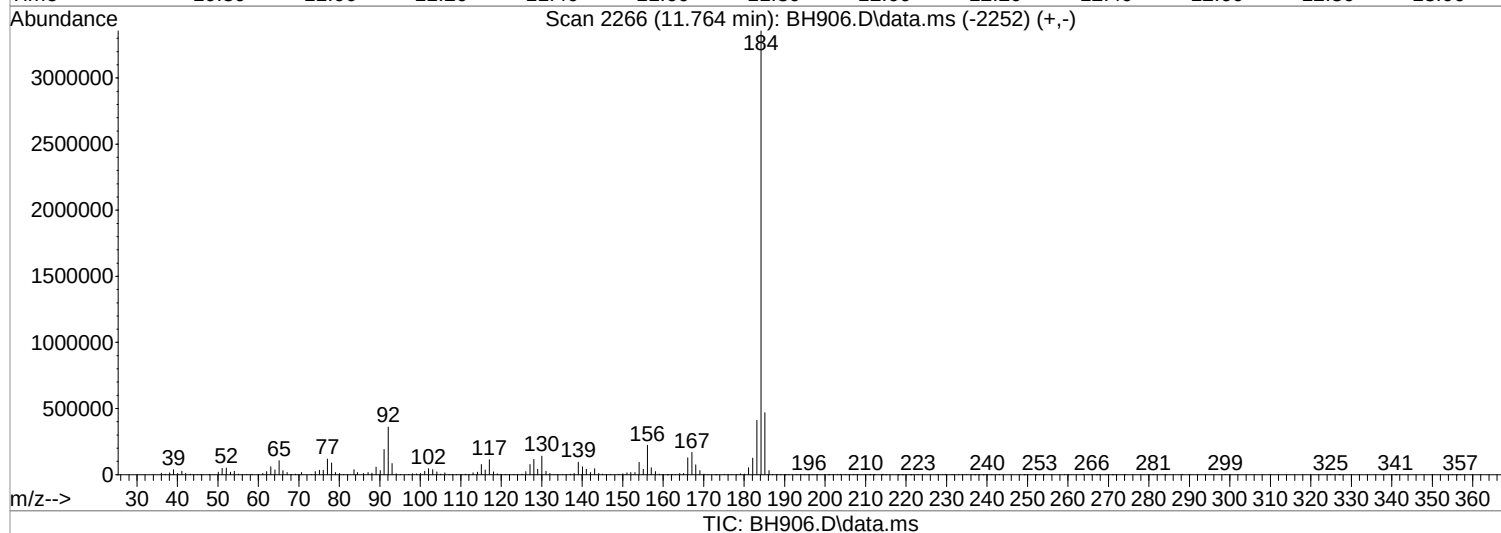
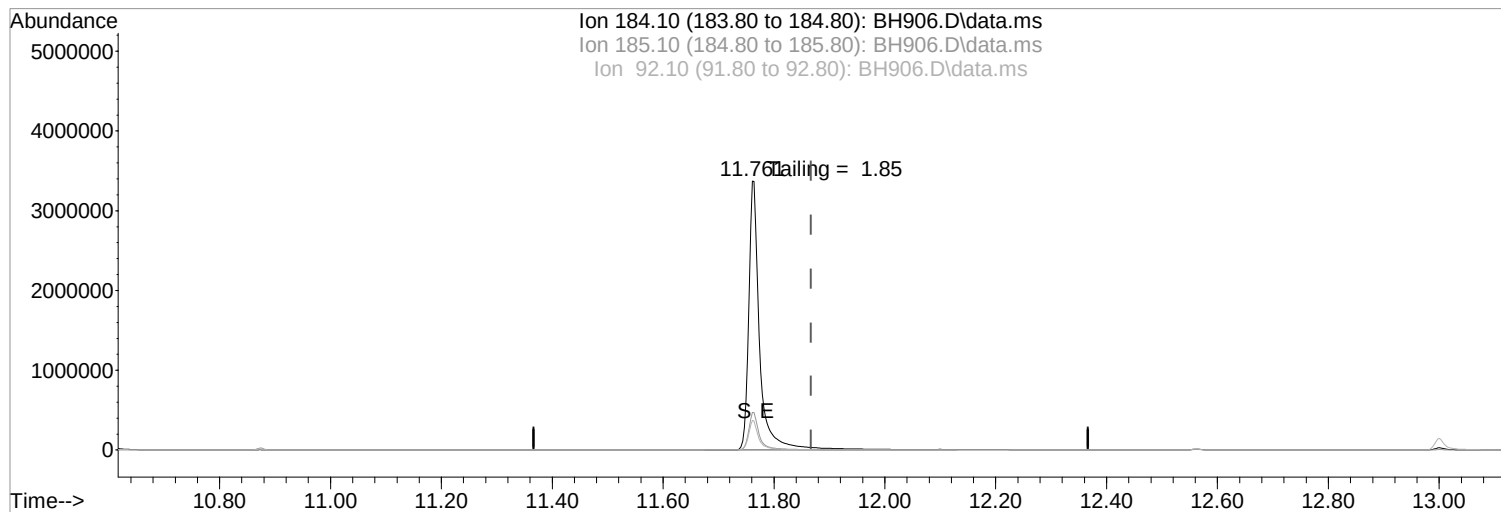
## Quantitation Report (Qedit)

1st *MEM* 08/02/22  
2nd *ref* 08/03/22

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH906.D  
Acq On : 29 Jul 2022 8:10 am  
Operator : MMCMAHON  
Sample : TUNE  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 08:34:05 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M  
Quant Title :  
QLast Update : Tue Jul 20 10:09:20 2021  
Response via : Initial Calibration



## (8) Benzidine (T)

11.764min (-0.103) 52.36 ppm

response 44836925

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 184.10 | 100.00 | 100.00 |
| 185.10 | 13.80  | 13.97  |
| 92.10  | 10.70  | 10.73  |
| 0.00   | 0.00   | 0.00   |

## Manual Integration:

After

Other - TAILING

07/29/22

Data Path : I:\ACQUDATA\5975E\data\072922\  
 Data File : BH906.D  
 Acq On : 29 Jul 2022 8:10 am  
 Operator : MMCMAHON  
 Sample : TUNE  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 29 08:34:05 2022  
 Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M  
 Quant Title :  
 QLast Update : Tue Jul 20 10:09:20 2021  
 Response via : Initial Calibration

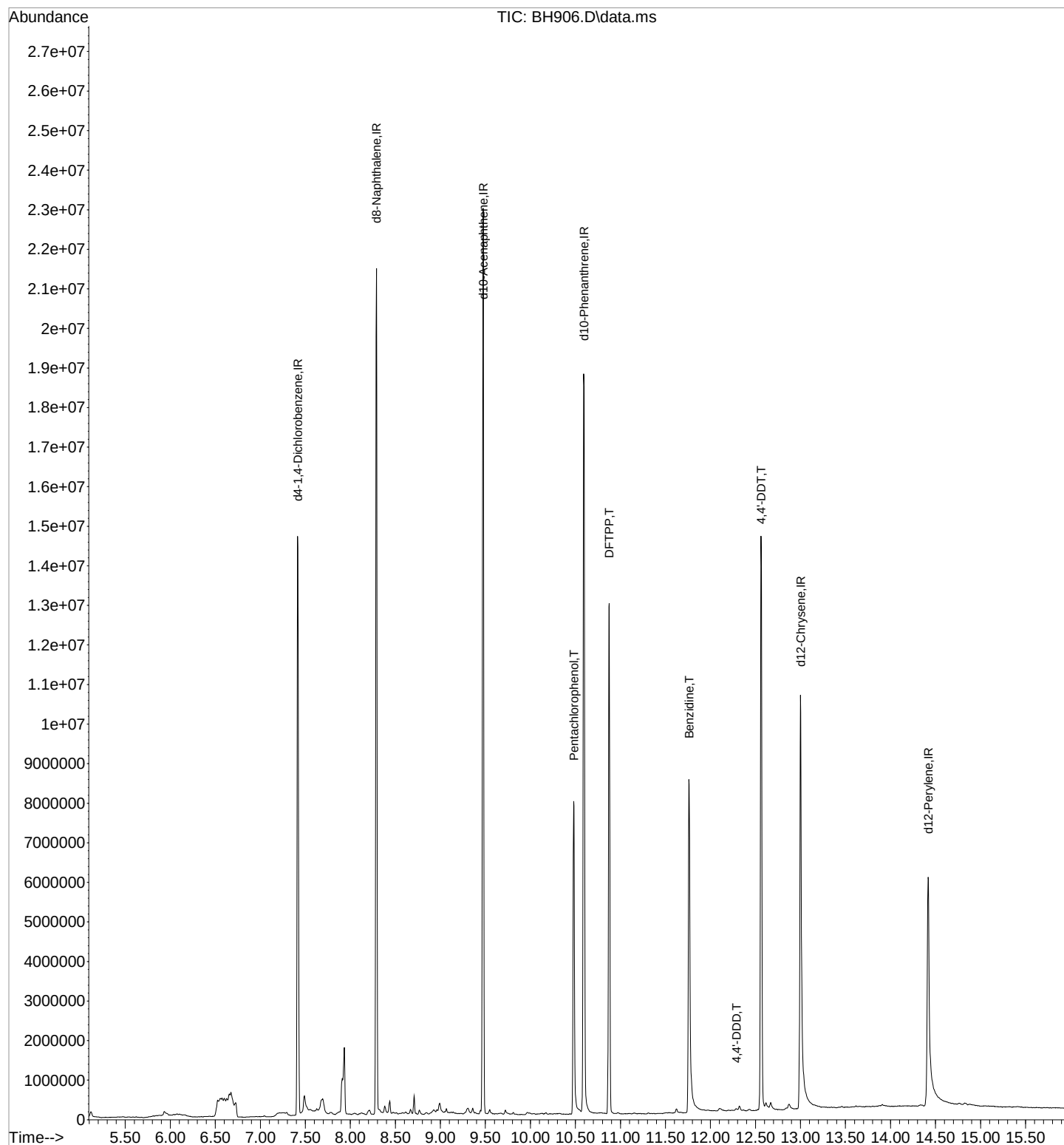
| Compound                  | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|---------------------------|--------|------|----------|-------|-------|----------|
| Internal Standards        |        |      |          |       |       |          |
| 1) d4-1,4-Dichlorobenzene | 7.417  | 152  | 25490859 | 20.00 | ppm   | -0.11    |
| 2) d8-Naphthalene         | 8.290  | 136  | 87050690 | 20.00 | ppm   | -0.11    |
| 3) d10-Acenaphthene       | 9.476  | 164  | 49801669 | 20.00 | ppm   | -0.10    |
| 4) d10-Phenanthrene       | 10.595 | 188  | 78710944 | 20.00 | ppm   | -0.10    |
| 7) d12-Chrysene           | 13.002 | 240  | 50700308 | 20.00 | ppm   | -0.10    |
| 12) d12-Perylene          | 14.419 | 264  | 38611628 | 20.00 | ppm   | -0.12    |
| Target Compounds          |        |      |          |       |       |          |
| 5) Pentachlorophenol      | 10.483 | 266  | 9918459  | 63.35 | ppm   | 98       |
| 6) DFTPP                  | 10.875 | 198  | 15943437 | 54.22 | ppm   | # 75     |
| 8) Benzidine              | 11.764 | 184  | 44836925 | 52.36 | ppm   | 100      |
| 9) 4,4'-DDE               | 0.000  |      | 0        | N.D.  |       |          |
| 10) 4,4'-DDD              | 12.286 | 235  | 127990   | 0.27  | ppm   | 93       |
| 11) 4,4'-DDT              | 12.564 | 235  | 29785776 | 63.21 | ppm   | 98       |

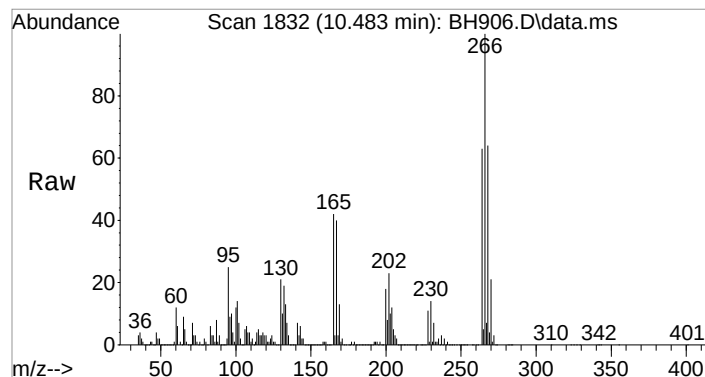
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072922\  
Data File : BH906.D  
Acq On : 29 Jul 2022 8:10 am  
Operator : MMCMAHON  
Sample : TUNE  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Inst : 5975 E

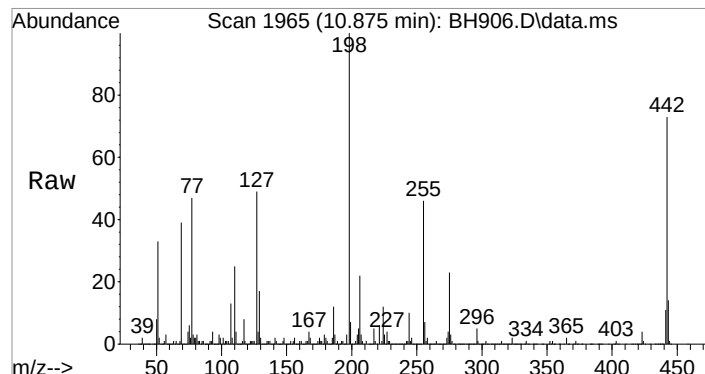
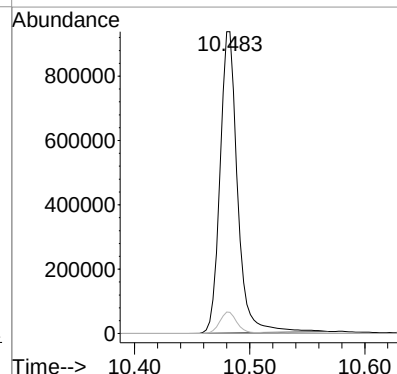
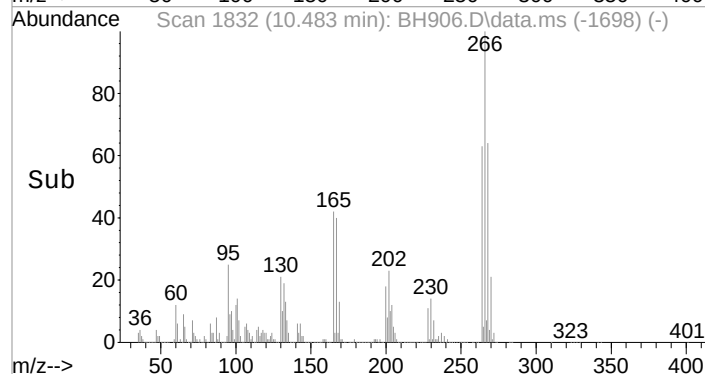
Quant Time: Jul 29 08:34:05 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M  
Quant Title :  
QLast Update : Tue Jul 20 10:09:20 2021  
Response via : Initial Calibration





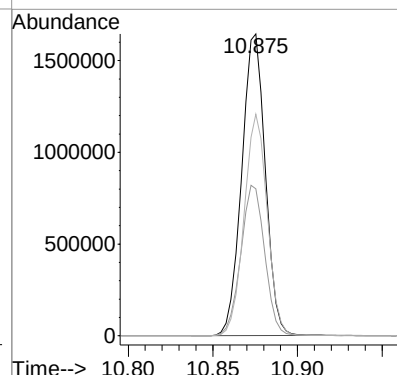
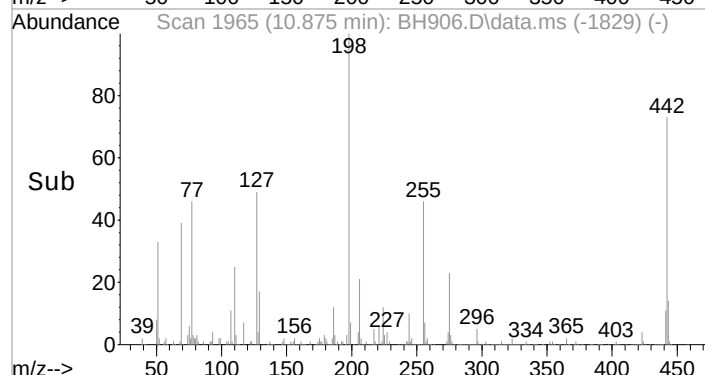
#5  
Pentachlorophenol  
Concen: 63.35 ppm  
RT: 10.483 min Scan# 1832  
Delta R.T. -0.105 min  
Lab File: BH906.D  
Acq: 29 Jul 2022 8:10 am

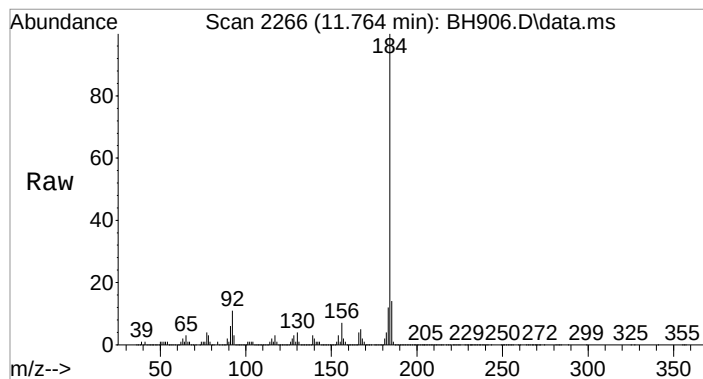
Tgt Ion:266 Resp: 9918459  
Ion Ratio Lower Upper  
266 100  
263 0.0 0.0 20.0  
267 7.0 0.0 27.7



#6  
DFTPP  
Concen: 54.22 ppm  
RT: 10.875 min Scan# 1965  
Delta R.T. -0.098 min  
Lab File: BH906.D  
Acq: 29 Jul 2022 8:10 am

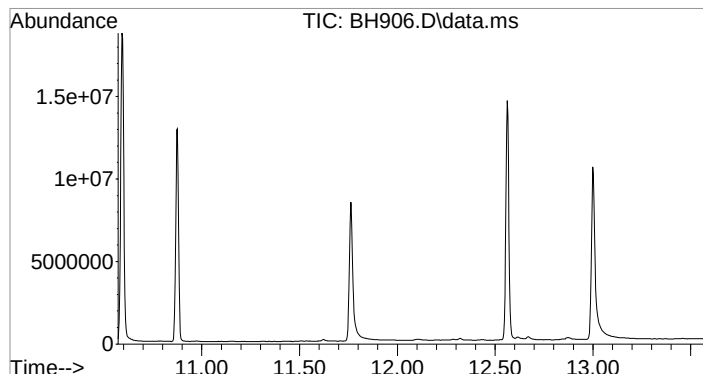
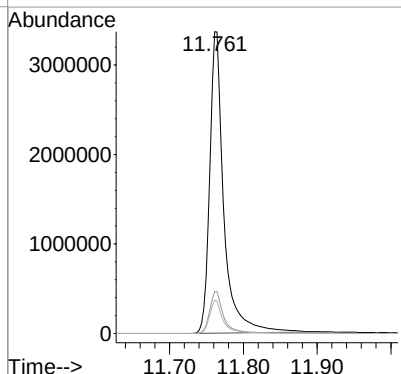
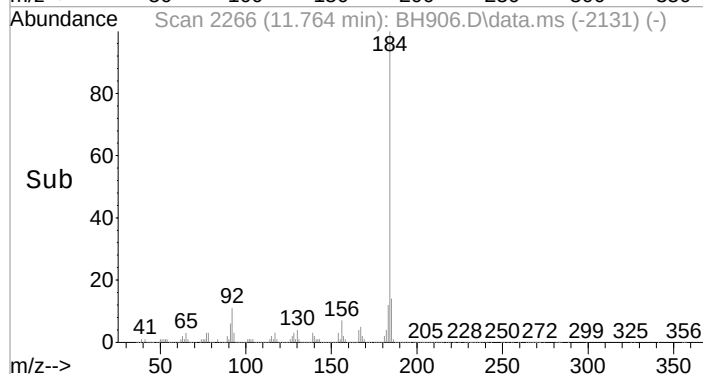
Tgt Ion:198 Resp:15943437  
Ion Ratio Lower Upper  
198 100  
127 48.6 36.9 76.9  
442 73.3 86.7 126.7#





#8  
Benzidine  
Concen: 52.36 ppm  
RT: 11.764 min Scan# 2266  
Delta R.T. -0.103 min  
Lab File: BH906.D  
Acq: 29 Jul 2022 8:10 am

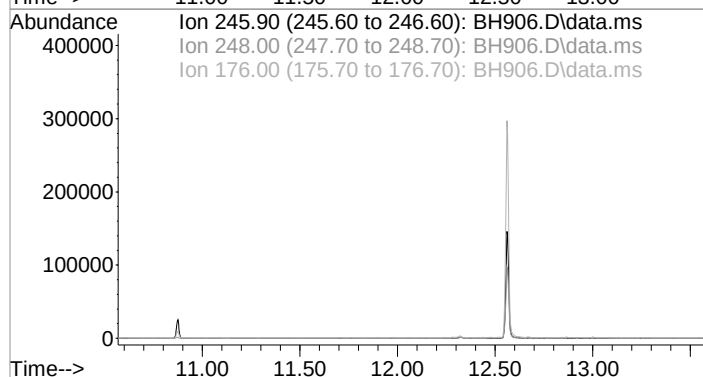
Tgt Ion: 184 Resp: 44836925  
Ion Ratio Lower Upper  
184 100  
185 14.0 0.0 33.8  
92 10.7 0.0 30.7



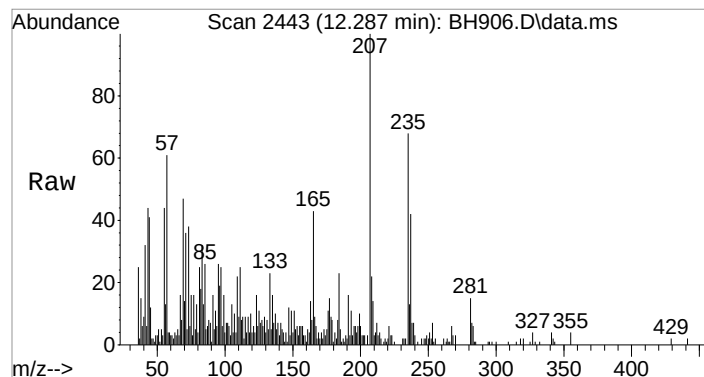
#9  
4,4'-DDE  
Concen: N.D.  
Expected RT: 12.07 min

Lab File: BH906.D  
Acq: 29 Jul 2022 8:10 am

Tgt Ion: 246  
Sig Exp Ratio  
246 100  
248 71.3  
176 27.6

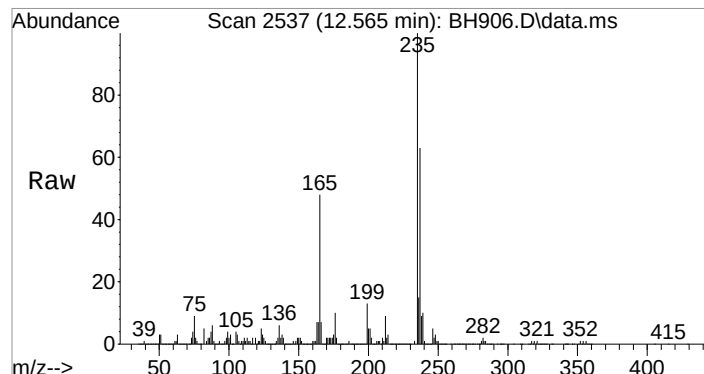
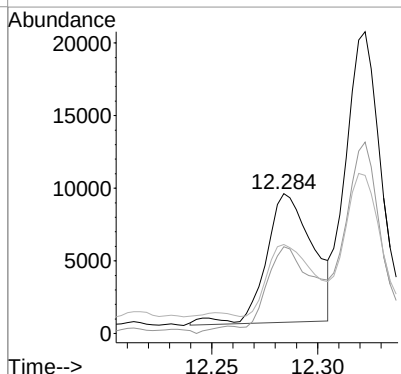
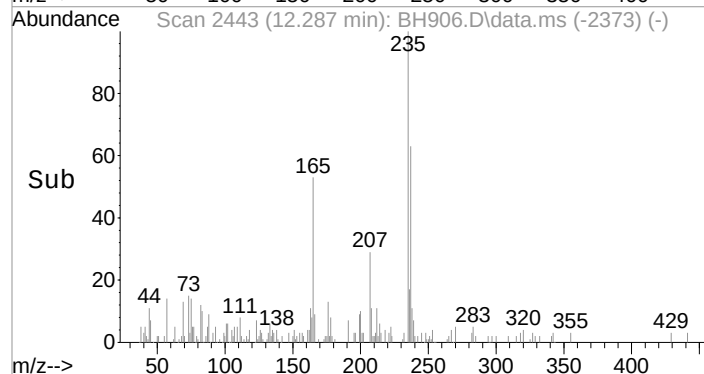






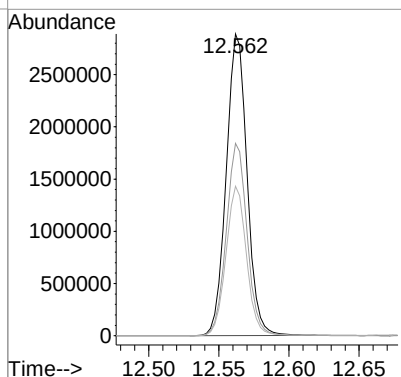
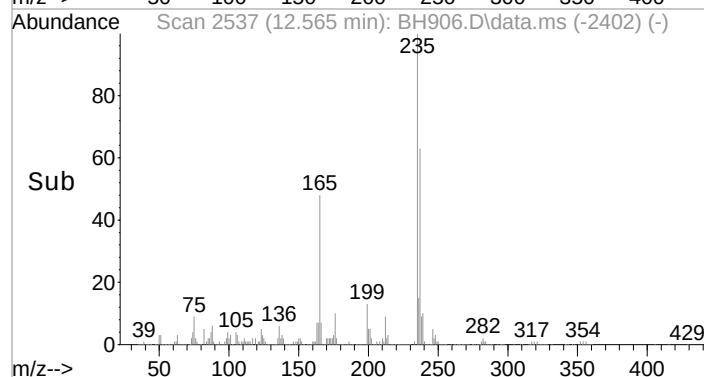
#10  
4,4'-DDD  
Concen: 0.27 ppm  
RT: 12.286 min Scan# 2443  
Delta R.T. -0.096 min  
Lab File: BH906.D  
Acq: 29 Jul 2022 8:10 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 235     | 100   |       |       |
| 237     | 58.7  | 42.2  | 82.2  |
| 165     | 54.2  | 41.6  | 81.6  |



#11  
4,4'-DDT  
Concen: 63.21 ppm  
RT: 12.564 min Scan# 2537  
Delta R.T. -0.103 min  
Lab File: BH906.D  
Acq: 29 Jul 2022 8:10 am

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 235     | 100   |       |       |
| 237     | 63.4  | 43.5  | 83.5  |
| 165     | 48.2  | 31.9  | 71.9  |



Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH868.D  
Acq On : 28 Jul 2022 2:13 pm  
Operator : MMCMAHON  
Sample : ICV  
Misc : ICV 0.2  
ALS Vial : 13 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:14:37 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

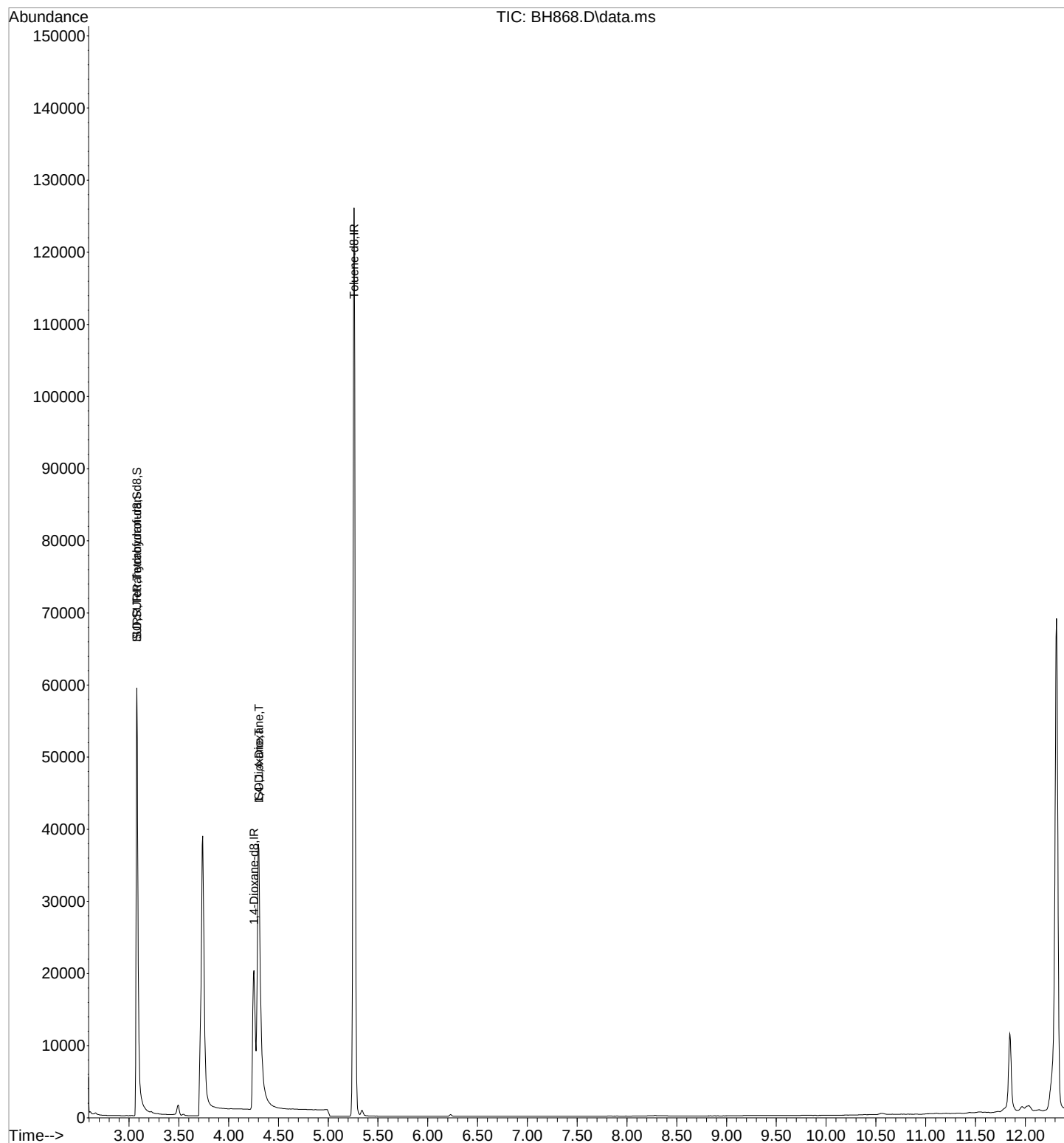
| Compound                       | R.T.           | QIon | Response | Conc       | Units | Dev(Min) |
|--------------------------------|----------------|------|----------|------------|-------|----------|
| Internal Standards             |                |      |          |            |       |          |
| 1) Toluene-d8                  | 5.259          | 98   | 107406   | 100.00     | ppb   | -0.02    |
| 4) 1,4-Dioxane-d8              | 4.254          | 96   | 22153    | 100.00     | ppb   | -0.02    |
| System Monitoring Compounds    |                |      |          |            |       |          |
| 3) SURR, Tetrahydrofuran-d8    | 3.079          | 46   | 31585    | 176.68     | ppb   | -0.02    |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | = 176.68%# |       |          |
| 6) ISO, SURR, Tetrahydrofur... | 3.079          | 46   | 31585    | 184.92     | ppb   | -0.02    |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | = 184.92%# |       |          |
| Target Compounds               |                |      |          |            |       | Qvalue   |
| 2) 1,4-Dioxane                 | 4.303          | 88   | 47790    | 200.89     | ppb   | 90       |
| 5) ISO, 1,4-Dioxane            | 4.303          | 88   | 47790    | 210.08     | ppb   | 90       |

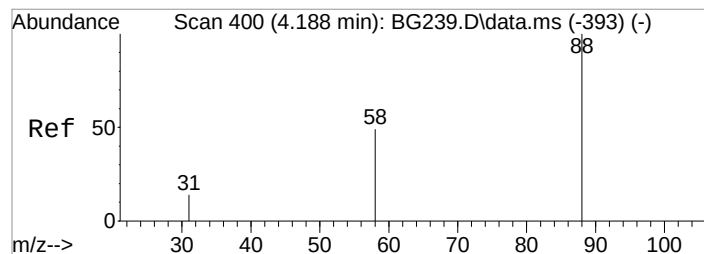
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH868.D  
Acq On : 28 Jul 2022 2:13 pm  
Operator : MMCMAHON  
Sample : ICV  
Misc : ICV 0.2  
ALS Vial : 13 Sample Multiplier: 1

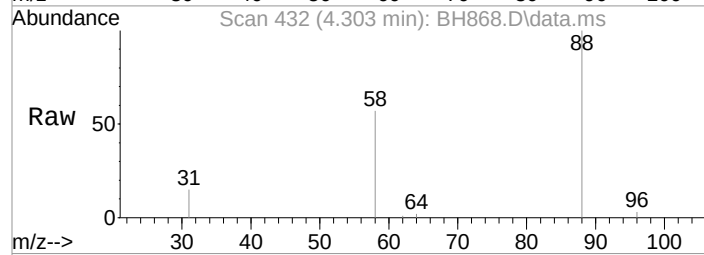
Inst : 5975 E

Quant Time: Jul 28 15:14:37 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

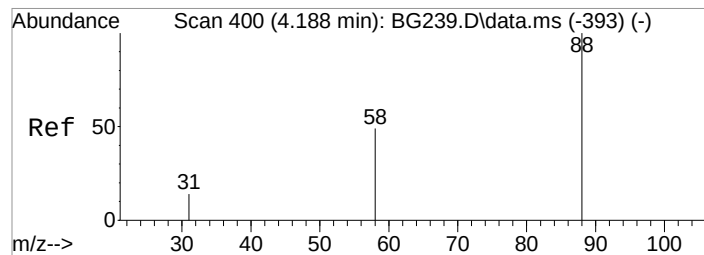
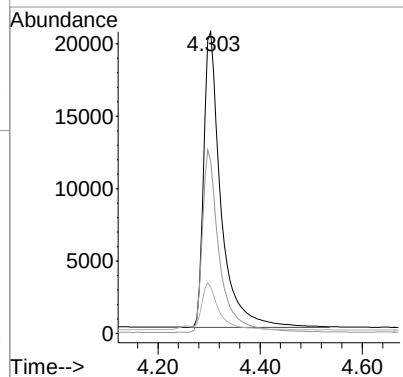
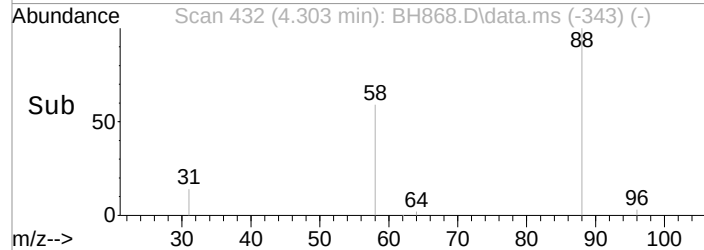




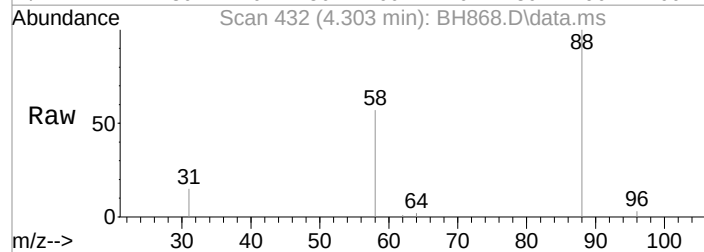
#2  
1,4-Dioxane  
Concen: 200.89 ppb  
RT: 4.303 min Scan# 432  
Delta R.T. -0.016 min  
Lab File: BH868.D  
Acq: 28 Jul 2022 2:13 pm



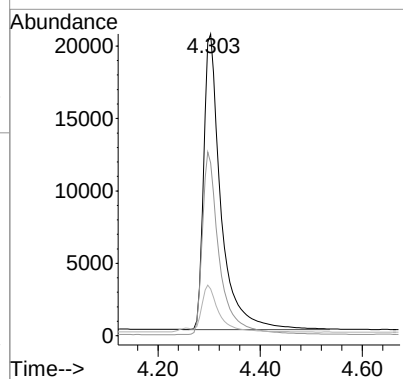
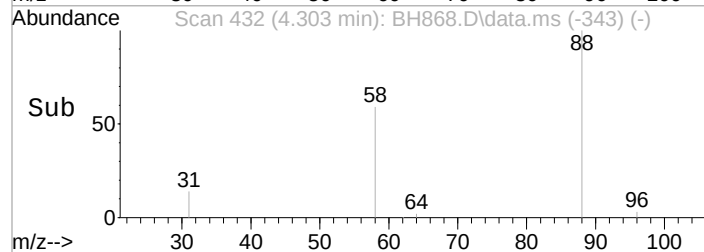
| Tgt Ion:  | 88    | Resp: | 47790 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 57.9  | 29.4  | 69.4  |
| 31        | 14.0  | 0.0   | 35.0  |



#5  
ISO,1,4-Dioxane  
Concen: 210.08 ppb  
RT: 4.303 min Scan# 432  
Delta R.T. -0.016 min  
Lab File: BH868.D  
Acq: 28 Jul 2022 2:13 pm



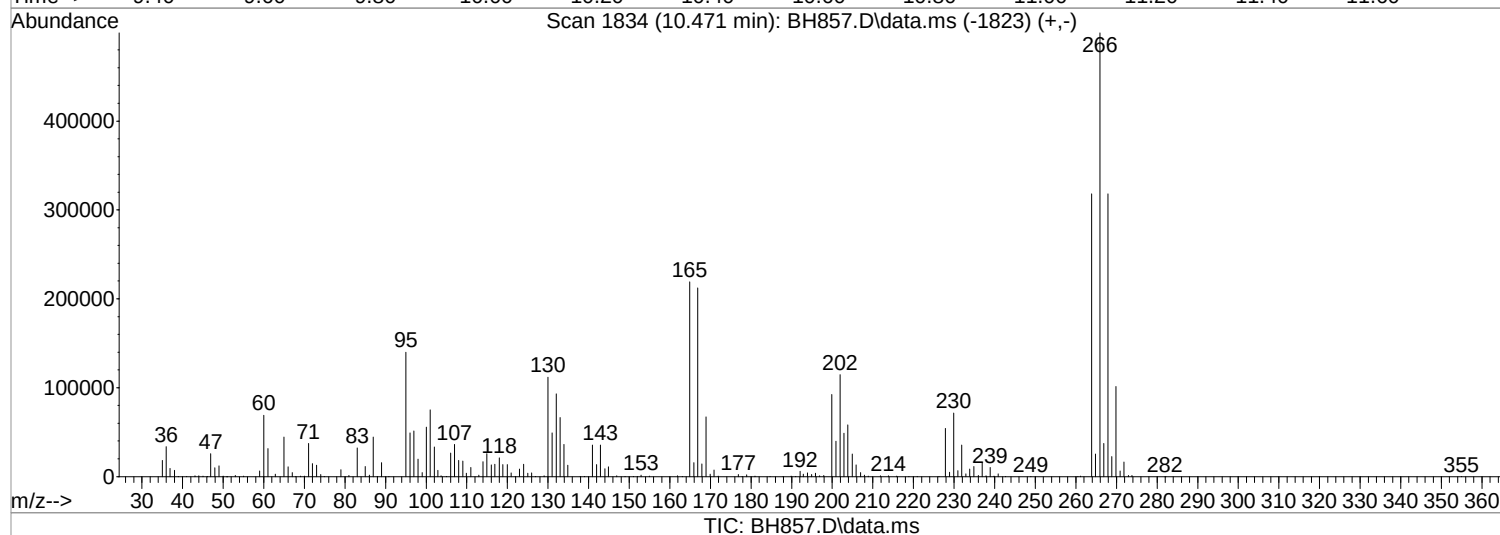
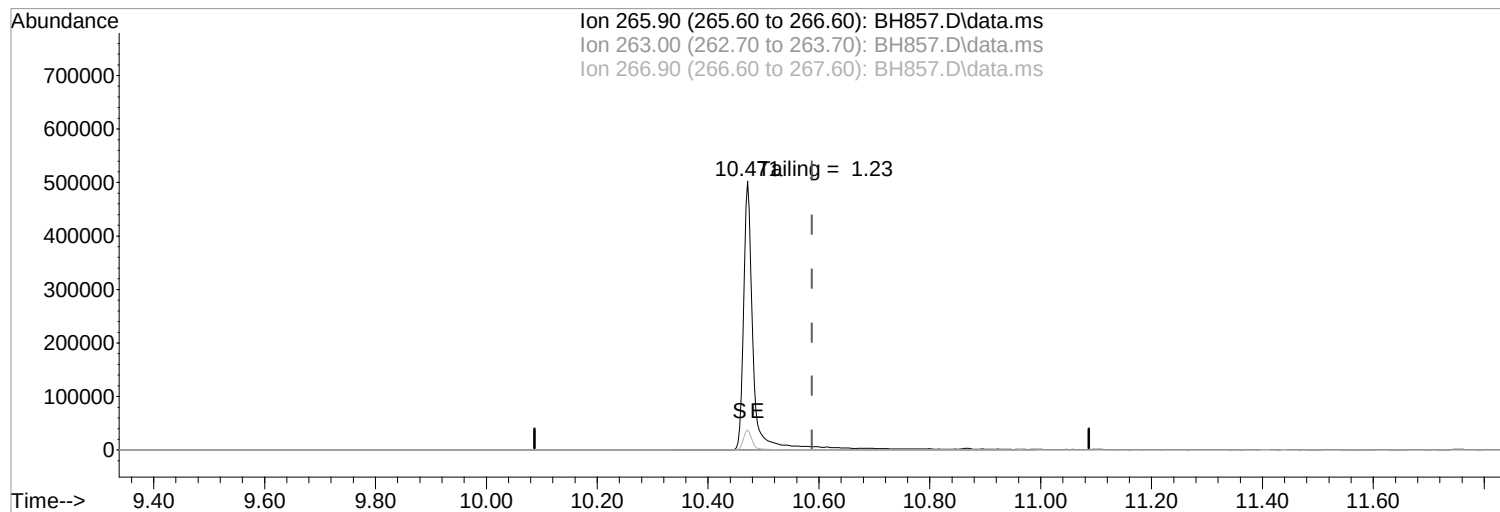
| Tgt Ion:  | 88    | Resp: | 47790 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 57.9  | 29.4  | 69.4  |
| 31        | 14.0  | 0.0   | 35.0  |



Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH857.D  
Acq On : 28 Jul 2022 10:57 am  
Operator : MMCMAHON  
Sample : TUNE DFTPP  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 11:17:43 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M  
Quant Title :  
QLast Update : Tue Jul 20 10:09:20 2021  
Response via : Initial Calibration



(5) Pentachlorophenol (T)

10.473min (-0.115) 44.53 ppm

response 5491215

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 265.90 | 100.00 | 100.00 |
| 263.00 | 0.00   | 0.00   |
| 266.90 | 7.70   | 7.47   |
| 0.00   | 0.00   | 0.00   |

Manual Integration:

After

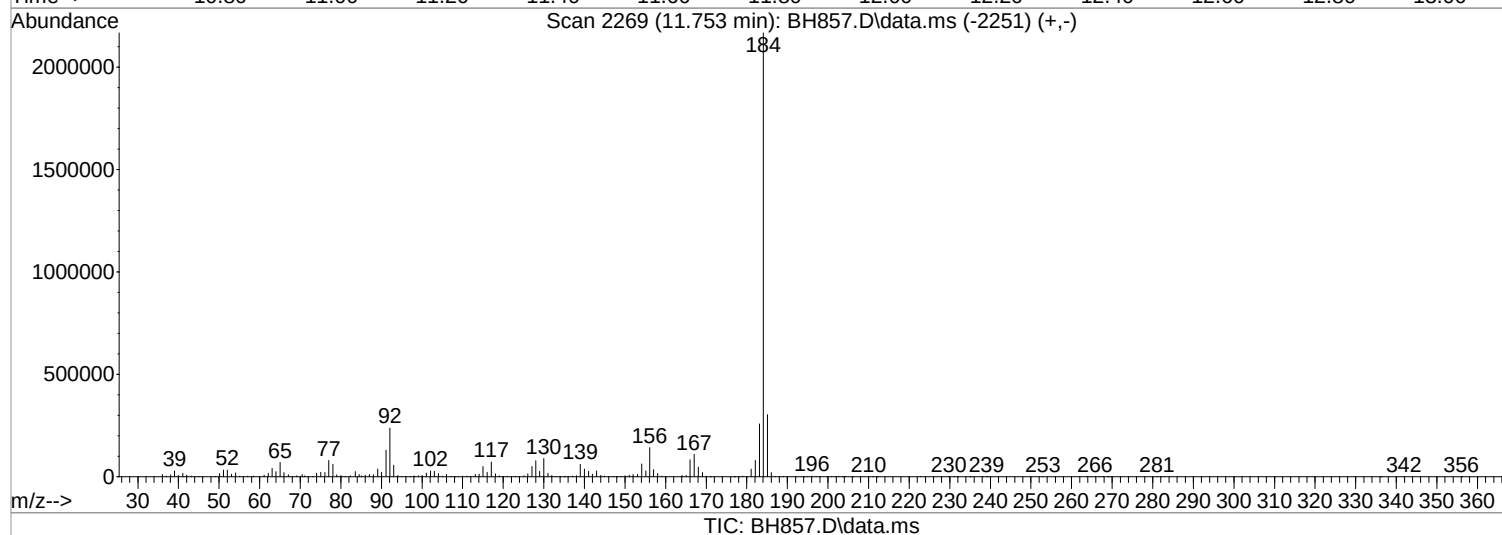
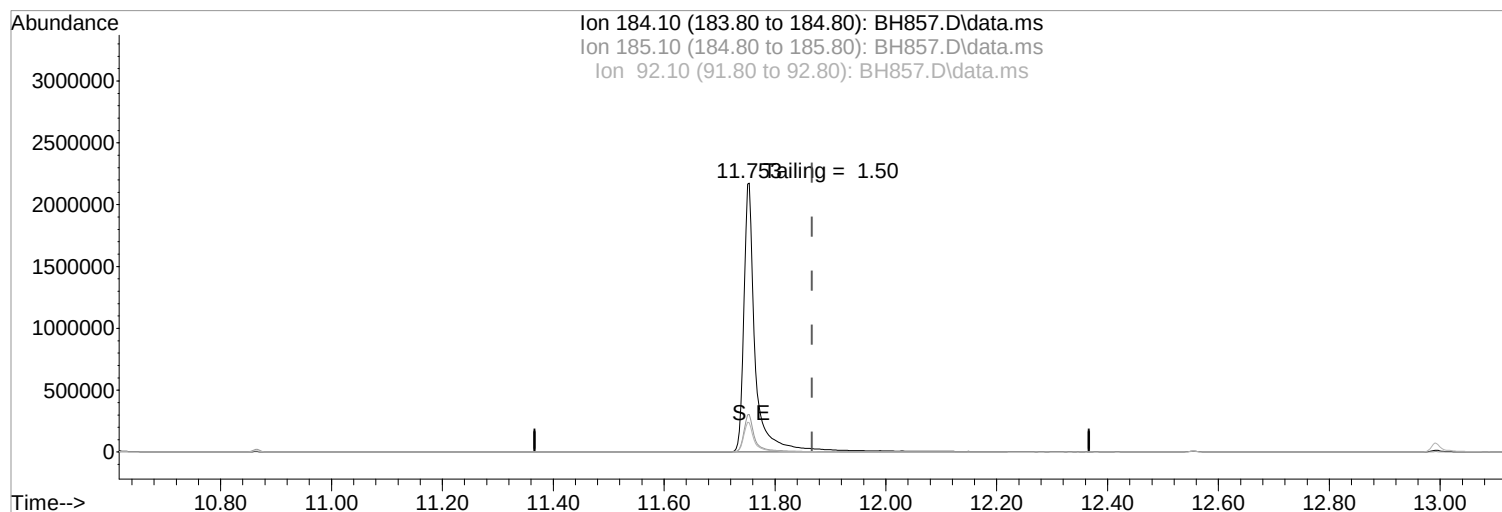
Other - TAILING

07/28/22

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH857.D  
Acq On : 28 Jul 2022 10:57 am  
Operator : MMCMAHON  
Sample : TUNE DFTPP  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 11:17:43 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M  
Quant Title :  
QLast Update : Tue Jul 20 10:09:20 2021  
Response via : Initial Calibration



TIC: BH857.D\data.ms

**(8) Benzidine (T)**

11.753min (-0.113) 69.61 ppm

response 29949086

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 184.10 | 100.00 | 100.00 |
| 185.10 | 13.80  | 13.92  |
| 92.10  | 10.70  | 10.91  |
| 0.00   | 0.00   | 0.00   |

**Manual Integration:**

**After**

**Other - TAILING**

**07/28/22**

Data Path : I:\ACQUDATA\5975E\data\072822\  
 Data File : BH857.D  
 Acq On : 28 Jul 2022 10:57 am  
 Operator : MMCMAHON  
 Sample : TUNE DFTPP Inst : 5975 E  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : I:\ACQUDATA\5975E\METHODS\DFTPPDIO.M  
 Title :  
 Last Update : Tue Jul 20 10:09:20 2021

AutoFind: Scans 1967, 1968, 1969; Background Corrected with Scan 1954

| Target | Rel. to | Lower  | Upper  | Rel.  | Raw     | Result    |
|--------|---------|--------|--------|-------|---------|-----------|
| Mass   | Mass    | Limit% | Limit% | Abn%  | Abn     | Pass/Fail |
| 68     | 69      | 0.00   | 2      | 1.3   | 6916    | PASS      |
| 69     | 69      | 100    | 100    | 100.0 | 542353  | PASS      |
| 70     | 69      | 0.00   | 2      | 0.5   | 2919    | PASS      |
| 197    | 198     | 0.00   | 2      | 0.0   | 0       | PASS      |
| 198    | 198     | 100    | 100    | 100.0 | 1304064 | PASS      |
| 199    | 198     | 5      | 9      | 6.8   | 88794   | PASS      |
| 365    | 198     | 1      | 200    | 2.2   | 28176   | PASS      |
| 441    | 443     | 0.01   | 150    | 78.2  | 131584  | PASS      |
| 442    | 442     | 100    | 100    | 100.0 | 879253  | PASS      |
| 443    | 442     | 15     | 24     | 19.1  | 168235  | PASS      |

DFTPPDIO.M Thu Jul 28 11:18:21 2022

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH858.D  
Acq On : 28 Jul 2022 11:20 am  
Operator : MMCMAHON  
Sample : INSTRUMENT BLANK  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:15:26 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

| Compound                       | R.T.           | QIon | Response | Conc   | Units   | Dev(Min)  |
|--------------------------------|----------------|------|----------|--------|---------|-----------|
| -----                          |                |      |          |        |         |           |
| Internal Standards             |                |      |          |        |         |           |
| 1) Toluene-d8                  | 5.266          | 98   | 121377   | 100.00 | ppb     | -0.01     |
| 4) 1,4-Dioxane-d8              | 4.298          | 96   | 63       | 100.00 | ppb     | # 0.02    |
| System Monitoring Compounds    |                |      |          |        |         |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.041          | 46   | 23       | 0.68   | ppb     | -0.06     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 0.68%#  |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.041          | 46   | 23       | 47.72  | ppb     | -0.06     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 47.72%# |           |
| Target Compounds               |                |      |          |        |         |           |
| 2) 1,4-Dioxane                 | 4.357          | 88   | 86       | 0.42   | ppb     | Qvalue 89 |
| 5) ISO, 1,4-Dioxane            | 4.357          | 88   | 86       | 132.91 | ppb     | 89        |
| -----                          |                |      |          |        |         |           |

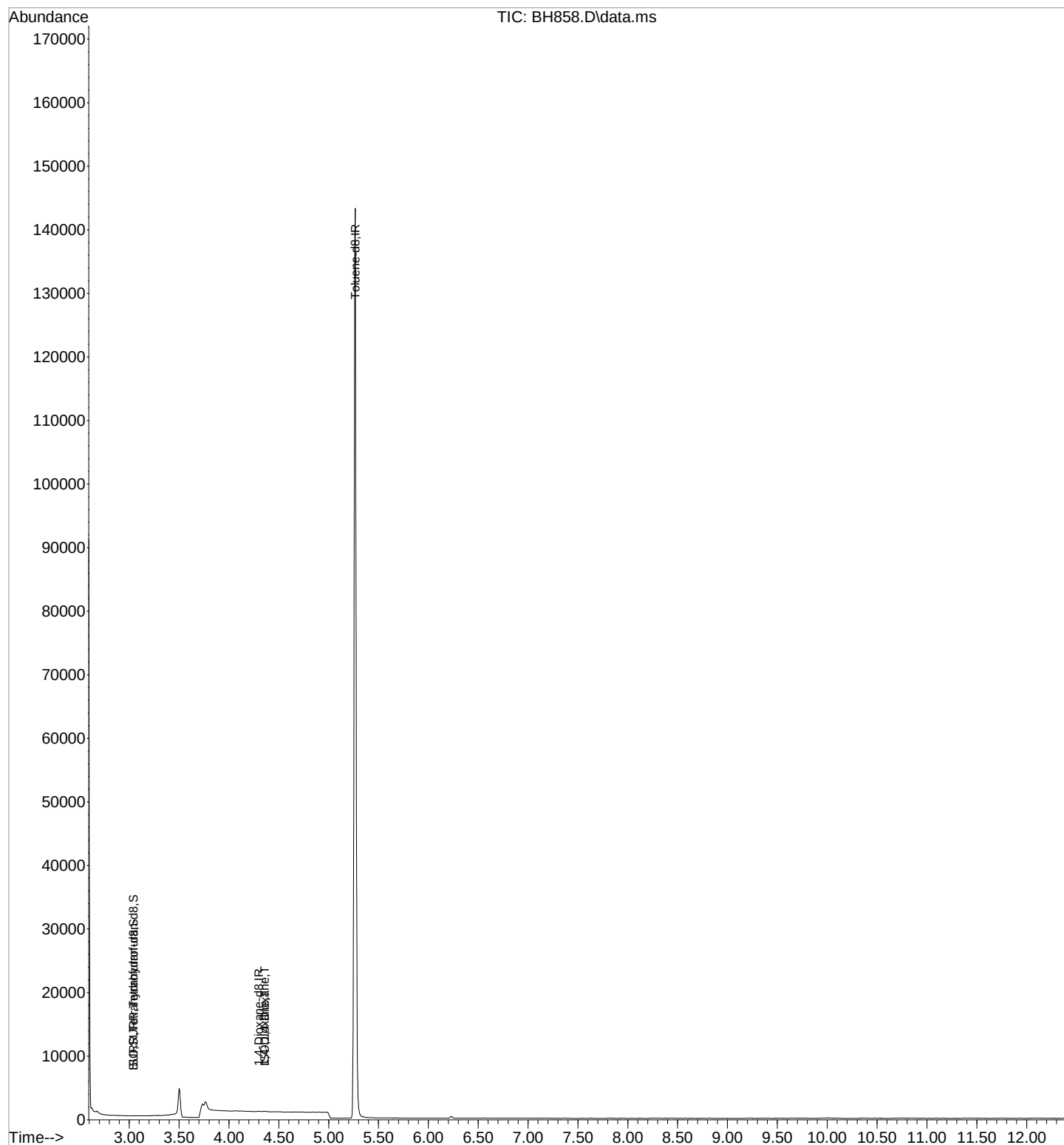
(#) = qualifier out of range (m) = manual integration (+) = signals summed

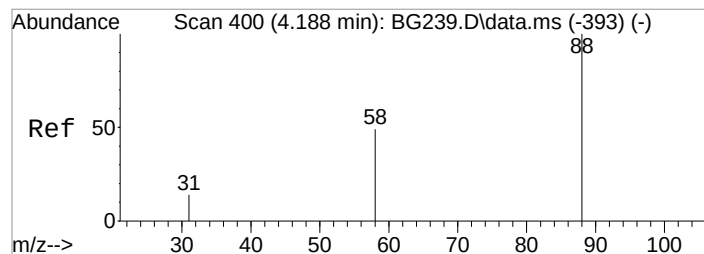


Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH858.D  
Acq On : 28 Jul 2022 11:20 am  
Operator : MMCMAHON  
Sample : INSTRUMENT BLANK  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

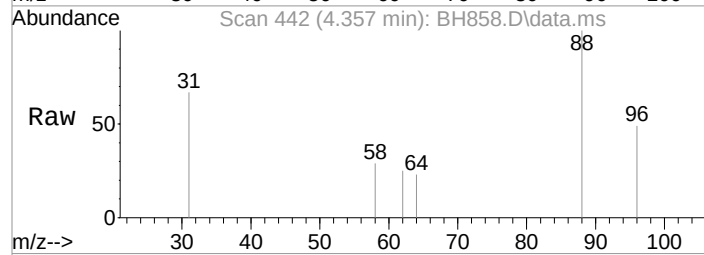
Inst : 5975 E

Quant Time: Jul 28 15:15:26 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

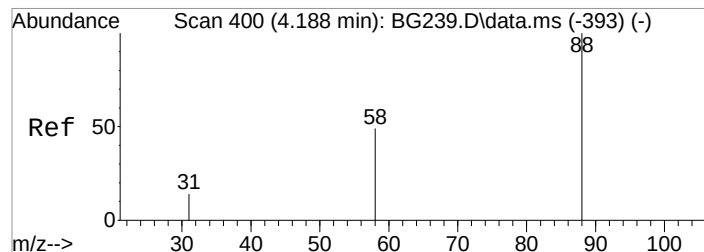
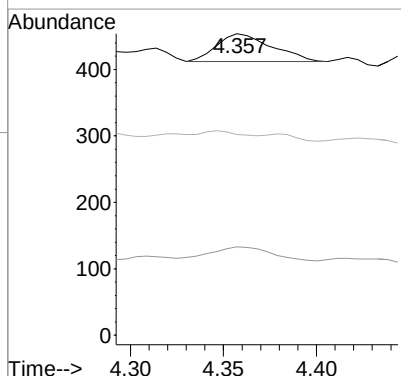
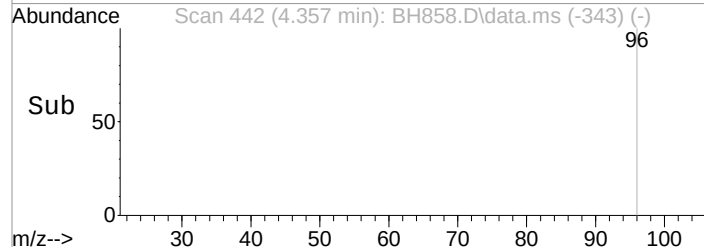




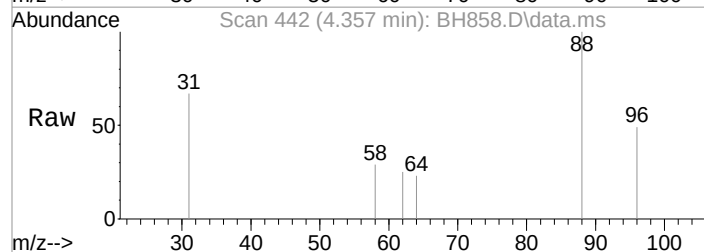
#2  
1,4-Dioxane  
Concen: 0.42 ppb  
RT: 4.357 min Scan# 442  
Delta R.T. 0.038 min  
Lab File: BH858.D  
Acq: 28 Jul 2022 11:20 am



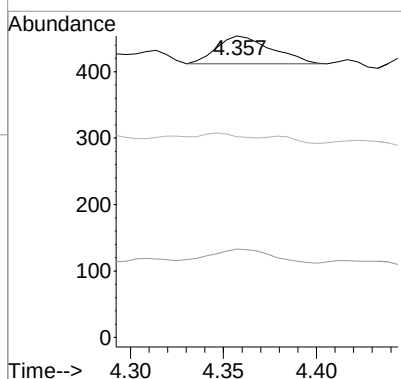
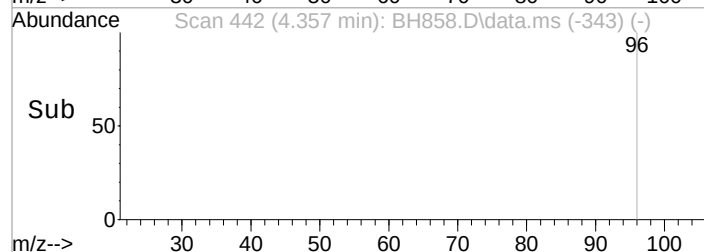
Tgt Ion: 88 Resp: 86  
Ion Ratio Lower Upper  
88 100  
58 41.7 29.4 69.4  
31 10.7 0.0 35.0



#5  
ISO,1,4-Dioxane  
Concen: 132.91 ppb  
RT: 4.357 min Scan# 442  
Delta R.T. 0.038 min  
Lab File: BH858.D  
Acq: 28 Jul 2022 11:20 am



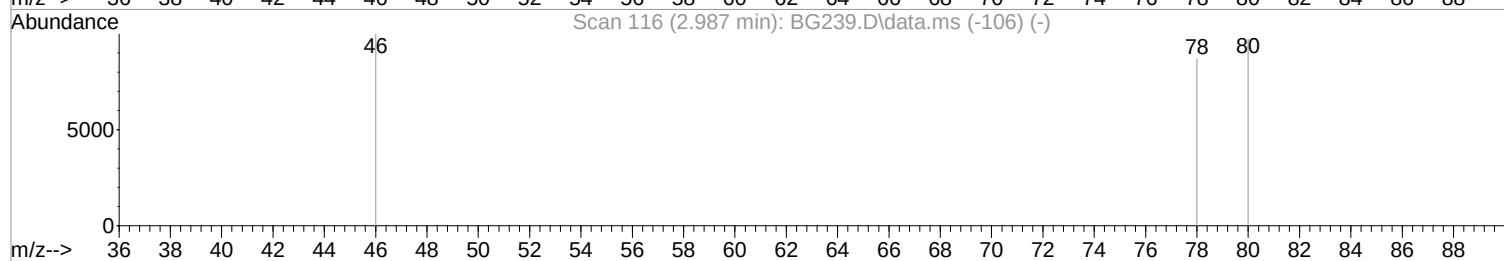
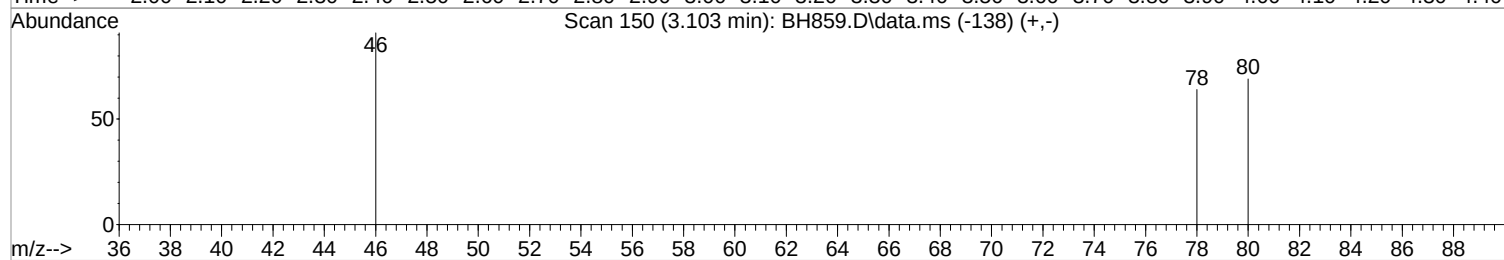
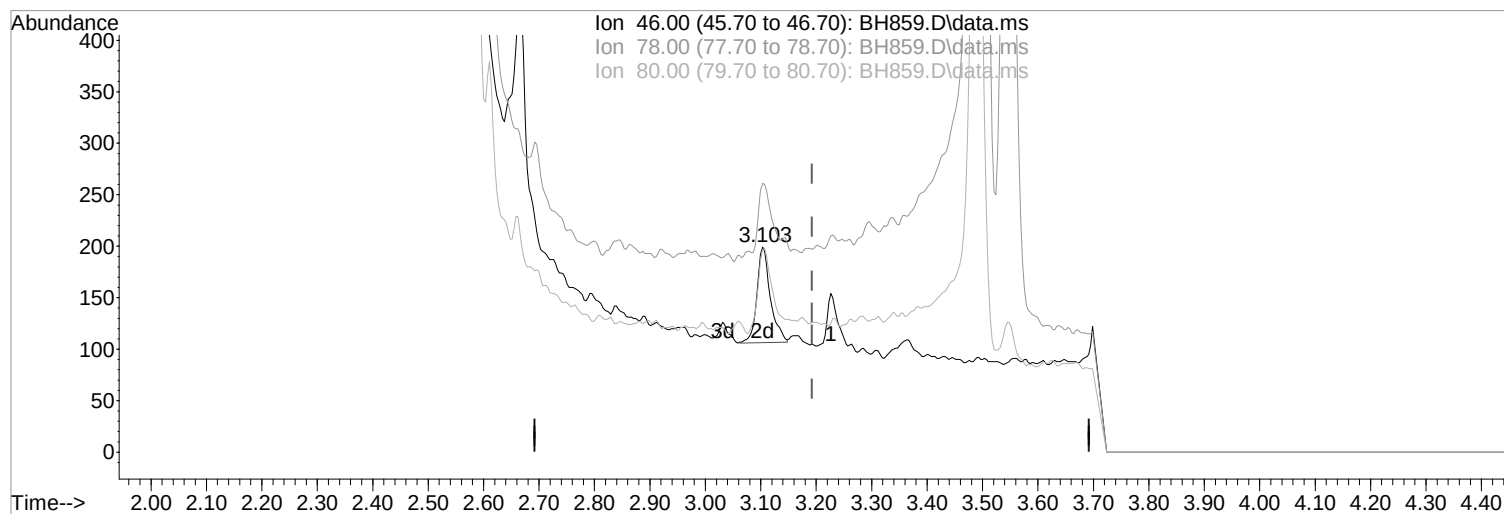
Tgt Ion: 88 Resp: 86  
Ion Ratio Lower Upper  
88 100  
58 41.7 29.4 69.4  
31 10.7 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH859.D  
Acq On : 28 Jul 2022 11:38 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc : .001  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:10:27 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:10:15 2022  
Response via : Initial Calibration



TIC: BH859.D\data.ms

## (3) SURR, Tetrahydrofuran-d8 (S)

3.103min (-0.089) 0.77 ppb m

response 156

| Ion   | Exp%   | Act%    |
|-------|--------|---------|
| 46.00 | 100.00 | 100.00  |
| 78.00 | 86.90  | 131.16# |
| 80.00 | 97.10  | 98.99   |
| 0.00  | 0.00   | 0.00    |

Manual Integration:

After

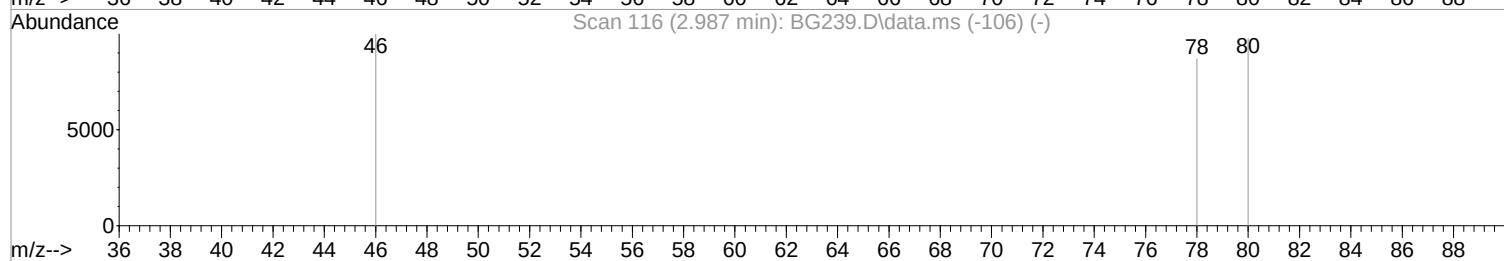
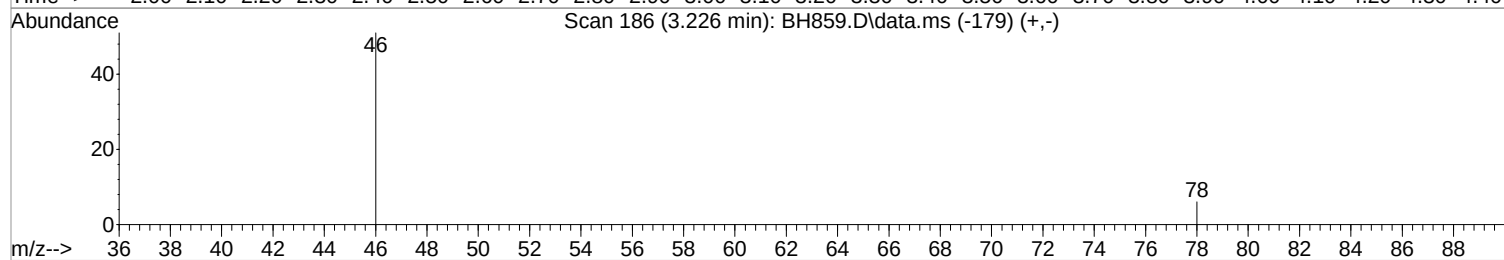
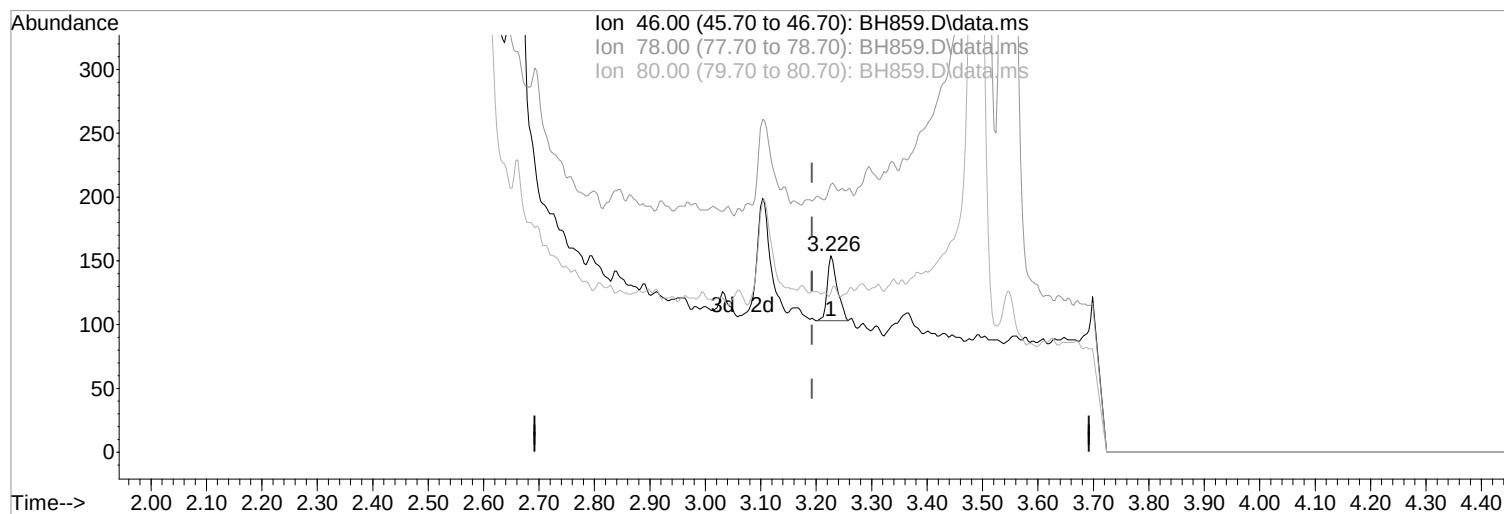
Wrong peak selected.

07/28/22

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH859.D  
Acq On : 28 Jul 2022 11:38 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc : .001  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:10:27 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:10:15 2022  
Response via : Initial Calibration



TIC: BH859.D\data.ms

(3) SURR, Tetrahydrofuran-d8 (S)

Manual Integration:

3.226min (+ 0.034) 0.31 ppb

Before

response 63

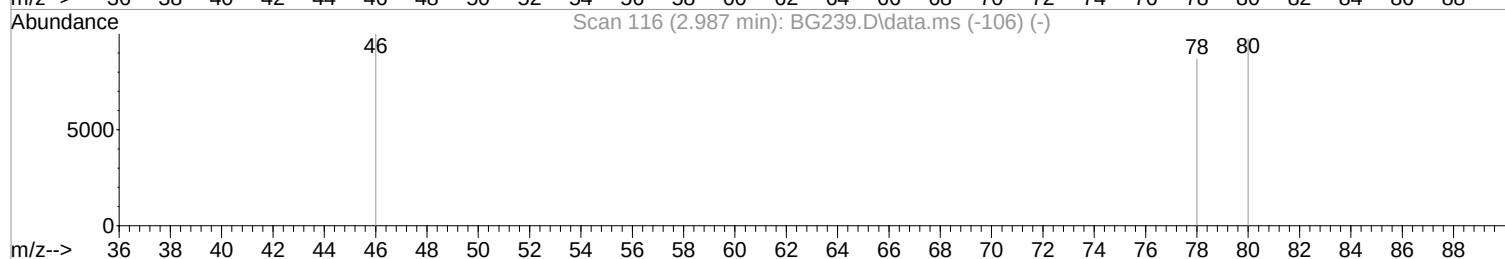
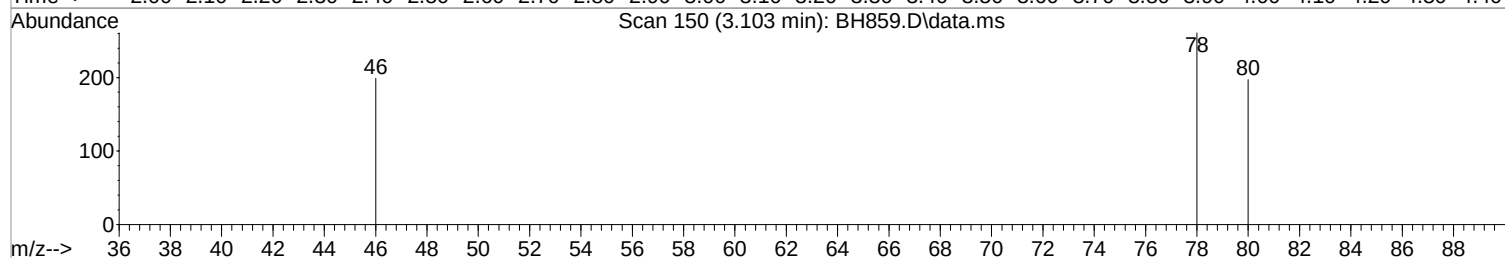
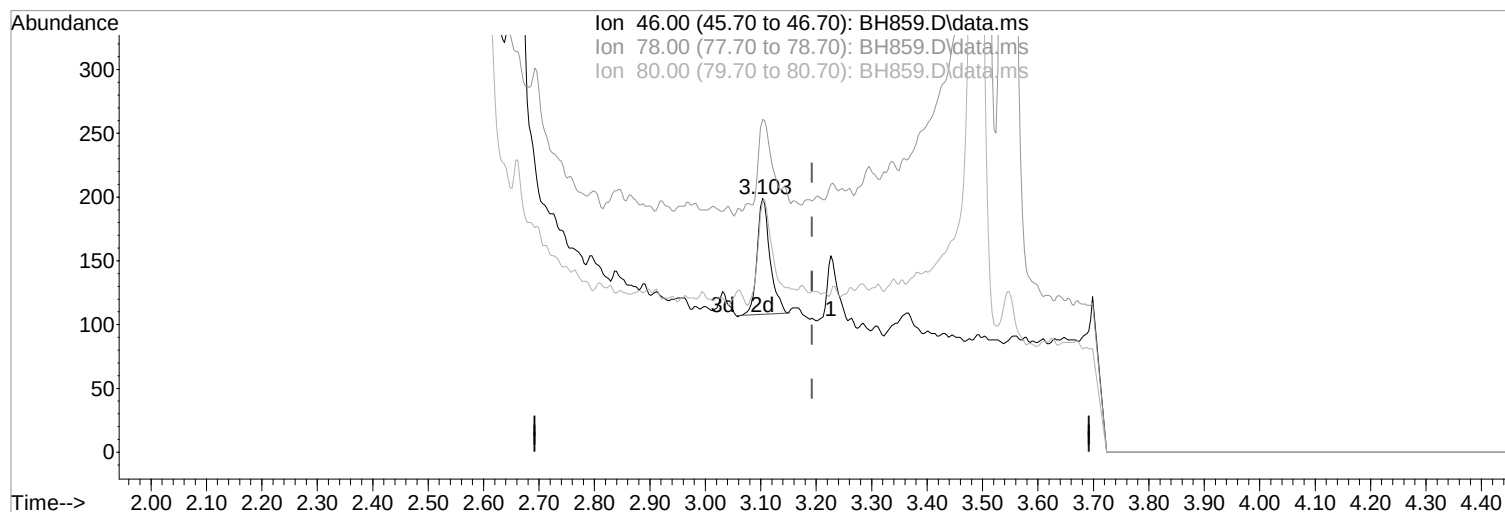
07/28/22

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 46.00 | 100.00 | 100.00 |
| 78.00 | 86.90  | 12.75# |
| 80.00 | 97.10  | 0.00#  |
| 0.00  | 0.00   | 0.00   |

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH859.D  
Acq On : 28 Jul 2022 11:38 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc : .001  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:10:27 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:10:15 2022  
Response via : Initial Calibration



TIC: BH859.D\data.ms

(6) ISO,SURR,Tetrahydrofuran-d8 (S)

3.103min (-0.089) 0.75 ppb m

response 148

| Ion   | Exp%   | Act%    |
|-------|--------|---------|
| 46.00 | 100.00 | 100.00  |
| 78.00 | 86.90  | 131.16# |
| 80.00 | 97.10  | 98.99   |
| 0.00  | 0.00   | 0.00    |

Manual Integration:

After

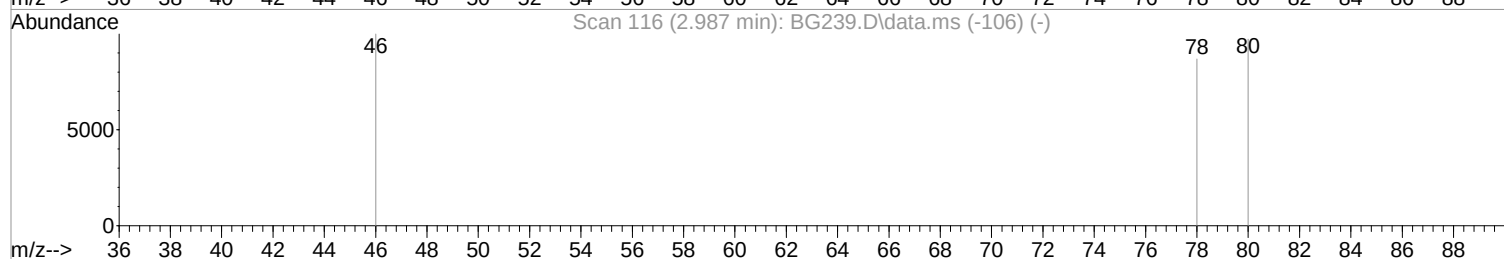
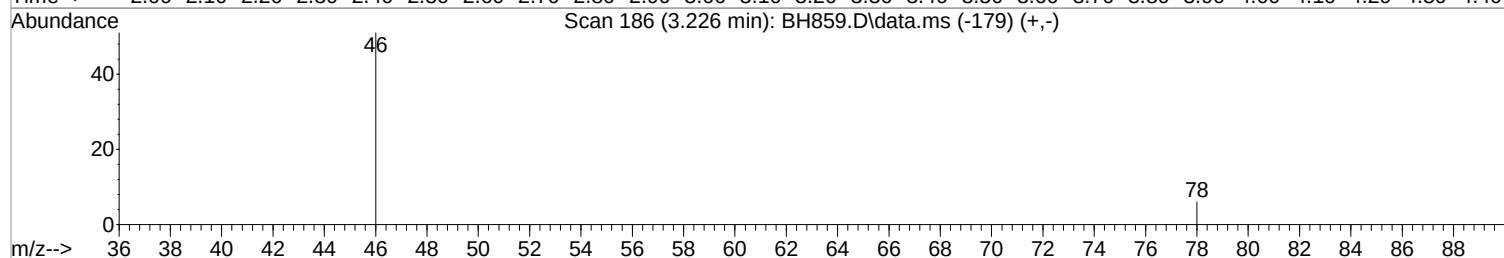
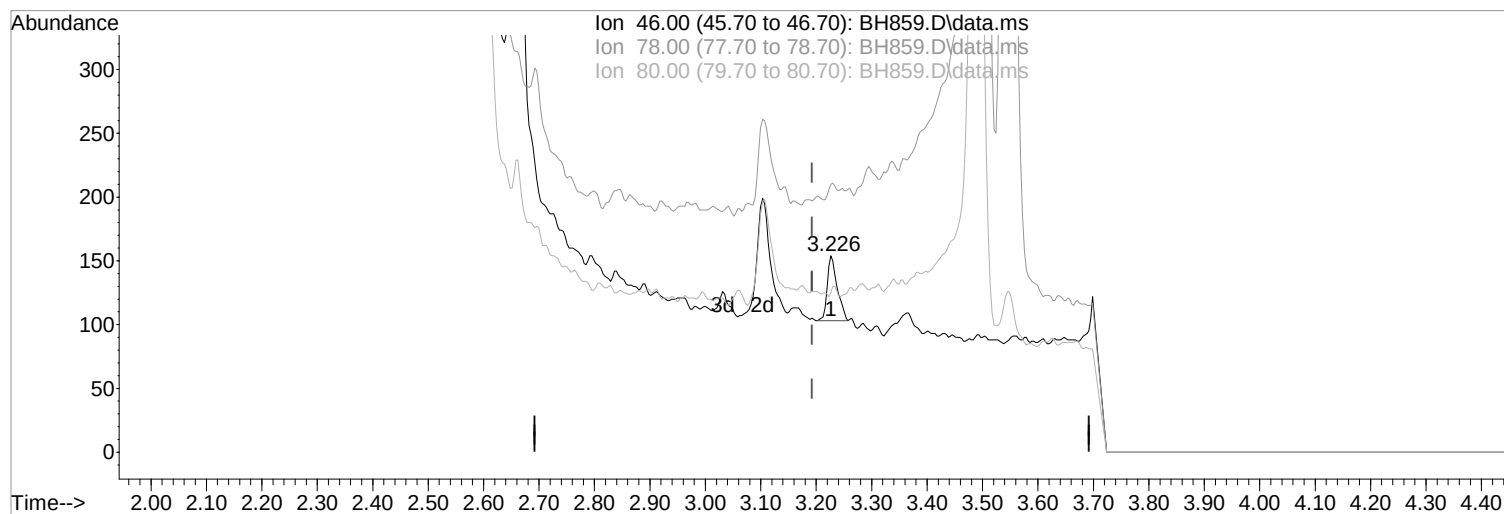
Wrong peak selected.

07/28/22

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH859.D  
Acq On : 28 Jul 2022 11:38 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc : .001  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:10:27 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:10:15 2022  
Response via : Initial Calibration



TIC: BH859.D\data.ms

(6) ISO,SURR,Tetrahydrofuran-d8 (S)

Manual Integration:

3.226min (+ 0.034) 0.32 ppb

Before

response 63

07/28/22

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 46.00 | 100.00 | 100.00 |
| 78.00 | 86.90  | 12.75# |
| 80.00 | 97.10  | 0.00#  |
| 0.00  | 0.00   | 0.00   |

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH859.D  
Acq On : 28 Jul 2022 11:38 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc : .001  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:10:56 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:10:15 2022  
Response via : Initial Calibration

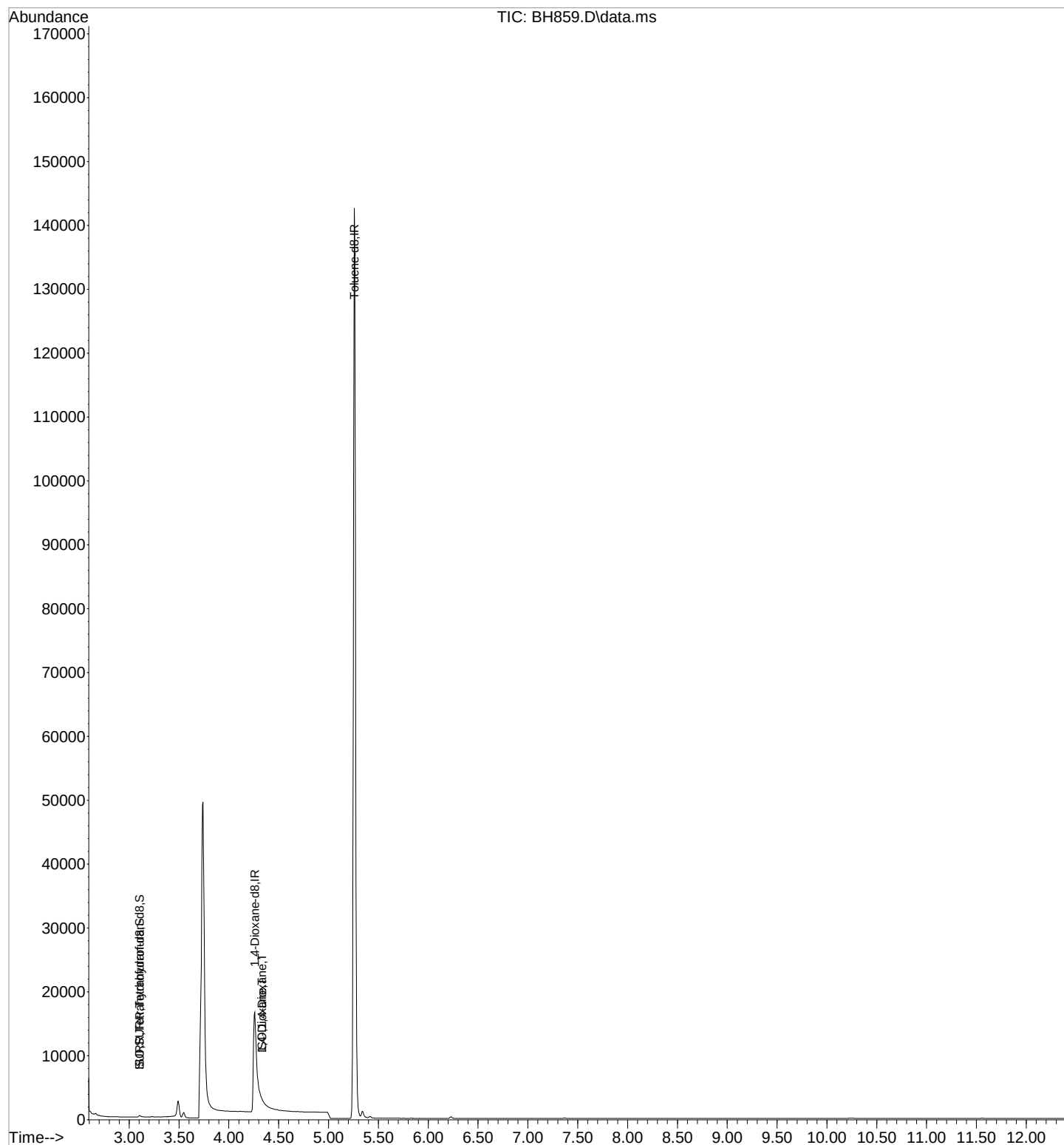
| Compound                       | R.T.           | QIon | Response | Conc   | Units  | Dev(Min)  |
|--------------------------------|----------------|------|----------|--------|--------|-----------|
| -----                          |                |      |          |        |        |           |
| Internal Standards             |                |      |          |        |        |           |
| 1) Toluene-d8                  | 5.259          | 98   | 122750   | 100.00 | ppb    | -0.14     |
| 4) 1,4-Dioxane-d8              | 4.260          | 96   | 25812    | 100.00 | ppb    | -0.15     |
| System Monitoring Compounds    |                |      |          |        |        |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.103          | 46   | 156m     | 0.77   | ppb    | -0.09     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 0.77%# |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.103          | 46   | 148m     | 0.75   | ppb    | -0.09     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 0.75%# |           |
| Target Compounds               |                |      |          |        |        |           |
| 2) 1,4-Dioxane                 | 4.330          | 88   | 278      | 1.01   | ppb    | Qvalue 77 |
| 5) ISO, 1,4-Dioxane            | 4.330          | 88   | 278      | 1.05   | ppb    | 77        |
| -----                          |                |      |          |        |        |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

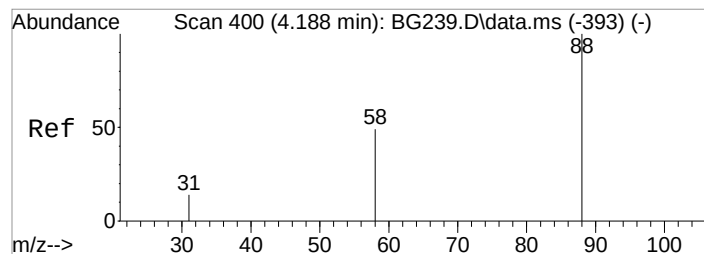
Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH859.D  
Acq On : 28 Jul 2022 11:38 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc : .001  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

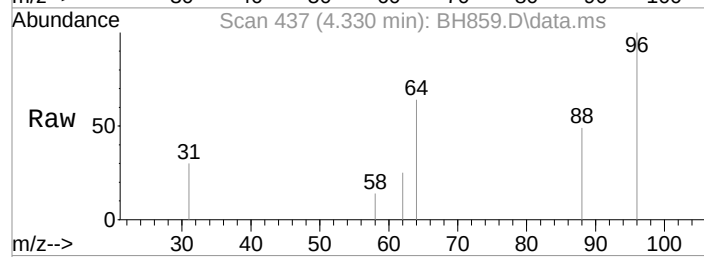
Quant Time: Jul 28 15:10:56 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:10:15 2022  
Response via : Initial Calibration



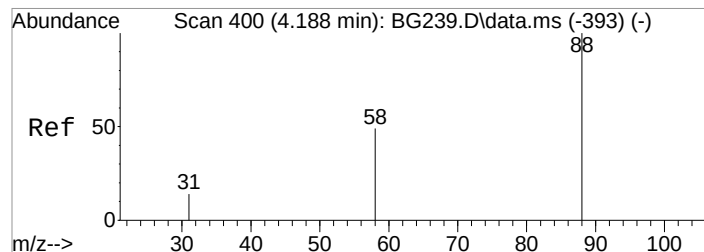
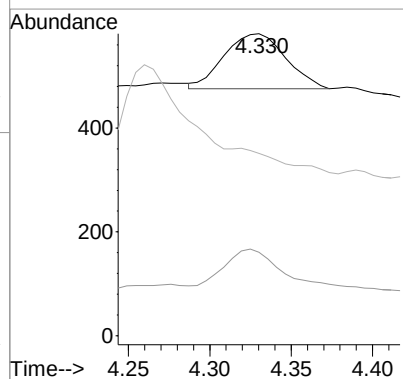
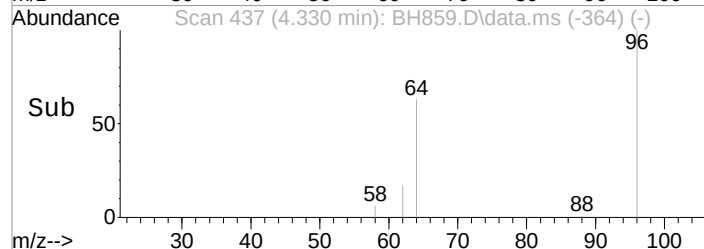




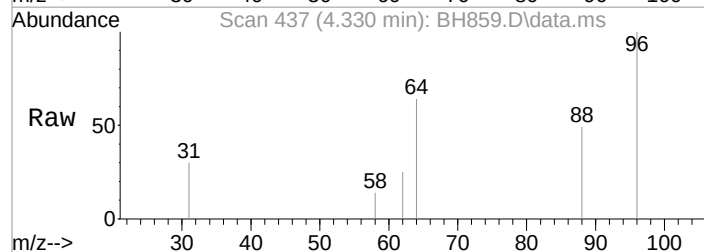
#2  
1,4-Dioxane  
Concen: 1.01 ppb  
RT: 4.330 min Scan# 437  
Delta R.T. -0.106 min  
Lab File: BH859.D  
Acq: 28 Jul 2022 11:38 am



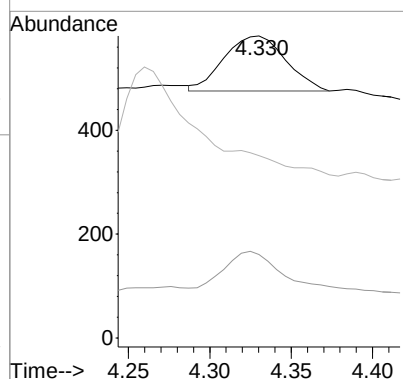
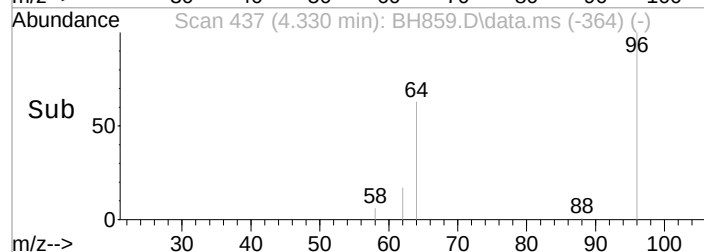
Tgt Ion: 88 Resp: 278  
Ion Ratio Lower Upper  
88 100  
58 62.9 29.4 69.4  
31 0.0 0.0 35.0



#5  
ISO,1,4-Dioxane  
Concen: 1.05 ppb  
RT: 4.330 min Scan# 437  
Delta R.T. -0.106 min  
Lab File: BH859.D  
Acq: 28 Jul 2022 11:38 am



Tgt Ion: 88 Resp: 278  
Ion Ratio Lower Upper  
88 100  
58 62.9 29.4 69.4  
31 0.0 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH860.D  
Acq On : 28 Jul 2022 11:55 am  
Operator : MMCMAHON  
Sample : STD 2  
Misc : .002  
ALS Vial : 5 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:11:21 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:11:12 2022  
Response via : Initial Calibration

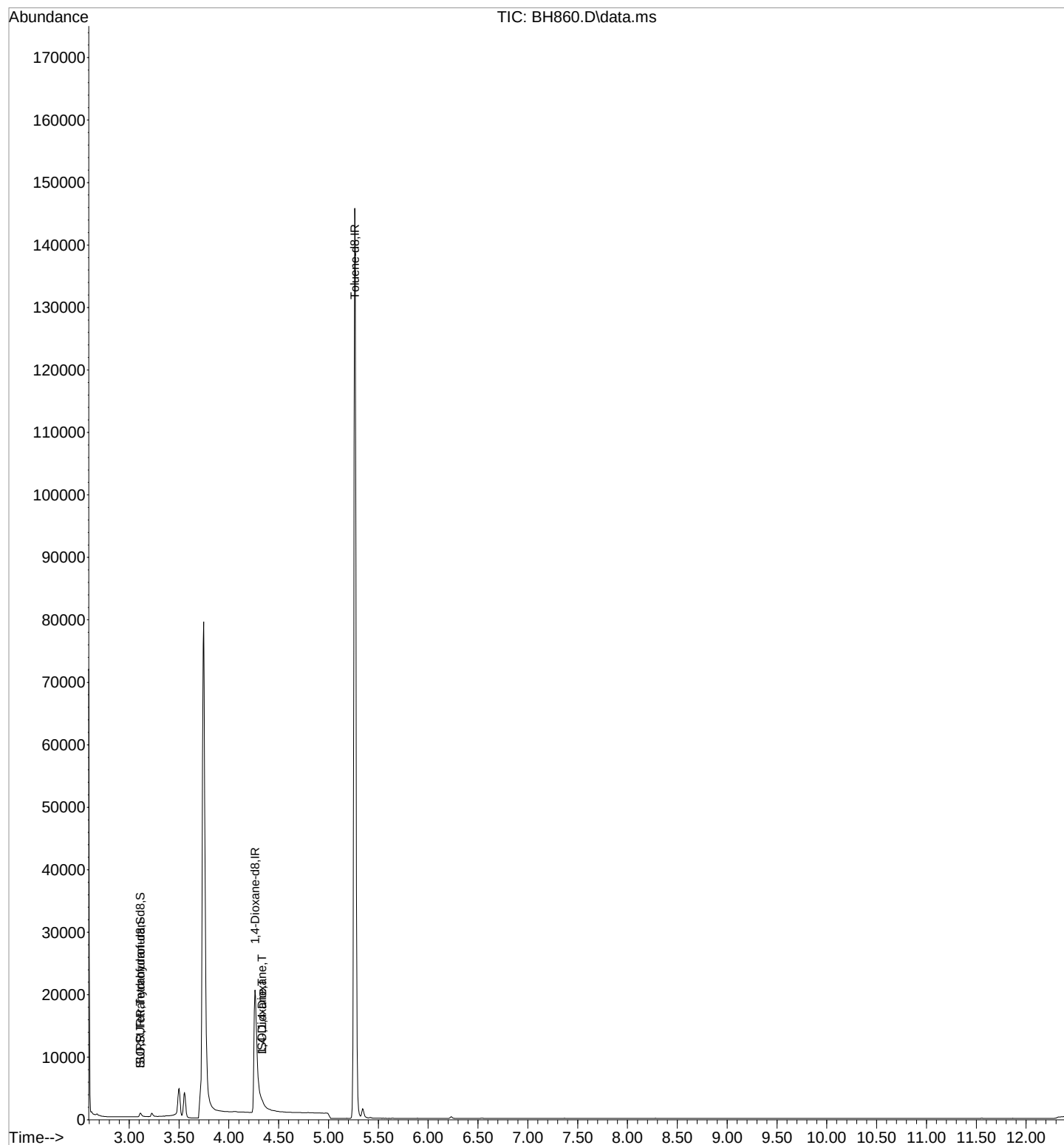
| Compound                       | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|--------------------------------|----------------|------|----------|--------|--------|----------|
| Internal Standards             |                |      |          |        |        |          |
| 1) Toluene-d8                  | 5.264          | 98   | 125707   | 100.00 | ppb    | -0.10    |
| 4) 1,4-Dioxane-d8              | 4.262          | 96   | 27647    | 100.00 | ppb    | -0.11    |
| System Monitoring Compounds    |                |      |          |        |        |          |
| 3) SURR, Tetrahydrofuran-d8    | 3.110          | 46   | 388      | 2.12   | ppb    | -0.06    |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 2.12%# |          |
| 6) ISO, SURR, Tetrahydrofur... | 3.110          | 46   | 388      | 2.11   | ppb    | -0.06    |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 2.11%# |          |
| Target Compounds               |                |      |          |        |        | Qvalue   |
| 2) 1,4-Dioxane                 | 4.332          | 88   | 600      | 2.12   | ppb    | 75       |
| 5) ISO, 1,4-Dioxane            | 4.332          | 88   | 600      | 2.06   | ppb    | 75       |

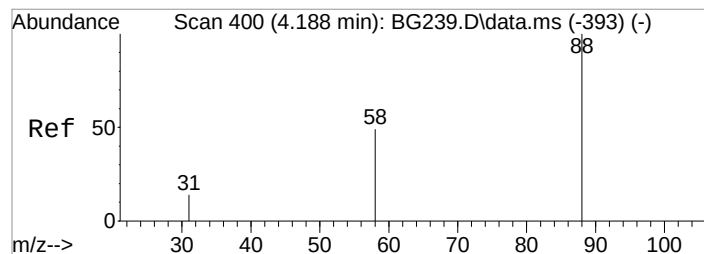
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH860.D  
Acq On : 28 Jul 2022 11:55 am  
Operator : MMCMAHON  
Sample : STD 2  
Misc : .002  
ALS Vial : 5 Sample Multiplier: 1

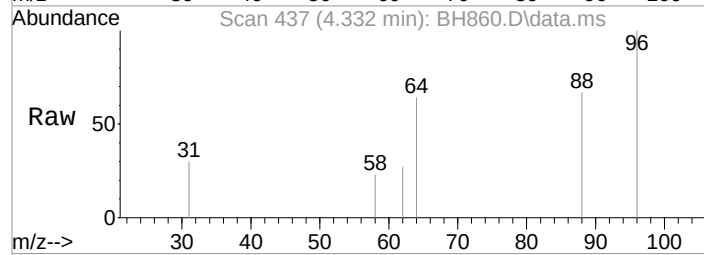
Inst : 5975 E

Quant Time: Jul 28 15:11:21 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:11:12 2022  
Response via : Initial Calibration

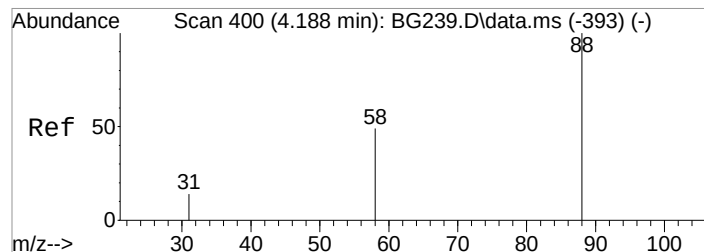
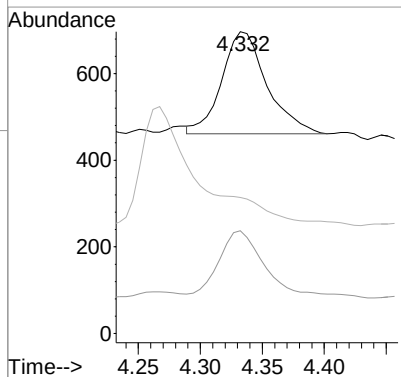
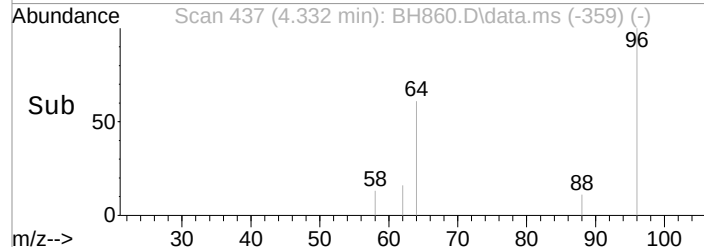




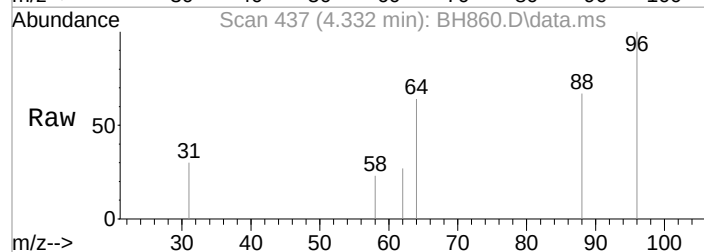
#2  
1,4-Dioxane  
Concen: 2.12 ppb  
RT: 4.332 min Scan# 437  
Delta R.T. -0.078 min  
Lab File: BH860.D  
Acq: 28 Jul 2022 11:55 am



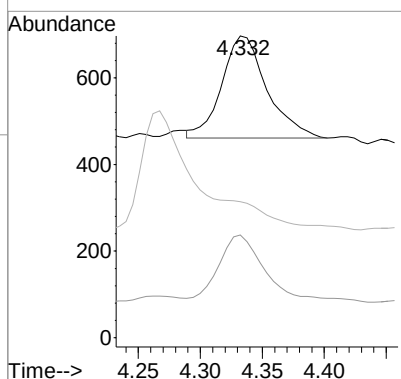
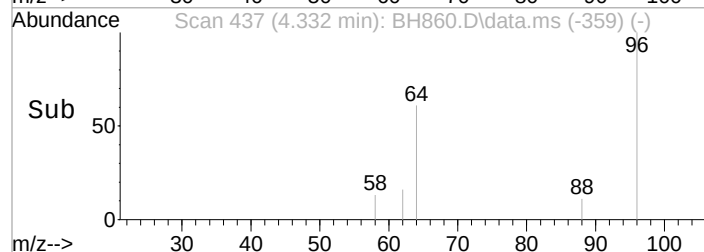
Tgt Ion: 88 Resp: 600  
Ion Ratio Lower Upper  
88 100  
58 64.3 29.4 69.4  
31 0.0 0.0 35.0



#5  
ISO,1,4-Dioxane  
Concen: 2.06 ppb  
RT: 4.332 min Scan# 437  
Delta R.T. -0.078 min  
Lab File: BH860.D  
Acq: 28 Jul 2022 11:55 am



Tgt Ion: 88 Resp: 600  
Ion Ratio Lower Upper  
88 100  
58 64.3 29.4 69.4  
31 0.0 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072822\  
 Data File : BH861.D  
 Acq On : 28 Jul 2022 12:12 pm  
 Operator : MMCMAHON  
 Sample : STD 3  
 Misc : .01  
 ALS Vial : 6 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:11:43 2022  
 Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
 Quant Title : 8270 BNA ANALYSIS  
 QLast Update : Thu Jul 28 15:11:36 2022  
 Response via : Initial Calibration

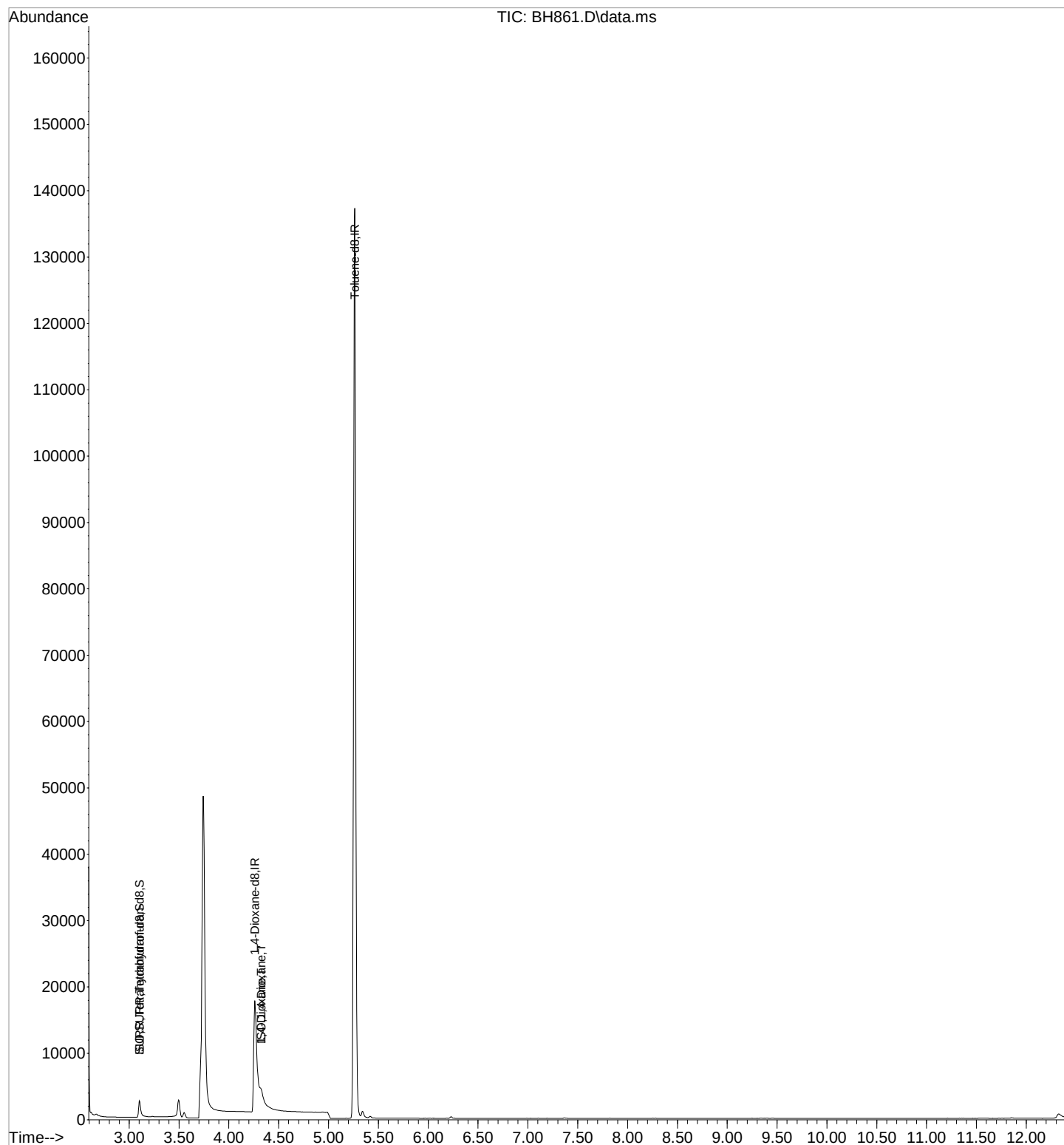
| Compound                       | R.T.           | QIon | Response | Conc   | Units  | Dev(Min)  |
|--------------------------------|----------------|------|----------|--------|--------|-----------|
| -----                          |                |      |          |        |        |           |
| Internal Standards             |                |      |          |        |        |           |
| 1) Toluene-d8                  | 5.262          | 98   | 120367   | 100.00 | ppb    | -0.08     |
| 4) 1,4-Dioxane-d8              | 4.260          | 96   | 24957    | 100.00 | ppb    | -0.08     |
| System Monitoring Compounds    |                |      |          |        |        |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.103          | 46   | 1523     | 8.51   | ppb    | -0.05     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 8.51%# |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.103          | 46   | 1523     | 9.00   | ppb    | -0.05     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | =      | 9.00%# |           |
| Target Compounds               |                |      |          |        |        |           |
| 2) 1,4-Dioxane                 | 4.325          | 88   | 2469     | 8.94   | ppb    | Qvalue 83 |
| 5) ISO, 1,4-Dioxane            | 4.325          | 88   | 2469     | 9.30   | ppb    | 83        |
| -----                          |                |      |          |        |        |           |

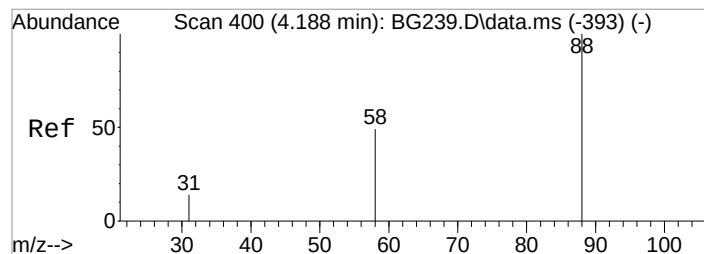
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH861.D  
Acq On : 28 Jul 2022 12:12 pm  
Operator : MMCMAHON  
Sample : STD 3  
Misc : .01  
ALS Vial : 6 Sample Multiplier: 1

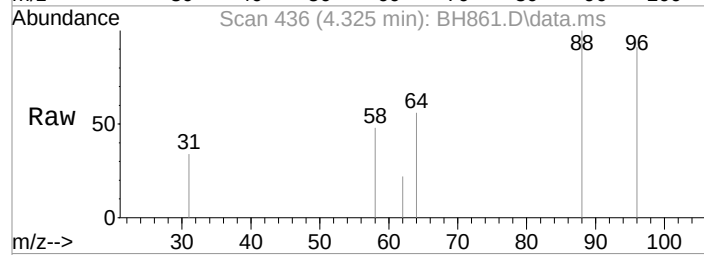
Inst : 5975 E

Quant Time: Jul 28 15:11:43 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:11:36 2022  
Response via : Initial Calibration

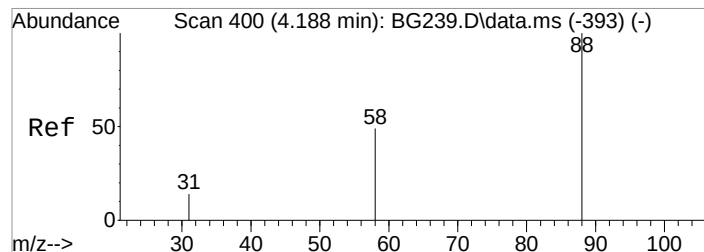
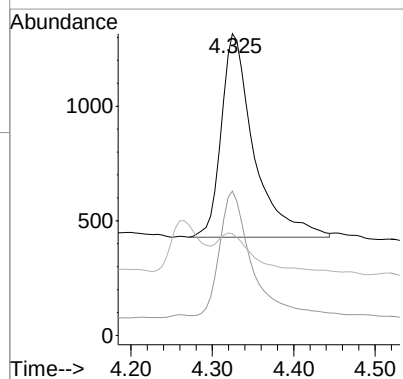
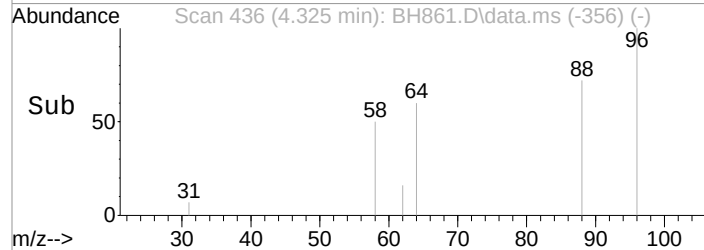




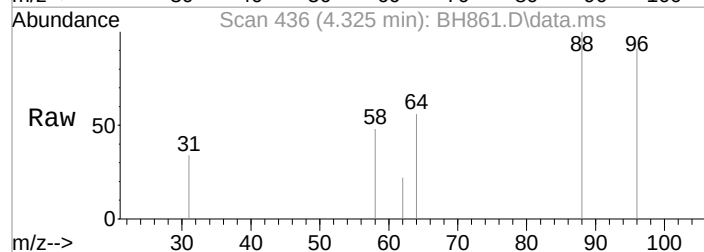
#2  
1,4-Dioxane  
Concen: 8.94 ppb  
RT: 4.325 min Scan# 436  
Delta R.T. -0.066 min  
Lab File: BH861.D  
Acq: 28 Jul 2022 12:12 pm



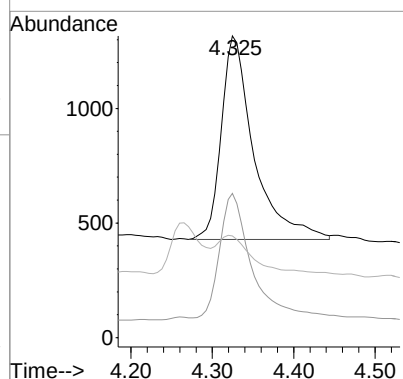
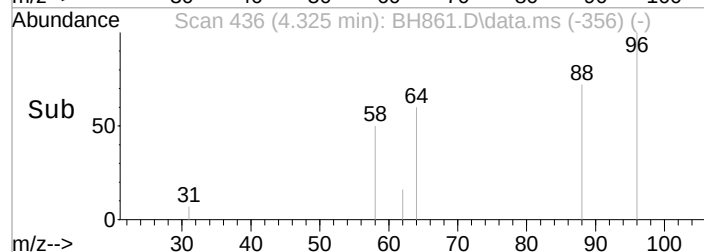
Tgt Ion: 88 Resp: 2469  
Ion Ratio Lower Upper  
88 100  
58 61.0 29.4 69.4  
31 6.9 0.0 35.0



#5  
ISO,1,4-Dioxane  
Concen: 9.30 ppb  
RT: 4.325 min Scan# 436  
Delta R.T. -0.066 min  
Lab File: BH861.D  
Acq: 28 Jul 2022 12:12 pm



Tgt Ion: 88 Resp: 2469  
Ion Ratio Lower Upper  
88 100  
58 61.0 29.4 69.4  
31 6.9 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH862.D  
Acq On : 28 Jul 2022 12:29 pm  
Operator : MMCMAHON  
Sample : STD 4  
Misc : .02  
ALS Vial : 7 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:12:04 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:11:56 2022  
Response via : Initial Calibration

| Compound                       | R.T.           | QIon | Response   | Conc    | Units | Dev(Min)  |
|--------------------------------|----------------|------|------------|---------|-------|-----------|
| Internal Standards             |                |      |            |         |       |           |
| 1) Toluene-d8                  | 5.273          | 98   | 125440     | 100.00  | ppb   | -0.05     |
| 4) 1,4-Dioxane-d8              | 4.282          | 96   | 25830      | 100.00  | ppb   | -0.04     |
| System Monitoring Compounds    |                |      |            |         |       |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.127          | 46   | 3416       | 19.02   | ppb   | -0.01     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery = | 19.02%# |       |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.127          | 46   | 3416       | 20.00   | ppb   | -0.01     |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery = | 20.00%# |       |           |
| Target Compounds               |                |      |            |         |       |           |
| 2) 1,4-Dioxane                 | 4.341          | 88   | 5270       | 18.81   | ppb   | Qvalue 85 |
| 5) ISO, 1,4-Dioxane            | 4.341          | 88   | 5270       | 19.52   | ppb   | 85        |

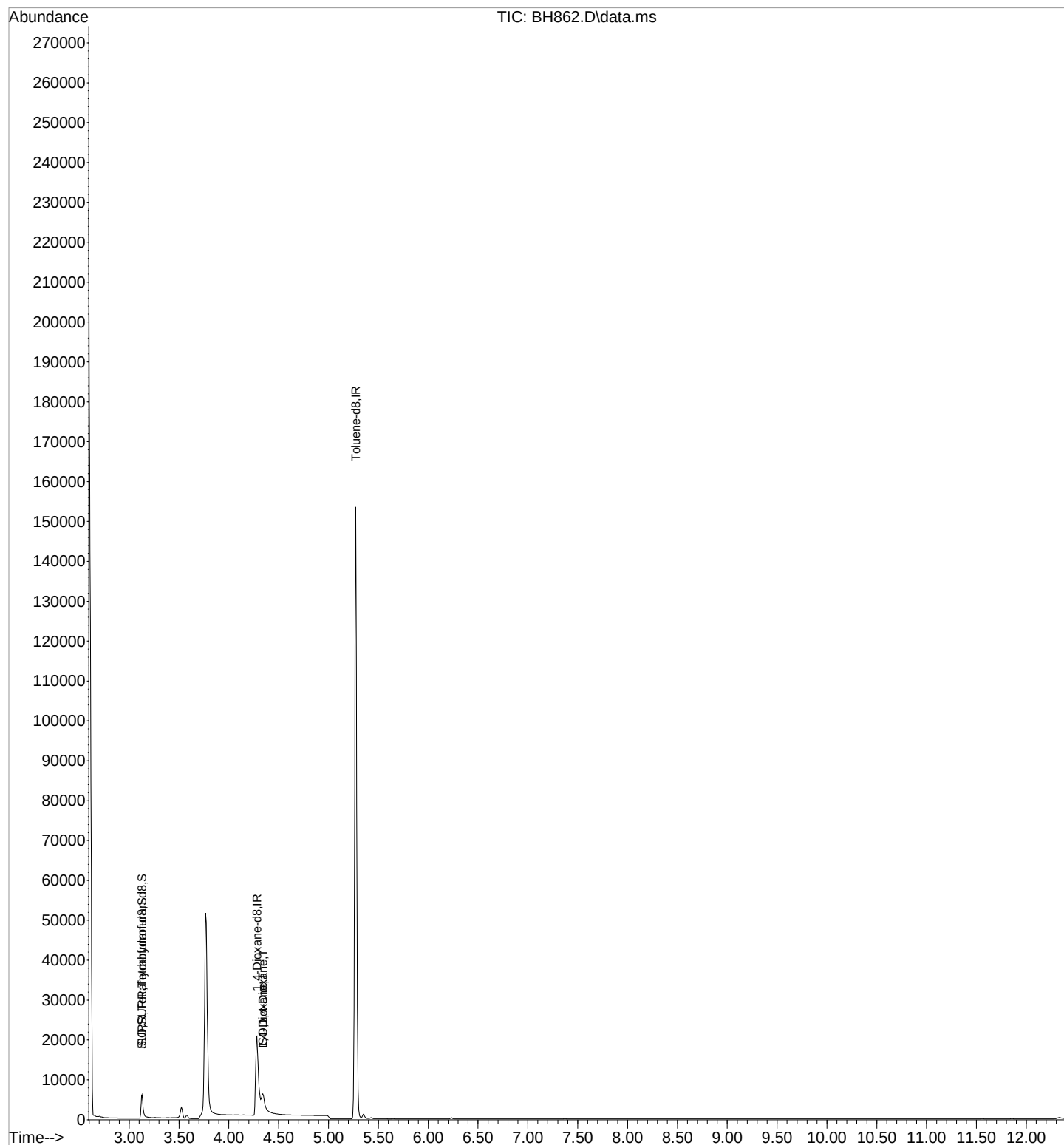
(#) = qualifier out of range (m) = manual integration (+) = signals summed

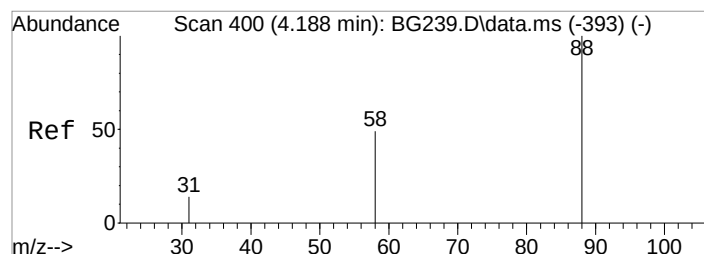


Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH862.D  
Acq On : 28 Jul 2022 12:29 pm  
Operator : MMCMAHON  
Sample : STD 4  
Misc : .02  
ALS Vial : 7 Sample Multiplier: 1

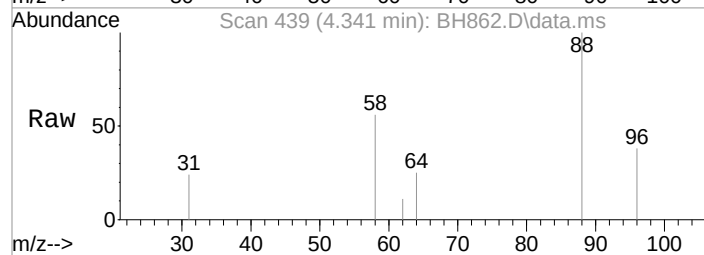
Inst : 5975 E

Quant Time: Jul 28 15:12:04 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:11:56 2022  
Response via : Initial Calibration

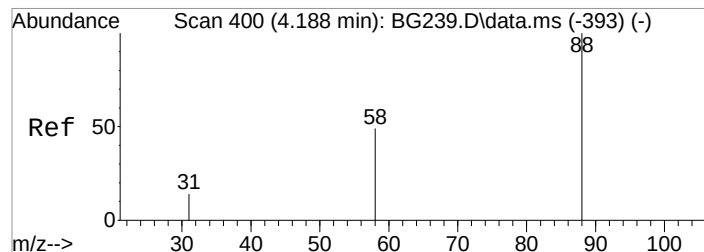
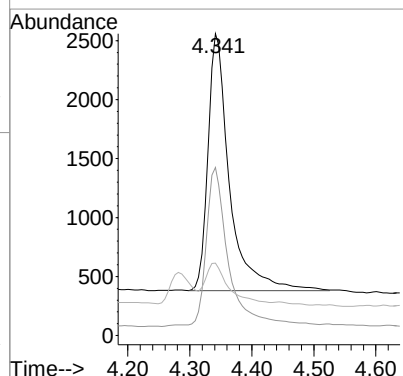
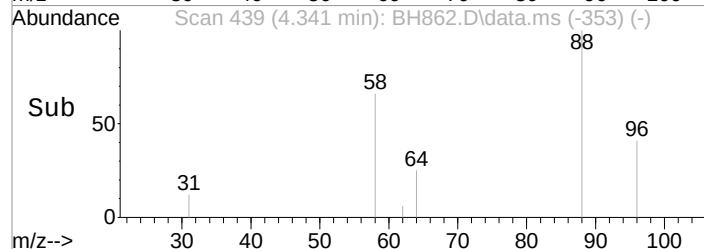




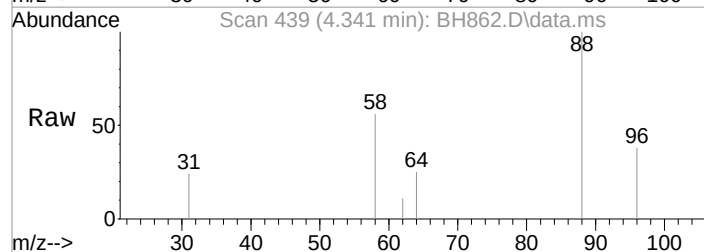
#2  
1,4-Dioxane  
Concen: 18.81 ppb  
RT: 4.341 min Scan# 439  
Delta R.T. -0.033 min  
Lab File: BH862.D  
Acq: 28 Jul 2022 12:29 pm



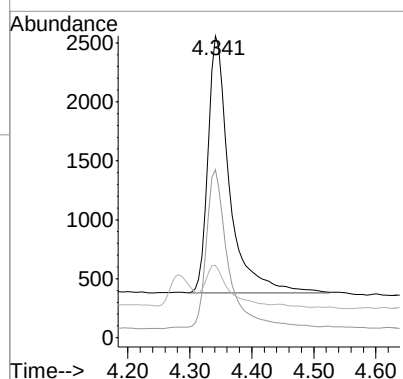
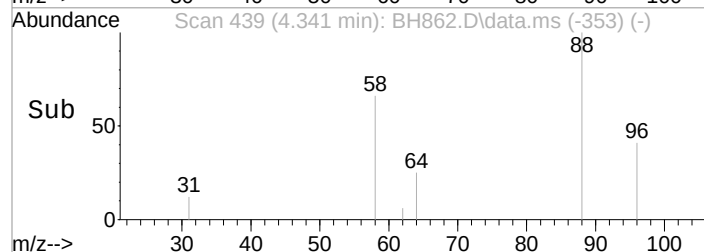
Tgt Ion: 88 Resp: 5270  
Ion Ratio Lower Upper  
88 100  
58 61.1 29.4 69.4  
31 11.8 0.0 35.0



#5  
ISO,1,4-Dioxane  
Concen: 19.52 ppb  
RT: 4.341 min Scan# 439  
Delta R.T. -0.033 min  
Lab File: BH862.D  
Acq: 28 Jul 2022 12:29 pm



Tgt Ion: 88 Resp: 5270  
Ion Ratio Lower Upper  
88 100  
58 61.1 29.4 69.4  
31 11.8 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH863.D  
Acq On : 28 Jul 2022 12:47 pm  
Operator : MMCMAHON  
Sample : STD 5  
Misc : .1  
ALS Vial : 8 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:12:25 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:12:16 2022  
Response via : Initial Calibration

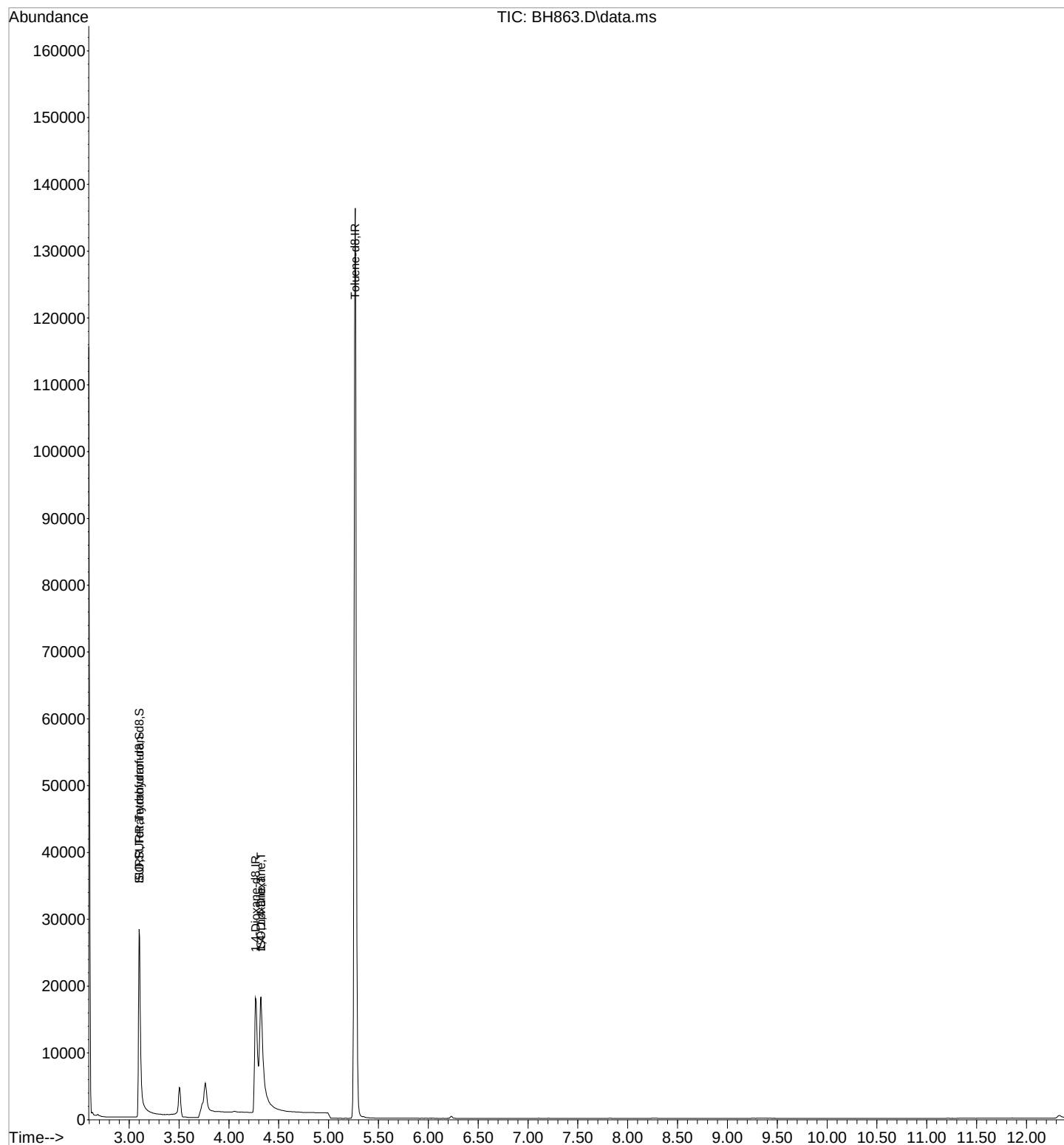
| Compound                       | R.T.    | QIon  | Response | Conc     | Units | Dev(Min)     |
|--------------------------------|---------|-------|----------|----------|-------|--------------|
| Internal Standards             |         |       |          |          |       |              |
| 1) Toluene-d8                  | 5.264   | 98    | 119039   | 100.00   | ppb   | -0.04        |
| 4) 1,4-Dioxane-d8              | 4.267   | 96    | 23671    | 100.00   | ppb   | -0.05        |
| System Monitoring Compounds    |         |       |          |          |       |              |
| 3) SURR, Tetrahydrofuran-d8    | 3.100   | 46    | 16925    | 100.29   | ppb   | -0.04        |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 100.29%      |
| 6) ISO, SURR, Tetrahydrofur... | 3.100   | 46    | 16925    | 108.12   | ppb   | -0.04        |
| Spiked Amount                  | 100.000 | Range | 70 - 130 | Recovery | =     | 108.12%      |
| Target Compounds               |         |       |          |          |       |              |
| 2) 1,4-Dioxane                 | 4.321   | 88    | 23801    | 90.58    | ppb   | Qvalue<br>87 |
| 5) ISO, 1,4-Dioxane            | 4.321   | 88    | 23801    | 96.65    | ppb   | 87           |

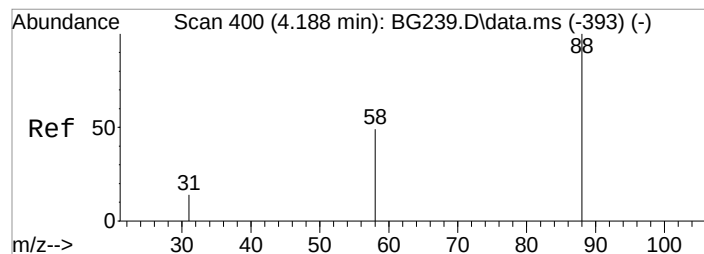
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH863.D  
Acq On : 28 Jul 2022 12:47 pm  
Operator : MMCMAHON  
Sample : STD 5  
Misc : .1  
ALS Vial : 8 Sample Multiplier: 1

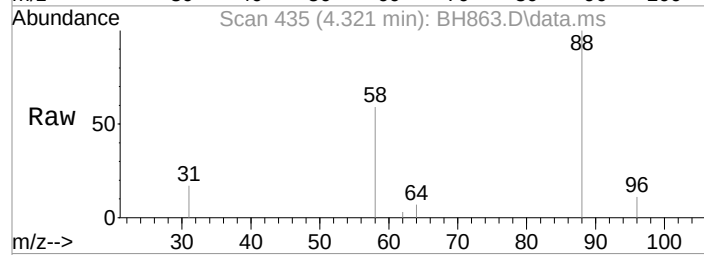
Inst : 5975 E

Quant Time: Jul 28 15:12:25 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:12:16 2022  
Response via : Initial Calibration

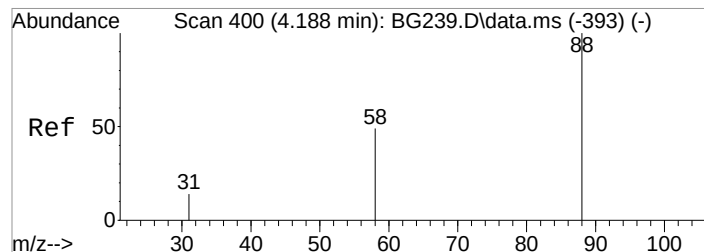
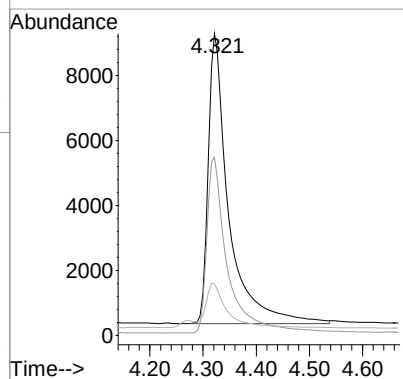
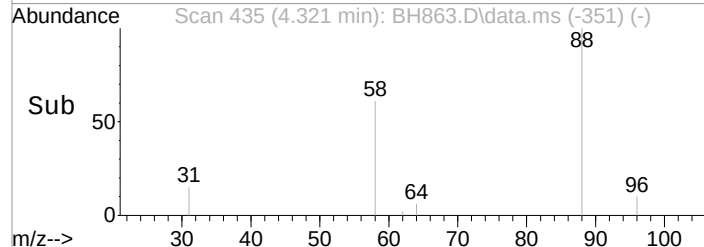




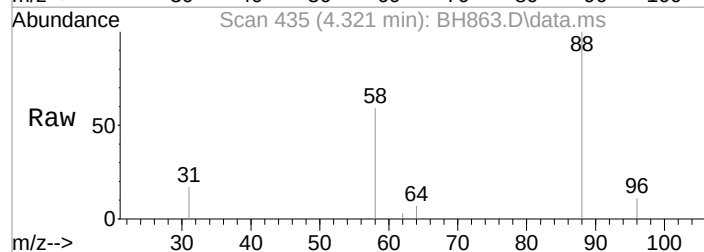
#2  
1,4-Dioxane  
Concen: 90.58 ppb  
RT: 4.321 min Scan# 435  
Delta R.T. -0.045 min  
Lab File: BH863.D  
Acq: 28 Jul 2022 12:47 pm



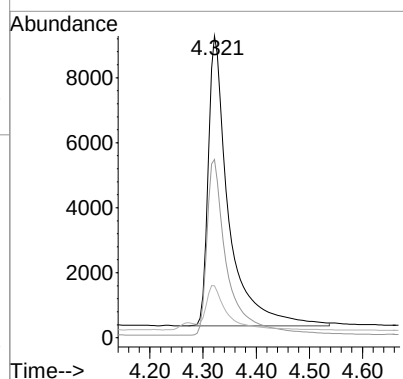
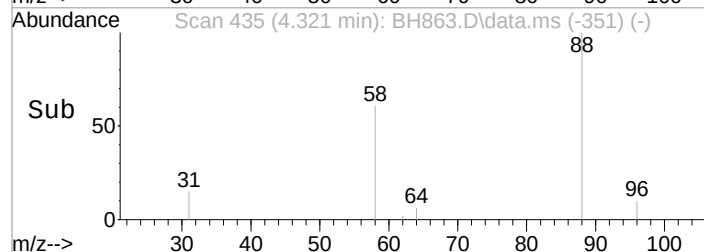
| Tgt Ion:  | 88    | Resp: | 23801 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 60.5  | 29.4  | 69.4  |
| 31        | 13.9  | 0.0   | 35.0  |



#5  
ISO,1,4-Dioxane  
Concen: 96.65 ppb  
RT: 4.321 min Scan# 435  
Delta R.T. -0.045 min  
Lab File: BH863.D  
Acq: 28 Jul 2022 12:47 pm



| Tgt Ion:  | 88    | Resp: | 23801 |
|-----------|-------|-------|-------|
| Ion Ratio | Lower | Upper |       |
| 88        | 100   |       |       |
| 58        | 60.5  | 29.4  | 69.4  |
| 31        | 13.9  | 0.0   | 35.0  |



Data Path : I:\ACQUDATA\5975E\data\072822\  
 Data File : BH864.D  
 Acq On : 28 Jul 2022 1:04 pm  
 Operator : MMCMAHON  
 Sample : STD 6  
 Misc : .2  
 ALS Vial : 9 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:12:46 2022  
 Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
 Quant Title : 8270 BNA ANALYSIS  
 QLast Update : Thu Jul 28 15:12:40 2022  
 Response via : Initial Calibration

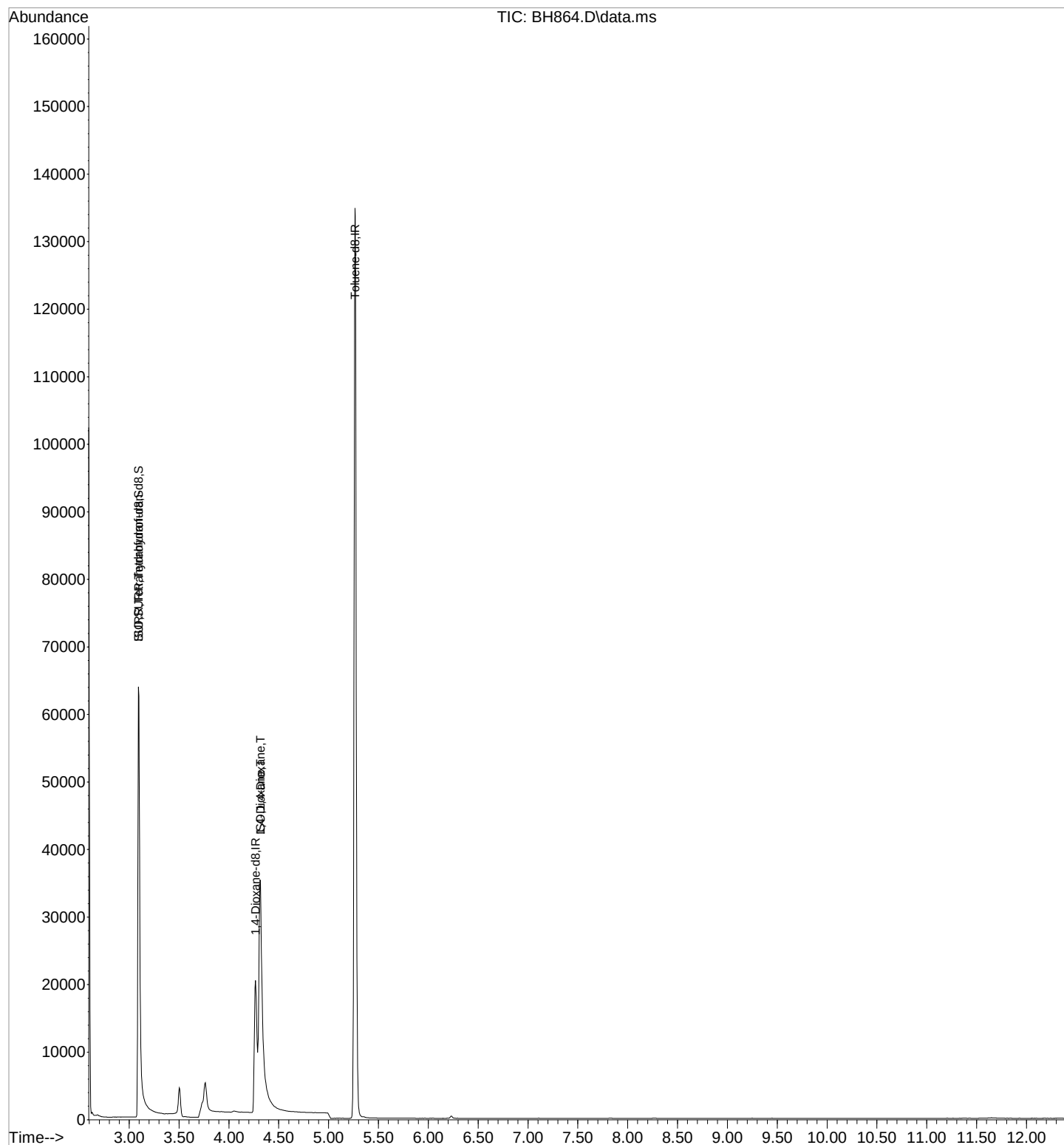
| Compound                       | R.T.    | QIon           | Response | Conc   | Units    | Dev(Min)  |
|--------------------------------|---------|----------------|----------|--------|----------|-----------|
| -----                          |         |                |          |        |          |           |
| Internal Standards             |         |                |          |        |          |           |
| 1) Toluene-d8                  | 5.264   | 98             | 117949   | 100.00 | ppb      | -0.03     |
| 4) 1,4-Dioxane-d8              | 4.267   | 96             | 24453    | 100.00 | ppb      | -0.03     |
| System Monitoring Compounds    |         |                |          |        |          |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.093   | 46             | 36471    | 218.01 | ppb      | -0.04     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 218.01%# |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.093   | 46             | 36471    | 222.53 | ppb      | -0.04     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 222.53%# |           |
| Target Compounds               |         |                |          |        |          |           |
| 2) 1,4-Dioxane                 | 4.316   | 88             | 49010    | 191.25 | ppb      | Qvalue 89 |
| 5) ISO, 1,4-Dioxane            | 4.316   | 88             | 49010    | 193.73 | ppb      | 89        |
| -----                          |         |                |          |        |          |           |

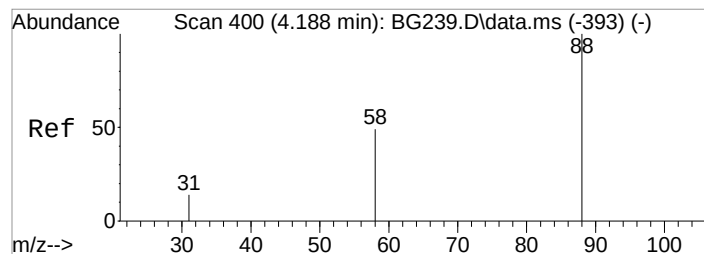
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH864.D  
Acq On : 28 Jul 2022 1:04 pm  
Operator : MMCMAHON  
Sample : STD 6  
Misc : .2  
ALS Vial : 9 Sample Multiplier: 1

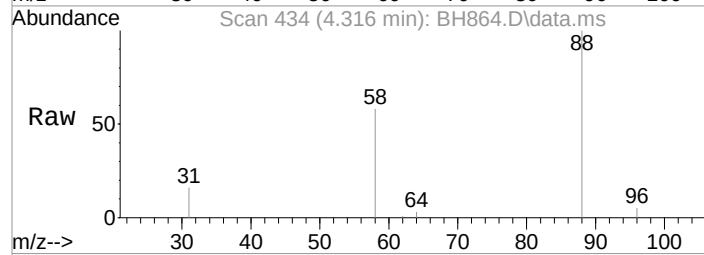
Inst : 5975 E

Quant Time: Jul 28 15:12:46 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:12:40 2022  
Response via : Initial Calibration

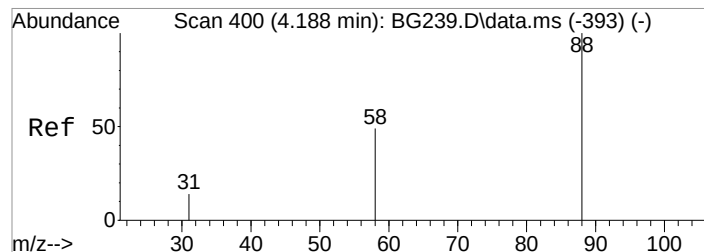
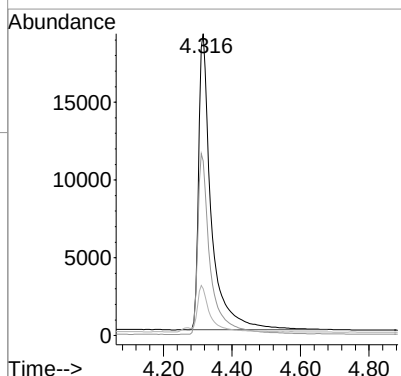
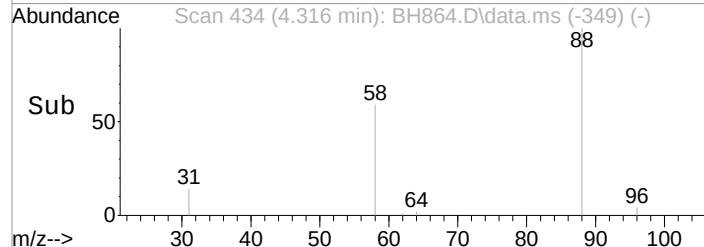




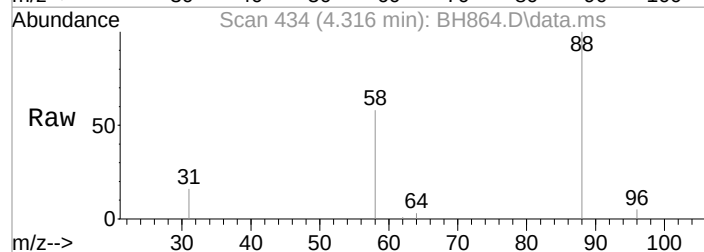
#2  
1,4-Dioxane  
Concen: 191.25 ppb  
RT: 4.316 min Scan# 434  
Delta R.T. -0.039 min  
Lab File: BH864.D  
Acq: 28 Jul 2022 1:04 pm



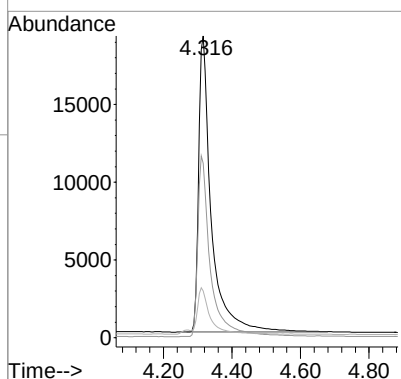
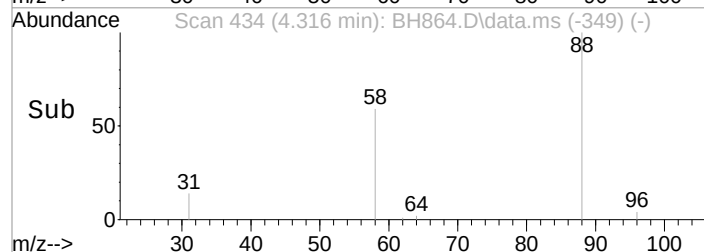
| Tgt Ion   | 88   | Resp  | 49010 |
|-----------|------|-------|-------|
| Ion Ratio | 100  | Lower | Upper |
| 58        | 58.4 | 29.4  | 69.4  |
| 31        | 13.9 | 0.0   | 35.0  |



#5  
ISO,1,4-Dioxane  
Concen: 193.73 ppb  
RT: 4.316 min Scan# 434  
Delta R.T. -0.039 min  
Lab File: BH864.D  
Acq: 28 Jul 2022 1:04 pm



| Tgt Ion                                              | 88   | Resp  | 49010 |
|------------------------------------------------------|------|-------|-------|
| Ion Ratio <td>100</td> <td>Lower</td> <td>Upper</td> | 100  | Lower | Upper |
| 58                                                   | 58.4 | 29.4  | 69.4  |
| 31                                                   | 13.9 | 0.0   | 35.0  |





Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH865.D  
Acq On : 28 Jul 2022 1:21 pm  
Operator : MMCMAHON  
Sample : STD 7  
Misc : .5  
ALS Vial : 10 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:09:48 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Tue May 24 07:53:28 2022  
Response via : Initial Calibration

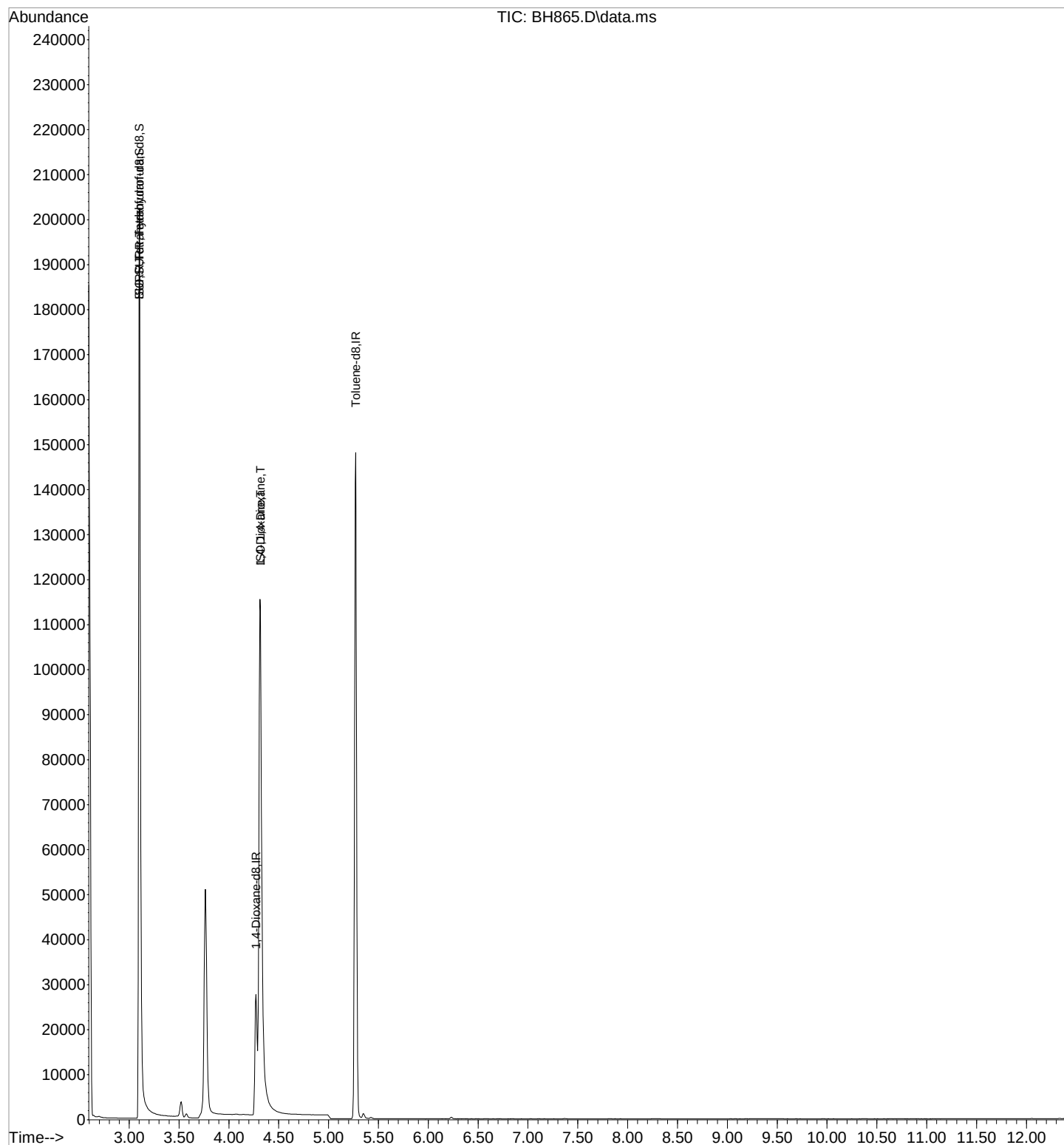
| Compound                       | R.T.    | QIon           | Response | Conc   | Units    | Dev(Min)  |
|--------------------------------|---------|----------------|----------|--------|----------|-----------|
| -----                          |         |                |          |        |          |           |
| Internal Standards             |         |                |          |        |          |           |
| 1) Toluene-d8                  | 5.271   | 98             | 121991   | 100.00 | ppb      | -0.17     |
| 4) 1,4-Dioxane-d8              | 4.273   | 96             | 26446    | 100.00 | ppb      | -0.18     |
| System Monitoring Compounds    |         |                |          |        |          |           |
| 3) SURR, Tetrahydrofuran-d8    | 3.100   | 46             | 100478   | 408.23 | ppb      | -0.12     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 408.23%# |           |
| 6) ISO, SURR, Tetrahydrofur... | 3.100   | 46             | 100478   | 413.23 | ppb      | -0.12     |
| Spiked Amount                  | 100.000 | Range 70 - 130 | Recovery | =      | 413.23%# |           |
| Target Compounds               |         |                |          |        |          |           |
| 2) 1,4-Dioxane                 | 4.316   | 88             | 136233   | 461.30 | ppb      | Qvalue 91 |
| 5) ISO, 1,4-Dioxane            | 4.316   | 88             | 136233   | 467.17 | ppb      | 91        |
| -----                          |         |                |          |        |          |           |

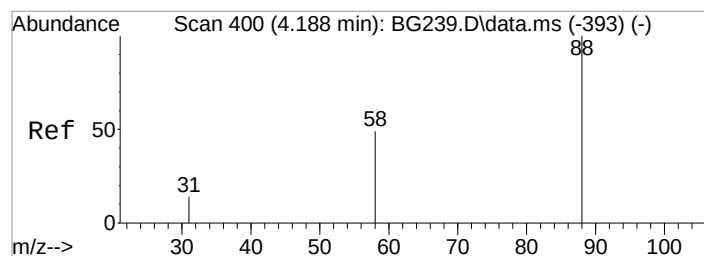
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH865.D  
Acq On : 28 Jul 2022 1:21 pm  
Operator : MMCMAHON  
Sample : STD 7  
Misc : .5  
ALS Vial : 10 Sample Multiplier: 1

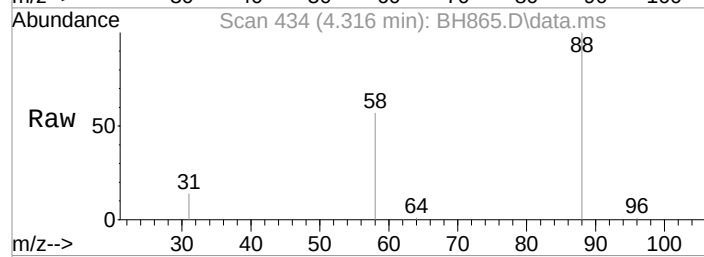
Inst : 5975 E

Quant Time: Jul 28 15:09:48 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Tue May 24 07:53:28 2022  
Response via : Initial Calibration

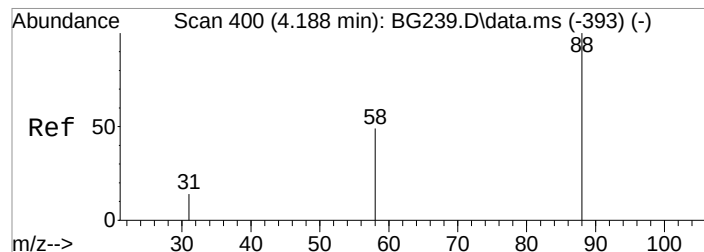
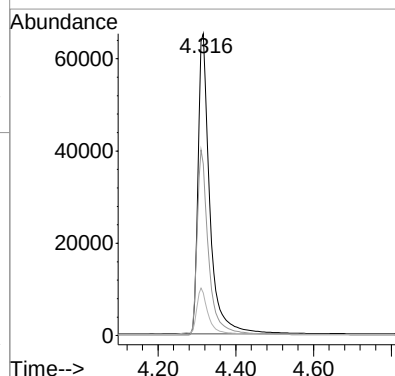
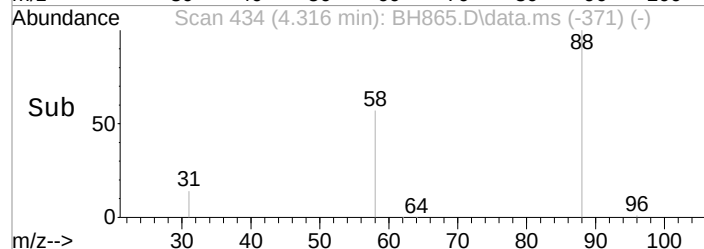




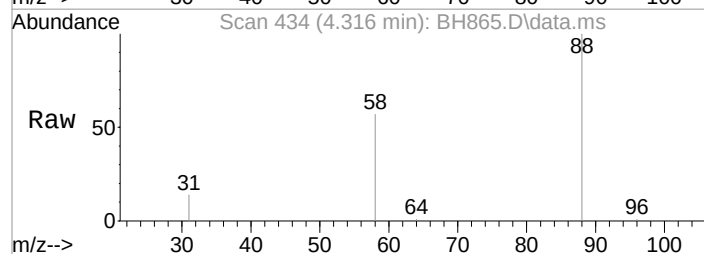
#2  
1,4-Dioxane  
Concen: 461.30 ppb  
RT: 4.316 min Scan# 434  
Delta R.T. -0.160 min  
Lab File: BH865.D  
Acq: 28 Jul 2022 1:21 pm



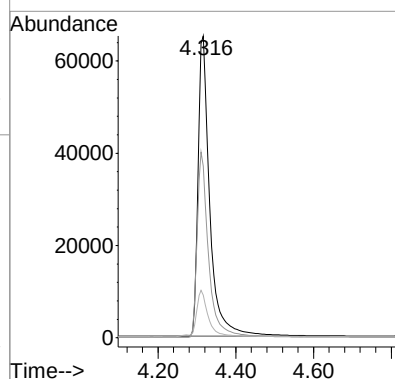
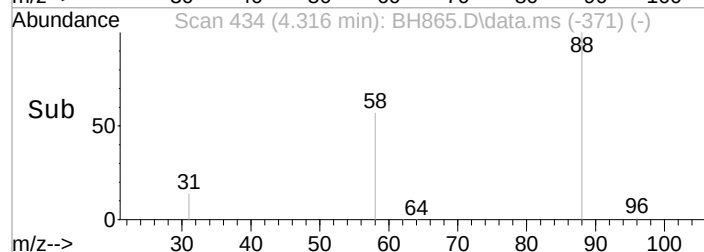
| Tgt Ion   | 88    | Resp  | 136233 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 57.0  | 29.4  | 69.4   |
| 31        | 13.6  | 0.0   | 35.0   |



#5  
ISO,1,4-Dioxane  
Concen: 467.17 ppb  
RT: 4.316 min Scan# 434  
Delta R.T. -0.160 min  
Lab File: BH865.D  
Acq: 28 Jul 2022 1:21 pm



| Tgt Ion   | 88    | Resp  | 136233 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 57.0  | 29.4  | 69.4   |
| 31        | 13.6  | 0.0   | 35.0   |



Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH866.D  
Acq On : 28 Jul 2022 1:38 pm  
Operator : MMCMAHON  
Sample : STD 8  
Misc : 1  
ALS Vial : 11 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:13:07 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:12:56 2022  
Response via : Initial Calibration

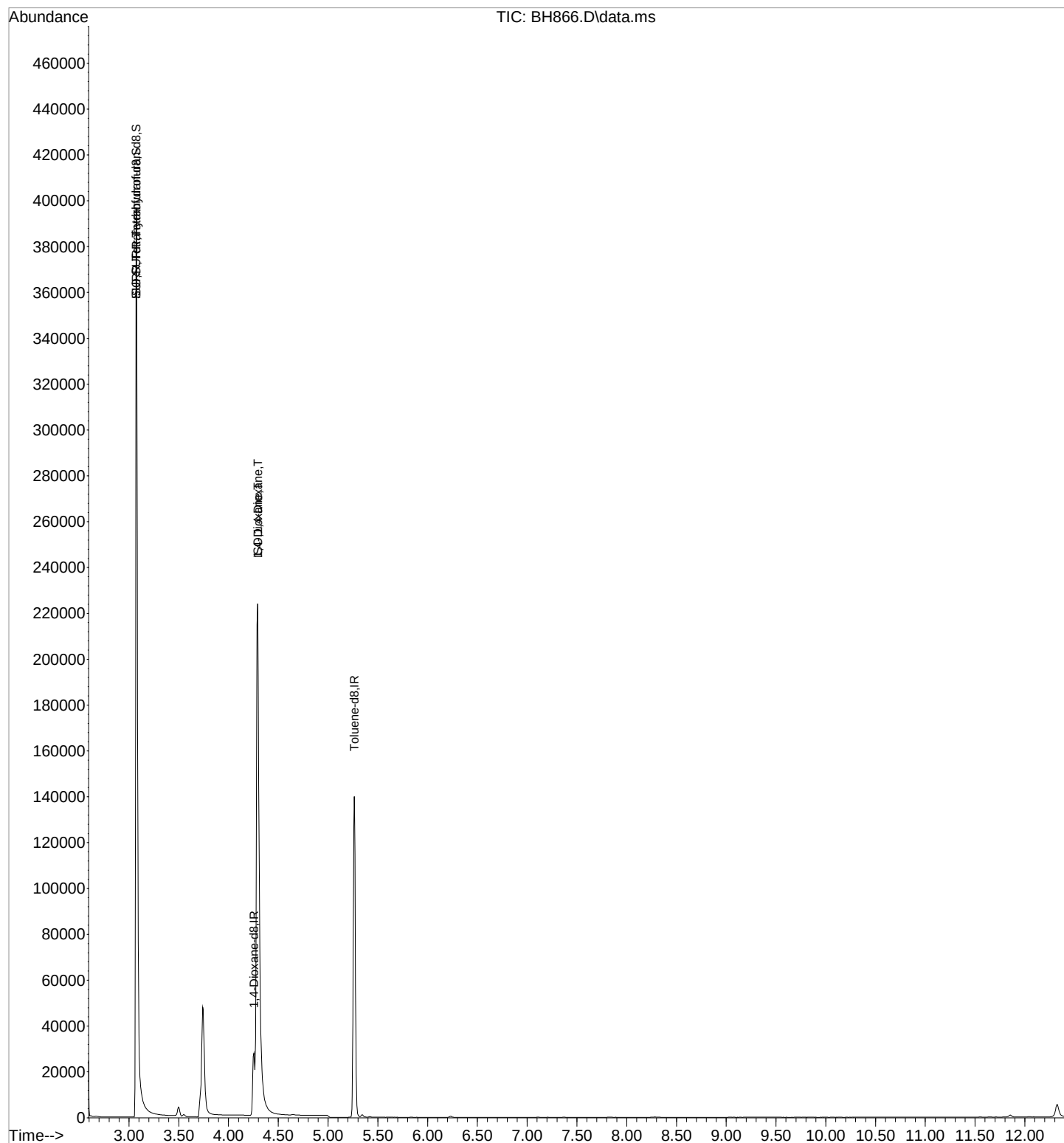
| Compound                       | R.T.           | QIon | Response | Conc        | Units | Dev(Min) |
|--------------------------------|----------------|------|----------|-------------|-------|----------|
| Internal Standards             |                |      |          |             |       |          |
| 1) Toluene-d8                  | 5.262          | 98   | 118470   | 100.00      | ppb   | -0.03    |
| 4) 1,4-Dioxane-d8              | 4.254          | 96   | 25577    | 100.00      | ppb   | -0.04    |
| System Monitoring Compounds    |                |      |          |             |       |          |
| 3) SURR, Tetrahydrofuran-d8    | 3.072          | 46   | 203855   | 1197.78     | ppb   | -0.05    |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | = 1197.78%# |       |          |
| 6) ISO, SURR, Tetrahydrofur... | 3.072          | 46   | 203855   | 1170.33     | ppb   | -0.05    |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | = 1170.33%# |       |          |
| Target Compounds               |                |      |          |             |       | Qvalue   |
| 2) 1,4-Dioxane                 | 4.292          | 88   | 263973   | 1032.00     | ppb   | 89       |
| 5) ISO, 1,4-Dioxane            | 4.292          | 88   | 263973   | 1002.09     | ppb   | 89       |

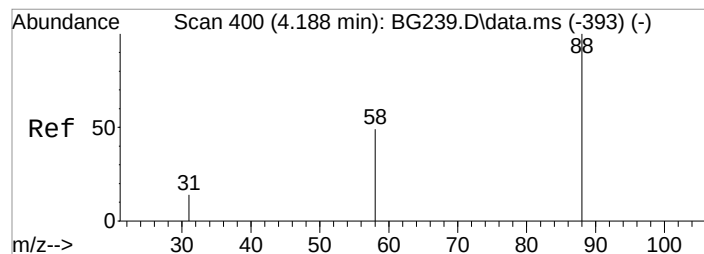
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH866.D  
Acq On : 28 Jul 2022 1:38 pm  
Operator : MMCMAHON  
Sample : STD 8  
Misc : 1  
ALS Vial : 11 Sample Multiplier: 1

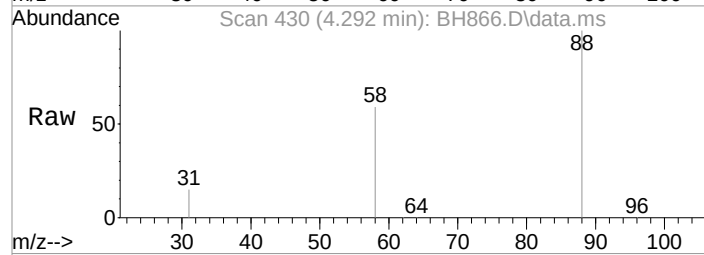
Inst : 5975 E

Quant Time: Jul 28 15:13:07 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:12:56 2022  
Response via : Initial Calibration

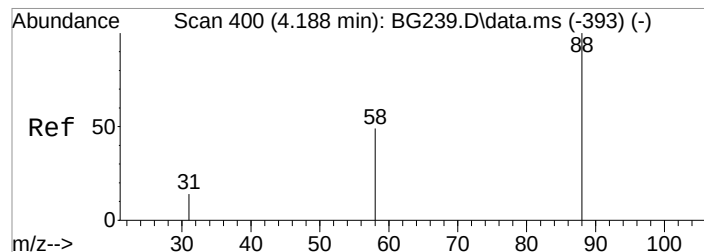
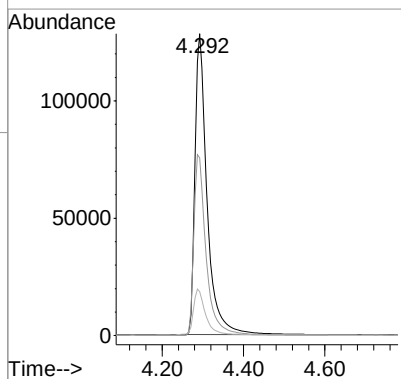
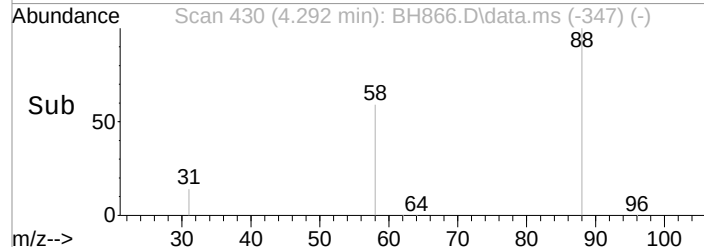




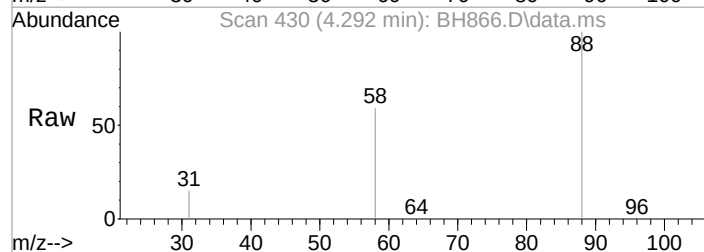
#2  
1,4-Dioxane  
Concen: 1032.00 ppb  
RT: 4.292 min Scan# 430  
Delta R.T. -0.053 min  
Lab File: BH866.D  
Acq: 28 Jul 2022 1:38 pm



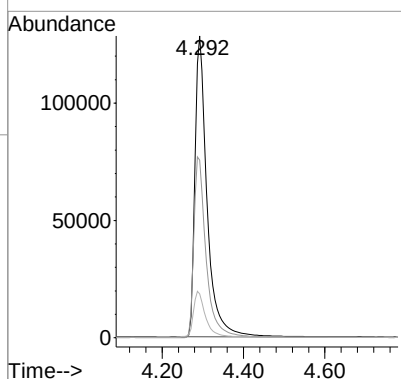
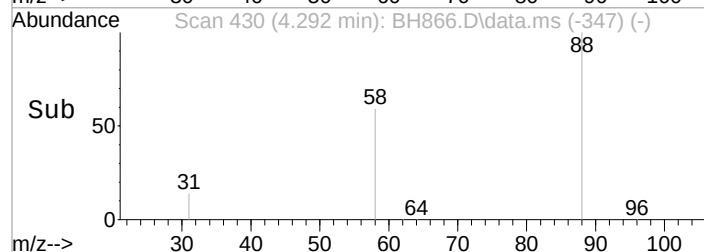
| Tgt Ion   | 88    | Resp  | 263973 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 58.9  | 29.4  | 69.4   |
| 31        | 14.3  | 0.0   | 35.0   |



#5  
ISO,1,4-Dioxane  
Concen: 1002.09 ppb  
RT: 4.292 min Scan# 430  
Delta R.T. -0.053 min  
Lab File: BH866.D  
Acq: 28 Jul 2022 1:38 pm



| Tgt Ion   | 88    | Resp  | 263973 |
|-----------|-------|-------|--------|
| Ion Ratio | Lower | Upper |        |
| 88        | 100   |       |        |
| 58        | 58.9  | 29.4  | 69.4   |
| 31        | 14.3  | 0.0   | 35.0   |



Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH867.D  
Acq On : 28 Jul 2022 1:56 pm  
Operator : MMCMAHON  
Sample : STD 9  
Misc : 5  
ALS Vial : 12 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Jul 28 15:13:24 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:13:18 2022  
Response via : Initial Calibration

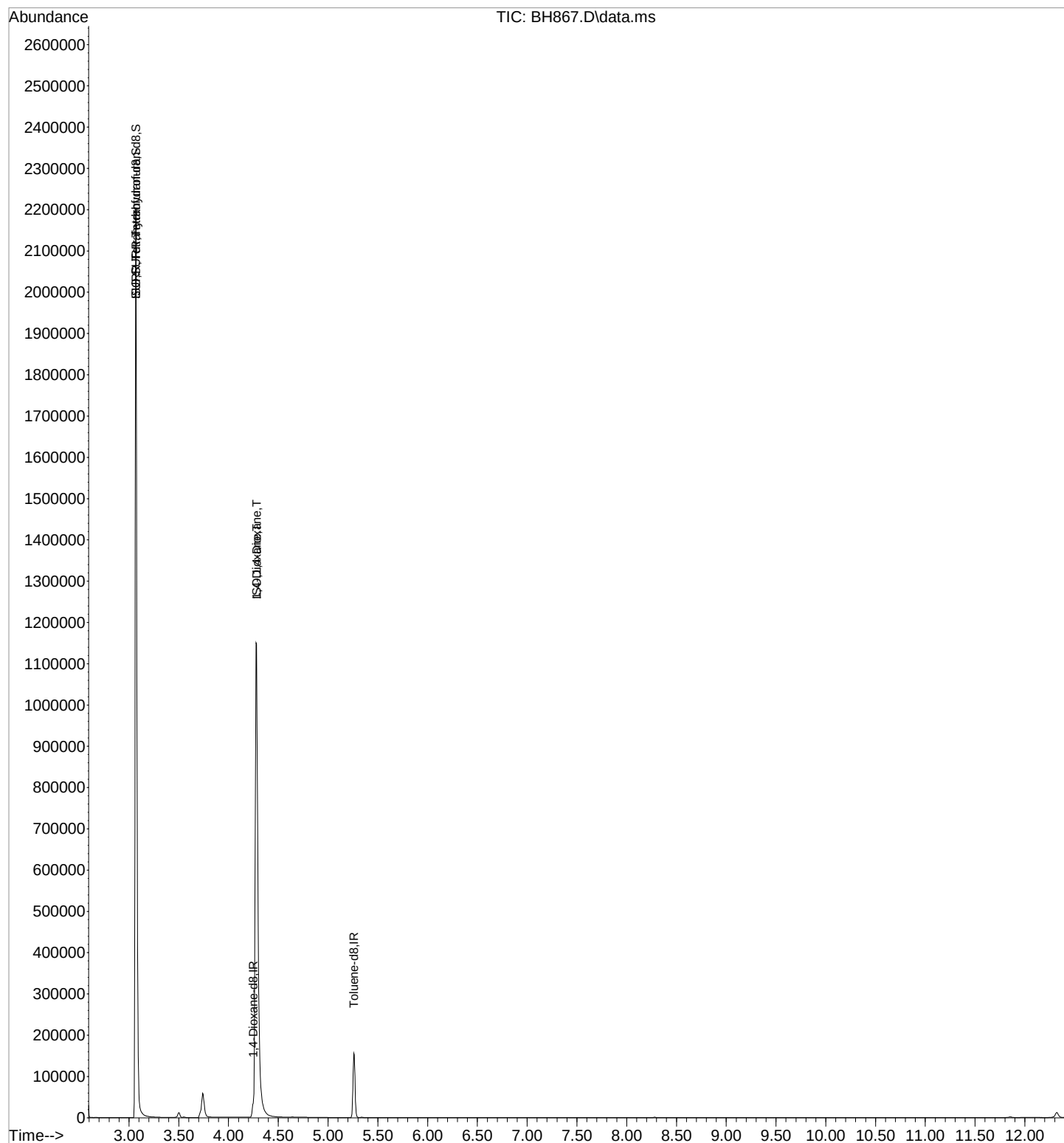
| Compound                       | R.T.           | QIon | Response | Conc        | Units | Dev(Min) |
|--------------------------------|----------------|------|----------|-------------|-------|----------|
| Internal Standards             |                |      |          |             |       |          |
| 1) Toluene-d8                  | 5.259          | 98   | 130764   | 100.00      | ppb   | -0.02    |
| 4) 1,4-Dioxane-d8              | 4.249          | 96   | 25863    | 100.00      | ppb   | -0.03    |
| System Monitoring Compounds    |                |      |          |             |       |          |
| 3) SURR, Tetrahydrofuran-d8    | 3.069          | 46   | 1006480  | 5228.47     | ppb   | -0.04    |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | = 5228.47%# |       |          |
| 6) ISO, SURR, Tetrahydrofur... | 3.069          | 46   | 1006480  | 5595.15     | ppb   | -0.04    |
| Spiked Amount 100.000          | Range 70 - 130 |      | Recovery | = 5595.15%# |       |          |
| Target Compounds               |                |      |          |             |       | Qvalue   |
| 2) 1,4-Dioxane                 | 4.282          | 88   | 1314935  | 4638.87     | ppb   | 90       |
| 5) ISO, 1,4-Dioxane            | 4.282          | 88   | 1314935  | 4935.24     | ppb   | 90       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

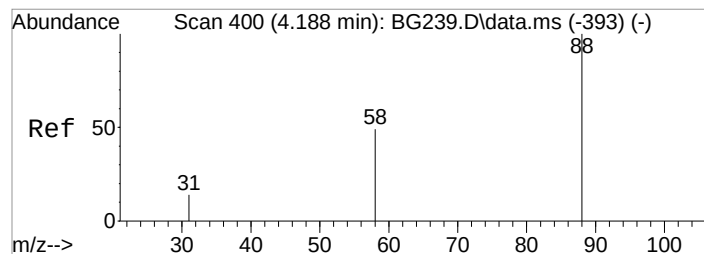
Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH867.D  
Acq On : 28 Jul 2022 1:56 pm  
Operator : MMCMAHON  
Sample : STD 9  
Misc : 5  
ALS Vial : 12 Sample Multiplier: 1

Inst : 5975 E

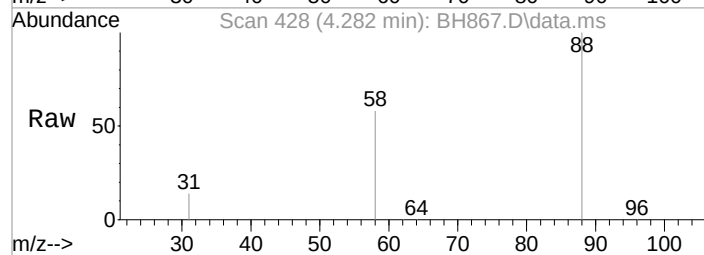
Quant Time: Jul 28 15:13:24 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:13:18 2022  
Response via : Initial Calibration



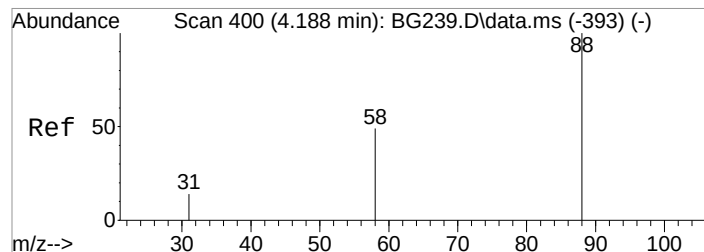
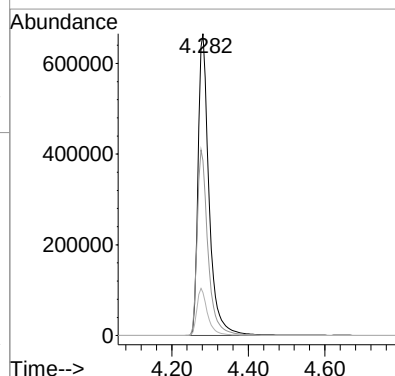
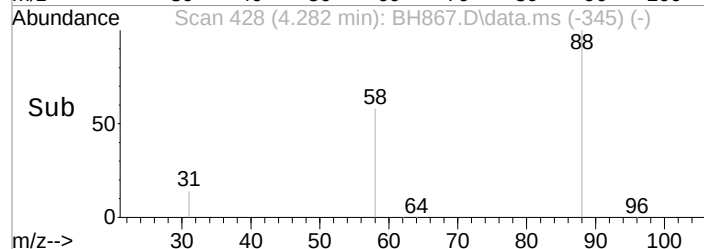




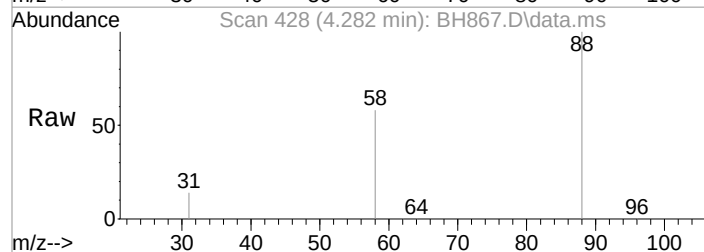
#2  
1,4-Dioxane  
Concen: 4638.87 ppb  
RT: 4.282 min Scan# 428  
Delta R.T. -0.050 min  
Lab File: BH867.D  
Acq: 28 Jul 2022 1:56 pm



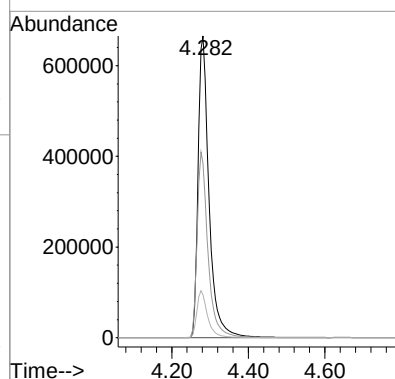
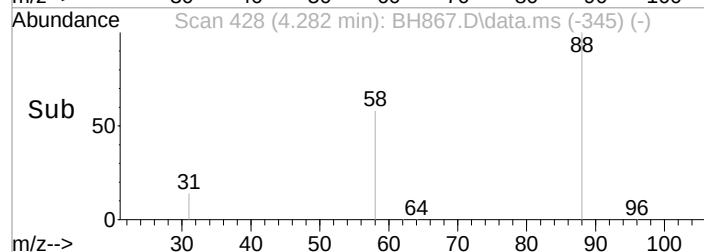
Tgt Ion: 88 Resp: 1314935  
Ion Ratio Lower Upper  
88 100  
58 57.9 29.4 69.4  
31 14.1 0.0 35.0



#5  
ISO,1,4-Dioxane  
Concen: 4935.24 ppb  
RT: 4.282 min Scan# 428  
Delta R.T. -0.050 min  
Lab File: BH867.D  
Acq: 28 Jul 2022 1:56 pm



Tgt Ion: 88 Resp: 1314935  
Ion Ratio Lower Upper  
88 100  
58 57.9 29.4 69.4  
31 14.1 0.0 35.0



Data Path : I:\ACQUDATA\5975E\data\072822\  
Data File : BH868.D  
Acq On : 28 Jul 2022 2:13 pm  
Operator : MMCMAHON  
Sample : ICV Inst : 5975 E  
Misc : ICV 0.2  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 28 15:14:37 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\8270diox072822.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Thu Jul 28 15:14:28 2022  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                    | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|------|-----------------------------|---------|---------|------|-------|----------|
| 1 IR | Toluene-d8                  | 100.000 | 100.000 | 0.0  | 91    | -0.02    |
| 2 T  | 1,4-Dioxane                 | 200.000 | 200.888 | -0.4 | 98    | -0.02    |
| 3 S  | SURR,Tetrahydrofuran-d8     | 200.000 | 176.677 | 11.7 | 87    | -0.02    |
| 4 IR | 1,4-Dioxane-d8              | 100.000 | 100.000 | 0.0  | 91    | -0.02    |
| 5 T  | ISO,1,4-Dioxane             | 200.000 | 210.081 | -5.0 | 98    | -0.02    |
| 6 S  | ISO,SURR,Tetrahydrofuran-d8 | 200.000 | 184.919 | 7.5  | 87    | -0.02    |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

8270diox072822.M Thu Jul 28 15:15:10 2022

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 7/28/2022

**Initial Calibration Summary**  
**1,4-Dioxane by GC/MS**

**Calibration ID:** RC2200074

**Signal ID:** 1

**Instrument ID:** R-MS-56

| #  | Lab Code     | Sample Name | File Location                         | Acquisition Date |
|----|--------------|-------------|---------------------------------------|------------------|
| 01 | RC2200074-01 | STD 1       | I:\ACQUDATA\5975E\data\072822\BH859.D | 07/28/2022 11:38 |
| 02 | RC2200074-02 | STD 2       | I:\ACQUDATA\5975E\data\072822\BH860.D | 07/28/2022 11:55 |
| 03 | RC2200074-03 | STD 3       | I:\ACQUDATA\5975E\data\072822\BH861.D | 07/28/2022 12:12 |
| 04 | RC2200074-04 | STD 4       | I:\ACQUDATA\5975E\data\072822\BH862.D | 07/28/2022 12:29 |
| 05 | RC2200074-05 | STD 5       | I:\ACQUDATA\5975E\data\072822\BH863.D | 07/28/2022 12:47 |
| 06 | RC2200074-06 | STD 6       | I:\ACQUDATA\5975E\data\072822\BH864.D | 07/28/2022 13:04 |
| 07 | RC2200074-07 | STD 7       | I:\ACQUDATA\5975E\data\072822\BH865.D | 07/28/2022 13:21 |
| 08 | RC2200074-08 | STD 8       | I:\ACQUDATA\5975E\data\072822\BH866.D | 07/28/2022 13:38 |
| 09 | RC2200074-09 | STD 9       | I:\ACQUDATA\5975E\data\072822\BH867.D | 07/28/2022 13:56 |

**Analyte**

**1,4-Dioxane**

| #  | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount   | RF     |
|----|----------|--------|----|---------|--------|----|---------|--------|----|----------|--------|
| 01 | 1.000    | 0.2265 | 02 | 2.000   | 0.2387 | 03 | 10.000  | 0.2051 | 04 | 20.000   | 0.2101 |
| 05 | 100.000  | 0.1999 | 06 | 200.000 | 0.2078 | 07 | 500.000 | 0.2233 | 08 | 1000.000 | 0.2228 |
| 09 | 5000.000 | 0.2011 |    |         |        |    |         |        |    |          |        |

**Tetrahydrofuran-d8 (SUR)**

| #  | Amount   | RF     | #  | Amount  | RF     | #  | Amount  | RF     | #  | Amount   | RF     |
|----|----------|--------|----|---------|--------|----|---------|--------|----|----------|--------|
| 01 | 1.000    | 0.1271 | 02 | 2.000   | 0.1543 | 03 | 10.000  | 0.1265 | 04 | 20.000   | 0.1362 |
| 05 | 100.000  | 0.1422 | 06 | 200.000 | 0.1546 | 07 | 500.000 | 0.1647 | 08 | 1000.000 | 0.1721 |
| 09 | 5000.000 | 0.1539 |    |         |        |    |         |        |    |          |        |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 7/28/2022

**Initial Calibration Summary**  
**1,4-Dioxane by GC/MS**

**Calibration ID:** RC2200074

**Signal ID:** 1

**Instrument ID:** R-MS-56

| Analyte Name             | Compound Type | Calibration Evaluation |      |             |                  | Calibration Evaluation |             |
|--------------------------|---------------|------------------------|------|-------------|------------------|------------------------|-------------|
|                          |               | Fit Type               | Eval | Eval Result | Control Criteria | Average RRF            | Minimum RRF |
| 1,4-Dioxane              | TRG           | Quadratic              | COD  | 1.0000      | ≥0.99            | 0.215                  |             |
| Tetrahydrofuran-d8 (SUR) | SURR          | Quadratic              | COD  | 0.9998      | ≥0.99            | 0.148                  |             |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206604  
**Calibration Date:** 7/28/2022

**Initial Calibration Verification Summary**  
**1,4-Dioxane by GC/MS**

**Calibration ID:** RC2200074  
**Instrument ID:** R-MS-56

**Signal ID:** 1

| #  | Lab Code     | Sample Name | File Location                         | Acquisition Date |
|----|--------------|-------------|---------------------------------------|------------------|
| 10 | RC2200074-10 | ICV         | I:\ACQUDATA\5975E\data\072822\BH868.D | 07/28/2022 14:13 |

| Analyte Name | Expected | Result | Average RF | SSV<br>RF | % D   | Criteria | Curve Fit |
|--------------|----------|--------|------------|-----------|-------|----------|-----------|
| 1,4-Dioxane  | 200      | 201    | 2.15E-1    | 2.225E-1  | 0.444 | ±20      | Quadratic |

| Analyte Name             | Expected | Result | Average RF | SSV<br>RF | % D     | Criteria | Curve Fit |
|--------------------------|----------|--------|------------|-----------|---------|----------|-----------|
| Tetrahydrofuran-d8 (SUR) | 200      | 177    | 1.48E-1    | 1.47E-1   | -11.662 | ±20      | Quadratic |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/29/22 08:36

**Continuing Calibration Verification (CCV) Summary**  
**1,4-Dioxane by GC/MS**

**Analysis Method:** 8270D  
**File ID:** I:\ACQUDATA\5975E\data\072922\BH907.D\  
**Signal ID:** 1

**Calibration Date:** 7/28/2022  
**Calibration ID:** RC2200074  
**Analysis Lot:** 772495  
**Units:** ppb

| Analyte Name | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|--------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane  | 500      | 520    | 0.215      | 0.2289 | 104  | 3.9     | ±20      | Quadratic |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604  
**Date Analyzed:** 07/29/22 16:03

**Continuing Calibration Verification (CCV) Summary**  
**1,4-Dioxane by GC/MS**

**Analysis Method:** 8270D  
**File ID:** I:\ACQUADATA\5975E\data\072922\BH932.D\  
**Signal ID:** 1

**Calibration Date:** 7/28/2022  
**Calibration ID:** RC2200074  
**Analysis Lot:** 772495  
**Units:** ppb

| Analyte Name | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|--------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane  | 500      | 519    | 0.215      | 0.2287 | 104  | 3.9     | ±50      | Quadratic |

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206604

**Analysis Run Log**  
**1,4-Dioxane by GC/MS**

**Analysis Method:**

**Analysis Lot:** 772495  
**Instrument ID:** R-MS-56

| Raw Data File                          | Sample Name                         | Lab Code     | Date Analyzed | Time Analyzed | Q |
|----------------------------------------|-------------------------------------|--------------|---------------|---------------|---|
| I:\ACQUDATA\5975E\data\072922\BH906.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 08:10:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH907.D\ | Continuing Calibration Verification | RQ2209018-02 | 7/29/2022     | 08:36:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH908.D\ | Method Blank                        | RQ2208649-01 | 7/29/2022     | 08:53:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH909.D\ | Lab Control Sample                  | RQ2208649-02 | 7/29/2022     | 09:10:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH910.D\ | Duplicate Lab Control Sample        | RQ2208649-03 | 7/29/2022     | 09:43:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH911.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 10:00:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH912.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 10:17:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH913.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 10:34:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH914.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 10:52:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH915.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 11:09:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH916.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 11:26:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH917.D\ | URS-2S-07192022                     | R2206604-001 | 7/29/2022     | 11:44:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH918.D\ | URS-2D-07192022                     | R2206604-002 | 7/29/2022     | 12:01:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH919.D\ | SW-4RE-07192022                     | R2206604-003 | 7/29/2022     | 12:18:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH920.D\ | SW-7RE-07192022                     | R2206604-004 | 7/29/2022     | 12:35:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH921.D\ | SW-9-07192022                       | R2206604-005 | 7/29/2022     | 12:53:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH922.D\ | DW-9-07192022                       | R2206604-006 | 7/29/2022     | 13:10:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH923.D\ | DW-3-07192022                       | R2206604-007 | 7/29/2022     | 13:27:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH924.D\ | URS-3D-07192022                     | R2206604-008 | 7/29/2022     | 13:44:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH925.D\ | URS-3D-07192022 MS                  | RQ2208649-06 | 7/29/2022     | 14:02:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH926.D\ | URS-3D-07192022 DMS                 | RQ2208649-07 | 7/29/2022     | 14:19:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH927.D\ | DUP-01-07192022                     | R2206604-009 | 7/29/2022     | 14:36:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH928.D\ | EB-07192022                         | R2206604-010 | 7/29/2022     | 14:54:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH929.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 15:11:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH930.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 15:28:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH931.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 15:45:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH932.D\ | Continuing Cal. Verification        | RQ2209018-06 | 7/29/2022     | 16:03:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH935.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 16:59:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH936.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 17:17:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH937.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 17:34:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH938.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 17:51:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH939.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 18:08:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH940.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 18:25:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH941.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 18:43:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH942.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 19:00:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH943.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 19:17:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH944.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 19:34:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH945.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 19:51:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH946.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 20:08:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH947.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 20:25:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH948.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 20:42:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH949.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 20:59:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH950.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 21:16:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH951.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 21:33:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH952.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 21:50:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH953.D\ | ZZZZZZZZ                            | ZZZZZZZZ     | 7/29/2022     | 22:07:00      |   |



**ALS Group USA, Corp.**

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:**R2206604

**Analysis Run Log**  
**1,4-Dioxane by GC/MS**

**Analysis Method:****Analysis Lot:**772495**Instrument ID:**R-MS-56

| Raw Data File                          | Sample Name | Lab Code | Date Analyzed | Time Analyzed | Q |
|----------------------------------------|-------------|----------|---------------|---------------|---|
| I:\ACQUDATA\5975E\data\072922\BH954.D\ | ZZZZZZZ     | ZZZZZZZ  | 7/29/2022     | 22:24:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH955.D\ | ZZZZZZZ     | ZZZZZZZ  | 7/29/2022     | 22:40:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH956.D\ | ZZZZZZZ     | ZZZZZZZ  | 7/29/2022     | 22:57:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH957.D\ | ZZZZZZZ     | ZZZZZZZ  | 7/29/2022     | 23:14:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH958.D\ | ZZZZZZZ     | ZZZZZZZ  | 7/29/2022     | 23:31:00      |   |
| I:\ACQUDATA\5975E\data\072922\BH959.D\ | ZZZZZZZ     | ZZZZZZZ  | 7/29/2022     | 23:48:00      |   |

|                                        |                             |                                                 |
|----------------------------------------|-----------------------------|-------------------------------------------------|
| Analysis: <u>8270 i, H diox / fume</u> | Analyst: <u>MEM</u>         | Run Method: <u>dftpp/isodioxane</u>             |
| Date: <u>7/29/22</u>                   | Instr. <u>5975E R-MS-56</u> | Quant Method: <u>dftppdio / 8270diox 072022</u> |
| Syringes:                              | LIMS Run#:                  | <u>772495</u>                                   |

| Pos. | Sample       | Diln. | Stds. ID | File# | OK? | Comments |
|------|--------------|-------|----------|-------|-----|----------|
| 1    | Blank        |       |          | BH905 | -   |          |
| 9    | True dftpp   |       | 222940   | 906   | Y   |          |
| 10   | CCV 0.5ppm   |       | 222250   | 907   | Y   |          |
| 11   | RQ2208649-01 |       |          | 908   | Y   |          |
| 12   | ↓ 02         |       |          | 909   | Y   |          |
| 13   | ↓ 03         |       |          | 910   | Y   |          |
| 14   | R2206508-001 |       |          | 911   | Y   |          |
| 15   | RQ2208649-04 |       |          | 912   | Y   |          |
| 16   | ↓ 05         |       |          | 913   | Y   |          |
| 17   | R2206508-002 |       |          | 914   | Y   |          |
| 18   | ↓ 003        |       |          | 915   | Y   |          |
| 19   | ↓ 004        |       |          | 916   | Y   |          |
| 20   | R2206604-001 |       |          | 917   | Y   |          |
| 21   | ↓ 002        |       |          | 918   | Y   |          |
| 22   | ↓ 003        |       |          | 919   | Y   |          |
| 23   | ↓ 004        |       |          | 920   | Y   |          |
| 24   | ↓ 005        |       |          | 921   | Y   |          |
| 25   | ↓ 006        |       |          | 922   | Y   |          |
| 26   | ↓ 007        |       |          | 923   | Y   |          |
| 27   | ↓ 008        |       |          | 924   | Y   |          |
| 28   | RQ2208649-06 |       |          | 925   | Y   |          |
| 29   | ↓ 07         |       |          | 926   | Y   |          |
| 30   | R2206604-009 |       |          | 927   | Y   |          |
| 31   | ↓ 010        |       |          | 928   | Y   |          |
| 32   | R2206703-001 |       |          | 929   | Y   |          |
| 33   | ↓ 002        |       |          | 930   | Y   |          |
| 34   | ↓ 003        |       |          | 931   | Y   |          |
| 10   | CCV 0.5ppm   |       | 222250   | 932   | Y   |          |
| 1    | Blank        |       |          | 933   | Y   |          |
| 9    | True dftpp   |       | 222940   | 934   | Y   |          |
| 10   | CCV 0.5ppm   |       | 222250   | 935   | Y   |          |
| 35   | RQ2208719-01 |       |          | 936   | Y   |          |
| 36   | ↓ 02         |       |          | 937   | Y   |          |
| 37   | ↓ 03         |       |          | 938   | Y   |          |
| 38   | R2206703-004 |       |          | 939   | Y   |          |
| 39   | R2206704-001 |       |          | 940   | Y   |          |
| 40   | ↓ 002        |       |          | 941   | Y   |          |
| 41   | ↓ 003        |       |          | 942   | Y   |          |
| 42   | ↓ 004        |       |          | 943   | Y   |          |
| 43   | R2206705-001 |       |          | 944   | Y   |          |

All samples = \_\_\_\_\_ mL + \_\_\_\_\_ uL Combined IS/Surr.;

Primary: \_\_\_\_\_ exp: \_\_\_\_\_

Secondary: \_\_\_\_\_ exp: \_\_\_\_\_

Primary: \_\_\_\_\_ exp: \_\_\_\_\_

Secondary: \_\_\_\_\_ exp: \_\_\_\_\_

Reagents:

Runlog GCEXT r2 4/27/17  
O-1089 Page 8 of 150

Sample: 8770 1,4 diox  
 Date: 7/24/11  
 Samples:

Analyst: UEM  
 Instr. 5975E R-MS-56

Run Method: dftpp/iodioxane  
 Quant Method: dftpp/8270 diox 0.72322  
 LIMS Run#: 772495

| POS | Sample       | Diln. | Stds. ID | File# | OK? | Comments    |
|-----|--------------|-------|----------|-------|-----|-------------|
| 46  | R2206705-602 |       |          | 945   | Y   |             |
| 47  | 003          |       |          | 946   | Y   |             |
| 48  | 004          |       |          | 947   | Y   |             |
| 49  | 005          |       |          | 948   | Y   |             |
| 50  | 006          |       |          | 949   | Y   |             |
| 51  | R2206706-001 |       |          | 950   | Y   |             |
| 52  | 002          |       |          | 951   | Y   |             |
| 53  | 003          |       |          | 952   | Y   |             |
| 54  | R2206726-001 |       |          | 953   | Y   |             |
| 55  | 002          |       |          | 954   | Y   |             |
| 56  | R2206809-001 |       |          | 955   | Y   |             |
| 57  | 002          |       |          | 956   | Y   |             |
| 58  | 003          |       |          | 957   | Y   |             |
| 59  | 004          |       |          | 958   | Y   |             |
| 60  | 005          |       |          | 959   | Y   |             |
| 9   | TUNE dftpp   |       |          | 960   | N   | tune failed |
| 10  | CCV 0.5ppm   |       |          | 961   |     |             |
| 59  | RQ2208790-01 |       |          | 962   |     |             |
| 60  | 02           |       |          | 963   |     |             |
| 61  | 03           |       |          | 964   |     |             |
| 62  | R2206767-001 |       |          | 965   |     |             |
| 63  | RQ2208790-04 |       |          | 966   |     |             |
| 64  | 05           |       |          | 967   |     |             |
| 65  | R2206792-001 |       |          | 968   |     |             |
| 66  | R2206809-006 |       |          | 969   |     |             |
| 67  | 007          |       |          | 970   |     |             |
| 68  | 008          |       |          | 971   |     |             |
| 69  | 009          |       |          | 972   |     |             |
| 70  | 010          |       |          | 973   |     |             |
| 71  | 011          |       |          | 974   |     |             |
| 72  | 012          |       |          | 975   |     |             |
| 73  | 013          |       |          | 976   |     |             |
| 74  | 014          |       |          | 977   |     |             |
| 75  | 015          |       |          | 978   |     |             |
| 76  | RQ2206790-06 |       |          | 979   |     |             |
| 77  | 07           |       |          | 980   |     |             |
| 78  | R2206809-016 |       |          | 981   |     |             |
| 79  | 017          |       |          | 982   |     |             |
| 80  | 018          |       |          | 983   |     |             |
| 81  | 019          |       |          | 984   |     |             |

All samples = \_\_\_\_\_ mL + \_\_\_\_\_ uL Combined IS/Surr.;

Primary: \_\_\_\_\_ exp: \_\_\_\_\_  
 Primary: \_\_\_\_\_ exp: \_\_\_\_\_  
 Reagents: \_\_\_\_\_

Secondary: \_\_\_\_\_ exp: \_\_\_\_\_  
 Secondary: \_\_\_\_\_ exp: \_\_\_\_\_

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Prep Summary Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206604

1,4-Dioxane by GC/MS

**Prep Method:** EPA 3535A  
**Analytical Method:** 8270D

**Extraction Lot:** 403402  
**Extraction Date:** 07/26/22 09:53

| Sample Name                  | Lab Code         | Date Collected | Date Received | Sample Amount | Final Amount | Percent Solids |
|------------------------------|------------------|----------------|---------------|---------------|--------------|----------------|
| URS-2S-07192022              | R2206604-001     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| URS-2D-07192022              | R2206604-002     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| SW-4RE-07192022              | R2206604-003     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| SW-7RE-07192022              | R2206604-004     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| SW-9-07192022                | R2206604-005     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| DW-9-07192022                | R2206604-006     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| DW-3-07192022                | R2206604-007     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| URS-3D-07192022              | R2206604-008     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| DUP-01-07192022              | R2206604-009     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| EB-07192022                  | R2206604-010     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| Method Blank                 | RQ2208649-01MB   | NA             | NA            | 100 mL        | 2 mL         |                |
| Lab Control Sample           | RQ2208649-02LCS  | NA             | NA            | 100 mL        | 2 mL         |                |
| Duplicate Lab Control Sample | RQ2208649-03DLCS | NA             | NA            | 100 mL        | 2 mL         |                |
| Matrix Spike                 | RQ2208649-06MS   | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| Duplicate Matrix Spike       | RQ2208649-07DMS  | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |

# Preparation Information Benchsheet

Prep Run#: 403402

Team: Semivca GCMS/MMCMAHON

Prep Workflow: OrgExISPEaq(7)

Prep Method: EPA 3535A

Status: Prepped

Prep Date/Time: 7/26/22 09:53

| #  | Lab Code       | Client ID        | B#  | Amt   | Ext | Method /Test          | pH | AE | BN | Final Vol | Sample Desc. (Initial/Final) | SpikeAmt./Inv. ID                                                                      | Comments |
|----|----------------|------------------|-----|-------|-----|-----------------------|----|----|----|-----------|------------------------------|----------------------------------------------------------------------------------------|----------|
| 1  | RQ2208649-01   | MB               |     | 100mL |     | 8270D SIM/1,4-Dioxane | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223073;<br>200.0000 uL/224010                        |          |
| 2  | RQ2208649-01   | MB               |     | 100mL |     | 8270D/1,4-Dioxane DOD | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224009;<br>200.0000 uL/224010;<br>10.0000 uL/223073                        |          |
| 3  | RQ2208649-02   | LCS              |     | 100mL |     | 8270D SIM/1,4-Dioxane | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/221855;<br>10.0000 uL/223073;<br>200.0000 uL/224010;<br>200.0000 uL/224009 |          |
| 4  | RQ2208649-02   | LCS              |     | 100mL |     | 8270D/1,4-Dioxane DOD | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224009;<br>200.0000 uL/221855;<br>10.0000 uL/223073;<br>200.0000 uL/224010 |          |
| 5  | RQ2208649-03   | DLCS             |     | 100mL |     | 8270D SIM/1,4-Dioxane | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/221855;<br>200.0000 uL/224010;<br>10.0000 uL/223073;<br>200.0000 uL/224009 |          |
| 6  | RQ2208649-03   | DLCS             |     | 100mL |     | 8270D/1,4-Dioxane DOD | 7  | <4 |    | 2.00mL    |                              | 10.0000 uL/223073;<br>200.0000 uL/221855;<br>200.0000 uL/224010;<br>200.0000 uL/224009 |          |
| 7  | R2206508-001RE | 8-ORL-002-001-01 | .34 | 100mL |     | 8270D SIM/1,4-Dioxane | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224010;<br>200.0000 uL/224009;<br>10.0000 uL/223073                        |          |
| 8  | RQ2208649-04   | R2206508-001 MS  | .34 | 100mL |     | 8270D SIM/1,4-Dioxane | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223073;<br>200.0000 uL/221855;<br>200.0000 uL/224010 |          |
| 9  | RQ2208649-05   | R2206508-001 DMS | .34 | 100mL |     | 8270D SIM/1,4-Dioxane | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/221855;<br>200.0000 uL/224009;<br>10.0000 uL/223073;<br>200.0000 uL/224010 |          |
| 10 | R2206508-002RE | 8-ORL-002-001-02 | .07 | 100mL |     | 8270D SIM/1,4-Dioxane | 7  | <4 |    | 2.00mL    |                              | 10.0000 uL/223073;<br>200.0000 uL/224010;<br>200.0000 uL/224009                        |          |
| 11 | R2206508-003RE | 8-ORL-002-001-03 | .07 | 100mL |     | 8270D SIM/1,4-Dioxane | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223073;<br>200.0000 uL/224010                        |          |
| 12 | R2206508-004RE | 8-ORL-002-001-04 | .07 | 100mL |     | 8270D SIM/1,4-Dioxane | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224009;<br>200.0000 uL/224010;<br>10.0000 uL/223073                        |          |
| 13 | R2206604-001   | URS-2S-07192022  | .06 | 100mL |     | 8270D/1,4-Dioxane DOD | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224010;<br>200.0000 uL/224009;<br>10.0000 uL/223073;<br>200.0000 uL/224010 |          |
| 14 | R2206604-002   | URS-2D-07192022  | .06 | 100mL |     | 8270D/1,4-Dioxane DOD | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223073;<br>200.0000 uL/224010                        |          |
| 15 | R2206604-003   | SW-4RE-07192022  | .06 | 100mL |     | 8270D/1,4-Dioxane DOD | 7  | <4 |    | 2.00mL    |                              | 200.0000 uL/224009;<br>200.0000 uL/224010;<br>10.0000 uL/223073                        |          |

# Preparation Information Benchsheet

Prep Run#: 403402

Team: Semiova GCMS/MMCMAHON

Prep Workflow: OrgExtSPEag(7)

Prep Method:

Status: Prepped

Prep Date/Time: 7/26/22 09:53

|                |                               |     |       |                       |   |    |        |                     |  |
|----------------|-------------------------------|-----|-------|-----------------------|---|----|--------|---------------------|--|
| 16R2206604-004 | SW-7RE-07192022               | .05 | 100mL | 8270D/1,4-Dioxane DOD | 7 | <4 | 2.00mL | 200.0000 uL/224009; |  |
| 17R2206604-005 | SW-9-07192022                 | .05 | 100mL | 8270D/1,4-Dioxane DOD | 7 | <4 | 2.00mL | 10.0000 uL/223073;  |  |
| 18R2206604-006 | DW-9-07192022                 | .06 | 100mL | 8270D/1,4-Dioxane DOD | 7 | <4 | 2.00mL | 200.0000 uL/224009; |  |
| 19R2206604-007 | DW-3-07192022                 | .05 | 100mL | 8270D/1,4-Dioxane DOD | 7 | <4 | 2.00mL | 10.0000 uL/223073;  |  |
| 20R2206604-008 | URS-3D-07192022               | .06 | 100mL | 8270D/1,4-Dioxane DOD | 7 | <4 | 2.00mL | 200.0000 uL/224009; |  |
| 21R2206604-006 | R2206604-008 MIS              | .07 | 100mL | 8270D/1,4-Dioxane DOD | 7 | <4 | 2.00mL | 10.0000 uL/223073;  |  |
| 22R2206604-007 | R2206604-008 DMS              | .07 | 100mL | 8270D/1,4-Dioxane DOD | 7 | <4 | 2.00mL | 200.0000 uL/224010; |  |
| 23R2206604-009 | DUP-01-07192022               | .06 | 100mL | 8270D/1,4-Dioxane DOD | 7 | <4 | 2.00mL | 200.0000 uL/221855; |  |
| 24R2206604-010 | EB-07192022                   | .05 | 100mL | 8270D/1,4-Dioxane DOD | 7 | <4 | 2.00mL | 200.0000 uL/224010; |  |
| 25R2206703-001 | 3-COXS-0.5-07202022-W         | .06 | 100mL | 8270D SIM/1,4-Dioxane | 7 | <4 | 2.00mL | 10.0000 uL/223073;  |  |
| 26R2206703-002 | 3-BASC-4.7-07202022-W         | .06 | 100mL | 8270D SIM/1,4-Dioxane | 7 | <4 | 2.00mL | 200.0000 uL/224009; |  |
| 27R2206703-003 | 3-13-BASC-4.7-07202022-P-W-EB | .08 | 100mL | 8270D SIM/1,4-Dioxane | 7 | <4 | 2.00mL | 10.0000 uL/223073;  |  |

## Spiking Solutions

Name: EPA 522 LCS Spike 5ppm Inventory ID: 221855 Logbook Ref: Expires On: 08/27/2022

Name: SVOA Toluene-D8 20ppm Inventory ID: 223073 Logbook Ref: Expires On: 09/13/2022

Name: 1,4-Dioxane-d8 1ppm IDMS Internal Inventory ID: 224009 Logbook Ref: Expires On: 01/10/2023

Name: Tetrahydrofuran-D8 1ppm Surr Std Inventory ID: 224010 Logbook Ref: Expires On: 09/13/2022

# Preparation Information Benchsheet

Prep Run#: 403402  
Team: Semiova GCM/SMCMAHON

Prep Workflow: OrgEXTSPEaq(7)  
Prep Method:

Status: Prepped  
Prep Date/Time: 7/26/22 09:53

## Preparation Materials

Method 522 400mg charcoal (223679)  
filters  
Methanol Purge & Trap MeOH 223545 (223545)  
Prepared Sodium Sulfate kln (223831)  
Na2SO4

Eppendorf Pipette Repeater EXT #18 (184837)  
Sodium Bisulfate Monohydrate (222083)  
RG

Dichloromethane (Methylene Chloride) 99.9% MeCl2 No CoA (223926)  
pH Paper 0-14 (223480)

## Preparation Steps

Step: Extraction  
Started: 7/26/22 09:53  
Finished: 7/26/22 15:37  
By: MCMCMAHON  
Comments

Comments:

Reviewed By:



Date:

7/22/22

Spike Witness: BALLGEIER

Date:

Chain of Custody

Relinquished By:



Date:

Received By:

Date:

Extracts Examined

Yes No

Prep Run#: 403402  
Team: Semivoa GCMS/MMCMAHON

# Preparation Information Benchsheet

Prep Workflow: OrgExSPBaq(7)  
Prep Method: EPA 3535A

Status: Draft  
Prep Date/Time: 7/26/22 09:53

| #  | Lab Code       | Client ID                    | B# | Amt. Ext. | Method / Test         | pH | AE | BN | Final Vol | Sample Desc. (Initial/Final) | Spike Amt./Inv. ID | Comments |
|----|----------------|------------------------------|----|-----------|-----------------------|----|----|----|-----------|------------------------------|--------------------|----------|
| 1  | RQ2208649-01   | MB                           |    | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 2  | RQ2208649-01   | MB                           |    | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 3  | RQ2208649-02   | LCS                          |    | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 4  | RQ2208649-02   | LCS                          |    | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 5  | RQ2208649-03   | DLCS                         |    | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 6  | RQ2208649-03   | DLCS                         |    | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 7  | R2206508-001RE | 8-ORL-002-001-01             | 34 | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 8  | RQ2208649-04   | R2206508-001 MS              | 34 | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 9  | RQ2208649-05   | R2206508-001 DMS             | 34 | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 10 | R2206508-002RE | 8-ORL-002-001-02             | 07 | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 11 | R2206508-003RE | 8-ORL-002-001-03             | 07 | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 12 | R2206508-004RE | 8-ORL-002-001-04             | 07 | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 13 | R2206604-001   | URS-2S-07192022              | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 14 | R2206604-002   | URS-2D-07192022              | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 15 | R2206604-003   | SW-4RE-07192022              | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 16 | R2206604-004   | SW-7RE-07192022              | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 17 | R2206604-005   | SW-9-07192022                | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 18 | R2206604-006   | DW-9-07192022                | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 19 | R2206604-007   | DW-3-07192022                | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 20 | R2206604-008   | URS-3D-07192022              | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 21 | RQ2208649-06   | R2206604-008 MS              | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 22 | RQ2208649-07   | R2206604-008 DMS             | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 23 | R2206604-009   | DUP-01-07192022              | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 24 | R2206604-010   | EB-07192022                  | 06 | 100mL     | 8270D/1,4-Dioxane DOD |    |    |    |           |                              |                    |          |
| 25 | R2206703-001   | 13-COXS-0.5-07202022-W       | 06 | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 26 | R2206703-002   | 13-BASC-4.7-07202022-W       | 06 | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |
| 27 | R2206703-003   | 13-13-BASC-4.7-07202022-W-EB | 06 | 100mL     | 8270D SIM/1,4-Dioxane |    |    |    |           |                              |                    |          |

## Preparation Steps

Step:   
Started:   
Finished:   
By:   
Comments:

200uL H<sub>2</sub>O d-8 224010  
200uL 1,4 diox d-8 224009  
200 EPA SZ2 Spm 221855  
10 uL toluene d-8 223073



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August 17, 2022

Service Request No:R2206605

Ms. Emily Cummings  
EA Engineering, Science, and Technology  
269 W. Jefferson Street  
Syracuse, NY 13202

**Laboratory Results for: AFP - 59**

Dear Ms.Cummings,

Enclosed are the results of the sample(s) submitted to our laboratory July 20, 2022  
For your reference, these analyses have been assigned our service request number **R2206605**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at [Meghan.Pedro@alsglobal.com](mailto:Meghan.Pedro@alsglobal.com).

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Meghan Pedro  
Project Manager

CC: Chris Schroer

**ADDRESS**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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## Narrative Documents

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)



**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Received:** 07/20/2022

#### CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

#### Sample Receipt:

Five water samples were received for analysis at ALS Environmental on 07/20/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

#### Semivolatiles by GC/MS:

No significant anomalies were noted with this analysis.

#### Volatiles by GC/MS:

Method 524.2, 07/21/2022: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Report revised and reported to MDL

Approved by Meghan Pedro

Date 08/15/2022



## Sample Receipt Information

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:**R2206605

**SAMPLE CROSS-REFERENCE**

| <u>SAMPLE #</u> | <u>CLIENT SAMPLE ID</u> | <u>DATE</u> | <u>TIME</u> |
|-----------------|-------------------------|-------------|-------------|
| R2206605-001    | JC-3-07192022           | 7/19/2022   | 0825        |
| R2206605-002    | Post Treatment-07192022 | 7/19/2022   | 0800        |
| R2206605-003    | JC-2-07192022           | 7/19/2022   | 0745        |
| R2206605-004    | DUP-02-07192022         | 7/19/2022   |             |
| R2206605-005    | TB-02-07192022          | 7/19/2022   |             |

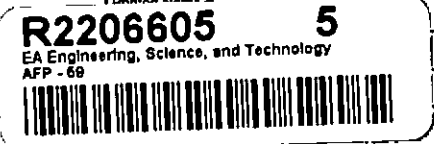


## CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

064658

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

|                                                                                                    |  |                                                 |  |                                                                                                                                                                                                                    |  |                      |  |        |  |                                                                                                                                                                                                                                                                                                   |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
|----------------------------------------------------------------------------------------------------|--|-------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|--|--------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Project Name<br><b>AFP-59</b>                                                                      |  | Project Number<br><b>6337601</b>                |  | ANALYSIS REQUESTED (Include Method Number and Container Preservative)                                                                                                                                              |  |                      |  |        |  |                                                                                                                                                                                                                                                                                                   |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| Project Manager<br><b>Chris Schroer</b>                                                            |  | Report CC<br><b>C.Schroer@eaest.com</b>         |  | PRESERVATIVE                                                                                                                                                                                                       |  |                      |  |        |  |                                                                                                                                                                                                                                                                                                   |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| Company/Address<br><b>EA Engineering</b><br><b>269 W Jefferson St</b><br><b>Syracuse, NY 13202</b> |  | Phone #<br><b>315 569 8308</b>                  |  | Email<br><b>C.Schroer@eaest.com</b>                                                                                                                                                                                |  | NUMBER OF CONTAINERS |  |        |  |                                                                                                                                                                                                                                                                                                   |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| Sampler's Signature<br><b>Morish Gultkey</b>                                                       |  | Sampler's Printed Name<br><b>Morish Gultkey</b> |  | PRESERVATIVE KEY<br>0. NONE<br>1. HCL<br>2. HNO <sub>3</sub><br>3. H <sub>2</sub> SO <sub>4</sub><br>4. NaOH<br>5. Zn. Acetate<br>6. MeOH<br>7. NaHSO <sub>4</sub><br>8. Other <b>Na<sub>2</sub>SO<sub>4</sub></b> |  |                      |  |        |  |                                                                                                                                                                                                                                                                                                   |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| CLIENT SAMPLE ID                                                                                   |  | FOR OFFICE USE ONLY LAB ID                      |  | DATE                                                                                                                                                                                                               |  | TIME                 |  | MATRIX |  | ANALYSIS REQUESTED (Include Method Number and Container Preservative)                                                                                                                                                                                                                             |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| JC-3-07192022                                                                                      |  |                                                 |  | 07/19/22                                                                                                                                                                                                           |  | 0825                 |  | W      |  | GC/MS VOCs<br>• 8260 • 821 • CLP<br>GC/MS SVOCs<br>• 8270 • 825<br>GC VOCs<br>• 8021 • 801802<br>PESTICIDES<br>• 8081 • 808<br>PCBs<br>• 8082 • 808<br>METALS TOTAL<br>(List in comments below)<br>METALS DISSOLVED<br>(List in comments below)<br>VOCs<br>ZPA 524<br>1,4-Dioxane<br>ZPA 5-22 SIM |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| Post Treatment-07192022                                                                            |  |                                                 |  | 07/19/22                                                                                                                                                                                                           |  | 0800                 |  | W      |  | X                                                                                                                                                                                                                                                                                                 |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| JC-2-07192022                                                                                      |  |                                                 |  | 07/19/22                                                                                                                                                                                                           |  | 0745                 |  | W      |  | X                                                                                                                                                                                                                                                                                                 |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| DUP-02-07192022                                                                                    |  |                                                 |  | 07/19/22                                                                                                                                                                                                           |  |                      |  | W      |  | X                                                                                                                                                                                                                                                                                                 |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| TB-02-07192022                                                                                     |  |                                                 |  | Lab filled                                                                                                                                                                                                         |  |                      |  |        |  | X                                                                                                                                                                                                                                                                                                 |  |  |  |                                                                                                                                                                                                                                       |  |  |  |                                                                                                                                                                                                                                                                                |  |  |  |                                                                                                                                                                       |  |  |  |                                                                                                                                               |  |  |  |
| SPECIAL INSTRUCTIONS/COMMENTS<br>Metals<br><br>Samples came from water treatment plant             |  |                                                 |  |                                                                                                                                                                                                                    |  |                      |  |        |  |                                                                                                                                                                                                                                                                                                   |  |  |  | TURNAROUND REQUIREMENTS<br>____ RUSH (SURCHARGES APPLY)<br>____ 1 day ____ 2 day ____ 3 day<br>____ 4 day ____ 5 day<br><input checked="" type="checkbox"/> Standard (10 business days-No Surcharge)<br>REQUESTED REPORT DATE<br>____ |  |  |  | REPORT REQUIREMENTS<br>____ I. Results Only<br>____ II. Results + OC Summaries<br>(LCS, DUP, MS/MSD as required)<br><input checked="" type="checkbox"/> III. Results + OC and Calibration Summaries<br>____ IV. Data Validation Report with Raw Data<br>Edata ____ Yes ____ No |  |  |  | INVOICE INFORMATION<br>PO #<br><b>6337301</b><br>BILL TO:<br><b>North East Account</b><br><b>Payable</b><br><b>3 Washington Ctr</b><br><b>Newburgh NY 12550</b>       |  |  |  |                                                                                                                                               |  |  |  |
| STATE WHERE SAMPLES WERE COLLECTED                                                                 |  |                                                 |  |                                                                                                                                                                                                                    |  |                      |  |        |  |                                                                                                                                                                                                                                                                                                   |  |  |  | RELINQUISHED BY<br><b>Morish Gultkey</b><br>Signature<br><b>Morish Gultkey</b><br>Printed Name<br><b>EA Engineering</b><br>Firm<br><b>07/19/2022 155</b><br>Date/Time                                                                 |  |  |  | RECEIVED BY<br><b>Azalia W90</b><br>Signature<br><b>Azalia W90</b><br>Printed Name<br><b>ALS</b><br>Firm<br><b>07/20/22 0940</b><br>Date/Time                                                                                                                                  |  |  |  | RELINQUISHED BY<br><b>Morish Gultkey</b><br>Signature<br><b>Morish Gultkey</b><br>Printed Name<br><b>EA Engineering</b><br>Firm<br><b>07/19/2022 155</b><br>Date/Time |  |  |  | RECEIVED BY<br><b>Azalia W90</b><br>Signature<br><b>Azalia W90</b><br>Printed Name<br><b>ALS</b><br>Firm<br><b>07/20/22 0940</b><br>Date/Time |  |  |  |





## Cooler Receipt and Preservation

R2206605

5

EA Engineering, Science, and Technology  
AFP - 69

Project/Client \_\_\_\_\_ Folder Number \_\_\_\_\_

Cooler received on 07/20/22 by: ALCOURIER: ALS UPS FEDEX VELOCITY CLIENT

|   |                                                      |          |   |
|---|------------------------------------------------------|----------|---|
| 1 | Were Custody seals on outside of cooler?             | <u>Y</u> | N |
| 2 | Custody papers properly completed (ink, signed)?     | <u>Y</u> | N |
| 3 | Did all bottles arrive in good condition (unbroken)? | <u>Y</u> | N |
| 4 | Circle: <u>Wet Ice</u> Dry Ice Gel packs present?    | <u>Y</u> | N |

|    |                                                   |                |          |           |
|----|---------------------------------------------------|----------------|----------|-----------|
| 5a | Perchlorate samples have required headspace?      | Y              | N        | <u>NA</u> |
| 5b | Did VOA vials, Alk, or Sulfide have sig* bubbles? | Y              | <u>N</u> | NA        |
| 6  | Where did the bottles originate?                  | <u>ALS/ROC</u> | CLIENT   |           |
| 7  | Soil VOA received as: Bulk Encore 5035set         | <u>NA</u>      |          |           |

8. Temperature Readings Date: 07/20/22 Time: 0758 ID: IR#7 IR#11 From: Temp Blank Sample Bottle

|                               |            |            |   |   |   |   |   |   |
|-------------------------------|------------|------------|---|---|---|---|---|---|
| Observed Temp (°C)            | <u>3.1</u> | <u>3.6</u> |   |   |   |   |   |   |
| Within 0-6°C?                 | <u>Y</u>   | <u>Y</u>   | N | Y | N | Y | N | Y |
| If <0°C, were samples frozen? | Y          | N          | Y | N | Y | N | Y | N |

If out of Temperature, note packing/ice condition: \_\_\_\_\_ Ice melted Poorly Packed (described below) Same Day Rule  
& Client Approval to Run Samples: \_\_\_\_\_ Standing Approval Client aware at drop-off Client notified by: \_\_\_\_\_All samples held in storage location: 2-002 by AL on 07/20/22 at 0809  
5035 samples placed in storage location: \_\_\_\_\_ by \_\_\_\_\_ on \_\_\_\_\_ at \_\_\_\_\_ within 48 hours of sampling? Y NCooler Breakdown/Preservation Check\*\*: Date: 07/20/22 Time: 1130 by: AL

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
13. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated N/A

| pH                    | Lot of test paper | Reagent                                       | Preserved? | Lot Received                                                                                             | Exp          | Sample ID Adjusted | Vol. Added | Lot Added | Final pH |
|-----------------------|-------------------|-----------------------------------------------|------------|----------------------------------------------------------------------------------------------------------|--------------|--------------------|------------|-----------|----------|
| ≥12                   |                   | NaOH                                          | Yes No     |                                                                                                          |              |                    |            |           |          |
| ≤2                    |                   | HNO <sub>3</sub>                              |            |                                                                                                          |              |                    |            |           |          |
| ≤2                    |                   | H <sub>2</sub> SO <sub>4</sub>                |            |                                                                                                          |              |                    |            |           |          |
| <4                    | <u>225320</u>     | NaHSO <sub>4</sub>                            | <u>X</u>   | <u>B28032D</u>                                                                                           | <u>11/24</u> |                    |            |           |          |
| 5-9                   |                   | For 608pest                                   |            | No=Notify for 3day                                                                                       |              |                    |            |           |          |
| Residual Chlorine (-) |                   | For CN, Phenol, 625, 608pest <u>522</u>       | <u>X</u>   | If +, contact PM to add Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> (625, 608, CN), ascorbic (phenol). |              |                    |            |           |          |
|                       |                   | Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |            |                                                                                                          |              |                    |            |           |          |
|                       |                   | ZnAcetate                                     | - -        |                                                                                                          |              |                    |            |           |          |
|                       |                   | HCl                                           | ** **      |                                                                                                          |              |                    |            |           |          |

\*\*VOAs and 1664 Not to be tested before analysis.  
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).Bottle lot numbers: 80828 - C278

Explain all Discrepancies/ Other Comments:

\* URS-3D07192022-MS/MSD cracked cap, replaced

524 ASC LOT A0401802 10/29/2023

\* sample 001 pH 74

Labels secondary reviewed by: AL

PC Secondary Review: \_\_\_\_\_

\*significant air bubbles: VOA &gt; 5-6 mm : WC &gt; 1 in. diameter

|       |        |
|-------|--------|
| HPROD | BULK   |
| HTR   | FLDT   |
| SUB   | HGFB   |
| ALS   | LL3541 |

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Internal Chain of Custody Report

**Client:** EA Engineering, Science, and Technology  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

| Bottle ID       | Methods | Date      | Time | Sample Location / User | Disposed On |
|-----------------|---------|-----------|------|------------------------|-------------|
| R2206605-001.01 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
| R2206605-001.02 |         |           |      |                        |             |
|                 | 524.2   |           |      |                        |             |
|                 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
|                 |         | 7/21/2022 | 1323 | In Lab / KRUEST        |             |
| R2206605-001.03 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-001.04 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-001.05 |         |           |      |                        |             |
|                 | 522     |           |      |                        |             |
|                 |         | 7/20/2022 | 1134 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
| R2206605-002.01 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
| R2206605-002.02 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-002.03 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-002.04 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-002.05 |         |           |      |                        |             |
|                 |         | 7/20/2022 | 1134 | SMO / GESMERIAN        |             |

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Internal Chain of Custody Report

**Client:** EA Engineering, Science, and Technology  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

| Bottle ID       | Methods | Date      | Time | Sample Location / User | Disposed On |
|-----------------|---------|-----------|------|------------------------|-------------|
| R2206605-002.06 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
|                 |         | 7/20/2022 | 1134 | SMO / GESMERIAN        |             |
| R2206605-002.07 | 522     | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
|                 |         | 7/20/2022 | 1134 | SMO / GESMERIAN        |             |
| R2206605-002.08 |         | 7/20/2022 | 1134 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
| R2206605-002.09 |         | 7/20/2022 | 1134 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
| R2206605-002.10 |         | 7/20/2022 | 1135 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-002.11 |         | 7/20/2022 | 1135 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-002.12 |         | 7/20/2022 | 1135 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-002.13 | 524.2   | 7/20/2022 | 1135 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
|                 |         | 7/21/2022 | 1323 | In Lab / KRUEST        |             |
| R2206605-002.14 |         | 7/20/2022 | 1135 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-002.15 |         |           |      |                        |             |

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**Internal Chain of Custody Report**

**Client:** EA Engineering, Science, and Technology  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

| Bottle ID       | Methods | Date      | Time | Sample Location / User | Disposed On |
|-----------------|---------|-----------|------|------------------------|-------------|
| R2206605-003.01 |         | 7/20/2022 | 1135 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-003.02 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
| R2206605-003.03 | 524.2   | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
|                 |         | 7/21/2022 | 1323 | In Lab / KRUEST        |             |
|                 |         |           |      |                        |             |
| R2206605-003.04 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-003.05 | 522     | 7/20/2022 | 1134 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
| R2206605-004.01 | 522     | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
| R2206605-004.02 | 524.2   | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
|                 |         | 7/21/2022 | 1323 | In Lab / KRUEST        |             |
| R2206605-004.03 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
| R2206605-004.04 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         |           |      |                        |             |

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Internal Chain of Custody Report

**Client:** EA Engineering, Science, and Technology  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

| Bottle ID       | Methods | Date      | Time | Sample Location / User | Disposed On |
|-----------------|---------|-----------|------|------------------------|-------------|
| R2206605-004.05 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
|                 |         | 7/20/2022 | 1134 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
| R2206605-005.01 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206605-005.02 | 524.2   | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
|                 |         | 7/21/2022 | 1324 | In Lab / KRUEST        |             |
|                 |         |           |      |                        |             |
|                 |         |           |      |                        |             |
| R2206605-005.03 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206605-005.04 |         | 7/20/2022 | 1132 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-001 / GESMERIAN      |             |
|                 |         |           |      |                        |             |
| R2206605-005.05 | 522     | 7/20/2022 | 1134 | SMO / GESMERIAN        |             |
|                 |         | 7/20/2022 | 1135 | R-002 / GESMERIAN      |             |
|                 |         |           |      |                        |             |



## Miscellaneous Forms

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)



## REPORT QUALIFIERS AND DEFINITIONS

|   |                                                                                                                                                                                                                                                                                                        |     |                                                                                                                                                                                                                      |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| U | Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.                                                                                                                       | +   | Correlation coefficient for MSA is <0.995.                                                                                                                                                                           |
| J | Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors). | N   | Inorganics- Matrix spike recovery was outside laboratory limits.                                                                                                                                                     |
| B | Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.                                                                                                                                                                            | N   | Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.                                                                                                                     |
| E | Inorganics- Concentration is estimated due to the serial dilution was outside control limits.                                                                                                                                                                                                          | S   | Concentration has been determined using Method of Standard Additions (MSA).                                                                                                                                          |
| E | Organics- Concentration has exceeded the calibration range for that specific analysis.                                                                                                                                                                                                                 | W   | Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.                                                                                                   |
| D | Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.                                                                                            | P   | Concentration >40% difference between the two GC columns.                                                                                                                                                            |
| * | Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.                                                                                                                  | C   | Confirmed by GC/MS                                                                                                                                                                                                   |
| H | Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.                                                                                                                                                                                                         | Q   | DoD reports: indicates a pesticide/Aroclor is not confirmed ( $\geq 100\%$ Difference between two GC columns).                                                                                                       |
| # | Spike was diluted out.                                                                                                                                                                                                                                                                                 | X   | See Case Narrative for discussion.                                                                                                                                                                                   |
|   |                                                                                                                                                                                                                                                                                                        | MRL | Method Reporting Limit. Also known as:                                                                                                                                                                               |
|   |                                                                                                                                                                                                                                                                                                        | LOQ | Limit of Quantitation (LOQ)<br>The lowest concentration at which the method analyte may be reliably quantified under the method conditions.                                                                          |
|   |                                                                                                                                                                                                                                                                                                        | MDL | Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier). |
|   |                                                                                                                                                                                                                                                                                                        | LOD | Limit of Detection. A value at or above the MDL which has been verified to be detectable.                                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                        | ND  | Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.                                                                                                                               |

### Rochester Lab ID # for State Accreditations<sup>1</sup>



| NELAP States            |
|-------------------------|
| Florida ID # E87674     |
| New Hampshire ID # 2941 |
| New York ID # 10145     |
| Pennsylvania ID# 68-786 |
| Virginia #460167        |

| Non-NELAP States       |
|------------------------|
| Connecticut ID #PH0556 |
| Delaware Approved      |
| Maine ID #NY01587      |
| North Carolina #36701  |
| North Carolina #676    |
| Rhode Island LAO00333  |

<sup>1</sup> Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

# ALS Laboratory Group

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## Acronyms

|            |                                                                                                                                          |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|
| ASTM       | American Society for Testing and Materials                                                                                               |
| A2LA       | American Association for Laboratory Accreditation                                                                                        |
| CARB       | California Air Resources Board                                                                                                           |
| CAS Number | Chemical Abstract Service registry Number                                                                                                |
| CFC        | Chlorofluorocarbon                                                                                                                       |
| CFU        | Colony-Forming Unit                                                                                                                      |
| DEC        | Department of Environmental Conservation                                                                                                 |
| DEQ        | Department of Environmental Quality                                                                                                      |
| DHS        | Department of Health Services                                                                                                            |
| DOE        | Department of Ecology                                                                                                                    |
| DOH        | Department of Health                                                                                                                     |
| EPA        | U. S. Environmental Protection Agency                                                                                                    |
| ELAP       | Environmental Laboratory Accreditation Program                                                                                           |
| GC         | Gas Chromatography                                                                                                                       |
| GC/MS      | Gas Chromatography/Mass Spectrometry                                                                                                     |
| LUFT       | Leaking Underground Fuel Tank                                                                                                            |
| M          | Modified                                                                                                                                 |
| MCL        | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL        | Method Detection Limit                                                                                                                   |
| MPN        | Most Probable Number                                                                                                                     |
| MRL        | Method Reporting Limit                                                                                                                   |
| NA         | Not Applicable                                                                                                                           |
| NC         | Not Calculated                                                                                                                           |
| NCASI      | National Council of the Paper Industry for Air and Stream Improvement                                                                    |
| ND         | Not Detected                                                                                                                             |
| NIOSH      | National Institute for Occupational Safety and Health                                                                                    |
| PQL        | Practical Quantitation Limit                                                                                                             |
| RCRA       | Resource Conservation and Recovery Act                                                                                                   |
| SIM        | Selected Ion Monitoring                                                                                                                  |
| TPH        | Total Petroleum Hydrocarbons                                                                                                             |
| tr         | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.                           |

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

**Non-Certified Analytes**

**Certifying Agency:** New York Department of Health

| Method | Matrix | Analyte                          |
|--------|--------|----------------------------------|
| 522    | Water  | 1,4-Dioxane                      |
| 524.2  | Water  | 1,1,1,2-Tetrachloroethane        |
| 524.2  | Water  | 1,1,1-Trichloroethane            |
| 524.2  | Water  | 1,1,2,2-Tetrachloroethane        |
| 524.2  | Water  | 1,1,2-Trichloroethane            |
| 524.2  | Water  | 1,1-Dichloroethane (SPCC)        |
| 524.2  | Water  | 1,1-Dichloroethene (1,1-DCE)     |
| 524.2  | Water  | 1,1-Dichloropropene              |
| 524.2  | Water  | 1,2,3-Trichlorobenzene           |
| 524.2  | Water  | 1,2,3-Trichloropropane           |
| 524.2  | Water  | 1,2,4-Trichlorobenzene           |
| 524.2  | Water  | 1,2,4-Trimethylbenzene           |
| 524.2  | Water  | 1,2-Dichlorobenzene              |
| 524.2  | Water  | 1,2-Dichloroethane               |
| 524.2  | Water  | 1,2-Dichloropropane (CCC)        |
| 524.2  | Water  | 1,3,5-Trimethylbenzene           |
| 524.2  | Water  | 1,3-Dichlorobenzene              |
| 524.2  | Water  | 1,3-Dichloropropane              |
| 524.2  | Water  | 1,4-Dichlorobenzene              |
| 524.2  | Water  | 2,2-Dichloropropane              |
| 524.2  | Water  | 2-Chlorotoluene                  |
| 524.2  | Water  | 4-Chlorotoluene                  |
| 524.2  | Water  | Benzene                          |
| 524.2  | Water  | Bromobenzene                     |
| 524.2  | Water  | Bromochloromethane               |
| 524.2  | Water  | Bromomethane                     |
| 524.2  | Water  | Carbon Tetrachloride             |
| 524.2  | Water  | Chlorobenzene                    |
| 524.2  | Water  | Chloroethane                     |
| 524.2  | Water  | Chloromethane                    |
| 524.2  | Water  | Dibromomethane                   |
| 524.2  | Water  | Dichlorodifluoromethane (CFC 12) |
| 524.2  | Water  | Ethylbenzene                     |
| 524.2  | Water  | Hexachlorobutadiene              |
| 524.2  | Water  | Isopropylbenzene (Cumene)        |
| 524.2  | Water  | Methylene Chloride               |
| 524.2  | Water  | Styrene                          |
| 524.2  | Water  | Tetrachloroethene (PCE)          |
| 524.2  | Water  | Toluene                          |
| 524.2  | Water  | Trichloroethene (TCE)            |
| 524.2  | Water  | Trichlorofluoromethane (CFC 11)  |
| 524.2  | Water  | cis-1,2-Dichloroethene           |
| 524.2  | Water  | cis-1,3-Dichloropropene          |
| 524.2  | Water  | m,p-Xylenes                      |
| 524.2  | Water  | n-Butylbenzene                   |
| 524.2  | Water  | n-Propylbenzene                  |
| 524.2  | Water  | o-Xylene                         |

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

**Non-Certified Analytes**

**Certifying Agency:** New York Department of Health

| Method | Matrix | Analyte                   |
|--------|--------|---------------------------|
| 524.2  | Water  | p-Isopropyltoluene        |
| 524.2  | Water  | sec-Butylbenzene          |
| 524.2  | Water  | tert-Butylbenzene         |
| 524.2  | Water  | trans-1,2-Dichloroethene  |
| 524.2  | Water  | trans-1,3-Dichloropropene |

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Analyst Summary report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

**Sample Name:** JC-3-07192022  
**Lab Code:** R2206605-001  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
522  
524.2

**Extracted/Digested By**  
MMCMAHON

**Analyzed By**  
MMCMAHON  
KRUEST

**Sample Name:** Post Treatment-07192022  
**Lab Code:** R2206605-002  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
522  
524.2

**Extracted/Digested By**  
MMCMAHON

**Analyzed By**  
MMCMAHON  
KRUEST

**Sample Name:** JC-2-07192022  
**Lab Code:** R2206605-003  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
522  
524.2

**Extracted/Digested By**  
MMCMAHON

**Analyzed By**  
MMCMAHON  
KRUEST

**Sample Name:** DUP-02-07192022  
**Lab Code:** R2206605-004  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**  
522  
524.2

**Extracted/Digested By**  
MMCMAHON

**Analyzed By**  
MMCMAHON  
KRUEST

**ALS Group USA, Corp.**  
**dba ALS Environmental**

Analyst Summary report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

**Sample Name:** TB-02-07192022  
**Lab Code:** R2206605-005  
**Sample Matrix:** Water

**Date Collected:** 07/19/22  
**Date Received:** 07/20/22

**Analysis Method**

522  
524.2

**Extracted/Digested By**

MMCMAHON

**Analyzed By**

MMCMAHON  
KRUEST



## INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

### Water/Liquid Matrix

| Analytical Method             | Preparation Method |
|-------------------------------|--------------------|
| 200.7                         | 200.2              |
| 200.8                         | 200.2              |
| 6010C                         | 3005A/3010A        |
| 6020A                         | ILM05.3            |
| 9034 Sulfide Acid Soluble     | 9030B              |
| SM 4500-CN-E Residual Cyanide | SM 4500-CN-G       |
| SM 4500-CN-E WAD Cyanide      | SM 4500-CN-I       |

### Solid/Soil/Non-Aqueous Matrix

| Analytical Method                                                                                         | Preparation Method |
|-----------------------------------------------------------------------------------------------------------|--------------------|
| 6010C                                                                                                     | 3050B              |
| 6020A                                                                                                     | 3050B              |
| 6010C TCLP (1311) extract                                                                                 | 3005A/3010A        |
| 6010 SPLP (1312) extract                                                                                  | 3005A/3010A        |
| 7199                                                                                                      | 3060A              |
| 300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions                                              | DI extraction      |
| For analytical methods not listed, the preparation method is the same as the analytical method reference. |                    |



## Sample Results

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)





## Volatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** JC-3-07192022  
**Lab Code:** R2206605-001

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:25  
**Date Received:** 07/20/22 07:40

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result        | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|---------------|------|------|------|----------------|---|
| 1,1-Dichloropropene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1,1-Trichloroethane            | <b>0.43 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:05 |   |
| 1,1,2-Trichloroethane            | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2,3-Trichloropropane           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2-Dichloroethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,3-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,3-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,4-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 2,2-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 2-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 4-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| p-Isopropyltoluene               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Benzene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Bromobenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Bromochloromethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Bromomethane                     | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:05 |   |
| Carbon Tetrachloride             | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Chlorobenzene                    | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Chloroethane                     | 0.50 U        | 0.50 | 0.36 | 1    | 07/21/22 16:05 |   |
| Chloromethane                    | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:05 |   |
| Dibromomethane                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:05 |   |
| Methylene Chloride               | 0.50 U        | 0.50 | 0.25 | 1    | 07/21/22 16:05 |   |
| Ethylbenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Hexachlorobutadiene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Isopropylbenzene (Cumene)        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Styrene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Tetrachloroethene (PCE)          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Toluene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Trichloroethene (TCE)            | <b>0.43 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| cis-1,2-Dichloroethene           | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:05 |   |
| cis-1,3-Dichloropropene          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| m,p-Xylenes                      | 1.0 U         | 1.0  | 0.20 | 1    | 07/21/22 16:05 |   |
| n-Butylbenzene                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:25  
**Date Received:** 07/20/22 07:40

**Sample Name:** JC-3-07192022  
**Lab Code:** R2206605-001

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 91    | 70 - 130       | 07/21/22 16:05 |   |
| 4-Bromofluorobenzene   | 93    | 70 - 130       | 07/21/22 16:05 |   |

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** Post Treatment-07192022  
**Lab Code:** R2206605-002

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|--------|------|------|------|----------------|---|
| 1,1-Dichloropropene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1,1-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 17:21 |   |
| 1,1,2-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2,3-Trichloropropane           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2-Dichloroethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,3-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,3-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,4-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 2,2-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 2-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 4-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| p-Isopropyltoluene               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Benzene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Bromobenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Bromochloromethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Bromomethane                     | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 17:21 |   |
| Carbon Tetrachloride             | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Chlorobenzene                    | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Chloroethane                     | 0.50 U | 0.50 | 0.36 | 1    | 07/21/22 17:21 |   |
| Chloromethane                    | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 17:21 |   |
| Dibromomethane                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 17:21 |   |
| Methylene Chloride               | 0.25 J | 0.50 | 0.25 | 1    | 07/21/22 17:21 |   |
| Ethylbenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Hexachlorobutadiene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Isopropylbenzene (Cumene)        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Styrene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Tetrachloroethene (PCE)          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Toluene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Trichloroethene (TCE)            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| cis-1,2-Dichloroethene           | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 17:21 |   |
| cis-1,3-Dichloropropene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| m,p-Xylenes                      | 1.0 U  | 1.0  | 0.20 | 1    | 07/21/22 17:21 |   |
| n-Butylbenzene                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** Post Treatment-07192022  
**Lab Code:** R2206605-002

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 96    | 70 - 130       | 07/21/22 17:21 |   |
| 4-Bromofluorobenzene   | 93    | 70 - 130       | 07/21/22 17:21 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 07:45  
**Date Received:** 07/20/22 07:40

**Sample Name:** JC-2-07192022  
**Lab Code:** R2206605-003

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result        | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|---------------|------|------|------|----------------|---|
| 1,1-Dichloropropene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1,1-Trichloroethane            | <b>0.24 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:30 |   |
| 1,1,2-Trichloroethane            | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2,3-Trichloropropane           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2-Dichloroethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,3-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,3-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,4-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 2,2-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 2-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 4-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| p-Isopropyltoluene               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Benzene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Bromobenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Bromochloromethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Bromomethane                     | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:30 |   |
| Carbon Tetrachloride             | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Chlorobenzene                    | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Chloroethane                     | 0.50 U        | 0.50 | 0.36 | 1    | 07/21/22 16:30 |   |
| Chloromethane                    | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:30 |   |
| Dibromomethane                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:30 |   |
| Methylene Chloride               | 0.50 U        | 0.50 | 0.25 | 1    | 07/21/22 16:30 |   |
| Ethylbenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Hexachlorobutadiene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Isopropylbenzene (Cumene)        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Styrene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Tetrachloroethene (PCE)          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Toluene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Trichloroethene (TCE)            | <b>0.33 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| cis-1,2-Dichloroethene           | <b>0.42 J</b> | 0.50 | 0.21 | 1    | 07/21/22 16:30 |   |
| cis-1,3-Dichloropropene          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| m,p-Xylenes                      | 1.0 U         | 1.0  | 0.20 | 1    | 07/21/22 16:30 |   |
| n-Butylbenzene                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 07:45  
**Date Received:** 07/20/22 07:40

**Sample Name:** JC-2-07192022  
**Lab Code:** R2206605-003

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 94    | 70 - 130       | 07/21/22 16:30 |   |
| 4-Bromofluorobenzene   | 91    | 70 - 130       | 07/21/22 16:30 |   |

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-02-07192022  
**Lab Code:** R2206605-004

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result        | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|---------------|------|------|------|----------------|---|
| 1,1-Dichloropropene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1,1-Trichloroethane            | <b>0.24 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:56 |   |
| 1,1,2-Trichloroethane            | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2,3-Trichloropropane           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2-Dichloroethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,3-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,3-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,4-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 2,2-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 2-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 4-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| p-Isopropyltoluene               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Benzene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Bromobenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Bromochloromethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Bromomethane                     | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:56 |   |
| Carbon Tetrachloride             | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Chlorobenzene                    | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Chloroethane                     | 0.50 U        | 0.50 | 0.36 | 1    | 07/21/22 16:56 |   |
| Chloromethane                    | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:56 |   |
| Dibromomethane                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:56 |   |
| Methylene Chloride               | 0.50 U        | 0.50 | 0.25 | 1    | 07/21/22 16:56 |   |
| Ethylbenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Hexachlorobutadiene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Isopropylbenzene (Cumene)        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Styrene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Tetrachloroethene (PCE)          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Toluene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Trichloroethene (TCE)            | <b>0.33 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| cis-1,2-Dichloroethene           | <b>0.42 J</b> | 0.50 | 0.21 | 1    | 07/21/22 16:56 |   |
| cis-1,3-Dichloropropene          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| m,p-Xylenes                      | 1.0 U         | 1.0  | 0.20 | 1    | 07/21/22 16:56 |   |
| n-Butylbenzene                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |



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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** DUP-02-07192022  
**Lab Code:** R2206605-004

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 94    | 70 - 130       | 07/21/22 16:56 |   |
| 4-Bromofluorobenzene   | 93    | 70 - 130       | 07/21/22 16:56 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** TB-02-07192022  
**Lab Code:** R2206605-005

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|--------|------|------|------|----------------|---|
| 1,1,1-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1-Dichloropropene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 15:39 |   |
| 1,1,2-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2,3-Trichloropropane           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2-Dichloroethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,3-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,3-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,4-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 2,2-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 2-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 4-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| p-Isopropyltoluene               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Benzene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Bromobenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Bromochloromethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Bromomethane                     | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 15:39 |   |
| Carbon Tetrachloride             | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Chlorobenzene                    | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Chloroethane                     | 0.50 U | 0.50 | 0.36 | 1    | 07/21/22 15:39 |   |
| Chloromethane                    | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 15:39 |   |
| Dibromomethane                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 15:39 |   |
| Methylene Chloride               | 0.31 J | 0.50 | 0.25 | 1    | 07/21/22 15:39 |   |
| Ethylbenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Hexachlorobutadiene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Isopropylbenzene (Cumene)        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Styrene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Tetrachloroethene (PCE)          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Toluene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Trichloroethene (TCE)            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| cis-1,2-Dichloroethene           | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 15:39 |   |
| cis-1,3-Dichloropropene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| m,p-Xylenes                      | 1.0 U  | 1.0  | 0.20 | 1    | 07/21/22 15:39 |   |
| n-Butylbenzene                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |

ALS Group USA, Corp.  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** TB-02-07192022  
**Lab Code:** R2206605-005

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 92    | 70 - 130       | 07/21/22 15:39 |   |
| 4-Bromofluorobenzene   | 92    | 70 - 130       | 07/21/22 15:39 |   |



## Semivolatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** JC-3-07192022  
**Lab Code:** R2206605-001

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:25  
**Date Received:** 07/20/22 07:40  
  
**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.609  | 0.0400 | 0.0200 | 1    | 08/10/22 15:07 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 88    | 70 - 130       | 08/10/22 15:07 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** Post Treatment-07192022  
**Lab Code:** R2206605-002

**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.589  | 0.0533 | 0.0267 | 1    | 08/10/22 15:25 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 91    | 70 - 130       | 08/10/22 15:25 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
**Sample Name:** JC-2-07192022  
**Lab Code:** R2206605-003

**Service Request:** R2206605  
**Date Collected:** 07/19/22 07:45  
**Date Received:** 07/20/22 07:40  
**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.533  | 0.0400 | 0.0200 | 1    | 08/10/22 16:36 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 84    | 70 - 130       | 08/10/22 16:36 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-02-07192022  
**Lab Code:** R2206605-004

**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.502  | 0.0400 | 0.0200 | 1    | 08/10/22 16:54 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 87    | 70 - 130       | 08/10/22 16:54 |   |



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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** TB-02-07192022  
**Lab Code:** R2206605-005

**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result   | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|----------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.0342 J | 0.0400 | 0.0200 | 1    | 08/10/22 17:12 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 85    | 70 - 130       | 08/10/22 17:12 |   |



## QC Summary Forms

**ALS Environmental—Rochester Laboratory**

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## Volatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

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ALS Group USA, Corp.  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605

**SURROGATE RECOVERY SUMMARY**  
**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

**Extraction Method:**

| Sample Name                 | Lab Code     | 1,2-Dichlorobenzene-d4 | 4-Bromofluorobenzene |
|-----------------------------|--------------|------------------------|----------------------|
|                             |              | 70-130                 | 70-130               |
| JC-3-07192022               | R2206605-001 | 91                     | 93                   |
| Post Treatment-07192022     | R2206605-002 | 96                     | 93                   |
| JC-2-07192022               | R2206605-003 | 94                     | 91                   |
| DUP-02-07192022             | R2206605-004 | 94                     | 93                   |
| TB-02-07192022              | R2206605-005 | 92                     | 92                   |
| Method Blank                | RQ2208443-04 | 92                     | 95                   |
| Lab Control Sample          | RQ2208443-03 | 104                    | 105                  |
| Post Treatment-07192022 MS  | RQ2208443-05 | 104                    | 100                  |
| Post Treatment-07192022 DMS | RQ2208443-06 | 105                    | 102                  |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22  
**Date Analyzed:** 07/21/22

**Duplicate Matrix Spike Summary**  
**Purgeable Organic Compounds by GC/MS**

**Sample Name:** Post Treatment-07192022  
**Lab Code:** R2206605-002  
**Analysis Method:** 524.2

**Units:** ug/L  
**Basis:** NA

| Analyte Name                     | Sample Result | Matrix Spike<br>RQ2208443-05 |              |       | Duplicate Matrix Spike<br>RQ2208443-06 |              |       | % Rec Limits | RPD | RPD Limit |
|----------------------------------|---------------|------------------------------|--------------|-------|----------------------------------------|--------------|-------|--------------|-----|-----------|
|                                  |               | Result                       | Spike Amount | % Rec | Result                                 | Spike Amount | % Rec |              |     |           |
| 1,1,1-Trichloroethane            | 0.50 U        | 4.19                         | 5.00         | 84    | 4.14                                   | 5.00         | 83    | 70-130       | 1   | 20        |
| 1,1-Dichloropropene              | 0.50 U        | 3.98                         | 5.00         | 80    | 4.06                                   | 5.00         | 81    | 70-130       | 2   | 20        |
| 1,1,1,2-Tetrachloroethane        | 0.50 U        | 4.19                         | 5.00         | 84    | 4.11                                   | 5.00         | 82    | 70-130       | 2   | 20        |
| 1,1,2,2-Tetrachloroethane        | 0.50 U        | 4.24                         | 5.00         | 85    | 4.39                                   | 5.00         | 88    | 70-130       | 3   | 20        |
| 1,1,2-Trichloroethane            | 0.50 U        | 3.84                         | 5.00         | 77    | 4.06                                   | 5.00         | 81    | 70-130       | 6   | 20        |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U        | 4.32                         | 5.00         | 86    | 4.30                                   | 5.00         | 86    | 70-130       | <1  | 20        |
| 1,2,3-Trichlorobenzene           | 0.50 U        | 3.87                         | 5.00         | 77    | 4.02                                   | 5.00         | 80    | 70-130       | 4   | 20        |
| 1,2,3-Trichloropropane           | 0.50 U        | 4.14                         | 5.00         | 83    | 4.27                                   | 5.00         | 85    | 70-130       | 3   | 20        |
| 1,2,4-Trichlorobenzene           | 0.50 U        | 3.79                         | 5.00         | 76    | 4.06                                   | 5.00         | 81    | 70-130       | 7   | 20        |
| 1,2,4-Trimethylbenzene           | 0.50 U        | 4.45                         | 5.00         | 89    | 4.39                                   | 5.00         | 88    | 70-130       | 1   | 20        |
| 1,2-Dichlorobenzene              | 0.50 U        | 4.23                         | 5.00         | 85    | 4.44                                   | 5.00         | 89    | 70-130       | 5   | 20        |
| 1,2-Dichloroethane               | 0.50 U        | 3.69                         | 5.00         | 74    | 3.64                                   | 5.00         | 73    | 70-130       | 1   | 20        |
| 1,3,5-Trimethylbenzene           | 0.50 U        | 4.44                         | 5.00         | 89    | 4.53                                   | 5.00         | 91    | 70-130       | 2   | 20        |
| 1,3-Dichlorobenzene              | 0.50 U        | 4.38                         | 5.00         | 88    | 4.49                                   | 5.00         | 90    | 70-130       | 2   | 20        |
| 1,3-Dichloropropane              | 0.50 U        | 3.84                         | 5.00         | 77    | 3.85                                   | 5.00         | 77    | 70-130       | <1  | 20        |
| 1,4-Dichlorobenzene              | 0.50 U        | 4.41                         | 5.00         | 88    | 4.43                                   | 5.00         | 89    | 70-130       | <1  | 20        |
| 2,2-Dichloropropane              | 0.50 U        | 4.32                         | 5.00         | 86    | 4.28                                   | 5.00         | 86    | 70-130       | <1  | 20        |
| 2-Chlorotoluene                  | 0.50 U        | 4.43                         | 5.00         | 89    | 4.54                                   | 5.00         | 91    | 70-130       | 2   | 20        |
| 4-Chlorotoluene                  | 0.50 U        | 4.38                         | 5.00         | 88    | 4.42                                   | 5.00         | 88    | 70-130       | <1  | 20        |
| p-Isopropyltoluene               | 0.50 U        | 4.51                         | 5.00         | 90    | 4.59                                   | 5.00         | 92    | 70-130       | 2   | 20        |
| Benzene                          | 0.50 U        | 3.97                         | 5.00         | 79    | 3.96                                   | 5.00         | 79    | 70-130       | <1  | 20        |
| Bromobenzene                     | 0.50 U        | 4.04                         | 5.00         | 81    | 4.23                                   | 5.00         | 85    | 70-130       | 5   | 20        |
| Bromochloromethane               | 0.50 U        | 3.88                         | 5.00         | 78    | 3.87                                   | 5.00         | 77    | 70-130       | <1  | 20        |
| Bromomethane                     | 0.50 U        | 3.41                         | 5.00         | 68 *  | 3.42                                   | 5.00         | 68 *  | 70-130       | <1  | 20        |
| Carbon Tetrachloride             | 0.50 U        | 4.21                         | 5.00         | 84    | 4.21                                   | 5.00         | 84    | 70-130       | <1  | 20        |
| Chlorobenzene                    | 0.50 U        | 4.11                         | 5.00         | 82    | 4.25                                   | 5.00         | 85    | 70-130       | 3   | 20        |
| Chloroethane                     | 0.50 U        | 3.39                         | 5.00         | 68 *  | 3.26                                   | 5.00         | 65 *  | 70-130       | 4   | 20        |
| Chloromethane                    | 0.50 U        | 3.55                         | 5.00         | 71    | 3.61                                   | 5.00         | 72    | 70-130       | 2   | 20        |
| Dibromomethane                   | 0.50 U        | 3.93                         | 5.00         | 79    | 3.94                                   | 5.00         | 79    | 70-130       | <1  | 20        |
| Dichlorodifluoromethane (CFC 12) | 0.50 U        | 2.78                         | 5.00         | 56 *  | 2.84                                   | 5.00         | 57 *  | 70-130       | 2   | 20        |
| Methylene Chloride               | 0.25 J        | 3.82                         | 5.00         | 71    | 3.87                                   | 5.00         | 72    | 70-130       | 1   | 20        |
| Ethylbenzene                     | 0.50 U        | 4.27                         | 5.00         | 85    | 4.47                                   | 5.00         | 89    | 70-130       | 5   | 20        |
| Hexachlorobutadiene              | 0.50 U        | 4.82                         | 5.00         | 96    | 5.04                                   | 5.00         | 101   | 70-130       | 4   | 20        |

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22  
**Date Analyzed:** 07/21/22

**Duplicate Matrix Spike Summary**  
**Purgeable Organic Compounds by GC/MS**

**Sample Name:** Post Treatment-07192022  
**Lab Code:** R2206605-002  
**Analysis Method:** 524.2

**Units:** ug/L  
**Basis:** NA

| Analyte Name                    | Sample Result | Matrix Spike<br>RQ2208443-05 |              |       | Duplicate Matrix Spike<br>RQ2208443-06 |              |       | % Rec Limits | RPD | RPD Limit |
|---------------------------------|---------------|------------------------------|--------------|-------|----------------------------------------|--------------|-------|--------------|-----|-----------|
|                                 |               | Result                       | Spike Amount | % Rec | Result                                 | Spike Amount | % Rec |              |     |           |
| Isopropylbenzene (Cumene)       | 0.50 U        | 4.65                         | 5.00         | 93    | 4.81                                   | 5.00         | 96    | 70-130       | 3   | 20        |
| Styrene                         | 0.50 U        | 4.15                         | 5.00         | 83    | 4.20                                   | 5.00         | 84    | 70-130       | 1   | 20        |
| Tetrachloroethene (PCE)         | 0.50 U        | 4.56                         | 5.00         | 91    | 4.50                                   | 5.00         | 90    | 70-130       | 1   | 20        |
| Toluene                         | 0.50 U        | 4.05                         | 5.00         | 81    | 4.10                                   | 5.00         | 82    | 70-130       | 1   | 20        |
| Trichloroethene (TCE)           | 0.50 U        | 4.23                         | 5.00         | 85    | 4.27                                   | 5.00         | 85    | 70-130       | <1  | 20        |
| Trichlorofluoromethane (CFC 11) | 0.50 U        | 3.98                         | 5.00         | 80    | 3.99                                   | 5.00         | 80    | 70-130       | <1  | 20        |
| cis-1,2-Dichloroethene          | 0.50 U        | 3.86                         | 5.00         | 77    | 4.07                                   | 5.00         | 81    | 70-130       | 5   | 20        |
| cis-1,3-Dichloropropene         | 0.50 U        | 3.81                         | 5.00         | 76    | 3.83                                   | 5.00         | 77    | 70-130       | <1  | 20        |
| m,p-Xylenes                     | 1.0 U         | 8.80                         | 10.0         | 88    | 9.11                                   | 10.0         | 91    | 70-130       | 3   | 20        |
| n-Butylbenzene                  | 0.50 U        | 4.49                         | 5.00         | 90    | 4.63                                   | 5.00         | 93    | 70-130       | 3   | 20        |
| n-Propylbenzene                 | 0.50 U        | 4.53                         | 5.00         | 91    | 4.71                                   | 5.00         | 94    | 70-130       | 4   | 20        |
| o-Xylene                        | 0.50 U        | 4.32                         | 5.00         | 86    | 4.47                                   | 5.00         | 89    | 70-130       | 3   | 20        |
| sec-Butylbenzene                | 0.50 U        | 4.62                         | 5.00         | 92    | 4.79                                   | 5.00         | 96    | 70-130       | 4   | 20        |
| tert-Butylbenzene               | 0.50 U        | 4.50                         | 5.00         | 90    | 4.67                                   | 5.00         | 93    | 70-130       | 4   | 20        |
| trans-1,2-Dichloroethene        | 0.50 U        | 4.10                         | 5.00         | 82    | 4.15                                   | 5.00         | 83    | 70-130       | 1   | 20        |
| trans-1,3-Dichloropropene       | 0.50 U        | 3.81                         | 5.00         | 76    | 3.85                                   | 5.00         | 77    | 70-130       | 1   | 20        |
| 1,1-Dichloroethane (SPCC)       | 0.50 U        | 4.00                         | 5.00         | 80    | 3.97                                   | 5.00         | 79    | 70-130       | <1  | 20        |
| 1,2-Dichloropropane (CCC)       | 0.50 U        | 3.83                         | 5.00         | 77    | 3.92                                   | 5.00         | 78    | 70-130       | 2   | 20        |

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

**ALS Group USA, Corp.**

dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Analyzed:** 07/21/22 13:06

**Method Blank Summary**  
**Purgeable Organic Compounds by GC/MS**

**Sample Name:** Method Blank **Instrument ID:** R-MS-16  
**Lab Code:** RQ2208443-04 **File ID:** I:\ACQUDATA\MSVOA16\Data\072122\C1629.D\  
**Analysis Method:** 524.2 **Analysis Lot:** 771208

This Method Blank applies to the following analyses.

| <b>Sample Name</b>         | <b>Lab Code</b> | <b>File ID</b>                                                                                                                                               | <b>Date Analyzed</b> |
|----------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Lab Control Sample         | RQ2208443-03    | I:\ACQUDATA\MSVOA16\Data\072122\C1628.D\<br>\C1628.D\<br>\C1635.D\<br>\C1636.D\<br>\C1637.D\<br>\C1638.D\<br>\C1639.D\<br>\C1640.D\<br>\C1641.D\<br>\C1642.D | 07/21/22 12:29       |
| TB-02-07192022             | R2206605-005    | I:\ACQUDATA\MSVOA16\Data\072122\C1635.D\<br>\C1636.D\<br>\C1637.D\<br>\C1638.D                                                                               | 07/21/22 15:39       |
| JC-3-07192022              | R2206605-001    | I:\ACQUDATA\MSVOA16\Data\072122\C1636.D\<br>\C1637.D                                                                                                         | 07/21/22 16:05       |
| JC-2-07192022              | R2206605-003    | I:\ACQUDATA\MSVOA16\Data\072122\C1637.D\<br>\C1638.D                                                                                                         | 07/21/22 16:30       |
| DUP-02-07192022            | R2206605-004    | I:\ACQUDATA\MSVOA16\Data\072122\C1638.D                                                                                                                      | 07/21/22 16:56       |
| Post Treatment-07192022    | R2206605-002    | I:\ACQUDATA\MSVOA16\Data\072122\C1639.D                                                                                                                      | 07/21/22 17:21       |
| Post Treatment-07192022MS  | RQ2208443-05    | I:\ACQUDATA\MSVOA16\Data\072122\C1640.D                                                                                                                      | 07/21/22 17:47       |
| Post Treatment-07192022DMS | RQ2208443-06    | I:\ACQUDATA\MSVOA16\Data\072122\C1641.D                                                                                                                      | 07/21/22 18:13       |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** Method Blank  
**Lab Code:** RQ2208443-04

**Service Request:** R2206605  
**Date Collected:** NA  
**Date Received:** NA  
  
**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|--------|------|------|------|----------------|---|
| 1,1-Dichloropropene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,1,1-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 13:06 |   |
| 1,1,2-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,2,3-Trichloropropane           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,2-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,2-Dichloroethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,3-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,3-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,4-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 2,2-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 2-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 4-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| p-Isopropyltoluene               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Benzene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Bromobenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Bromochloromethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Bromomethane                     | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 13:06 |   |
| Carbon Tetrachloride             | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Chlorobenzene                    | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Chloroethane                     | 0.50 U | 0.50 | 0.36 | 1    | 07/21/22 13:06 |   |
| Chloromethane                    | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 13:06 |   |
| Dibromomethane                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 13:06 |   |
| Methylene Chloride               | 0.50 U | 0.50 | 0.25 | 1    | 07/21/22 13:06 |   |
| Ethylbenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Hexachlorobutadiene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Isopropylbenzene (Cumene)        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Styrene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Tetrachloroethene (PCE)          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Toluene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Trichloroethene (TCE)            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| cis-1,2-Dichloroethene           | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 13:06 |   |
| cis-1,3-Dichloropropene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| m,p-Xylenes                      | 1.0 U  | 1.0  | 0.20 | 1    | 07/21/22 13:06 |   |
| n-Butylbenzene                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |



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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** Method Blank  
**Lab Code:** RQ2208443-04

**Service Request:** R2206605  
**Date Collected:** NA  
**Date Received:** NA  
  
**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 13:06 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 92    | 70 - 130       | 07/21/22 13:06 |   |
| 4-Bromofluorobenzene   | 95    | 70 - 130       | 07/21/22 13:06 |   |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Analyzed:** 07/21/22 12:29

**Lab Control Sample Summary**  
**Purgeable Organic Compounds by GC/MS**

**Sample Name:** Lab Control Sample      **Instrument ID:** R-MS-16  
**Lab Code:** RQ2208443-03      **File ID:** I:\ACQUDATA\MSVOA16\Data\072122\C1628.D\  
**Analysis Method:** 524.2      **Analysis Lot:** 771208

This Lab Control Sample applies to the following analyses.

| <b>Sample Name</b>         | <b>Lab Code</b> | <b>File ID</b>                           | <b>Date Analyzed</b> |
|----------------------------|-----------------|------------------------------------------|----------------------|
| Method Blank               | RQ2208443-04    | I:\ACQUDATA\MSVOA16\Data\072122\C1629.D\ | 07/21/22 13:06       |
| TB-02-07192022             | R2206605-005    | I:\ACQUDATA\MSVOA16\Data\072122\C1635.D\ | 07/21/22 15:39       |
| JC-3-07192022              | R2206605-001    | I:\ACQUDATA\MSVOA16\Data\072122\C1636.D\ | 07/21/22 16:05       |
| JC-2-07192022              | R2206605-003    | I:\ACQUDATA\MSVOA16\Data\072122\C1637.D\ | 07/21/22 16:30       |
| DUP-02-07192022            | R2206605-004    | I:\ACQUDATA\MSVOA16\Data\072122\C1638.D\ | 07/21/22 16:56       |
| Post Treatment-07192022    | R2206605-002    | I:\ACQUDATA\MSVOA16\Data\072122\C1639.D\ | 07/21/22 17:21       |
| Post Treatment-07192022MS  | RQ2208443-05    | I:\ACQUDATA\MSVOA16\Data\072122\C1640.D\ | 07/21/22 17:47       |
| Post Treatment-07192022DMS | RQ2208443-06    | I:\ACQUDATA\MSVOA16\Data\072122\C1641.D\ | 07/21/22 18:13       |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Analyzed:** 07/21/22

**Lab Control Sample Summary**  
**Purgeable Organic Compounds by GC/MS**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
RQ2208443-03

| Analyte Name                     | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|----------------------------------|-------------------|--------|--------------|-------|--------------|
| 1,1,1-Trichloroethane            | 524.2             | 5.10   | 5.00         | 102   | 70-130       |
| 1,1-Dichloropropene              | 524.2             | 4.82   | 5.00         | 96    | 70-130       |
| 1,1,1,2-Tetrachloroethane        | 524.2             | 5.39   | 5.00         | 108   | 70-130       |
| 1,1,2,2-Tetrachloroethane        | 524.2             | 5.47   | 5.00         | 109   | 70-130       |
| 1,1,2-Trichloroethane            | 524.2             | 4.95   | 5.00         | 99    | 70-130       |
| 1,1-Dichloroethene (1,1-DCE)     | 524.2             | 5.20   | 5.00         | 104   | 70-130       |
| 1,2,3-Trichlorobenzene           | 524.2             | 5.26   | 5.00         | 105   | 70-130       |
| 1,2,3-Trichloropropane           | 524.2             | 5.19   | 5.00         | 104   | 70-130       |
| 1,2,4-Trichlorobenzene           | 524.2             | 5.34   | 5.00         | 107   | 70-130       |
| 1,2,4-Trimethylbenzene           | 524.2             | 5.74   | 5.00         | 115   | 70-130       |
| 1,2-Dichlorobenzene              | 524.2             | 5.53   | 5.00         | 111   | 70-130       |
| 1,2-Dichloroethane               | 524.2             | 4.63   | 5.00         | 93    | 70-130       |
| 1,3,5-Trimethylbenzene           | 524.2             | 5.73   | 5.00         | 115   | 70-130       |
| 1,3-Dichlorobenzene              | 524.2             | 5.80   | 5.00         | 116   | 70-130       |
| 1,3-Dichloropropane              | 524.2             | 4.76   | 5.00         | 95    | 70-130       |
| 1,4-Dichlorobenzene              | 524.2             | 5.62   | 5.00         | 112   | 70-130       |
| 2,2-Dichloropropane              | 524.2             | 5.60   | 5.00         | 112   | 70-130       |
| 2-Chlorotoluene                  | 524.2             | 5.76   | 5.00         | 115   | 70-130       |
| 4-Chlorotoluene                  | 524.2             | 5.68   | 5.00         | 114   | 70-130       |
| p-Isopropyltoluene               | 524.2             | 5.89   | 5.00         | 118   | 70-130       |
| Benzene                          | 524.2             | 4.83   | 5.00         | 97    | 70-130       |
| Bromobenzene                     | 524.2             | 5.34   | 5.00         | 107   | 70-130       |
| Bromochloromethane               | 524.2             | 4.94   | 5.00         | 99    | 70-130       |
| Bromomethane                     | 524.2             | 4.44   | 5.00         | 89    | 70-130       |
| Carbon Tetrachloride             | 524.2             | 5.27   | 5.00         | 105   | 70-130       |
| Chlorobenzene                    | 524.2             | 5.33   | 5.00         | 107   | 70-130       |
| Chloroethane                     | 524.2             | 4.26   | 5.00         | 85    | 70-130       |
| Chloromethane                    | 524.2             | 4.86   | 5.00         | 97    | 70-130       |
| Dibromomethane                   | 524.2             | 4.93   | 5.00         | 99    | 70-130       |
| Dichlorodifluoromethane (CFC 12) | 524.2             | 4.32   | 5.00         | 86    | 70-130       |
| Methylene Chloride               | 524.2             | 4.49   | 5.00         | 90    | 70-130       |
| Ethylbenzene                     | 524.2             | 5.52   | 5.00         | 110   | 70-130       |
| Hexachlorobutadiene              | 524.2             | 6.62   | 5.00         | 132 * | 70-130       |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Analyzed:** 07/21/22

**Lab Control Sample Summary**  
**Purgeable Organic Compounds by GC/MS**

**Units:**ug/L  
**Basis:**NA

**Lab Control Sample**  
RQ2208443-03

| Analyte Name                    | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---------------------------------|-------------------|--------|--------------|-------|--------------|
| Isopropylbenzene (Cumene)       | 524.2             | 5.99   | 5.00         | 120   | 70-130       |
| Styrene                         | 524.2             | 5.45   | 5.00         | 109   | 70-130       |
| Tetrachloroethene (PCE)         | 524.2             | 5.67   | 5.00         | 113   | 70-130       |
| Toluene                         | 524.2             | 5.01   | 5.00         | 100   | 70-130       |
| Trichloroethene (TCE)           | 524.2             | 5.21   | 5.00         | 104   | 70-130       |
| Trichlorofluoromethane (CFC 11) | 524.2             | 4.95   | 5.00         | 99    | 70-130       |
| cis-1,2-Dichloroethene          | 524.2             | 4.75   | 5.00         | 95    | 70-130       |
| cis-1,3-Dichloropropene         | 524.2             | 4.88   | 5.00         | 98    | 70-130       |
| m,p-Xylenes                     | 524.2             | 11.2   | 10.0         | 112   | 70-130       |
| n-Butylbenzene                  | 524.2             | 5.84   | 5.00         | 117   | 70-130       |
| n-Propylbenzene                 | 524.2             | 5.93   | 5.00         | 119   | 70-130       |
| o-Xylene                        | 524.2             | 5.62   | 5.00         | 112   | 70-130       |
| sec-Butylbenzene                | 524.2             | 6.00   | 5.00         | 120   | 70-130       |
| tert-Butylbenzene               | 524.2             | 5.96   | 5.00         | 119   | 70-130       |
| trans-1,2-Dichloroethene        | 524.2             | 5.09   | 5.00         | 102   | 70-130       |
| trans-1,3-Dichloropropene       | 524.2             | 5.07   | 5.00         | 101   | 70-130       |
| 1,1-Dichloroethane (SPCC)       | 524.2             | 4.82   | 5.00         | 96    | 70-130       |
| 1,2-Dichloropropane (CCC)       | 524.2             | 4.78   | 5.00         | 96    | 70-130       |

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QC/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 07/21/22 11:23

**Tune Summary**  
**Purgeable Organic Compounds by GC/MS**

**File ID:** I:\ACQUDATA\MSVOA16\Data\072122\C1626.D\  
**Instrument ID:** R-MS-16

**Analytical Method:** 524.2  
**Analysis Lot:** 771208

| Target Mass | Relative to Mass | Lower Limit % | Upper Limit % | Relative Abundance % | Raw Abundance | Result Pass/Fail |
|-------------|------------------|---------------|---------------|----------------------|---------------|------------------|
| 50          | 95               | 15            | 40            | 17.0                 | 4722          | Pass             |
| 75          | 95               | 30            | 80            | 47.6                 | 13200         | Pass             |
| 95          | 95               | 100           | 100           | 100.0                | 27709         | Pass             |
| 96          | 95               | 5             | 9             | 7.1                  | 1978          | Pass             |
| 173         | 174              | 0             | 2             | 0.4                  | 118           | Pass             |
| 174         | 95               | 50            | 120           | 96.7                 | 26803         | Pass             |
| 175         | 174              | 5             | 9             | 8.3                  | 2224          | Pass             |
| 176         | 174              | 95            | 101           | 99.9                 | 26784         | Pass             |
| 177         | 176              | 5             | 9             | 7.0                  | 1863          | Pass             |

| Sample Name                         | Lab Code     | File ID:                                 | Date Analyzed: | Q |
|-------------------------------------|--------------|------------------------------------------|----------------|---|
| Continuing Calibration Verification | RQ2208443-02 | I:\ACQUDATA\MSVOA16\Data\072122\C1627.D\ | 07/21/22 11:56 |   |
| Lab Control Sample                  | RQ2208443-03 | I:\ACQUDATA\MSVOA16\Data\072122\C1628.D\ | 07/21/22 12:29 |   |
| Method Blank                        | RQ2208443-04 | I:\ACQUDATA\MSVOA16\Data\072122\C1629.D\ | 07/21/22 13:06 |   |
| TB-02-07192022                      | R2206605-005 | I:\ACQUDATA\MSVOA16\Data\072122\C1635.D\ | 07/21/22 15:39 |   |
| JC-3-07192022                       | R2206605-001 | I:\ACQUDATA\MSVOA16\Data\072122\C1636.D\ | 07/21/22 16:05 |   |
| JC-2-07192022                       | R2206605-003 | I:\ACQUDATA\MSVOA16\Data\072122\C1637.D\ | 07/21/22 16:30 |   |
| DUP-02-07192022                     | R2206605-004 | I:\ACQUDATA\MSVOA16\Data\072122\C1638.D\ | 07/21/22 16:56 |   |
| Post Treatment-07192022             | R2206605-002 | I:\ACQUDATA\MSVOA16\Data\072122\C1639.D\ | 07/21/22 17:21 |   |
| Post Treatment-07192022             | RQ2208443-05 | I:\ACQUDATA\MSVOA16\Data\072122\C1640.D\ | 07/21/22 17:47 |   |
| Post Treatment-07192022             | RQ2208443-06 | I:\ACQUDATA\MSVOA16\Data\072122\C1641.D\ | 07/21/22 18:13 |   |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 07/21/22 11:56

**Internal Standard Area and RT SUMMARY**  
**Purgeable Organic Compounds by GC/MS**

**File ID:** I:\ACQUDATA\MSVOA16\Data\072122\C1627.D\  
**Instrument ID:** R-MS-16  
**Analysis Method:** 524.2

**Lab Code:** RQ2208443-02  
**Analysis Lot:** 771208  
**Signal ID:** 1

|                           | Fluorobenzene |      |
|---------------------------|---------------|------|
|                           | Area          | RT   |
| <b>Result ==&gt;</b>      | 136,376       | 6.28 |
| <b>Upper Limit ==&gt;</b> | 272,752       | 6.78 |
| <b>Lower Limit ==&gt;</b> | 68,188        | 5.78 |

**Associated Analyses**

|                                     |              |        |      |
|-------------------------------------|--------------|--------|------|
| Continuing Calibration Verification | RQ2208443-02 | 136376 | 6.28 |
| Lab Control Sample                  | RQ2208443-03 | 139750 | 6.28 |
| Method Blank                        | RQ2208443-04 | 136714 | 6.28 |
| TB-02-07192022                      | R2206605-005 | 128418 | 6.29 |
| JC-3-07192022                       | R2206605-001 | 131773 | 6.29 |
| JC-2-07192022                       | R2206605-003 | 132074 | 6.29 |
| DUP-02-07192022                     | R2206605-004 | 129557 | 6.28 |
| Post Treatment-07192022             | R2206605-002 | 135451 | 6.29 |
| Post Treatment-07192022MS           | RQ2208443-05 | 131808 | 6.28 |
| Post Treatment-07192022DMS          | RQ2208443-06 | 129320 | 6.29 |



## Semivolatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605

**SURROGATE RECOVERY SUMMARY**

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Extraction Method:** Method

| Sample Name                  | Lab Code     | 1,4-Dioxane-d8 |
|------------------------------|--------------|----------------|
|                              |              | 70-130         |
| JC-3-07192022                | R2206605-001 | 88             |
| Post Treatment-07192022      | R2206605-002 | 91             |
| JC-2-07192022                | R2206605-003 | 84             |
| DUP-02-07192022              | R2206605-004 | 87             |
| TB-02-07192022               | R2206605-005 | 85             |
| Method Blank                 | RQ2209067-01 | 85             |
| Lab Control Sample           | RQ2209067-02 | 85             |
| Duplicate Lab Control Sample | RQ2209067-03 | 88             |
| Lab Control Sample           | RQ2209067-04 | 81             |
| Matrix Spike MS              | RQ2209067-05 | 83             |
| Duplicate Matrix Spike DMS   | RQ2209067-06 | 90             |



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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** N/A  
**Date Received:** N/A  
**Date Analyzed:** 08/10/22  
**Date Extracted:** 08/3/22

**Duplicate Matrix Spike Summary**

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Sample Name:** **Units:** ug/L  
**Lab Code:** R2206605-002 **Basis:** As Received  
**Analysis Method:** 522  
**Prep Method:** Method

|              |                  | Matrix Spike<br>RQ2209067-05 |                 |       | Duplicate Matrix Spike<br>RQ2209067-06 |                 |       |                 |     | RPD<br>Limit |
|--------------|------------------|------------------------------|-----------------|-------|----------------------------------------|-----------------|-------|-----------------|-----|--------------|
| Analyte Name | Sample<br>Result | Result                       | Spike<br>Amount | % Rec | Result                                 | Spike<br>Amount | % Rec | % Rec<br>Limits | RPD |              |
| 1,4-Dioxane  |                  | 12.3                         | 13.3            | 86    | 13.0                                   | 13.3            | 92    | 70-130          | 6   | 30           |

Results flagged with an asterisk (\*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

**ALS Group USA, Corp.**

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 13:21  
**Date Extracted:** 08/03/22

**Method Blank Summary****1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Sample Name:** Method Blank  
**Lab Code:** RQ2209067-01

**Instrument ID:**R-MS-56**File ID:**I:\ACQUDATA\5975E\data\081022\BI257.D\**Analysis Method:** 522**Analysis Lot:**773577**Prep Method:** Method**Extraction Lot:**403885

This Method Blank applies to the following analyses.

| <b>Sample Name</b>           | <b>Lab Code</b> | <b>File ID</b>                         | <b>Date Analyzed</b> |
|------------------------------|-----------------|----------------------------------------|----------------------|
| Lab Control Sample           | RQ2209067-04    | I:\ACQUDATA\5975E\data\081022\BI258.D\ | 08/10/22 13:39       |
| Lab Control Sample           | RQ2209067-02    | I:\ACQUDATA\5975E\data\081022\BI259.D\ | 08/10/22 13:57       |
| Duplicate Lab Control Sample | RQ2209067-03    | I:\ACQUDATA\5975E\data\081022\BI260.D\ | 08/10/22 14:14       |
| JC-3-07192022                | R2206605-001    | I:\ACQUDATA\5975E\data\081022\BI263.D\ | 08/10/22 15:07       |
| Post Treatment-07192022      | R2206605-002    | I:\ACQUDATA\5975E\data\081022\BI264.D\ | 08/10/22 15:25       |
| Post Treatment-07192022MS    | RQ2209067-05    | I:\ACQUDATA\5975E\data\081022\BI265.D\ | 08/10/22 15:43       |
| Post Treatment-07192022DMS   | RQ2209067-06    | I:\ACQUDATA\5975E\data\081022\BI266.D\ | 08/10/22 16:01       |
| JC-2-07192022                | R2206605-003    | I:\ACQUDATA\5975E\data\081022\BI268.D\ | 08/10/22 16:36       |
| DUP-02-07192022              | R2206605-004    | I:\ACQUDATA\5975E\data\081022\BI269.D\ | 08/10/22 16:54       |
| TB-02-07192022               | R2206605-005    | I:\ACQUDATA\5975E\data\081022\BI270.D\ | 08/10/22 17:12       |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** NA  
**Date Received:** NA

**Sample Name:** Method Blank  
**Lab Code:** RQ2209067-01

**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result   | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|----------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.0400 U | 0.0400 | 0.0200 | 1    | 08/10/22 13:21 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 85    | 70 - 130       | 08/10/22 13:21 |   |

**ALS Group USA, Corp.**

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 13:57  
**Date Extracted:** 08/03/22

**Lab Control Sample Summary****1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring****Sample Name:** Lab Control Sample**Instrument ID:** R-MS-56**Lab Code:** RQ2209067-02**File ID:** I:\ACQUDATA\5975E\data\081022\BI259.D\**Analysis Method:** 522**Analysis Lot:** 773577**Prep Method:** Method**Extraction Lot:** 403885

This Lab Control Sample applies to the following analyses.

| <b>Sample Name</b>           | <b>Lab Code</b> | <b>File ID</b>                         | <b>Date Analyzed</b> |
|------------------------------|-----------------|----------------------------------------|----------------------|
| Method Blank                 | RQ2209067-01    | I:\ACQUDATA\5975E\data\081022\BI257.D\ | 08/10/22 13:21       |
| Duplicate Lab Control Sample | RQ2209067-03    | I:\ACQUDATA\5975E\data\081022\BI260.D\ | 08/10/22 14:14       |
| JC-3-07192022                | R2206605-001    | I:\ACQUDATA\5975E\data\081022\BI263.D\ | 08/10/22 15:07       |
| Post Treatment-07192022      | R2206605-002    | I:\ACQUDATA\5975E\data\081022\BI264.D\ | 08/10/22 15:25       |
| Post Treatment-07192022MS    | RQ2209067-05    | I:\ACQUDATA\5975E\data\081022\BI265.D\ | 08/10/22 15:43       |
| Post Treatment-07192022DMS   | RQ2209067-06    | I:\ACQUDATA\5975E\data\081022\BI266.D\ | 08/10/22 16:01       |
| JC-2-07192022                | R2206605-003    | I:\ACQUDATA\5975E\data\081022\BI268.D\ | 08/10/22 16:36       |
| DUP-02-07192022              | R2206605-004    | I:\ACQUDATA\5975E\data\081022\BI269.D\ | 08/10/22 16:54       |
| TB-02-07192022               | R2206605-005    | I:\ACQUDATA\5975E\data\081022\BI270.D\ | 08/10/22 17:12       |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22

**Lab Control Sample Summary****1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring****Units:**ug/L**Basis:**As Received**Lab Control Sample**

RQ2209067-04

| <b>Analyte Name</b> | <b>Analytical Method</b> | <b>Result</b> | <b>Spike Amount</b> | <b>% Rec</b> | <b>% Rec Limits</b> |
|---------------------|--------------------------|---------------|---------------------|--------------|---------------------|
| 1,4-Dioxane         | 522                      | 0.0518        | 0.0400              | 130          | 70-130              |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22

**Duplicate Lab Control Sample Summary**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Units:**ug/L

**Basis:**As Received

| Lab Control Sample |                   |        |              |       | Duplicate Lab Control Sample |              |       |              |     |           |
|--------------------|-------------------|--------|--------------|-------|------------------------------|--------------|-------|--------------|-----|-----------|
| RQ2209067-02       |                   |        |              |       | RQ2209067-03                 |              |       |              |     |           |
| Analyte Name       | Analytical Method | Result | Spike Amount | % Rec | Result                       | Spike Amount | % Rec | % Rec Limits | RPD | RPD Limit |
| 1,4-Dioxane        | 522               | 8.87   | 10.0         | 89    | 8.88                         | 10.0         | 89    | 70-130       | <1  | 30        |

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QC/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 12:42

**Tune Summary**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**File ID:** I:\ACQUDATA\5975E\data\081022\BI255.D\  
**Instrument ID:** R-MS-56

**Analytical Method:** 522  
**Analysis Lot:** 773577

| Target Mass | Relative to Mass | Lower Limit % | Upper Limit % | Relative Abundance % | Raw Abundance | Result Pass/Fail |
|-------------|------------------|---------------|---------------|----------------------|---------------|------------------|
| 173         | 174              | 0             | 2             | 0.0                  | 0             | Pass             |
| 174         | 95               | 50            | 120           | 85.9                 | 126051        | Pass             |
| 175         | 174              | 5             | 9             | 8.0                  | 10032         | Pass             |
| 176         | 174              | 95            | 101           | 98.0                 | 123539        | Pass             |
| 177         | 176              | 5             | 9             | 6.2                  | 7624          | Pass             |
| 50          | 95               | 15            | 40            | 20.6                 | 30191         | Pass             |
| 75          | 95               | 30            | 60            | 51.2                 | 75110         | Pass             |
| 95          | 95               | 100           | 100           | 100.0                | 146688        | Pass             |
| 96          | 95               | 5             | 9             | 6.7                  | 9761          | Pass             |

| Sample Name                         | Lab Code     | File ID:                               | Date Analyzed: | Q |
|-------------------------------------|--------------|----------------------------------------|----------------|---|
| Continuing Calibration Verification | RQ2209481-02 | I:\ACQUDATA\5975E\data\081022\BI256.D\ | 08/10/22 13:04 |   |
| Method Blank                        | RQ2209067-01 | I:\ACQUDATA\5975E\data\081022\BI257.D\ | 08/10/22 13:21 |   |
| Lab Control Sample                  | RQ2209067-04 | I:\ACQUDATA\5975E\data\081022\BI258.D\ | 08/10/22 13:39 |   |
| Lab Control Sample                  | RQ2209067-02 | I:\ACQUDATA\5975E\data\081022\BI259.D\ | 08/10/22 13:57 |   |
| Duplicate Lab Control Sample        | RQ2209067-03 | I:\ACQUDATA\5975E\data\081022\BI260.D\ | 08/10/22 14:14 |   |
| JC-3-07192022                       | R2206605-001 | I:\ACQUDATA\5975E\data\081022\BI263.D\ | 08/10/22 15:07 |   |
| Post Treatment-07192022             | R2206605-002 | I:\ACQUDATA\5975E\data\081022\BI264.D\ | 08/10/22 15:25 |   |
| Matrix Spike                        | RQ2209067-05 | I:\ACQUDATA\5975E\data\081022\BI265.D\ | 08/10/22 15:43 |   |
| Duplicate Matrix Spike              | RQ2209067-06 | I:\ACQUDATA\5975E\data\081022\BI266.D\ | 08/10/22 16:01 |   |
| Continuing Calibration Verification | RQ2209481-03 | I:\ACQUDATA\5975E\data\081022\BI267.D\ | 08/10/22 16:18 |   |
| JC-2-07192022                       | R2206605-003 | I:\ACQUDATA\5975E\data\081022\BI268.D\ | 08/10/22 16:36 |   |
| DUP-02-07192022                     | R2206605-004 | I:\ACQUDATA\5975E\data\081022\BI269.D\ | 08/10/22 16:54 |   |
| TB-02-07192022                      | R2206605-005 | I:\ACQUDATA\5975E\data\081022\BI270.D\ | 08/10/22 17:12 |   |
| Continuing Calibration Verification | RQ2209481-04 | I:\ACQUDATA\5975E\data\081022\BI278.D\ | 08/10/22 19:34 |   |
| Continuing Calibration Verification | RQ2209481-05 | I:\ACQUDATA\5975E\data\081022\BI281.D\ | 08/10/22 20:26 |   |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 13:04

Internal Standard Area and RT SUMMARY

1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring

**File ID:** I:\ACQUDATA\5975E\data\081022\BI256.D\  
**Instrument ID:** R-MS-56  
**Analysis Method:** 522

**Lab Code:** RQ2209481-02  
**Analysis Lot:** 773577  
**Signal ID:** 1

|                           | Tetrahydrofuran-d8 |      |
|---------------------------|--------------------|------|
|                           | Area               | RT   |
| <b>Result ==&gt;</b>      | 40,672             | 2.9  |
| <b>Upper Limit ==&gt;</b> | 52,874             | 3.40 |
| <b>Lower Limit ==&gt;</b> | 28,470             | 2.40 |

**Associated Analyses**

|                                     |              |       |      |
|-------------------------------------|--------------|-------|------|
| Continuing Calibration Verification | RQ2209481-02 | 40672 | 2.90 |
| Method Blank                        | RQ2209067-01 | 39077 | 2.86 |
| Lab Control Sample                  | RQ2209067-04 | 42085 | 2.88 |
| Lab Control Sample                  | RQ2209067-02 | 42114 | 2.91 |
| Duplicate Lab Control Sample        | RQ2209067-03 | 42509 | 2.91 |
| JC-3-07192022                       | R2206605-001 | 43790 | 2.89 |
| Post Treatment-07192022             | R2206605-002 | 40740 | 2.88 |
| Matrix SpikeMS                      | RQ2209067-05 | 43363 | 2.89 |
| Duplicate Matrix SpikeDMS           | RQ2209067-06 | 42000 | 2.88 |



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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 16:18

Internal Standard Area and RT SUMMARY

1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring

**File ID:** I:\ACQUDATA\5975E\data\081022\BI267.D\  
**Instrument ID:** R-MS-56  
**Analysis Method:** 522

**Lab Code:** RQ2209481-03  
**Analysis Lot:** 773577  
**Signal ID:** 1

|                 | Tetrahydrofuran-d8 |      |
|-----------------|--------------------|------|
|                 | Area               | RT   |
| Result ==>      | 36,908             | 2.87 |
| Upper Limit ==> | 47,980             | 3.37 |
| Lower Limit ==> | 25,836             | 2.37 |

**Associated Analyses**

|                                     |              |       |      |
|-------------------------------------|--------------|-------|------|
| Continuing Calibration Verification | RQ2209481-03 | 36908 | 2.87 |
| JC-2-07192022                       | R2206605-003 | 46464 | 2.91 |
| DUP-02-07192022                     | R2206605-004 | 39710 | 2.88 |
| TB-02-07192022                      | R2206605-005 | 44667 | 2.90 |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 19:34

Internal Standard Area and RT SUMMARY

1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring

**File ID:** I:\ACQUDATA\5975E\data\081022\BI278.D\  
**Instrument ID:** R-MS-56  
**Analysis Method:** 522

**Lab Code:** RQ2209481-04  
**Analysis Lot:** 773577  
**Signal ID:** 1

|                 | Tetrahydrofuran-d8 |      |
|-----------------|--------------------|------|
|                 | Area               | RT   |
| Result ==>      | 43,566             | 2.92 |
| Upper Limit ==> | 56,636             | 3.42 |
| Lower Limit ==> | 30,496             | 2.42 |

*Associated Analyses*

|                                     |              |       |      |
|-------------------------------------|--------------|-------|------|
| Continuing Calibration Verification | RQ2209481-04 | 43566 | 2.92 |
|-------------------------------------|--------------|-------|------|



## Raw Data

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

[www.alsglobal.com](http://www.alsglobal.com)



## Volatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** JC-3-07192022  
**Lab Code:** R2206605-001

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:25  
**Date Received:** 07/20/22 07:40

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result        | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|---------------|------|------|------|----------------|---|
| 1,1-Dichloropropene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1,1-Trichloroethane            | <b>0.43 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:05 |   |
| 1,1,2-Trichloroethane            | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2,3-Trichloropropane           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2-Dichloroethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,3-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,3-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,4-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 2,2-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 2-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 4-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| p-Isopropyltoluene               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Benzene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Bromobenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Bromochloromethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Bromomethane                     | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:05 |   |
| Carbon Tetrachloride             | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Chlorobenzene                    | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Chloroethane                     | 0.50 U        | 0.50 | 0.36 | 1    | 07/21/22 16:05 |   |
| Chloromethane                    | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:05 |   |
| Dibromomethane                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:05 |   |
| Methylene Chloride               | 0.50 U        | 0.50 | 0.25 | 1    | 07/21/22 16:05 |   |
| Ethylbenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Hexachlorobutadiene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Isopropylbenzene (Cumene)        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Styrene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Tetrachloroethene (PCE)          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Toluene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Trichloroethene (TCE)            | <b>0.43 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| cis-1,2-Dichloroethene           | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:05 |   |
| cis-1,3-Dichloropropene          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| m,p-Xylenes                      | 1.0 U         | 1.0  | 0.20 | 1    | 07/21/22 16:05 |   |
| n-Butylbenzene                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:25  
**Date Received:** 07/20/22 07:40

**Sample Name:** JC-3-07192022  
**Lab Code:** R2206605-001

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:05 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 91    | 70 - 130       | 07/21/22 16:05 |   |
| 4-Bromofluorobenzene   | 93    | 70 - 130       | 07/21/22 16:05 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** Post Treatment-07192022  
**Lab Code:** R2206605-002

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|--------|------|------|------|----------------|---|
| 1,1-Dichloropropene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1,1-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 17:21 |   |
| 1,1,2-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2,3-Trichloropropane           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2-Dichloroethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,3-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,3-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,4-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 2,2-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 2-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 4-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| p-Isopropyltoluene               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Benzene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Bromobenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Bromochloromethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Bromomethane                     | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 17:21 |   |
| Carbon Tetrachloride             | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Chlorobenzene                    | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Chloroethane                     | 0.50 U | 0.50 | 0.36 | 1    | 07/21/22 17:21 |   |
| Chloromethane                    | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 17:21 |   |
| Dibromomethane                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 17:21 |   |
| Methylene Chloride               | 0.25 J | 0.50 | 0.25 | 1    | 07/21/22 17:21 |   |
| Ethylbenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Hexachlorobutadiene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Isopropylbenzene (Cumene)        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Styrene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Tetrachloroethene (PCE)          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Toluene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Trichloroethene (TCE)            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| cis-1,2-Dichloroethene           | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 17:21 |   |
| cis-1,3-Dichloropropene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| m,p-Xylenes                      | 1.0 U  | 1.0  | 0.20 | 1    | 07/21/22 17:21 |   |
| n-Butylbenzene                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |

ALS Group USA, Corp.  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** Post Treatment-07192022  
**Lab Code:** R2206605-002

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 17:21 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 96    | 70 - 130       | 07/21/22 17:21 |   |
| 4-Bromofluorobenzene   | 93    | 70 - 130       | 07/21/22 17:21 |   |



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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** JC-2-07192022  
**Lab Code:** R2206605-003

**Service Request:** R2206605  
**Date Collected:** 07/19/22 07:45  
**Date Received:** 07/20/22 07:40

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result        | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|---------------|------|------|------|----------------|---|
| 1,1-Dichloropropene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1,1-Trichloroethane            | <b>0.24 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:30 |   |
| 1,1,2-Trichloroethane            | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2,3-Trichloropropane           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2-Dichloroethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,3-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,3-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,4-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 2,2-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 2-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 4-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| p-Isopropyltoluene               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Benzene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Bromobenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Bromochloromethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Bromomethane                     | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:30 |   |
| Carbon Tetrachloride             | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Chlorobenzene                    | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Chloroethane                     | 0.50 U        | 0.50 | 0.36 | 1    | 07/21/22 16:30 |   |
| Chloromethane                    | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:30 |   |
| Dibromomethane                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:30 |   |
| Methylene Chloride               | 0.50 U        | 0.50 | 0.25 | 1    | 07/21/22 16:30 |   |
| Ethylbenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Hexachlorobutadiene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Isopropylbenzene (Cumene)        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Styrene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Tetrachloroethene (PCE)          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Toluene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Trichloroethene (TCE)            | <b>0.33 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| cis-1,2-Dichloroethene           | <b>0.42 J</b> | 0.50 | 0.21 | 1    | 07/21/22 16:30 |   |
| cis-1,3-Dichloropropene          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| m,p-Xylenes                      | 1.0 U         | 1.0  | 0.20 | 1    | 07/21/22 16:30 |   |
| n-Butylbenzene                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 07:45  
**Date Received:** 07/20/22 07:40

**Sample Name:** JC-2-07192022  
**Lab Code:** R2206605-003

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:30 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 94    | 70 - 130       | 07/21/22 16:30 |   |
| 4-Bromofluorobenzene   | 91    | 70 - 130       | 07/21/22 16:30 |   |

**ALS Group USA, Corp.**  
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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** DUP-02-07192022  
**Lab Code:** R2206605-004

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result        | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|---------------|------|------|------|----------------|---|
| 1,1-Dichloropropene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1,1-Trichloroethane            | <b>0.24 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:56 |   |
| 1,1,2-Trichloroethane            | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2,3-Trichloropropane           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2-Dichloroethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,3-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,3-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,4-Dichlorobenzene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 2,2-Dichloropropane              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 2-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 4-Chlorotoluene                  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| p-Isopropyltoluene               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Benzene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Bromobenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Bromochloromethane               | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Bromomethane                     | 0.50 U        | 0.50 | 0.23 | 1    | 07/21/22 16:56 |   |
| Carbon Tetrachloride             | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Chlorobenzene                    | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Chloroethane                     | 0.50 U        | 0.50 | 0.36 | 1    | 07/21/22 16:56 |   |
| Chloromethane                    | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:56 |   |
| Dibromomethane                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U        | 0.50 | 0.21 | 1    | 07/21/22 16:56 |   |
| Methylene Chloride               | 0.50 U        | 0.50 | 0.25 | 1    | 07/21/22 16:56 |   |
| Ethylbenzene                     | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Hexachlorobutadiene              | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Isopropylbenzene (Cumene)        | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Styrene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Tetrachloroethene (PCE)          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Toluene                          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Trichloroethene (TCE)            | <b>0.33 J</b> | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| cis-1,2-Dichloroethene           | <b>0.42 J</b> | 0.50 | 0.21 | 1    | 07/21/22 16:56 |   |
| cis-1,3-Dichloropropene          | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| m,p-Xylenes                      | 1.0 U         | 1.0  | 0.20 | 1    | 07/21/22 16:56 |   |
| n-Butylbenzene                   | 0.50 U        | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |

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Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-02-07192022  
**Lab Code:** R2206605-004

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 16:56 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 94    | 70 - 130       | 07/21/22 16:56 |   |
| 4-Bromofluorobenzene   | 93    | 70 - 130       | 07/21/22 16:56 |   |

**ALS Group USA, Corp.**  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water  
  
**Sample Name:** TB-02-07192022  
**Lab Code:** R2206605-005

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Units:** ug/L  
**Basis:** NA

**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

| Analyte Name                     | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|----------------------------------|--------|------|------|------|----------------|---|
| 1,1,1-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1-Dichloropropene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1,1,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1,2,2-Tetrachloroethane        | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 15:39 |   |
| 1,1,2-Trichloroethane            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1-Dichloroethene (1,1-DCE)     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2,3-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2,3-Trichloropropane           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2,4-Trichlorobenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2,4-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2-Dichloroethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,3,5-Trimethylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,3-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,3-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,4-Dichlorobenzene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 2,2-Dichloropropane              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 2-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 4-Chlorotoluene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| p-Isopropyltoluene               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Benzene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Bromobenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Bromochloromethane               | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Bromomethane                     | 0.50 U | 0.50 | 0.23 | 1    | 07/21/22 15:39 |   |
| Carbon Tetrachloride             | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Chlorobenzene                    | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Chloroethane                     | 0.50 U | 0.50 | 0.36 | 1    | 07/21/22 15:39 |   |
| Chloromethane                    | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 15:39 |   |
| Dibromomethane                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Dichlorodifluoromethane (CFC 12) | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 15:39 |   |
| Methylene Chloride               | 0.31 J | 0.50 | 0.25 | 1    | 07/21/22 15:39 |   |
| Ethylbenzene                     | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Hexachlorobutadiene              | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Isopropylbenzene (Cumene)        | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Styrene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Tetrachloroethene (PCE)          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Toluene                          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Trichloroethene (TCE)            | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| Trichlorofluoromethane (CFC 11)  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| cis-1,2-Dichloroethene           | 0.50 U | 0.50 | 0.21 | 1    | 07/21/22 15:39 |   |
| cis-1,3-Dichloropropene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| m,p-Xylenes                      | 1.0 U  | 1.0  | 0.20 | 1    | 07/21/22 15:39 |   |
| n-Butylbenzene                   | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** TB-02-07192022  
**Lab Code:** R2206605-005

**Units:** ug/L  
**Basis:** NA

Purgeable Organic Compounds by GC/MS

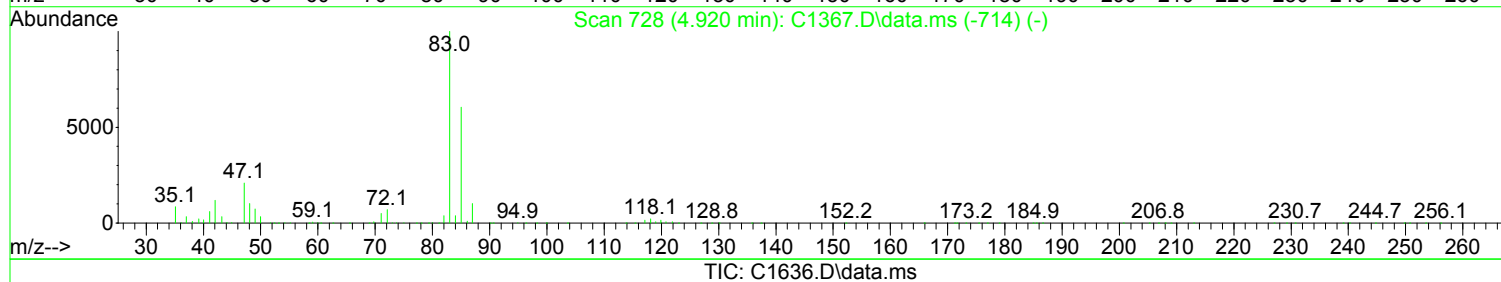
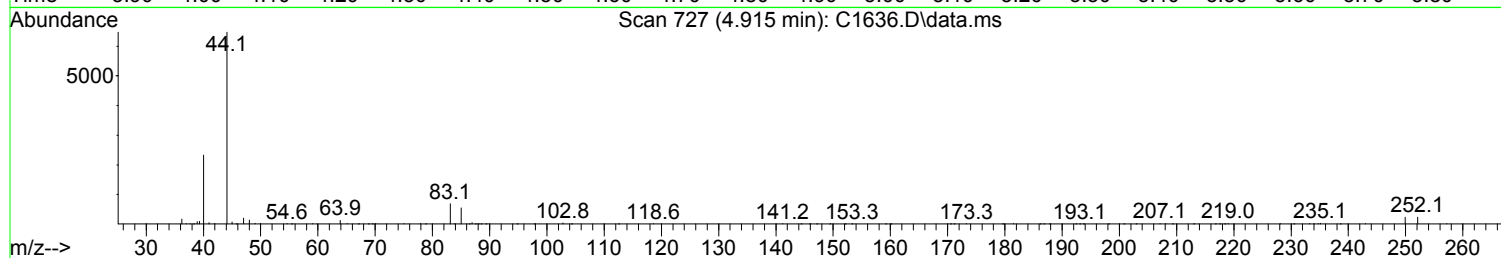
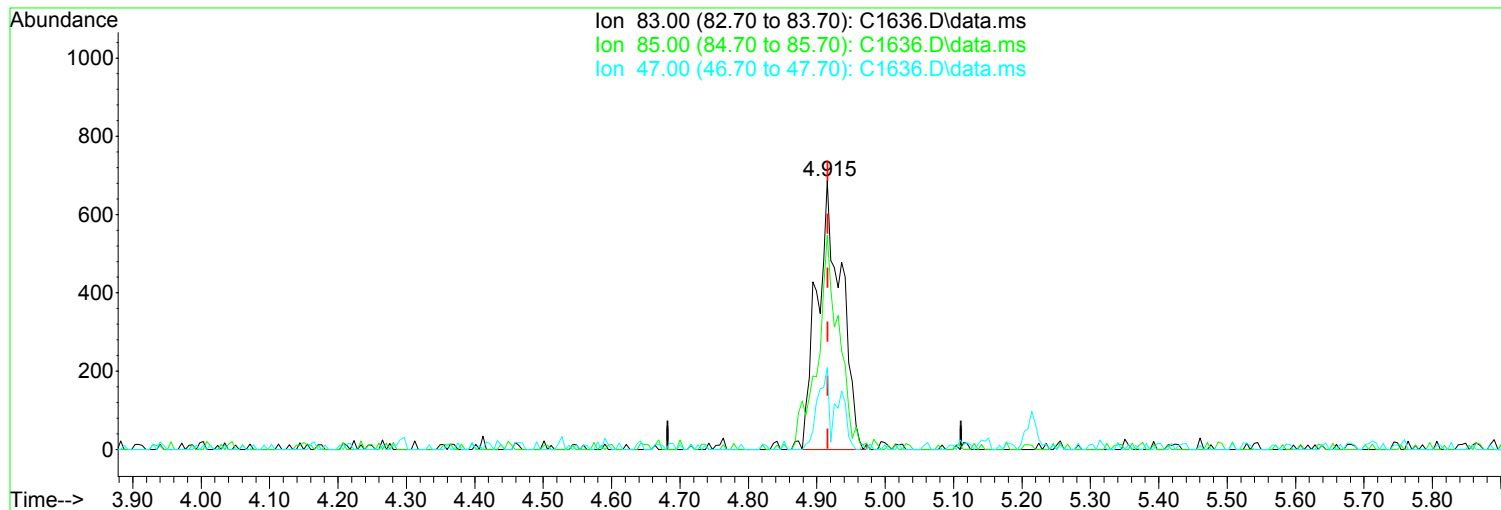
**Analysis Method:** 524.2

| Analyte Name              | Result | MRL  | MDL  | Dil. | Date Analyzed  | Q |
|---------------------------|--------|------|------|------|----------------|---|
| n-Propylbenzene           | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| o-Xylene                  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| sec-Butylbenzene          | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| tert-Butylbenzene         | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| trans-1,2-Dichloroethene  | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| trans-1,3-Dichloropropene | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,1-Dichloroethane (SPCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |
| 1,2-Dichloropropane (CCC) | 0.50 U | 0.50 | 0.20 | 1    | 07/21/22 15:39 |   |

| Surrogate Name         | % Rec | Control Limits | Date Analyzed  | Q |
|------------------------|-------|----------------|----------------|---|
| 1,2-Dichlorobenzene-d4 | 92    | 70 - 130       | 07/21/22 15:39 |   |
| 4-Bromofluorobenzene   | 92    | 70 - 130       | 07/21/22 15:39 |   |

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1636.D  
Acq On : 21 Jul 2022 04:05 pm  
Operator : K.Ruest  
Sample : R2206605-001|1.0  
Misc : EA 524 T4  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 21 16:21:37 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(22) Chloroform**

4.915min (-0.001) -1.00 ppb m

response 1705

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 83.00 | 100.00 | 100.00 |
| 85.00 | 63.20  | 0.00#  |
| 47.00 | 21.80  | 0.00#  |
| 0.00  | 0.00   | 0.00   |

**Manual Integration:**

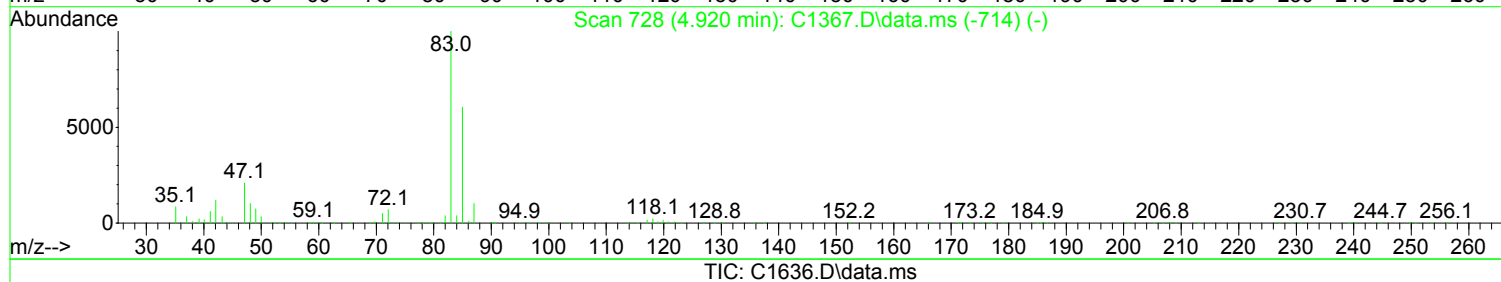
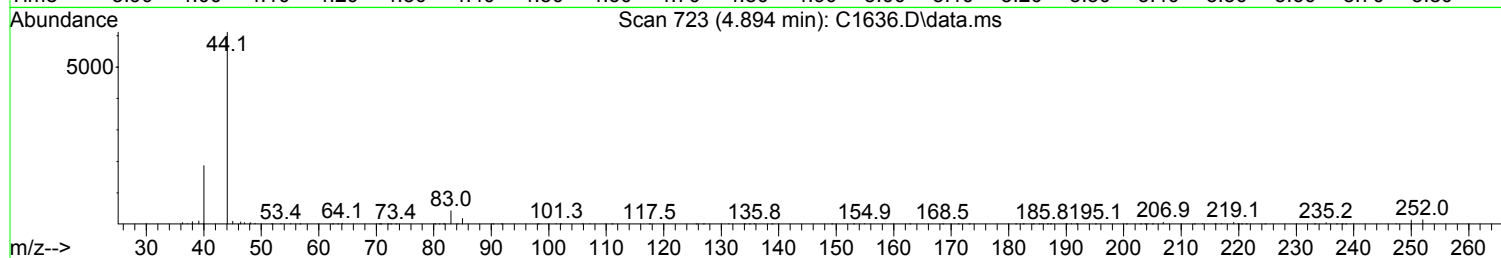
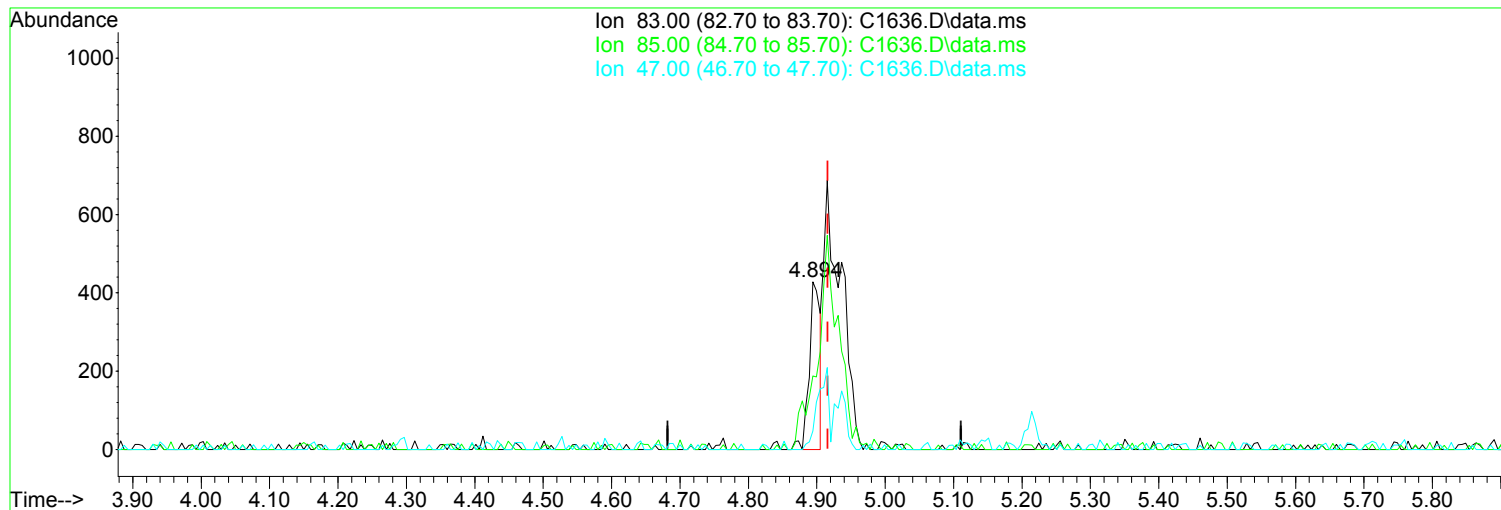
After

Split Peak.

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1636.D  
Acq On : 21 Jul 2022 04:05 pm  
Operator : K.Ruest  
Sample : R2206605-001|1.0  
Misc : EA 524 T4  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 21 16:21:37 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(22) Chloroform**

4.894min (-0.022) -1.00 ppb

response 464

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 83.00 | 100.00 | 100.00 |
| 85.00 | 63.20  | 0.00#  |
| 47.00 | 21.80  | 0.00#  |
| 0.00  | 0.00   | 0.00   |

**Manual Integration:**

Before

07/22/22



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1636.D  
 Acq On : 21 Jul 2022 04:05 pm  
 Operator : K.Ruest  
 Sample : R2206605-001|1.0  
 Misc : EA 524 T4  
 ALS Vial : 8 Sample Multiplier: 1

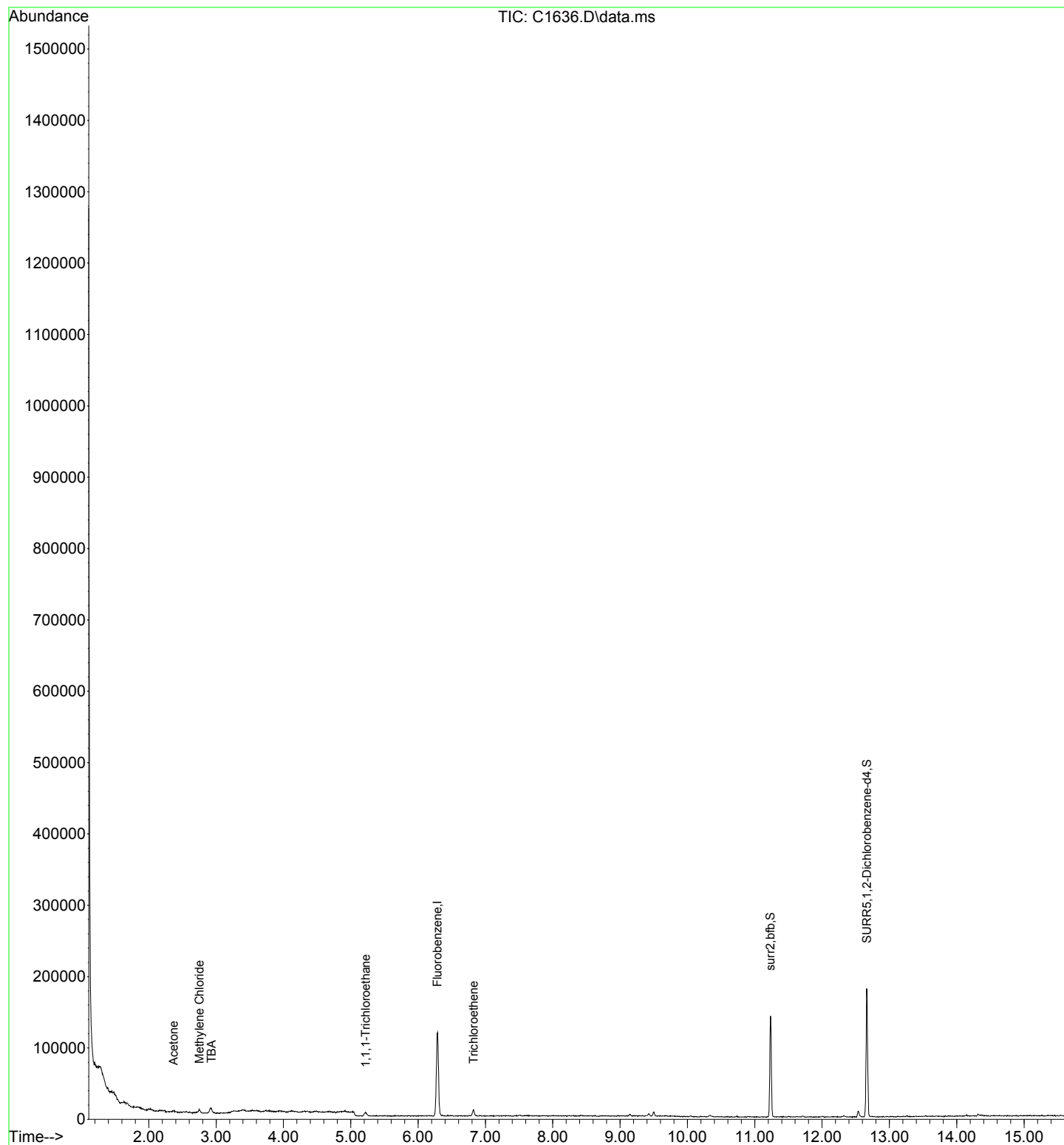
Quant Time: Jul 21 16:21:37 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

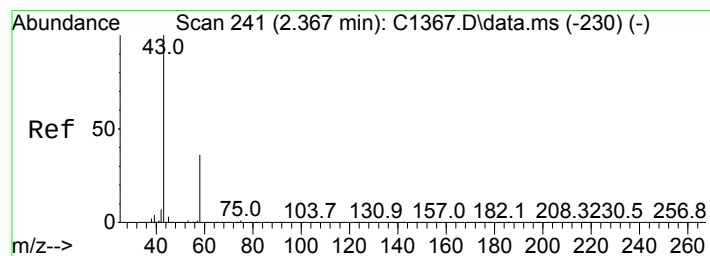
| Compound                      | R.T.   | QIon  | Response | Conc      | Units | Dev(Min)  |
|-------------------------------|--------|-------|----------|-----------|-------|-----------|
| -----                         |        |       |          |           |       |           |
| Internal Standards            |        |       |          |           |       |           |
| 1) Fluorobenzene              | 6.289  | 96    | 131773   | 5.00      | ppb   | 0.00      |
| System Monitoring Compounds   |        |       |          |           |       |           |
| 37) surr2,bfb                 | 11.233 | 95    | 44197    | 4.67      | ppb   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery  | =     | 93.40%    |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152   | 50893    | 4.55      | ppb   | 0.00      |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery  | =     | 91.00%    |
| Target Compounds              |        |       |          |           |       |           |
| 11) Acetone                   | 2.367  | 43    | 1185     | 0.463     | ppb   | Qvalue 78 |
| 12) Methylene Chloride        | 2.750  | 84    | 1721     | 0.215     | ppb   | # 84      |
| 13) TBA                       | 2.928  | 59    | 8870     | 9.528     | ppb   | 81        |
| 22) Chloroform                | 4.915  | 83    | 1705m    | Below Cal |       |           |
| 23) 1,1,1-Trichloroethane     | 5.225  | 97    | 4123     | 0.426     | ppb   | 86        |
| 28) Trichloroethene           | 6.824  | 130   | 3447     | 0.431     | ppb   | 85        |
| -----                         |        |       |          |           |       |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1636.D  
Acq On : 21 Jul 2022 04:05 pm  
Operator : K.Ruest  
Sample : R2206605-001|1.0  
Misc : EA 524 T4  
ALS Vial : 8 Sample Multiplier: 1

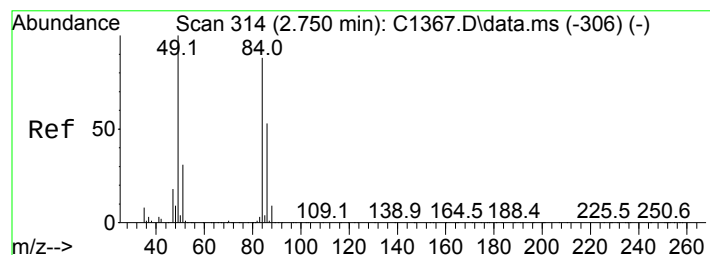
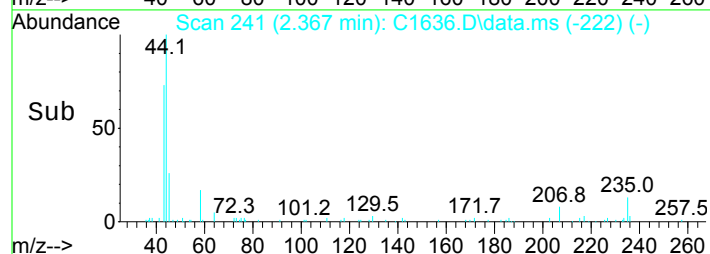
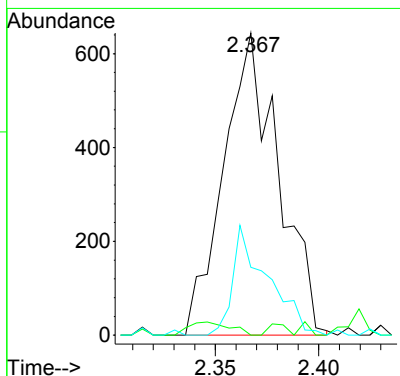
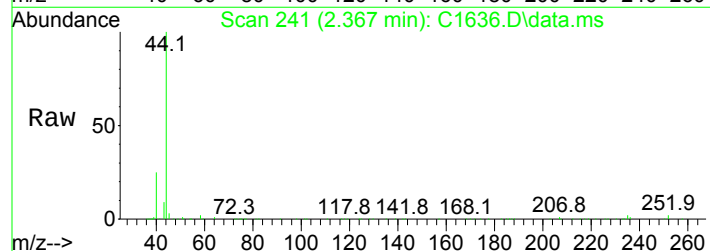
Quant Time: Jul 21 16:21:37 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration





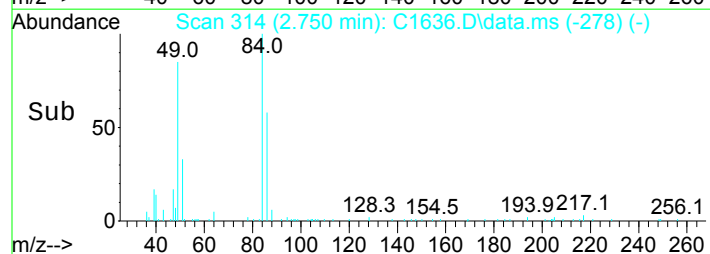
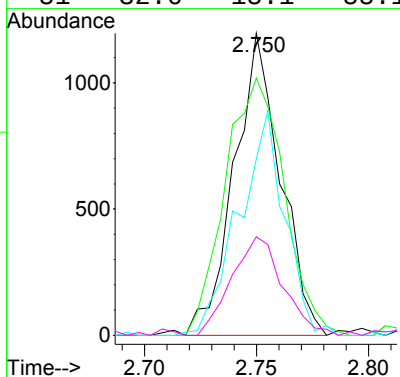
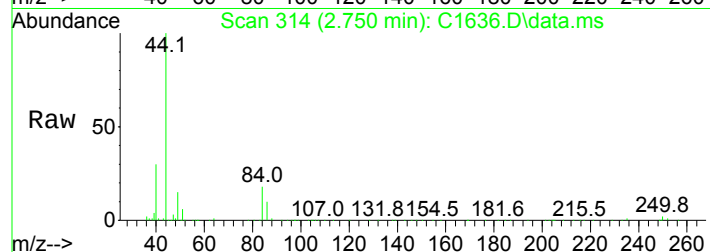
#11  
 Acetone  
 Concen: 0.46 ppb  
 RT: 2.367 min Scan# 241  
 Delta R.T. 0.003 min  
 Lab File: C1636.D  
 Acq: 21 Jul 2022 04:05 pm

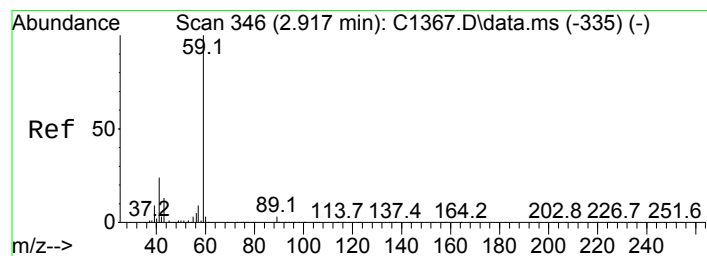
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 43    | Resp: | 1185 |
| Ion Ratio | Lower | Upper |      |
| 43        | 100   |       |      |
| 42        | 0.0   | 0.0   | 27.9 |
| 58        | 22.5  | 15.4  | 55.4 |



#12  
 Methylene Chloride  
 Concen: 0.22 ppb  
 RT: 2.750 min Scan# 314  
 Delta R.T. 0.000 min  
 Lab File: C1636.D  
 Acq: 21 Jul 2022 04:05 pm

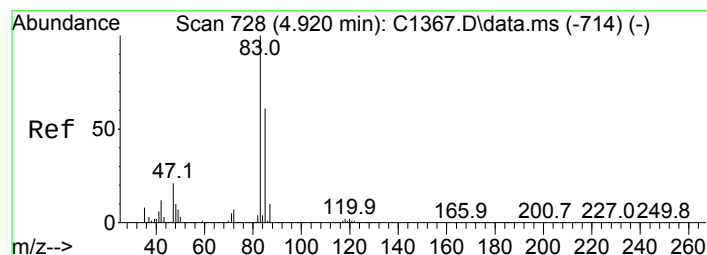
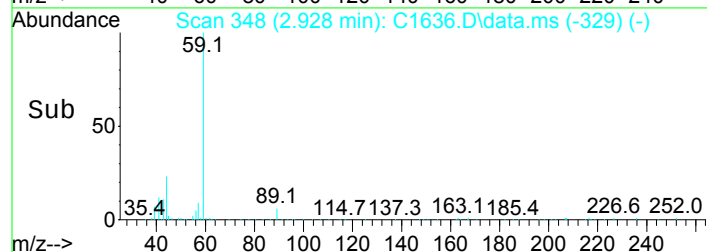
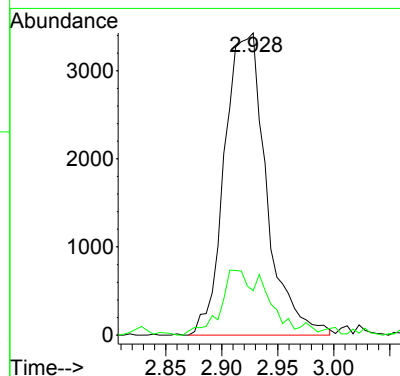
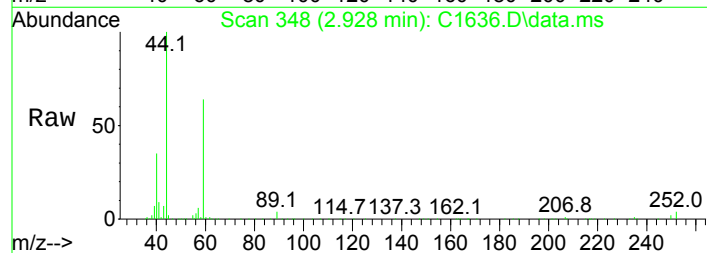
|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 84    | Resp: | 1721   |
| Ion Ratio | Lower | Upper |        |
| 84        | 100   |       |        |
| 49        | 85.2  | 93.6  | 133.6# |
| 86        | 58.3  | 40.4  | 80.4   |
| 51        | 32.6  | 15.1  | 55.1   |





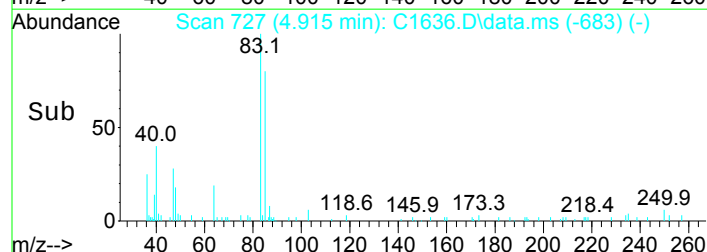
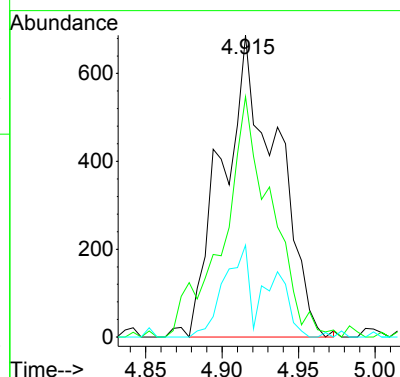
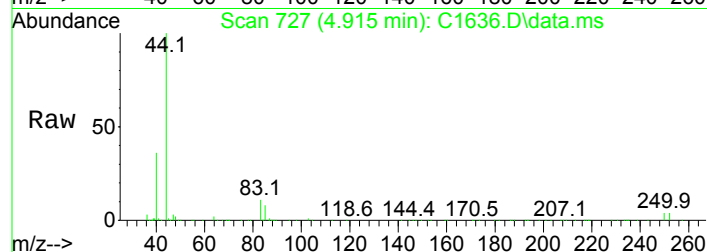
#13  
 TBA  
 Concen: 9.53 ppb  
 RT: 2.928 min Scan# 348  
 Delta R.T. 0.014 min  
 Lab File: C1636.D  
 Acq: 21 Jul 2022 04:05 pm

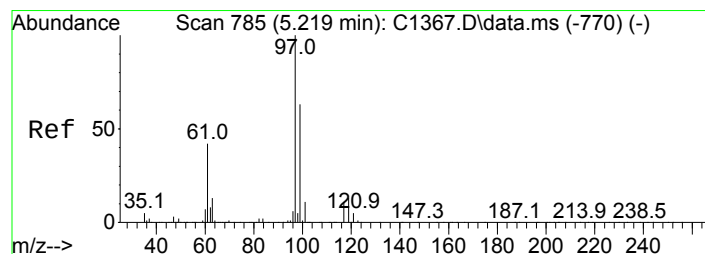
Tgt Ion: 59 Resp: 8870  
 Ion Ratio Lower Upper  
 59 100  
 41 14.7 4.3 44.3



#22  
 Chloroform  
 Concen: Below Cal m  
 RT: 4.915 min Scan# 727  
 Delta R.T. -0.001 min  
 Lab File: C1636.D  
 Acq: 21 Jul 2022 04:05 pm

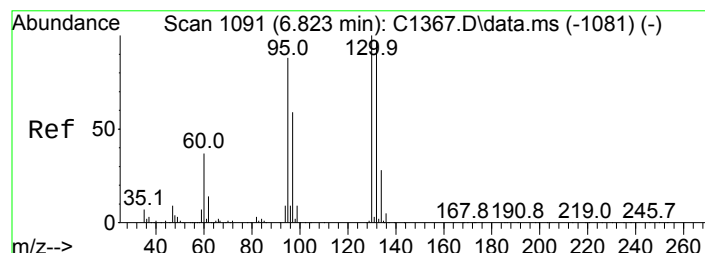
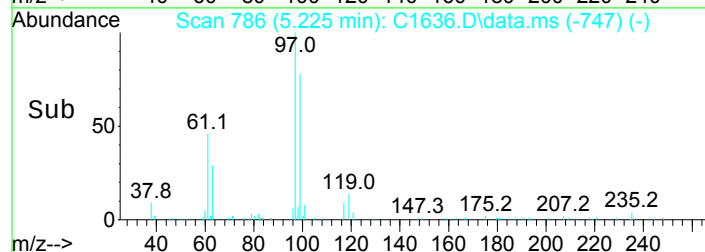
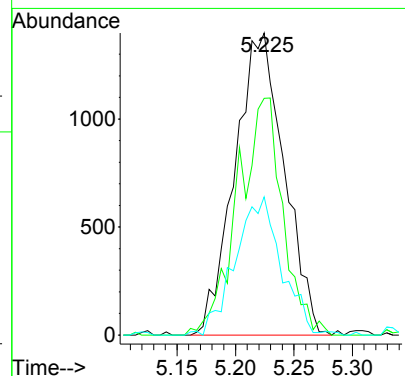
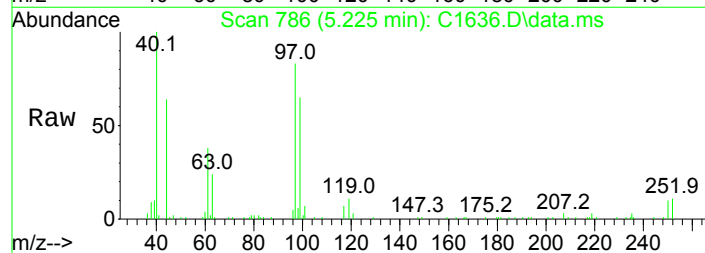
Tgt Ion: 83 Resp: 1705  
 Ion Ratio Lower Upper  
 83 100  
 85 0.0 43.2 83.2#  
 47 0.0 1.8 41.8#





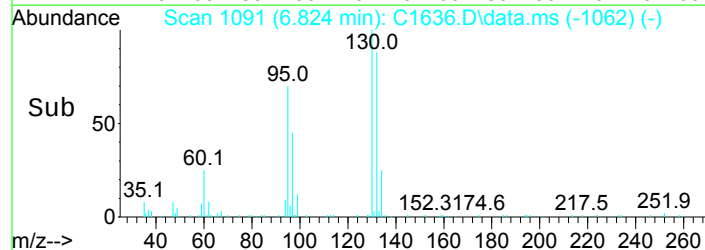
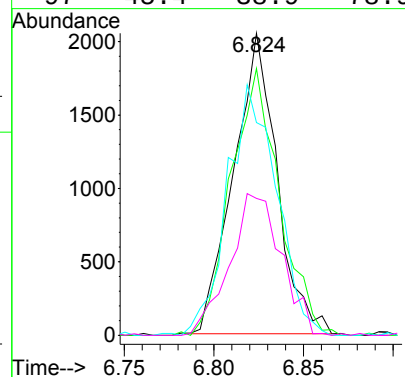
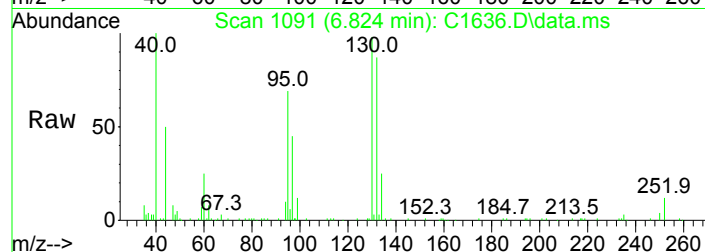
#23  
 1,1,1-Trichloroethane  
 Concen: 0.43 ppb  
 RT: 5.225 min Scan# 786  
 Delta R.T. 0.005 min  
 Lab File: C1636.D  
 Acq: 21 Jul 2022 04:05 pm

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 97    | Resp: | 4123 |
| Ion Ratio | Lower | Upper |      |
| 97        | 100   |       |      |
| 99        | 78.4  | 42.7  | 82.7 |
| 61        | 45.8  | 22.4  | 62.4 |



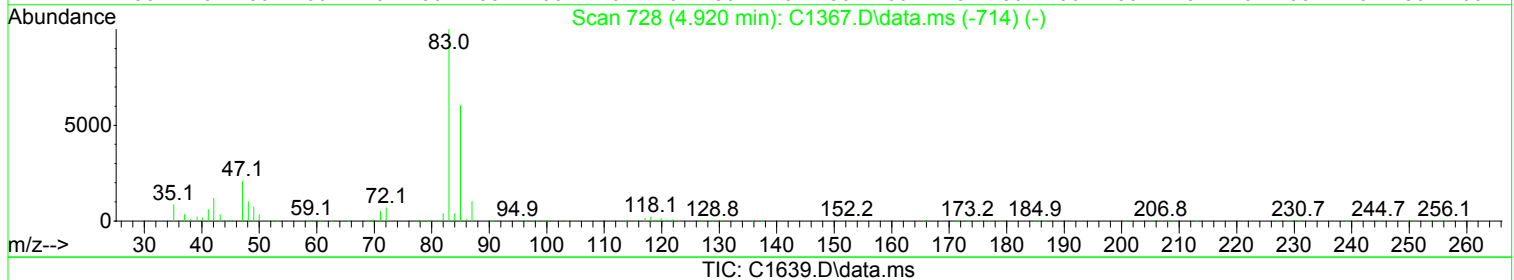
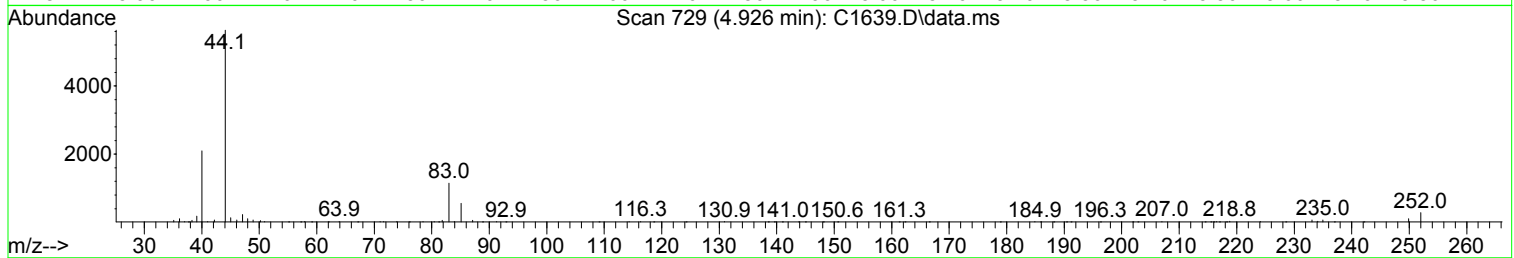
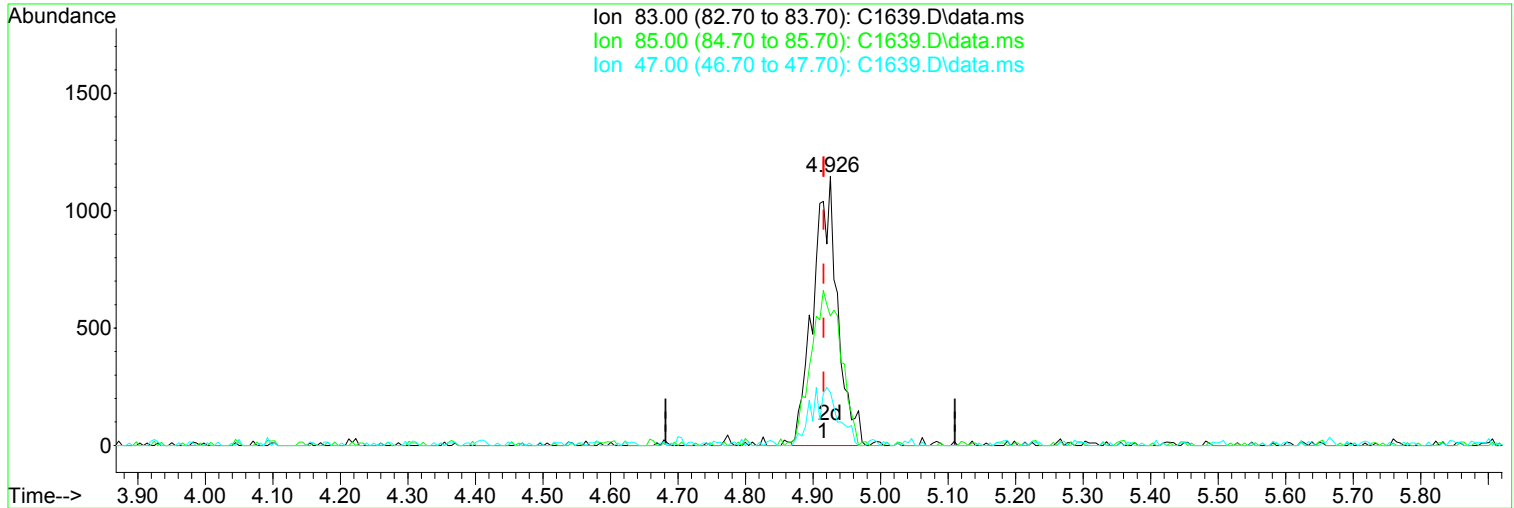
#28  
 Trichloroethene  
 Concen: 0.43 ppb  
 RT: 6.824 min Scan# 1091  
 Delta R.T. 0.000 min  
 Lab File: C1636.D  
 Acq: 21 Jul 2022 04:05 pm

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 130   | Resp: | 3447  |
| Ion Ratio | Lower | Upper |       |
| 130       | 100   |       |       |
| 132       | 88.4  | 76.6  | 116.6 |
| 95        | 70.4  | 68.6  | 108.6 |
| 97        | 45.4  | 38.9  | 78.9  |



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1639.D  
Acq On : 21 Jul 2022 05:21 pm  
Operator : K.Ruest  
Sample : R2206605-002|1.0  
Misc : EA 524 T4  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 21 17:38:58 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(22) Chloroform**

4.926min (+ 0.010) -1.00 ppb m

response 2888

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 83.00 | 100.00 | 100.00 |
| 85.00 | 63.20  | 45.91  |
| 47.00 | 21.80  | 0.00#  |
| 0.00  | 0.00   | 0.00   |

**Manual Integration:**

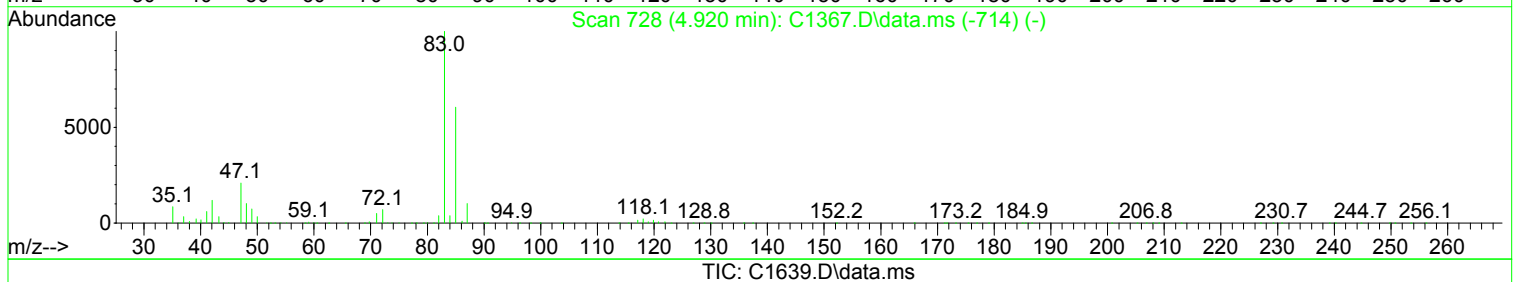
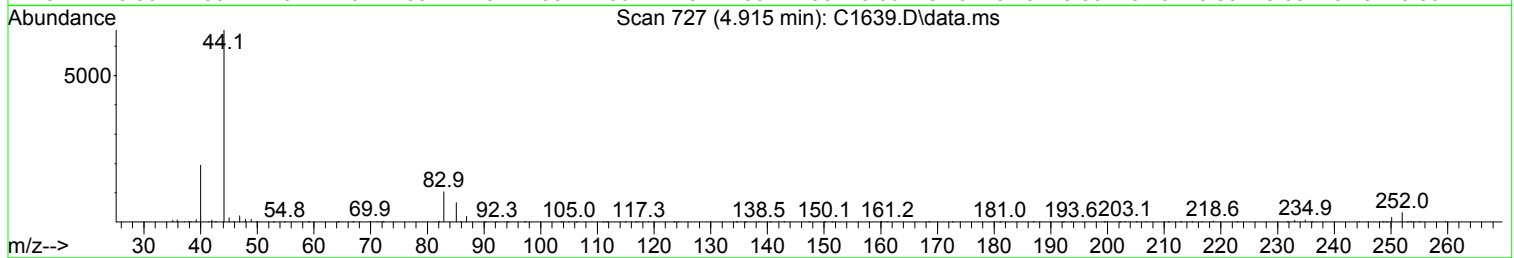
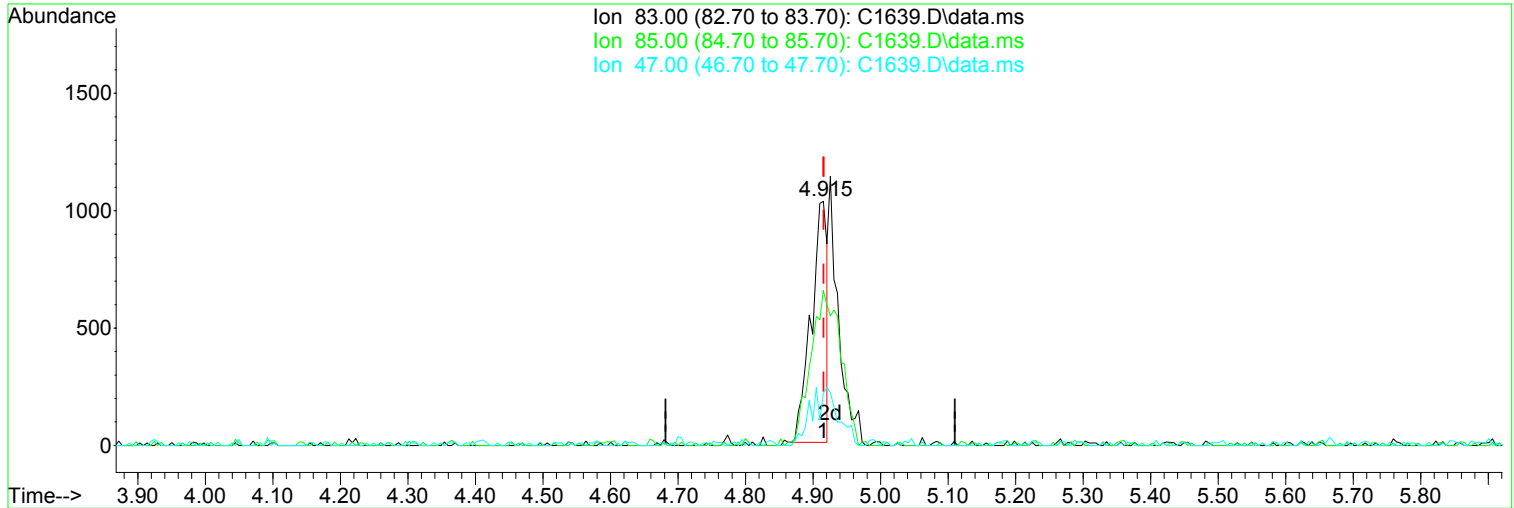
After

Split Peak.

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1639.D  
Acq On : 21 Jul 2022 05:21 pm  
Operator : K.Ruest  
Sample : R2206605-002|1.0  
Misc : EA 524 T4  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 21 17:38:58 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(22) Chloroform**

4.915min (-0.001) -1.00 ppb

response 1680

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 83.00 | 100.00 | 100.00 |
| 85.00 | 63.20  | 78.93  |
| 47.00 | 21.80  | 0.00#  |
| 0.00  | 0.00   | 0.00   |

**Manual Integration:**

Before

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1639.D  
 Acq On : 21 Jul 2022 05:21 pm  
 Operator : K.Ruest  
 Sample : R2206605-002|1.0  
 Misc : EA 524 T4  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 21 17:38:58 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

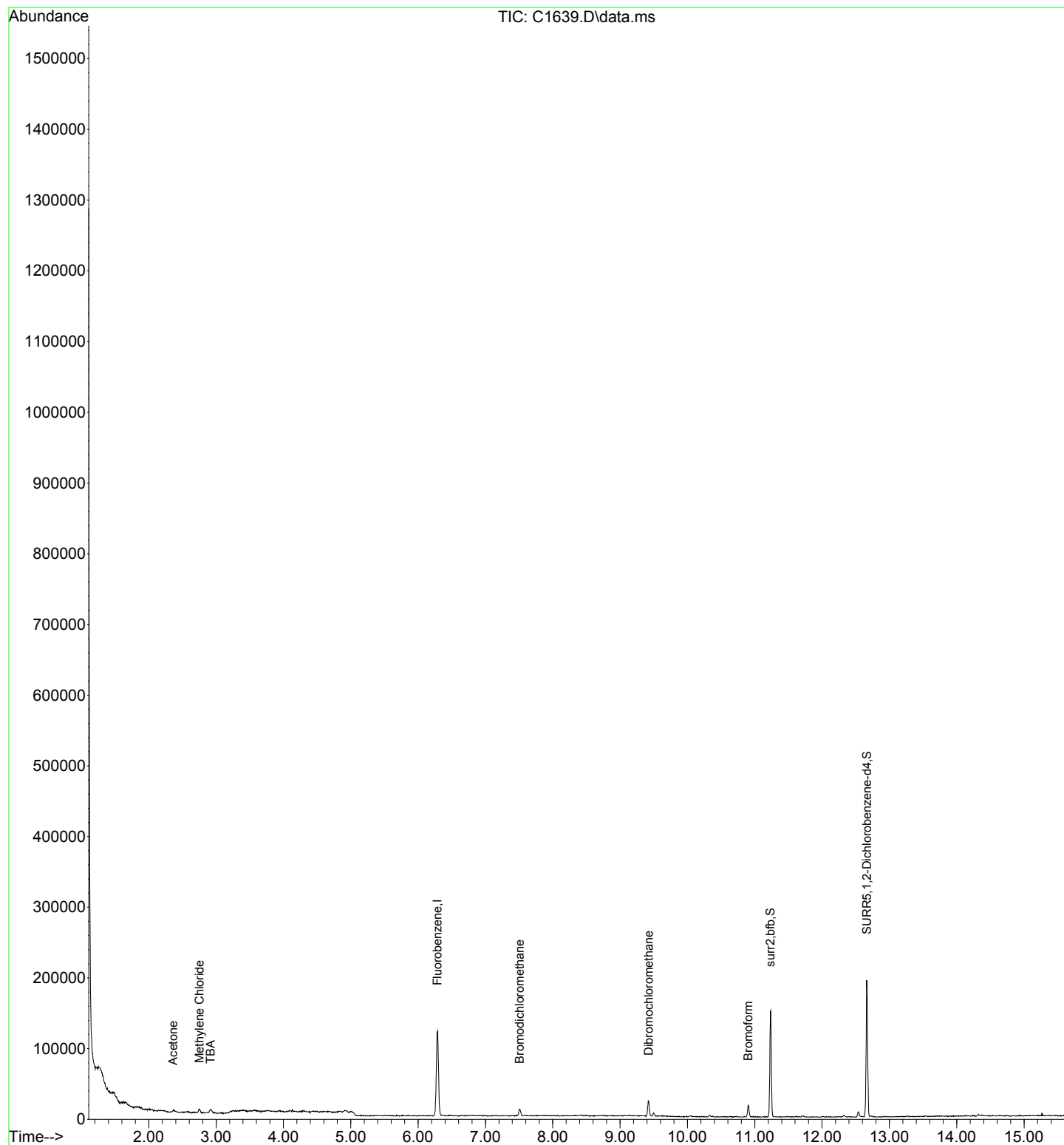
| Compound                      | R.T.   | QIon           | Response | Conc      | Units  | Dev(Min) |
|-------------------------------|--------|----------------|----------|-----------|--------|----------|
| -----                         |        |                |          |           |        |          |
| Internal Standards            |        |                |          |           |        |          |
| 1) Fluorobenzene              | 6.289  | 96             | 135451   | 5.00      | ppb    | 0.00     |
| System Monitoring Compounds   |        |                |          |           |        |          |
| 37) surr2,bfb                 | 11.233 | 95             | 45244    | 4.66      | ppb    | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =         | 93.20% |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 55513    | 4.82      | ppb    | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =         | 96.40% |          |
| Target Compounds              |        |                |          |           |        |          |
| 11) Acetone                   | 2.362  | 43             | 1817     | 0.691     | ppb    | 94       |
| 12) Methylene Chloride        | 2.750  | 84             | 2091     | 0.254     | ppb    | 93       |
| 13) TBA                       | 2.918  | 59             | 5623     | 5.876     | ppb    | 94       |
| 22) Chloroform                | 4.926  | 83             | 2888m    | Below Cal |        |          |
| 31) Bromodichloromethane      | 7.510  | 83             | 6722     | 0.604     | ppb    | 93       |
| 41) Dibromochloromethane      | 9.424  | 129            | 10393    | 1.106     | ppb    | 97       |
| 49) Bromoform                 | 10.903 | 173            | 7174     | 1.079     | ppb    | 98       |
| -----                         |        |                |          |           |        |          |

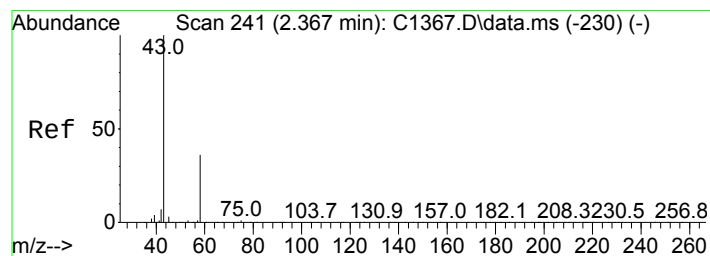
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1639.D  
Acq On : 21 Jul 2022 05:21 pm  
Operator : K.Ruest  
Sample : R2206605-002|1.0  
Misc : EA 524 T4  
ALS Vial : 11 Sample Multiplier: 1

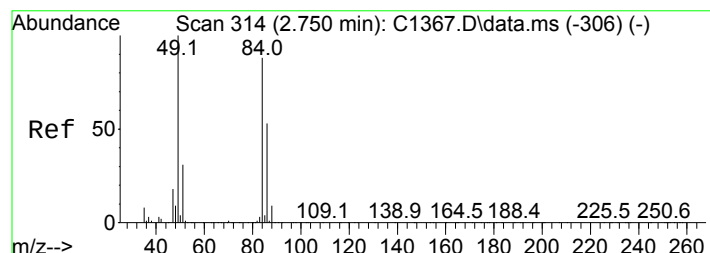
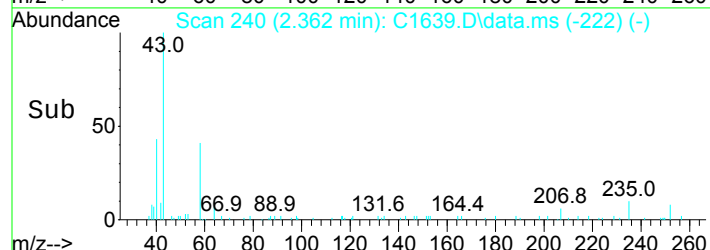
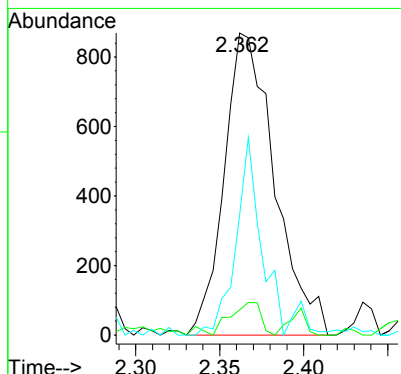
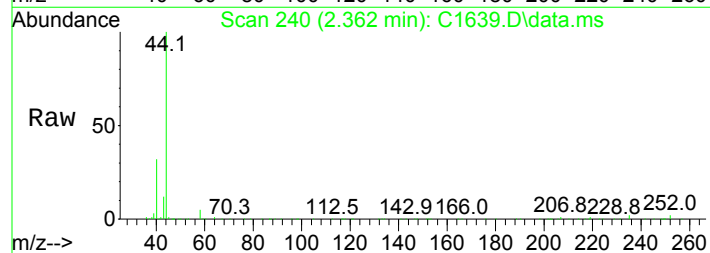
Quant Time: Jul 21 17:38:58 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration





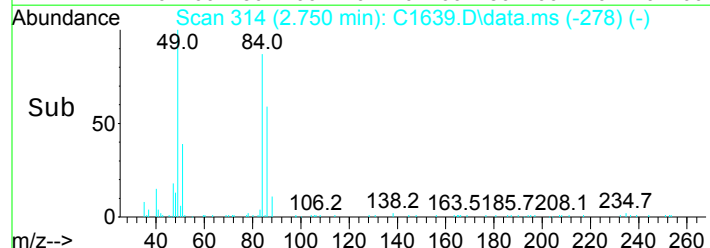
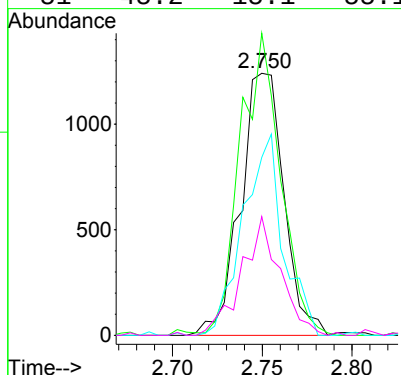
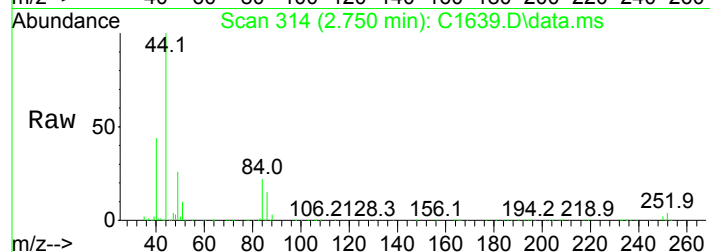
#11  
 Acetone  
 Concen: 0.69 ppb  
 RT: 2.362 min Scan# 240  
 Delta R.T. -0.003 min  
 Lab File: C1639.D  
 Acq: 21 Jul 2022 05:21 pm

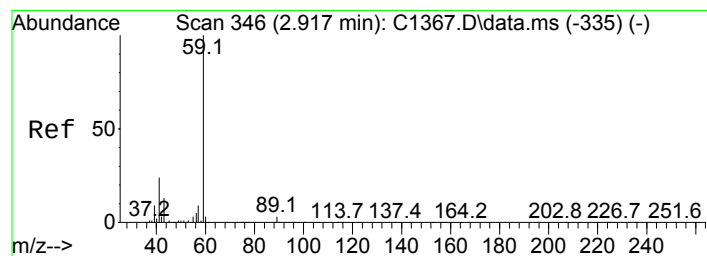
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 43    | Resp: | 1817 |
| Ion Ratio | Lower | Upper |      |
| 43        | 100   |       |      |
| 42        | 8.4   | 0.0   | 27.9 |
| 58        | 39.8  | 15.4  | 55.4 |



#12  
 Methylene Chloride  
 Concen: 0.25 ppb  
 RT: 2.750 min Scan# 314  
 Delta R.T. 0.000 min  
 Lab File: C1639.D  
 Acq: 21 Jul 2022 05:21 pm

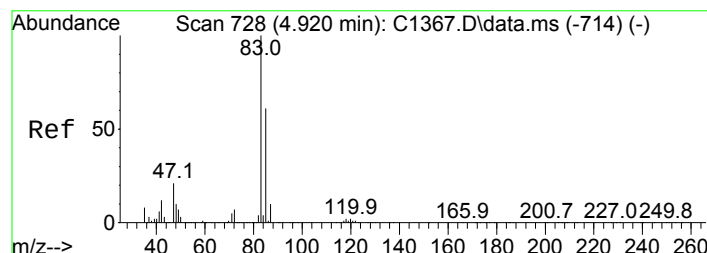
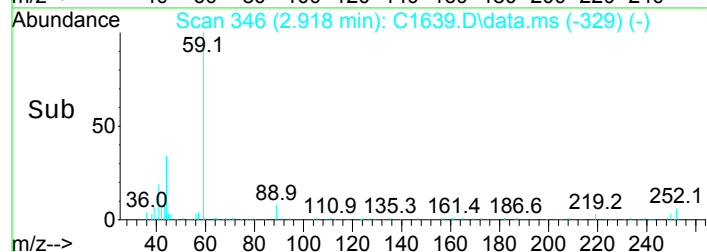
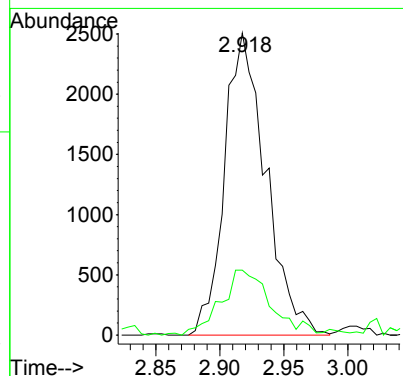
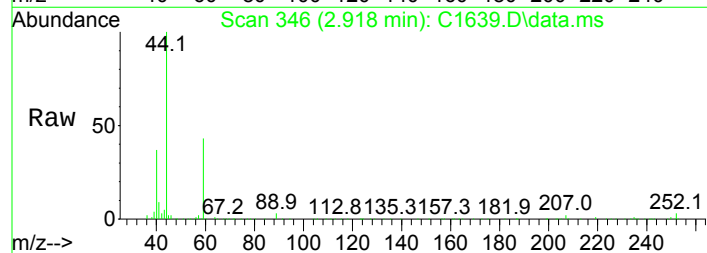
|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 84    | Resp: | 2091  |
| Ion Ratio | Lower | Upper |       |
| 84        | 100   |       |       |
| 49        | 115.2 | 93.6  | 133.6 |
| 86        | 67.8  | 40.4  | 80.4  |
| 51        | 45.2  | 15.1  | 55.1  |





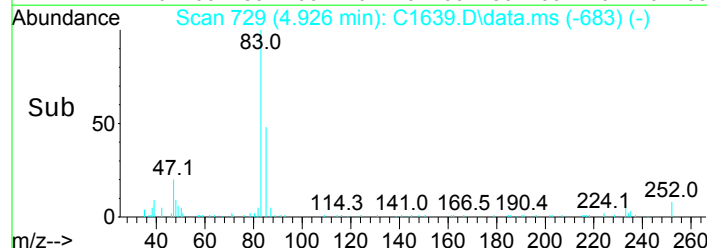
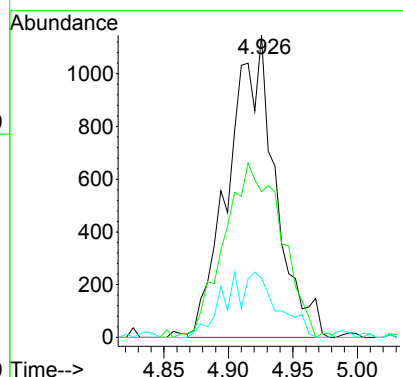
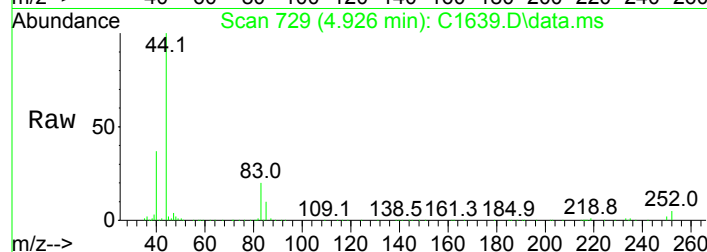
#13  
 TBA  
 Concen: 5.88 ppb  
 RT: 2.918 min Scan# 346  
 Delta R.T. 0.004 min  
 Lab File: C1639.D  
 Acq: 21 Jul 2022 05:21 pm

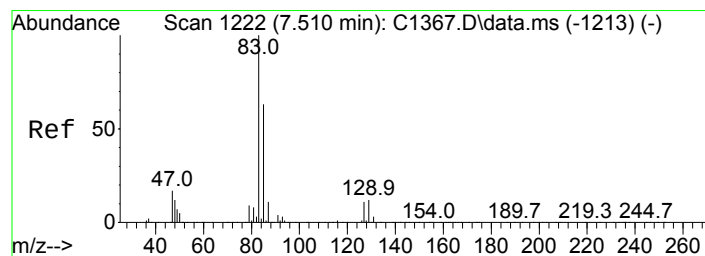
Tgt Ion: 59 Resp: 5623  
 Ion Ratio Lower Upper  
 59 100  
 41 21.5 4.3 44.3



#22  
 Chloroform  
 Concen: Below Cal m  
 RT: 4.926 min Scan# 729  
 Delta R.T. 0.010 min  
 Lab File: C1639.D  
 Acq: 21 Jul 2022 05:21 pm

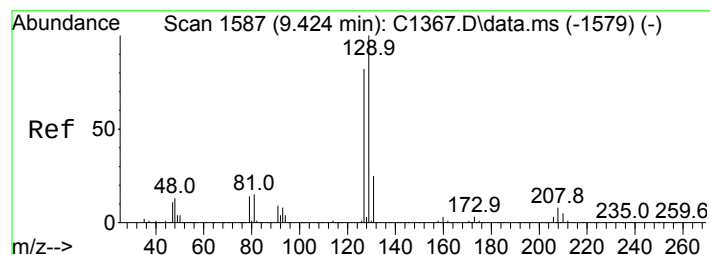
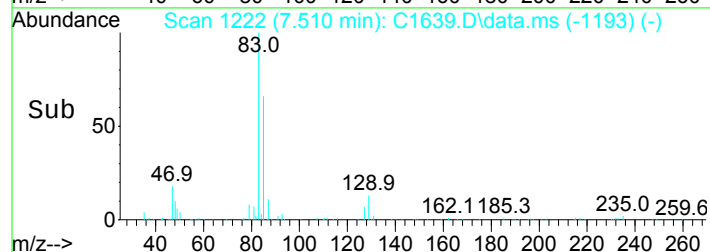
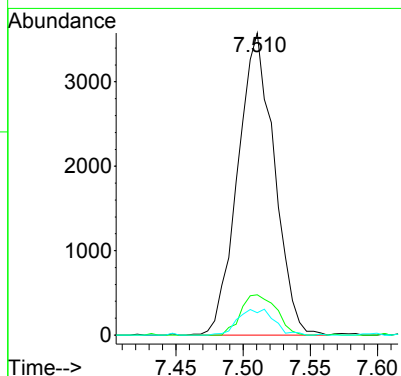
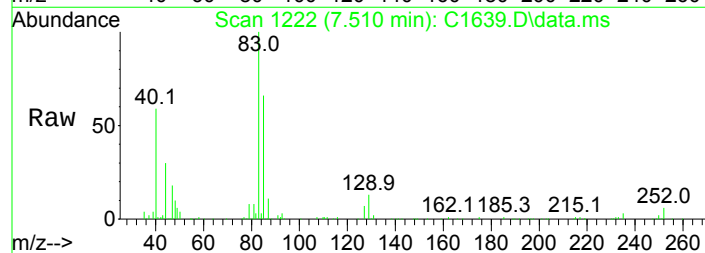
Tgt Ion: 83 Resp: 2888  
 Ion Ratio Lower Upper  
 83 100  
 85 45.9 43.2 83.2  
 47 0.0 1.8 41.8#





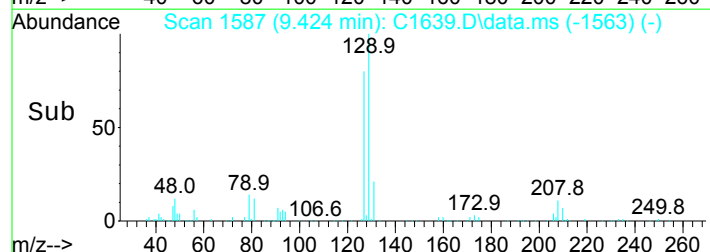
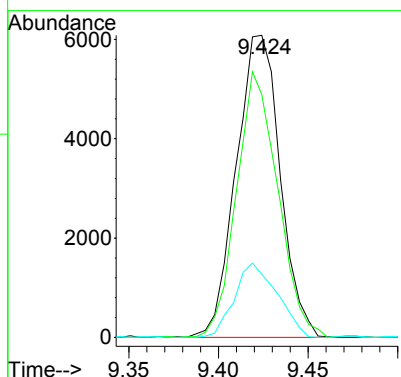
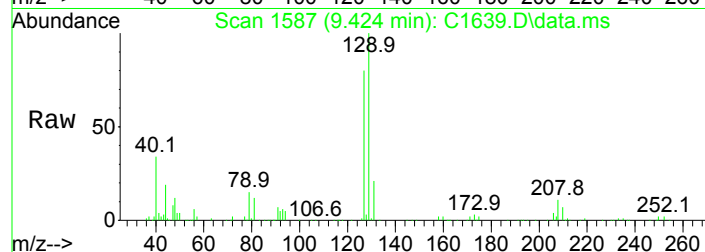
#31  
 Bromodichloromethane  
 Concen: 0.60 ppb  
 RT: 7.510 min Scan# 1222  
 Delta R.T. 0.000 min  
 Lab File: C1639.D  
 Acq: 21 Jul 2022 05:21 pm

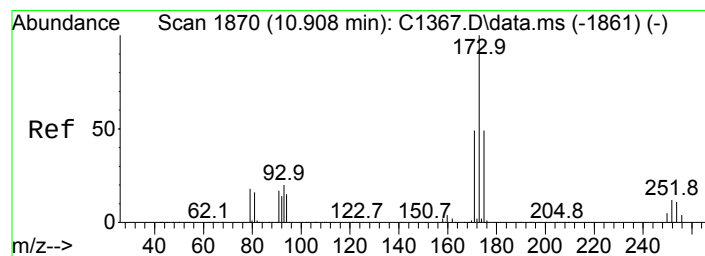
|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 83    | Resp: | 6722 |
| Ion Ratio | Lower | Upper |      |
| 83        | 100   |       |      |
| 129       | 13.4  | 0.0   | 31.7 |
| 127       | 7.4   | 0.0   | 31.2 |



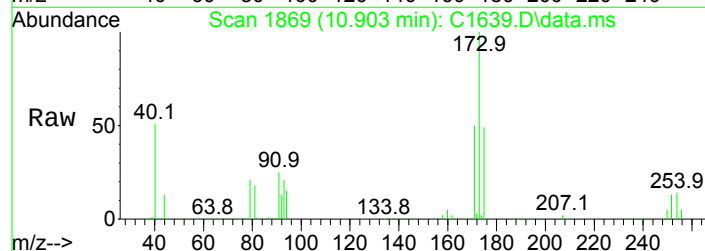
#41  
 Dibromochloromethane  
 Concen: 1.11 ppb  
 RT: 9.424 min Scan# 1587  
 Delta R.T. 0.001 min  
 Lab File: C1639.D  
 Acq: 21 Jul 2022 05:21 pm

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 129   | Resp: | 10393 |
| Ion Ratio | Lower | Upper |       |
| 129       | 100   |       |       |
| 127       | 80.4  | 62.0  | 102.0 |
| 131       | 20.9  | 4.8   | 44.8  |

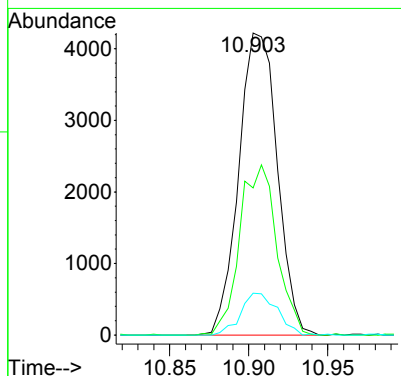
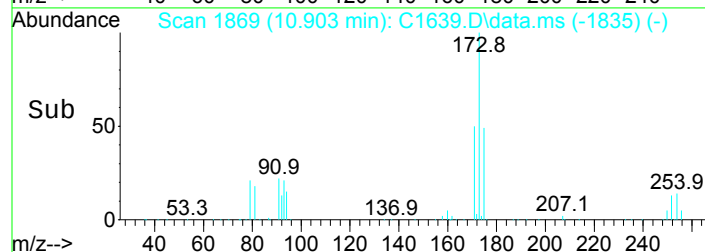




#49  
 Bromoform  
 Concen: 1.08 ppb  
 RT: 10.903 min Scan# 1869  
 Delta R.T. -0.005 min  
 Lab File: C1639.D  
 Acq: 21 Jul 2022 05:21 pm

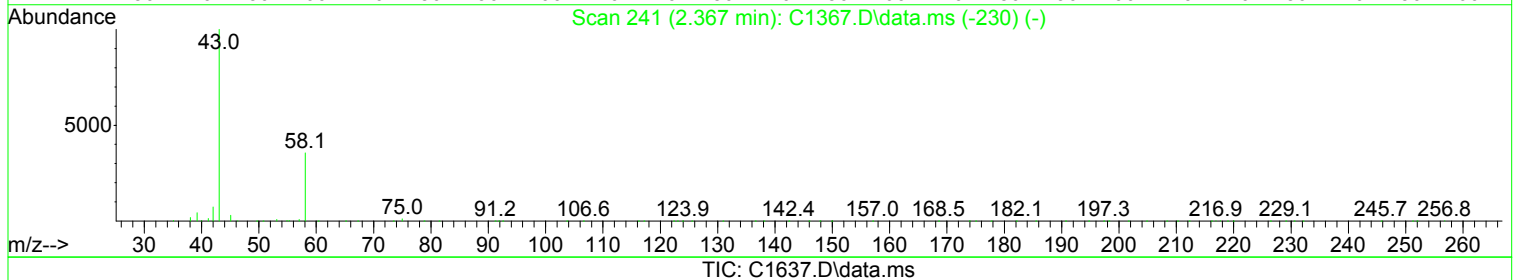
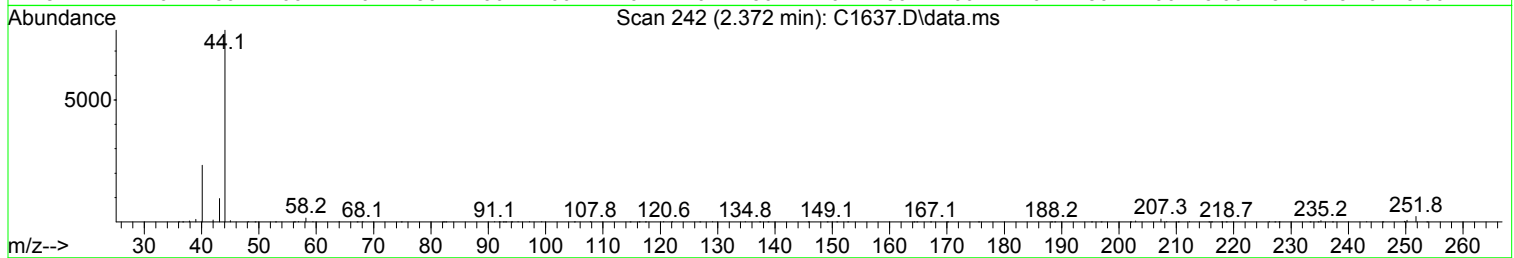
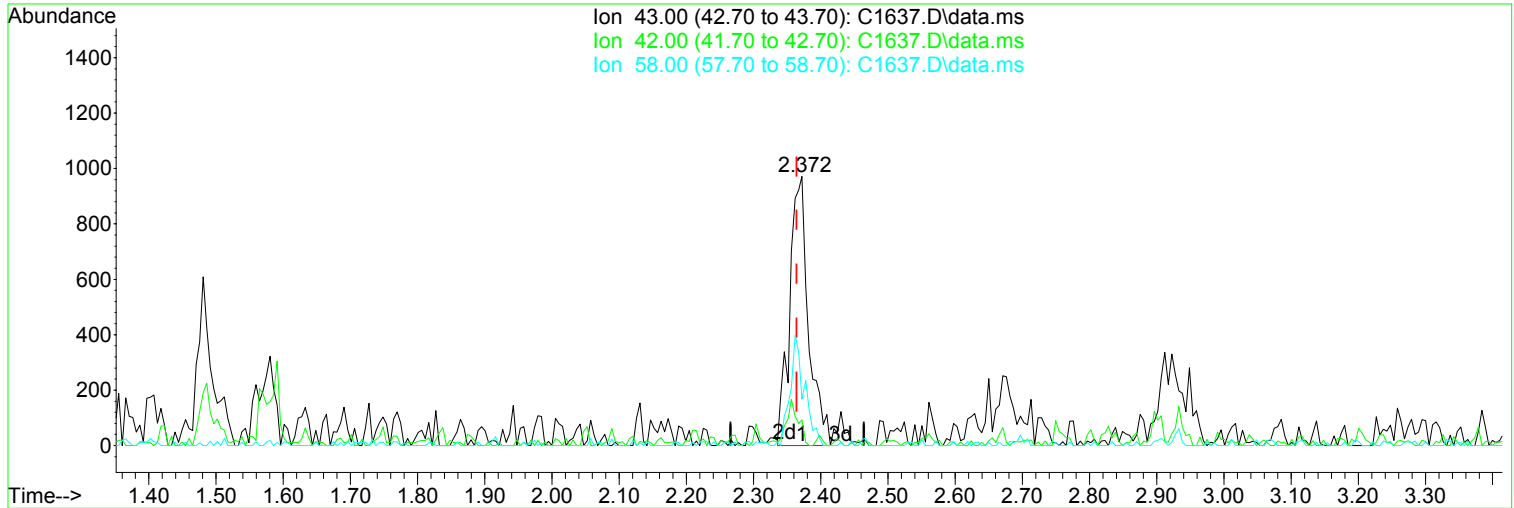


| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 173     | 100   |       |       |
| 175     | 48.8  | 28.5  | 68.5  |
| 254     | 13.8  | 0.0   | 31.4  |



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1637.D  
Acq On : 21 Jul 2022 04:30 pm  
Operator : K.Ruest  
Sample : R2206605-003|1.0  
Misc : EA 524 T4  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 21 17:38:31 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(11) Acetone**

2.372min (+ 0.008) 0.74 ppb m

response 1887

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 43.00 | 100.00 | 100.00 |
| 42.00 | 7.90   | 9.47   |
| 58.00 | 35.40  | 17.40  |
| 0.00  | 0.00   | 0.00   |

**Manual Integration:**

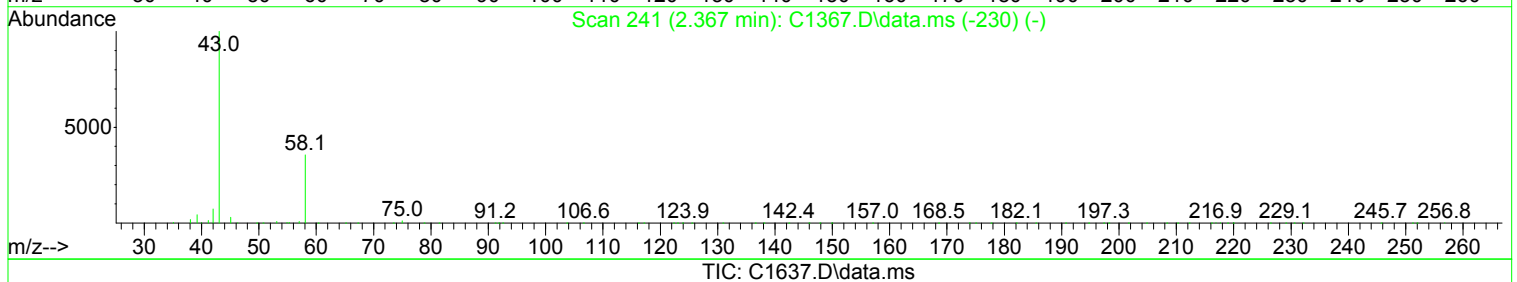
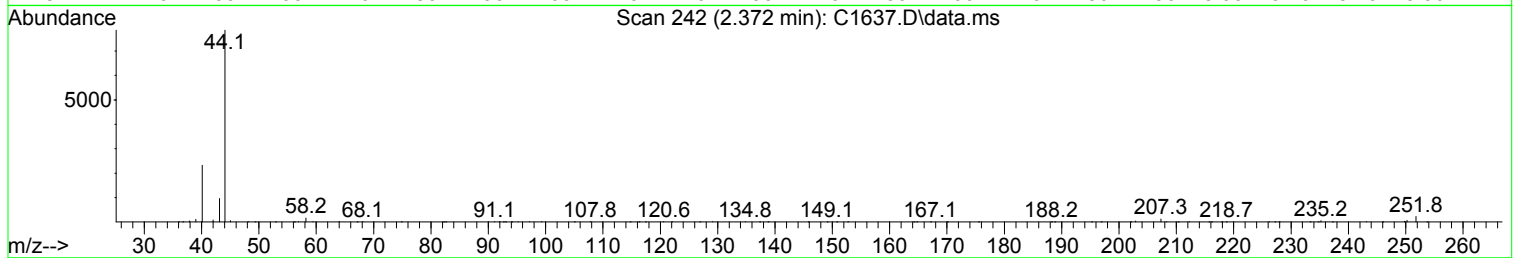
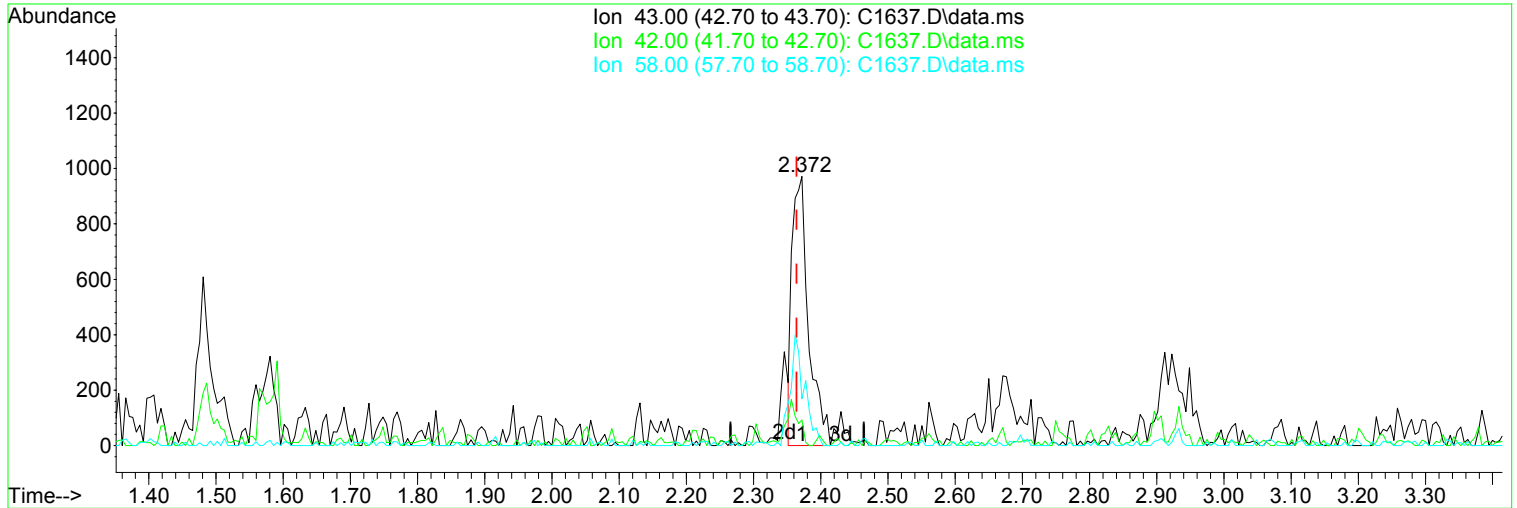
After

Split Peak.

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1637.D  
Acq On : 21 Jul 2022 04:30 pm  
Operator : K.Ruest  
Sample : R2206605-003|1.0  
Misc : EA 524 T4  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 21 17:38:31 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(11) Acetone**

2.372min (+ 0.008) 0.64 ppb

response 1652

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 43.00 | 100.00 | 100.00 |
| 42.00 | 7.90   | 9.47   |
| 58.00 | 35.40  | 17.40  |
| 0.00  | 0.00   | 0.00   |

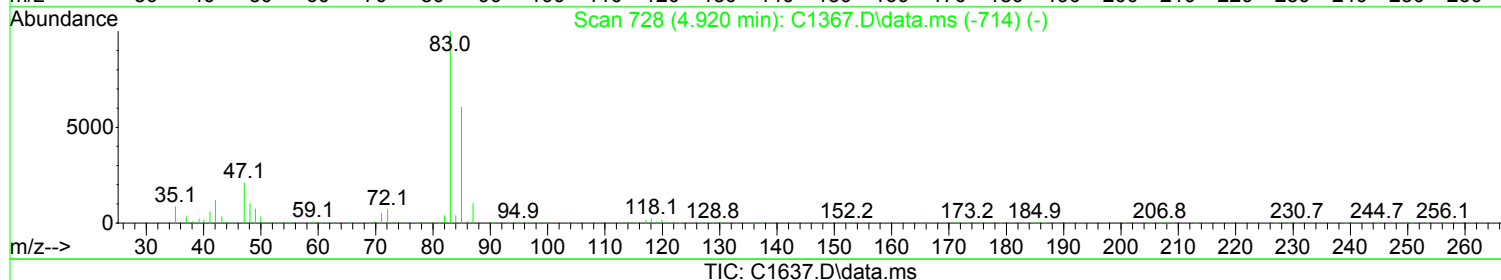
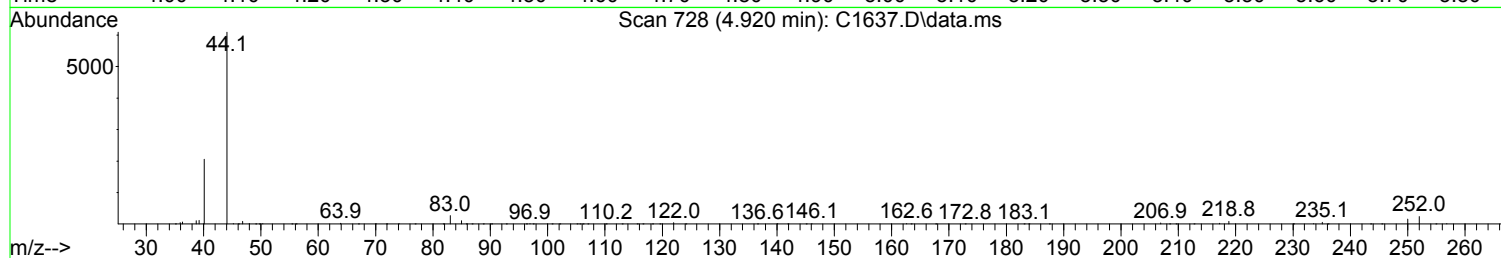
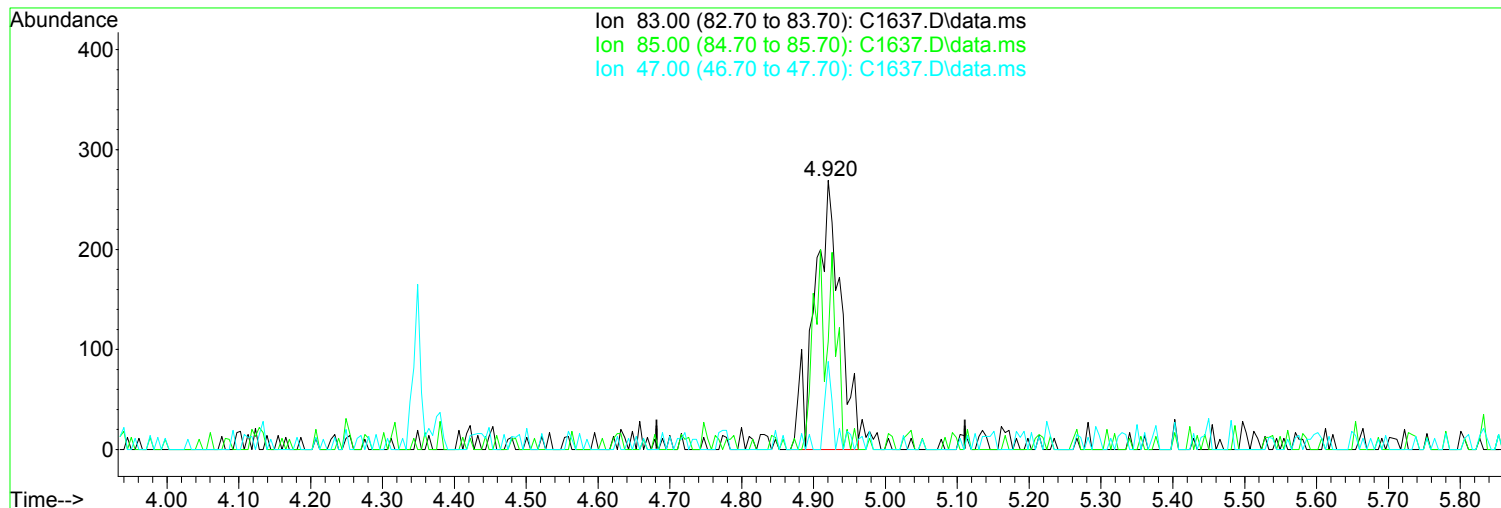
**Manual Integration:**

Before

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1637.D  
Acq On : 21 Jul 2022 04:30 pm  
Operator : K.Ruest  
Sample : R2206605-003|1.0  
Misc : EA 524 T4  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 21 17:38:31 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(22) Chloroform**

4.920min (+ 0.004) -1.00 ppb m

response 672

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 83.00 | 100.00 | 100.00 |
| 85.00 | 63.20  | 0.00#  |
| 47.00 | 21.80  | 0.00#  |
| 0.00  | 0.00   | 0.00   |

**Manual Integration:**

After

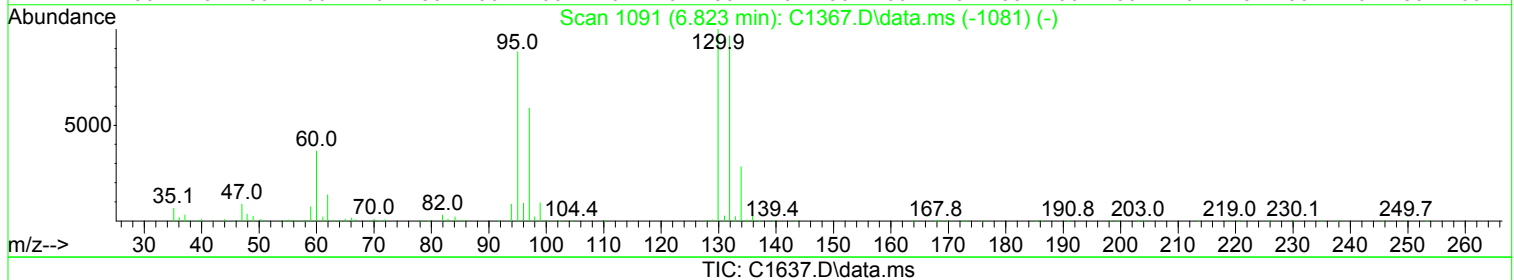
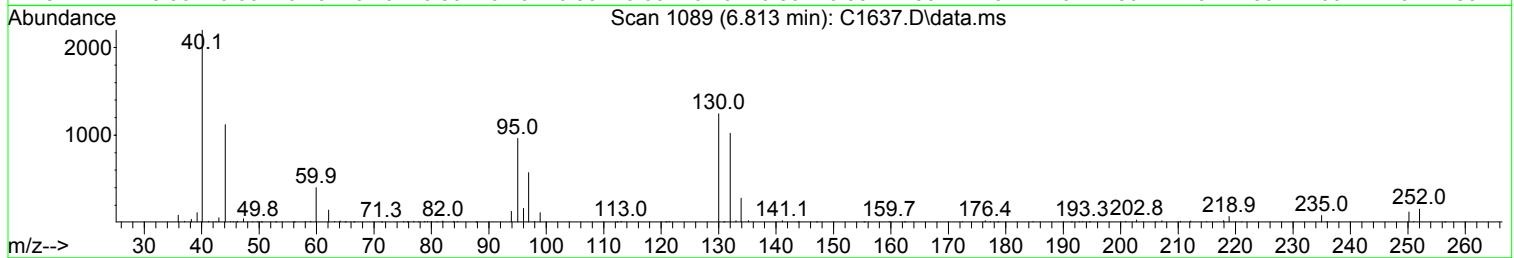
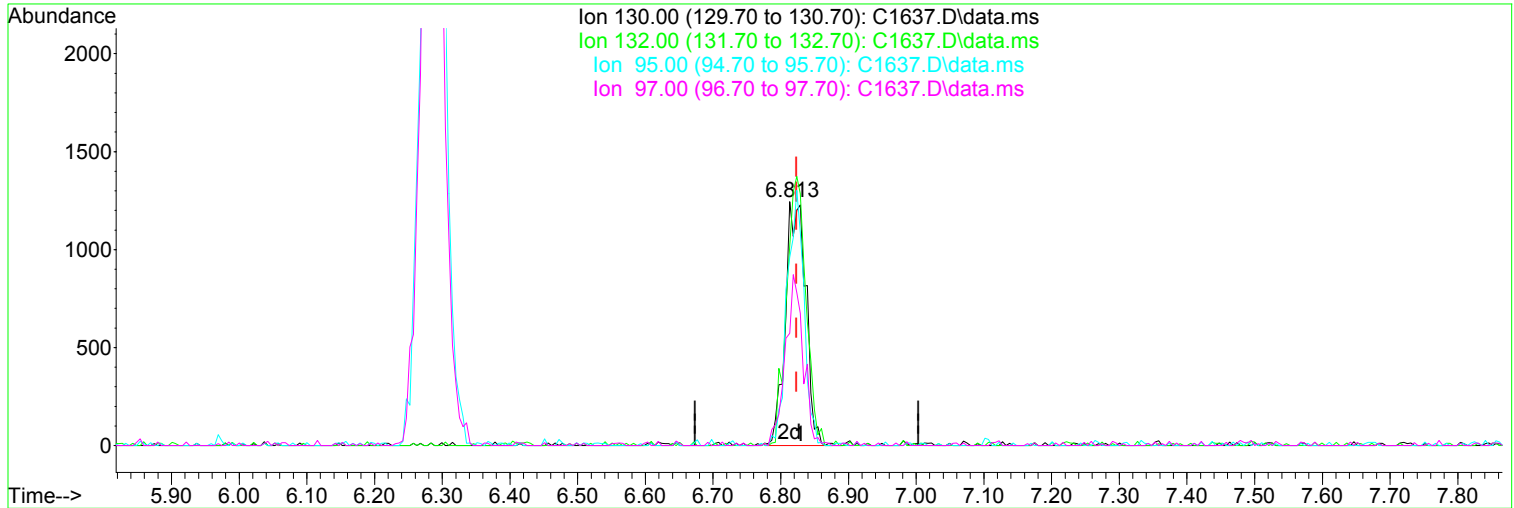
Peak not found.

07/22/22



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1637.D  
Acq On : 21 Jul 2022 04:30 pm  
Operator : K.Ruest  
Sample : R2206605-003|1.0  
Misc : EA 524 T4  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 21 17:38:31 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(28) Trichloroethene**

6.813min (-0.011) 0.33 ppb m

response 2614

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 130.00 | 100.00 | 100.00 |
| 132.00 | 96.60  | 82.01  |
| 95.00  | 88.60  | 77.27  |
| 97.00  | 58.90  | 46.02  |

**Manual Integration:**

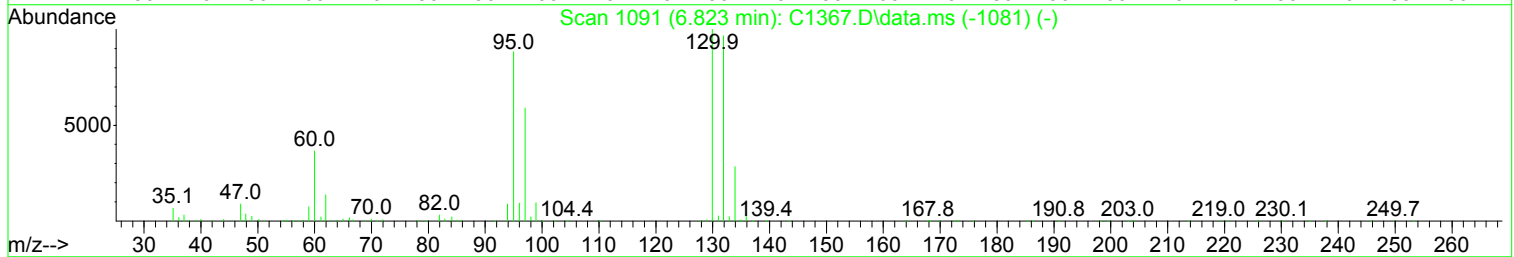
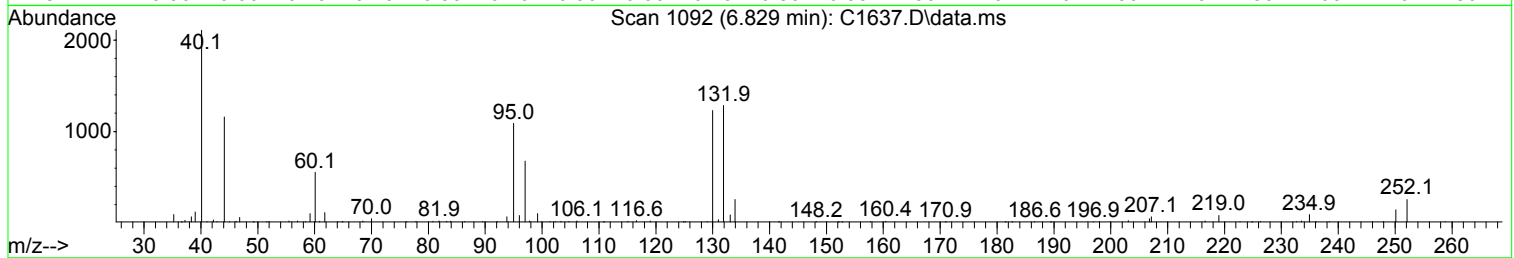
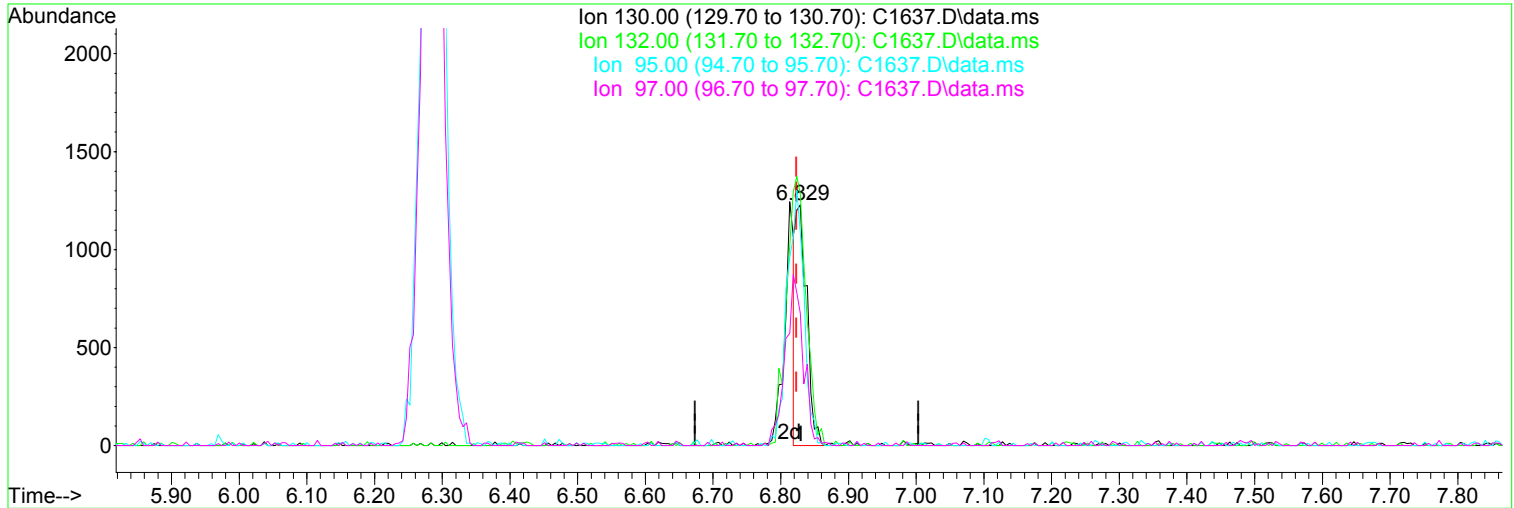
After

Split Peak.

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1637.D  
Acq On : 21 Jul 2022 04:30 pm  
Operator : K.Ruest  
Sample : R2206605-003|1.0  
Misc : EA 524 T4  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 21 17:38:31 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(28) Trichloroethene**

6.829min (+ 0.005) 0.18 ppb

response 1422

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 130.00 | 100.00 | 100.00 |
| 132.00 | 96.60  | 104.56 |
| 95.00  | 88.60  | 88.53  |
| 97.00  | 58.90  | 54.92  |

**Manual Integration:**

Before

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1637.D  
 Acq On : 21 Jul 2022 04:30 pm  
 Operator : K.Ruest  
 Sample : R2206605-003|1.0  
 Misc : EA 524 T4  
 ALS Vial : 9 Sample Multiplier: 1

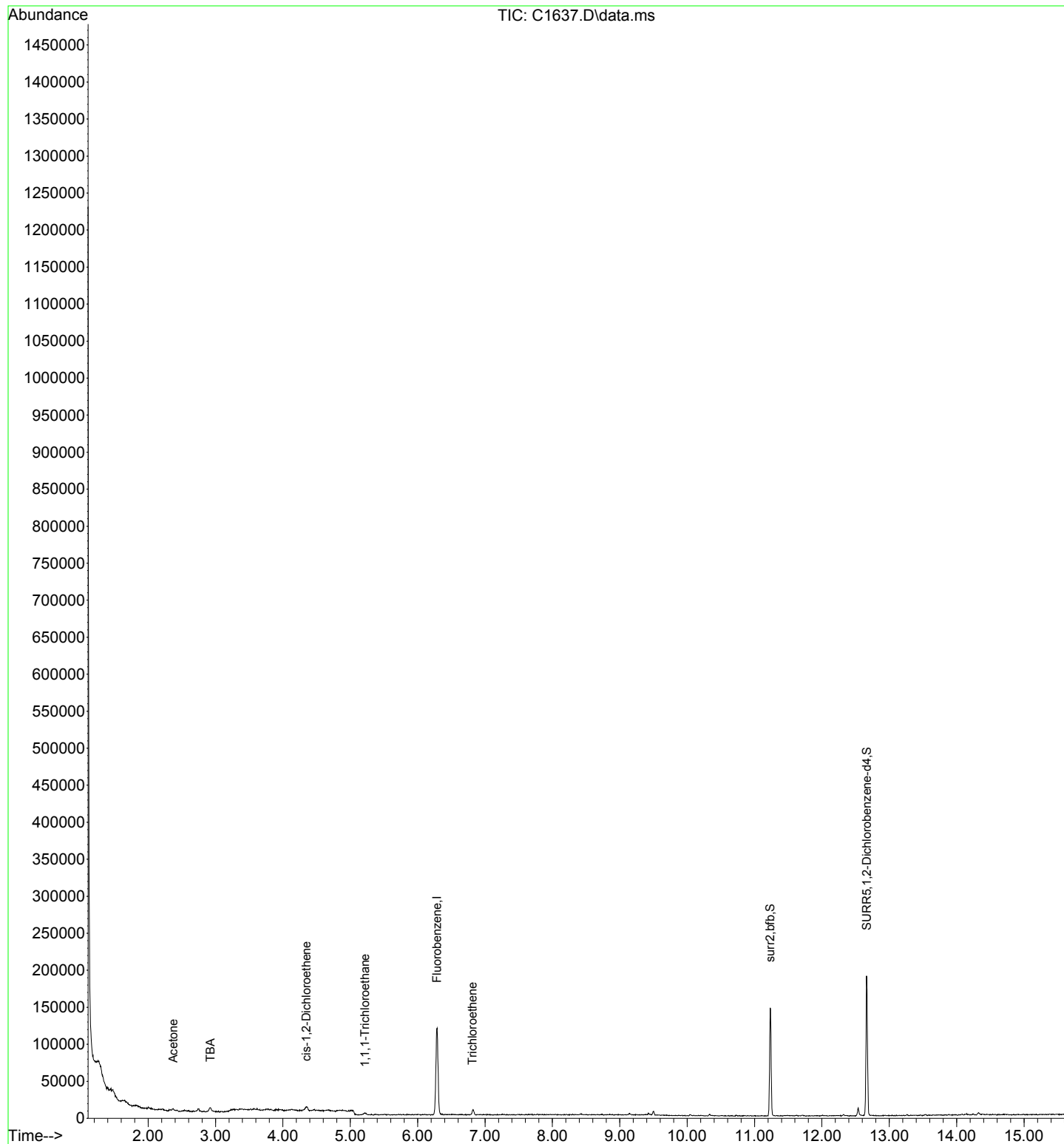
Quant Time: Jul 21 17:38:31 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

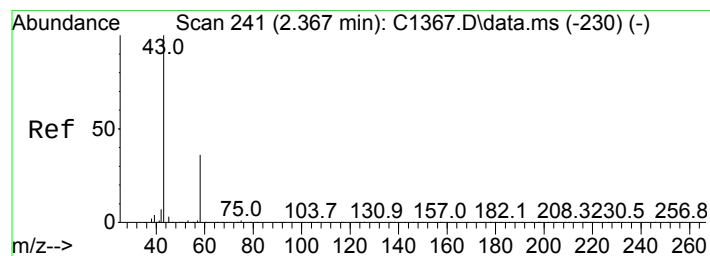
| Compound                      | R.T.   | QIon  | Response | Conc      | Units | Dev(Min) |
|-------------------------------|--------|-------|----------|-----------|-------|----------|
| -----                         |        |       |          |           |       |          |
| Internal Standards            |        |       |          |           |       |          |
| 1) Fluorobenzene              | 6.289  | 96    | 132074   | 5.00      | ppb   | 0.00     |
| System Monitoring Compounds   |        |       |          |           |       |          |
| 37) surr2,bfb                 | 11.233 | 95    | 43103    | 4.55      | ppb   | 0.00     |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery  | =     | 91.00%   |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152   | 52603    | 4.69      | ppb   | 0.00     |
| Spiked Amount                 | 5.000  | Range | 70 - 130 | Recovery  | =     | 93.80%   |
| Target Compounds              |        |       |          |           |       |          |
| 11) Acetone                   | 2.372  | 43    | 1887m    | 0.736     | ppb   | Qvalue   |
| 13) TBA                       | 2.923  | 59    | 6576     | 7.048     | ppb   | 92       |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96    | 3482     | 0.423     | ppb   | # 78     |
| 22) Chloroform                | 4.920  | 83    | 672m     | Below Cal |       |          |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97    | 2314     | 0.239     | ppb   | 95       |
| 28) Trichloroethene           | 6.813  | 130   | 2614m    | 0.326     | ppb   |          |
| -----                         |        |       |          |           |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1637.D  
Acq On : 21 Jul 2022 04:30 pm  
Operator : K.Ruest  
Sample : R2206605-003|1.0  
Misc : EA 524 T4  
ALS Vial : 9 Sample Multiplier: 1

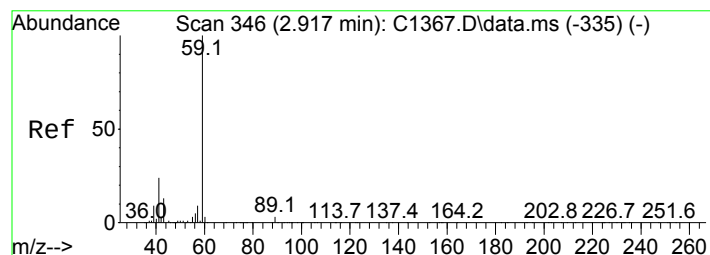
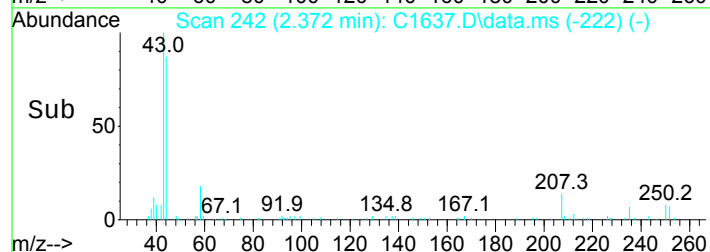
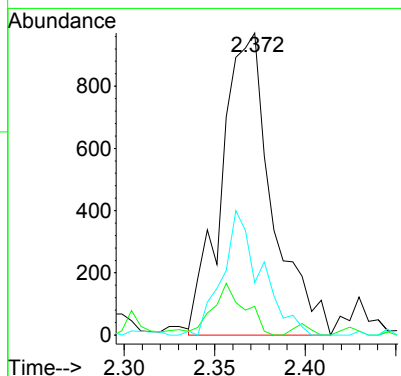
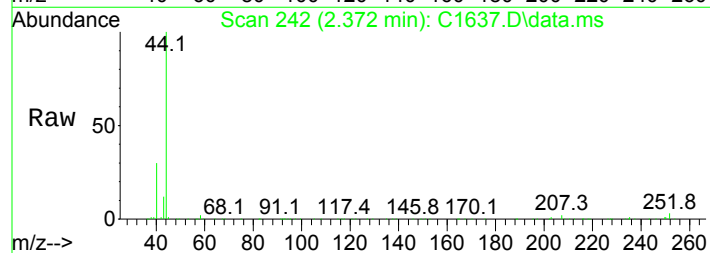
Quant Time: Jul 21 17:38:31 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration





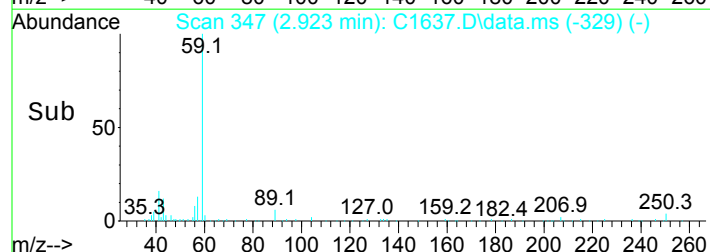
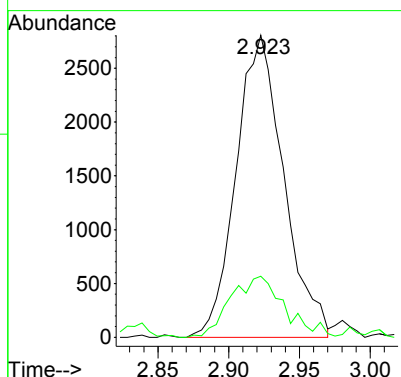
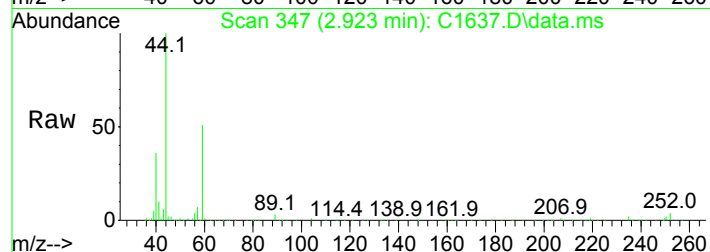
#11  
 Acetone  
 Concen: 0.74 ppb m  
 RT: 2.372 min Scan# 242  
 Delta R.T. 0.008 min  
 Lab File: C1637.D  
 Acq: 21 Jul 2022 04:30 pm

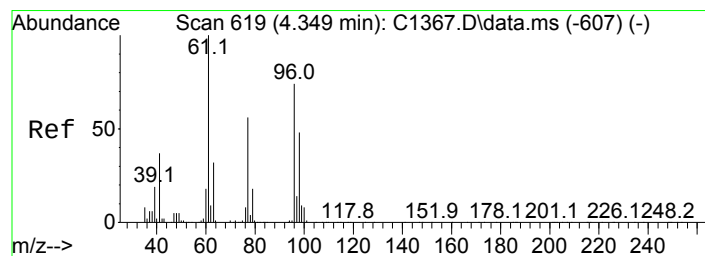
Tgt Ion: 43 Resp: 1887  
 Ion Ratio Lower Upper  
 43 100  
 42 9.5 0.0 27.9  
 58 17.4 15.4 55.4



#13  
 TBA  
 Concen: 7.05 ppb  
 RT: 2.923 min Scan# 347  
 Delta R.T. 0.009 min  
 Lab File: C1637.D  
 Acq: 21 Jul 2022 04:30 pm

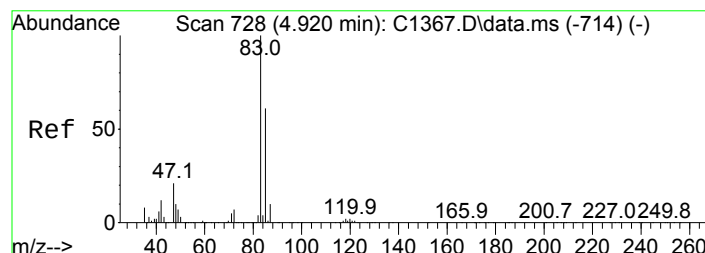
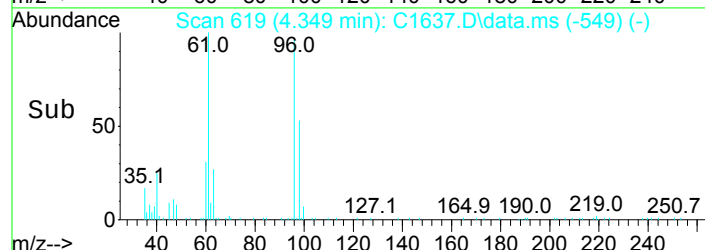
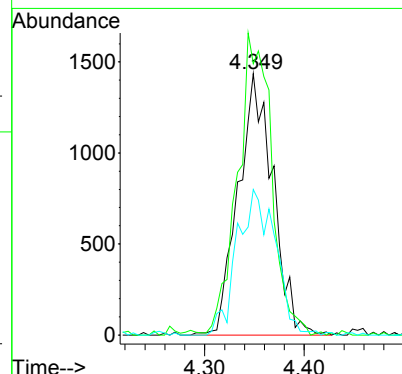
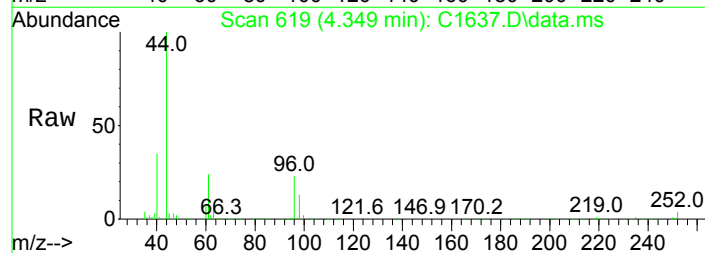
Tgt Ion: 59 Resp: 6576  
 Ion Ratio Lower Upper  
 59 100  
 41 20.2 4.3 44.3





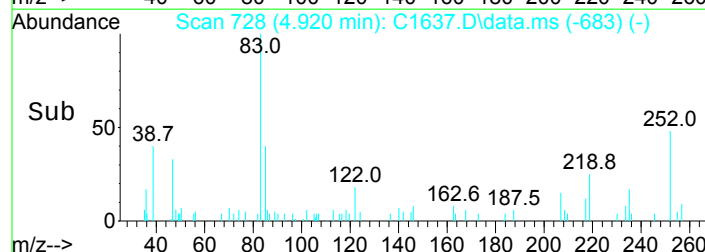
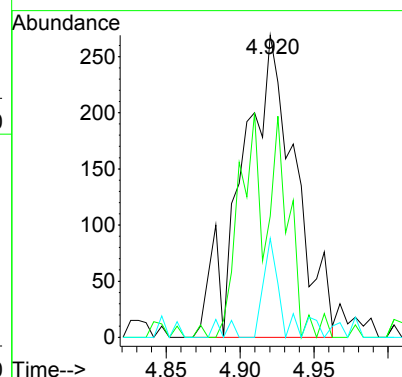
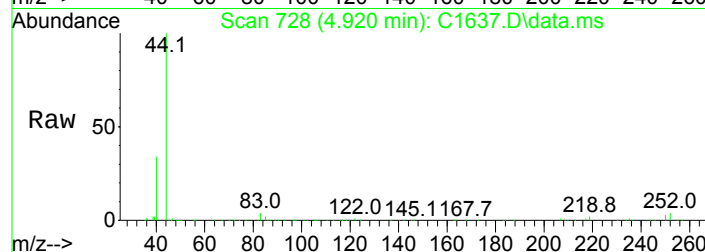
#18  
 cis-1,2-Dichloroethene  
 Concen: 0.42 ppb  
 RT: 4.349 min Scan# 619  
 Delta R.T. -0.003 min  
 Lab File: C1637.D  
 Acq: 21 Jul 2022 04:30 pm

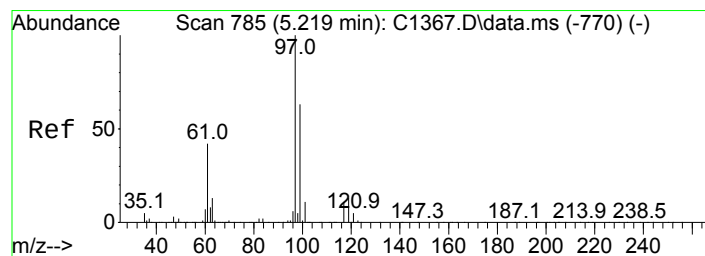
| Tgt Ion | Ratio | Lower | Upper  |
|---------|-------|-------|--------|
| 96      | 100   |       |        |
| 61      | 103.8 | 115.8 | 155.8# |
| 98      | 55.7  | 44.5  | 84.5   |



#22  
 Chloroform  
 Concen: Below Cal m  
 RT: 4.920 min Scan# 728  
 Delta R.T. 0.004 min  
 Lab File: C1637.D  
 Acq: 21 Jul 2022 04:30 pm

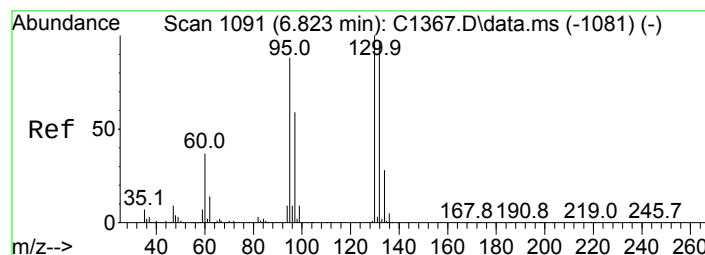
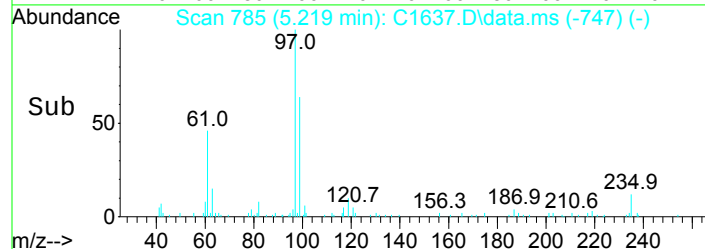
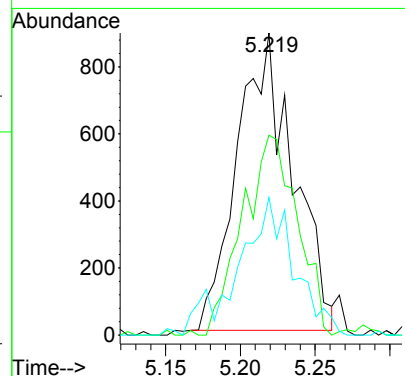
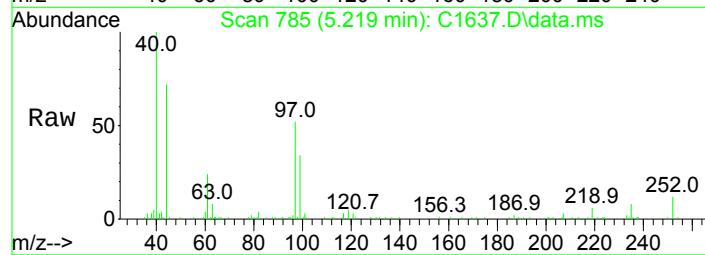
| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 83      | 100   |       |       |
| 85      | 0.0   | 43.2  | 83.2# |
| 47      | 0.0   | 1.8   | 41.8# |





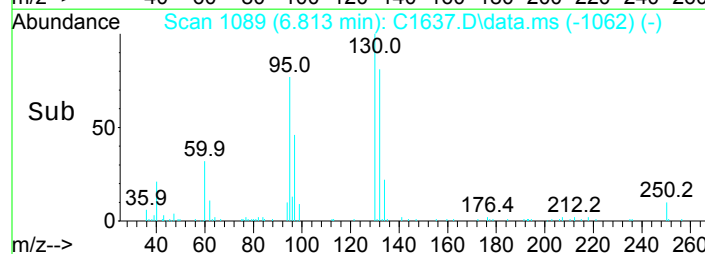
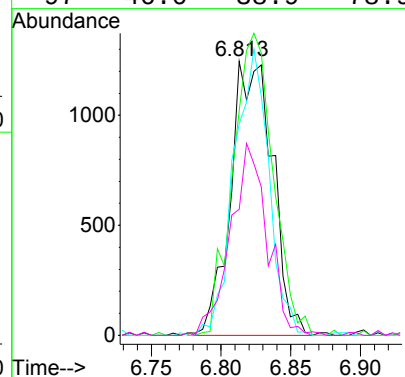
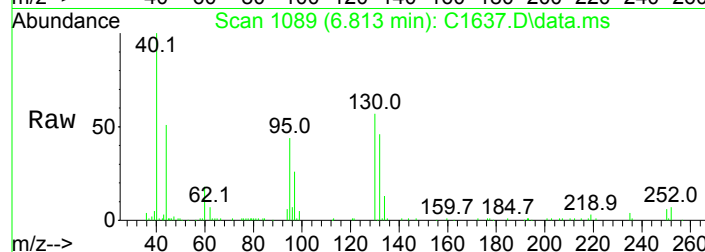
#23  
 1,1,1-Trichloroethane  
 Concen: 0.24 ppb  
 RT: 5.219 min Scan# 785  
 Delta R.T. -0.000 min  
 Lab File: C1637.D  
 Acq: 21 Jul 2022 04:30 pm

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 97    | Resp: | 2314 |
| Ion Ratio | Lower | Upper |      |
| 97        | 100   |       |      |
| 99        | 66.1  | 42.7  | 82.7 |
| 61        | 45.5  | 22.4  | 62.4 |



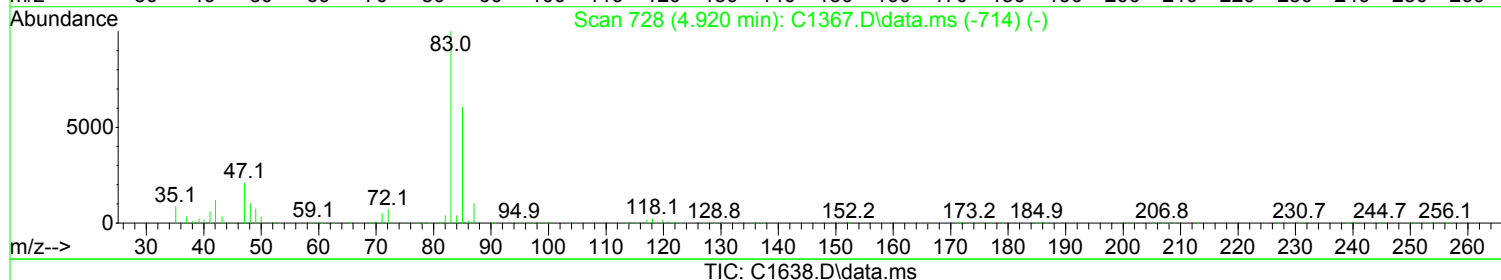
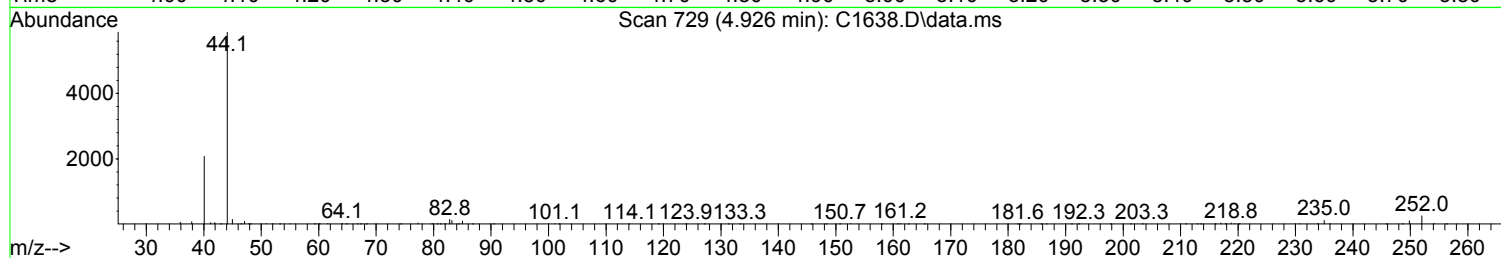
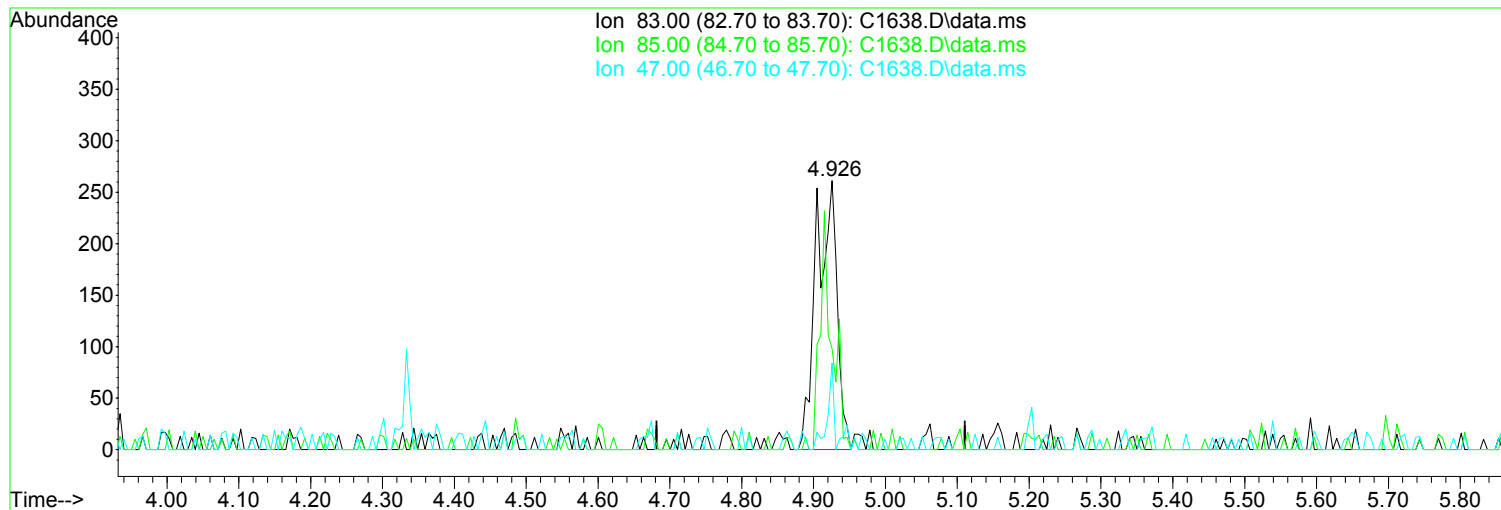
#28  
 Trichloroethene  
 Concen: 0.33 ppb m  
 RT: 6.813 min Scan# 1089  
 Delta R.T. -0.011 min  
 Lab File: C1637.D  
 Acq: 21 Jul 2022 04:30 pm

|           |       |       |       |
|-----------|-------|-------|-------|
| Tgt Ion:  | 130   | Resp: | 2614  |
| Ion Ratio | Lower | Upper |       |
| 130       | 100   |       |       |
| 132       | 82.0  | 76.6  | 116.6 |
| 95        | 77.3  | 68.6  | 108.6 |
| 97        | 46.0  | 38.9  | 78.9  |



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1638.D  
Acq On : 21 Jul 2022 04:56 pm  
Operator : K.Ruest  
Sample : R2206605-004|1.0  
Misc : EA 524 T4  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 21 17:38:45 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(22) Chloroform**

4.926min (+ 0.010) -1.00 ppb m

response 517

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 83.00 | 100.00 | 100.00 |
| 85.00 | 63.20  | 0.00#  |
| 47.00 | 21.80  | 0.00#  |
| 0.00  | 0.00   | 0.00   |

**Manual Integration:**

After

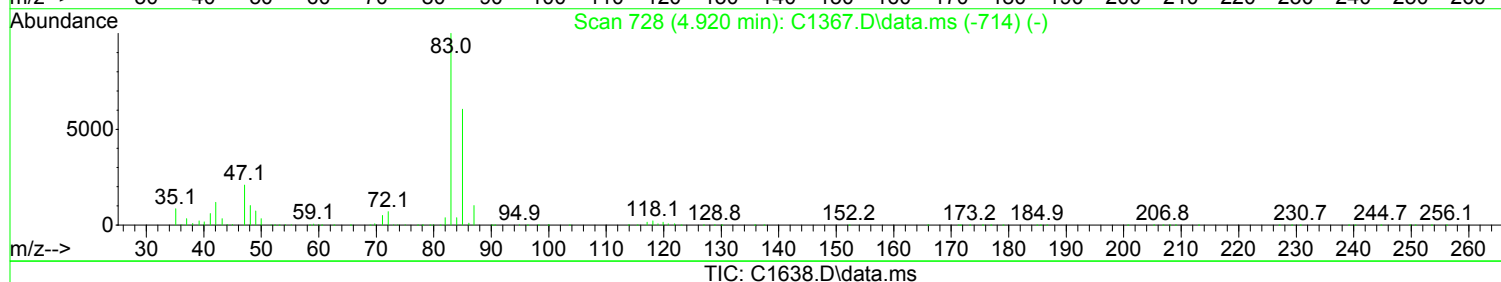
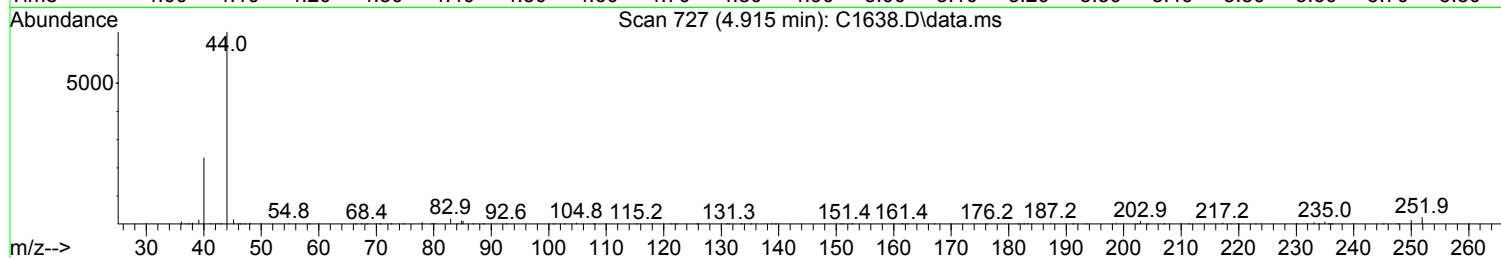
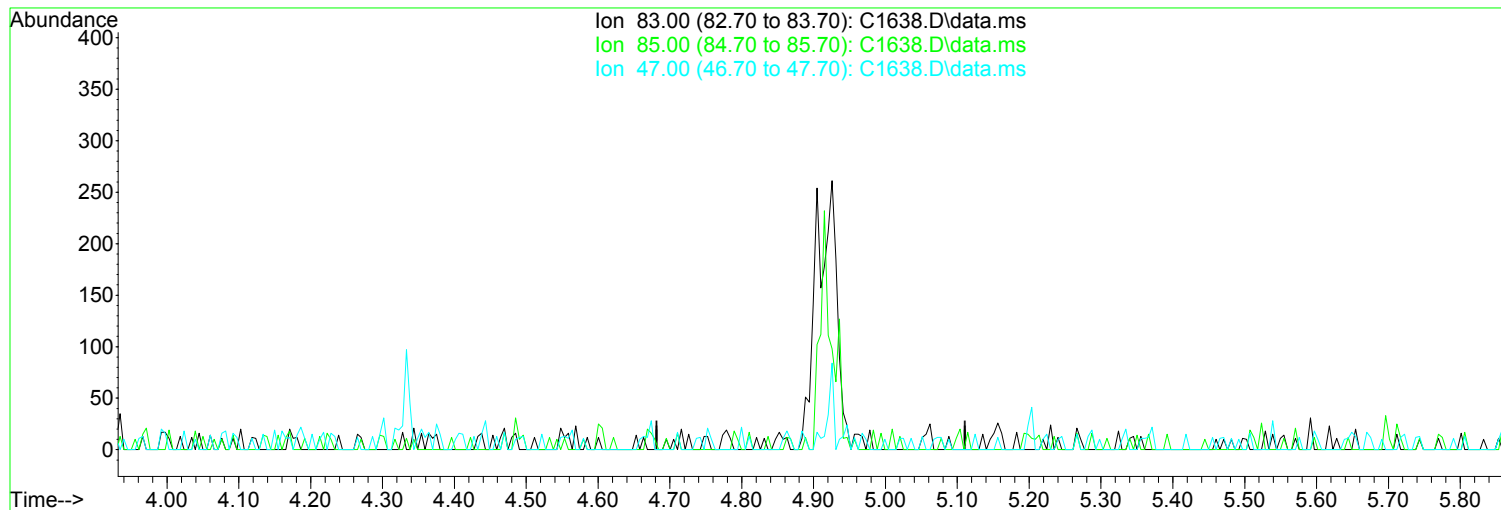
Peak not found.

07/22/22



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1638.D  
Acq On : 21 Jul 2022 04:56 pm  
Operator : K.Ruest  
Sample : R2206605-004|1.0  
Misc : EA 524 T4  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 21 17:38:45 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(22) Chloroform**

4.916min (-4.916) 0.00 ppb

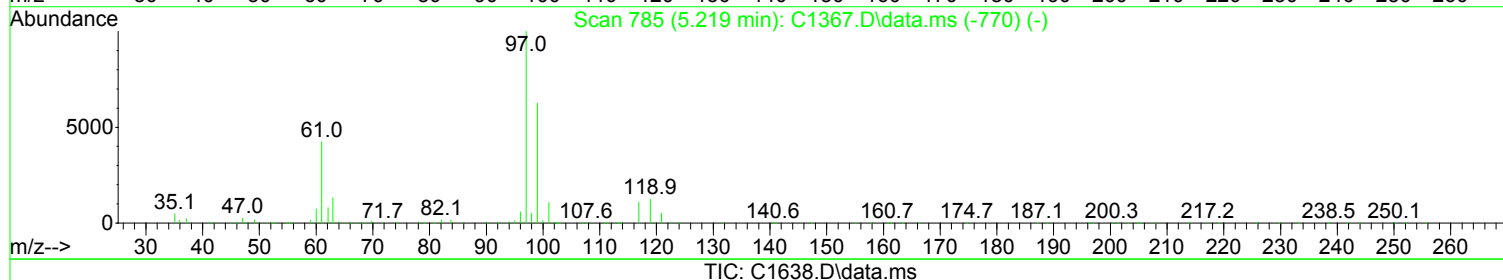
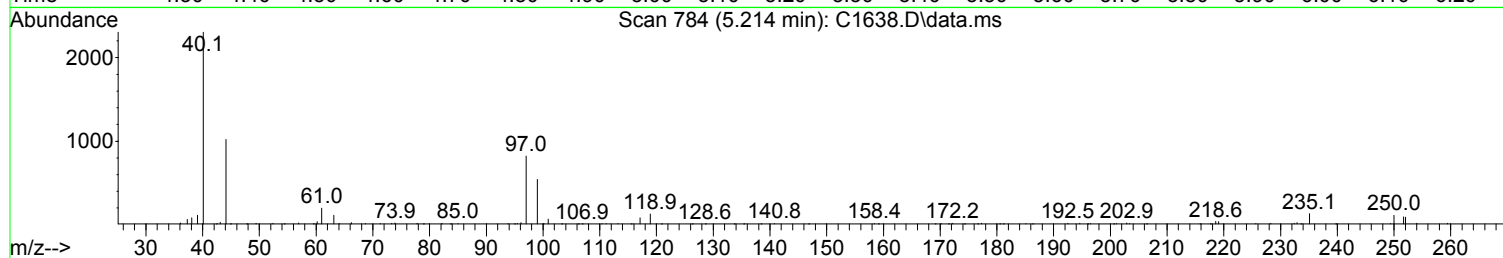
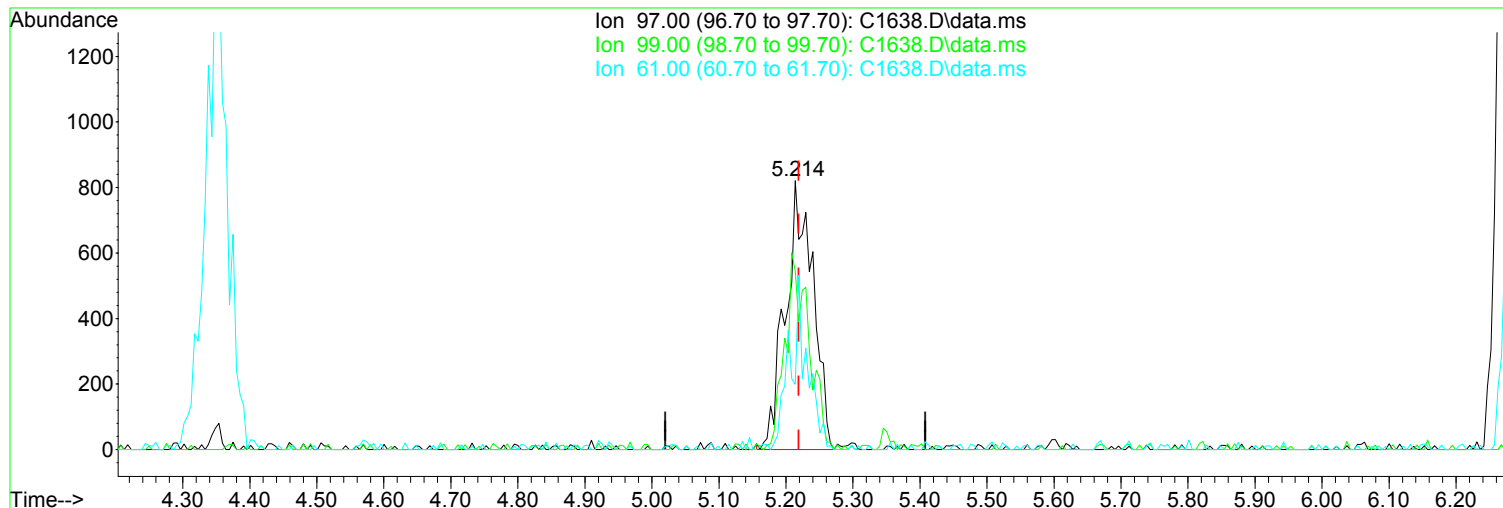
response 0

**Manual Integration:****Before****07/22/22**

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 83.00 | 100.00 | 0.00  |
| 85.00 | 63.20  | 0.00# |
| 47.00 | 21.80  | 0.00# |
| 0.00  | 0.00   | 0.00  |

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1638.D  
Acq On : 21 Jul 2022 04:56 pm  
Operator : K.Ruest  
Sample : R2206605-004|1.0  
Misc : EA 524 T4  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 21 17:38:45 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration



(23) 1,1,1-Trichloroethane

5.214min (-0.006) 0.24 ppb m

response 2321

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 97.00 | 100.00 | 100.00 |
| 99.00 | 62.70  | 66.26  |
| 61.00 | 42.40  | 24.24  |
| 0.00  | 0.00   | 0.00   |

Manual Integration:

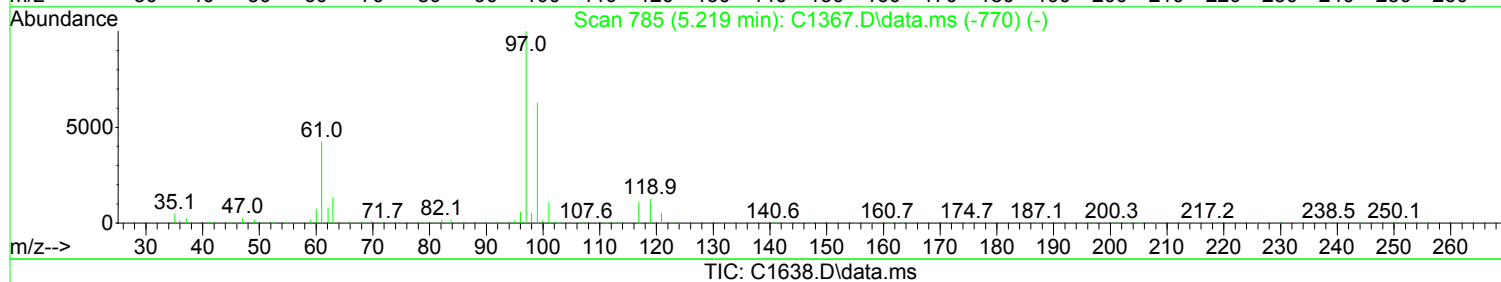
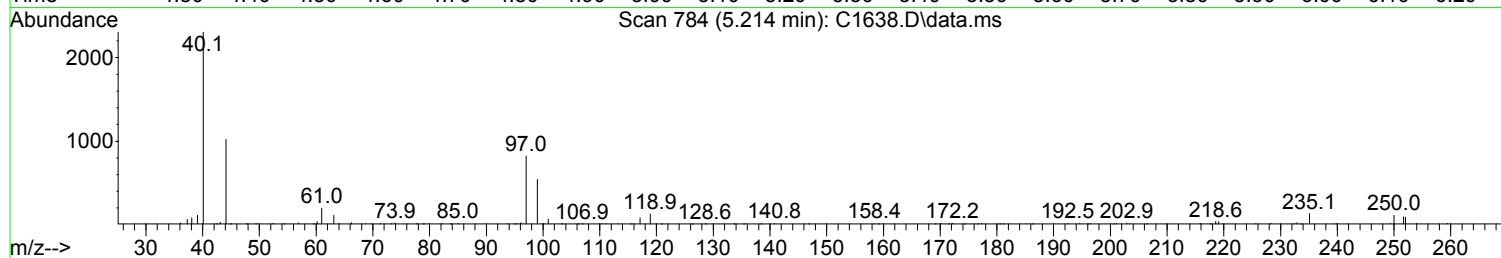
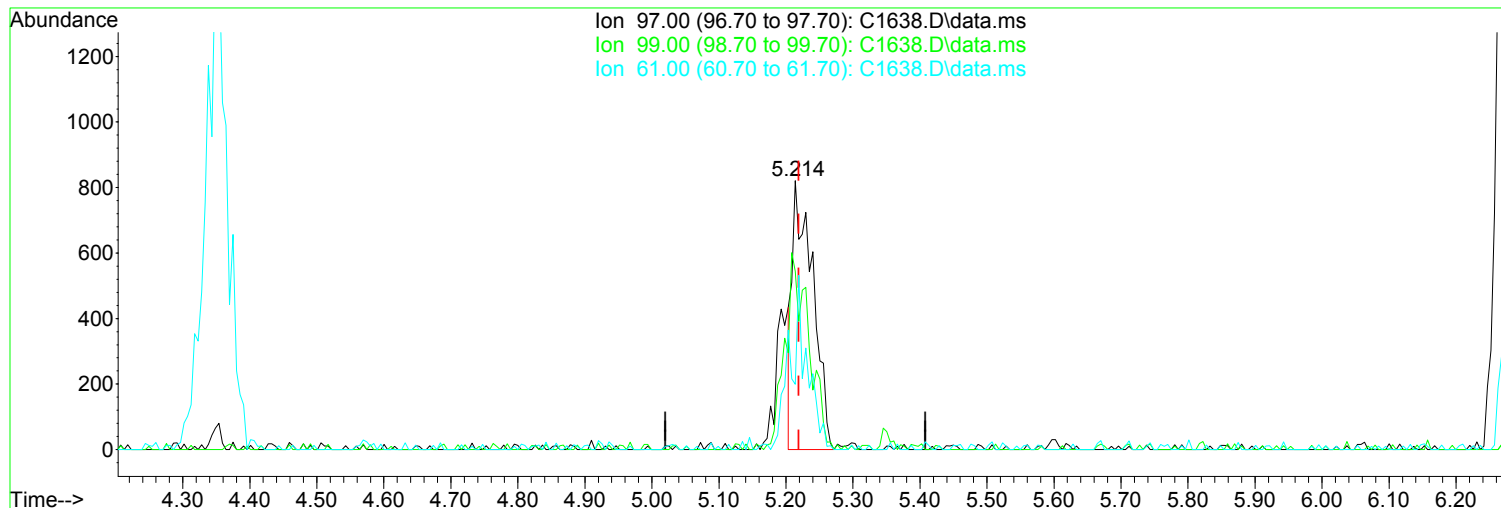
After

Split Peak.

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1638.D  
Acq On : 21 Jul 2022 04:56 pm  
Operator : K.Ruest  
Sample : R2206605-004|1.0  
Misc : EA 524 T4  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 21 17:38:45 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration



(23) 1,1,1-Trichloroethane

Manual Integration:

5.214min (-0.006) 0.18 ppb

Before

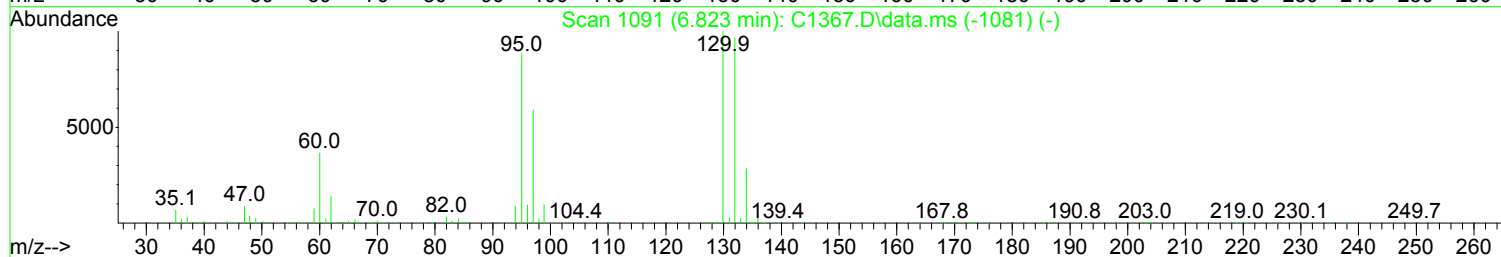
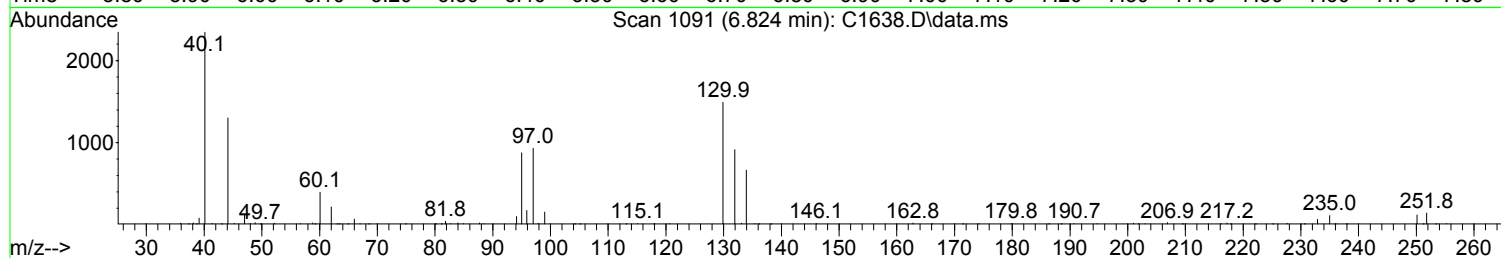
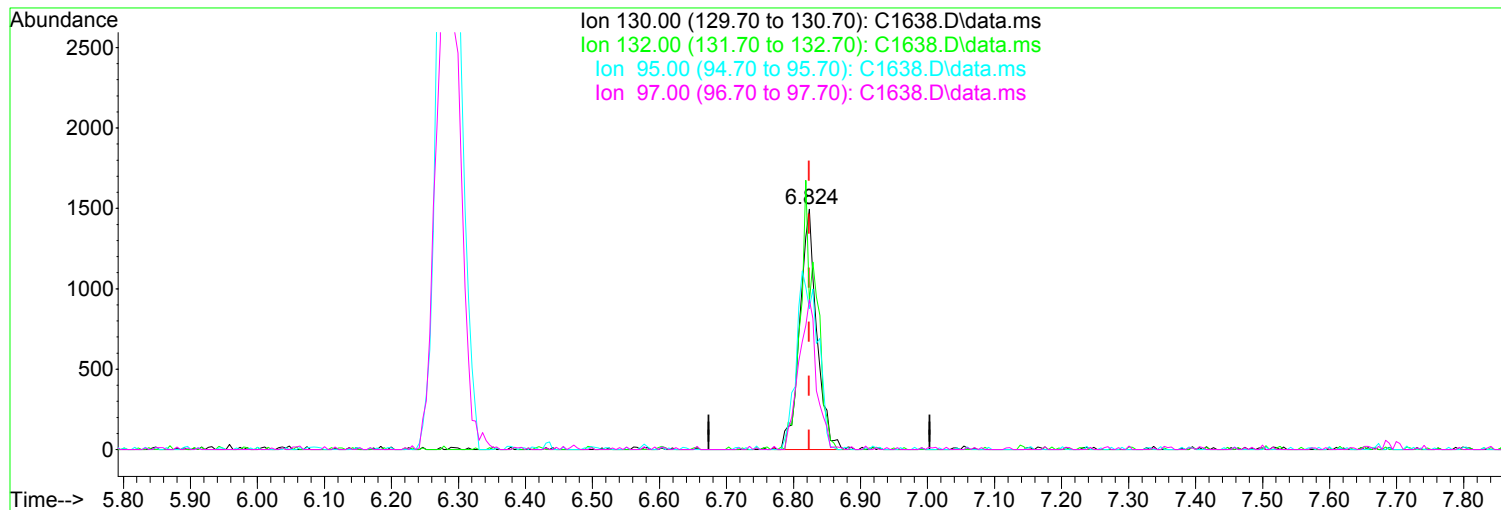
response 1734

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 97.00 | 100.00 | 100.00 |
| 99.00 | 62.70  | 66.26  |
| 61.00 | 42.40  | 24.24  |
| 0.00  | 0.00   | 0.00   |

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1638.D  
Acq On : 21 Jul 2022 04:56 pm  
Operator : K.Ruest  
Sample : R2206605-004|1.0  
Misc : EA 524 T4  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 21 17:38:45 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(28) Trichloroethene**

6.824min (+ 0.000) 0.33 ppb m

response 2636

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 130.00 | 100.00 | 100.00 |
| 132.00 | 96.60  | 61.24# |
| 95.00  | 88.60  | 58.70# |
| 97.00  | 58.90  | 62.38  |

**Manual Integration:**

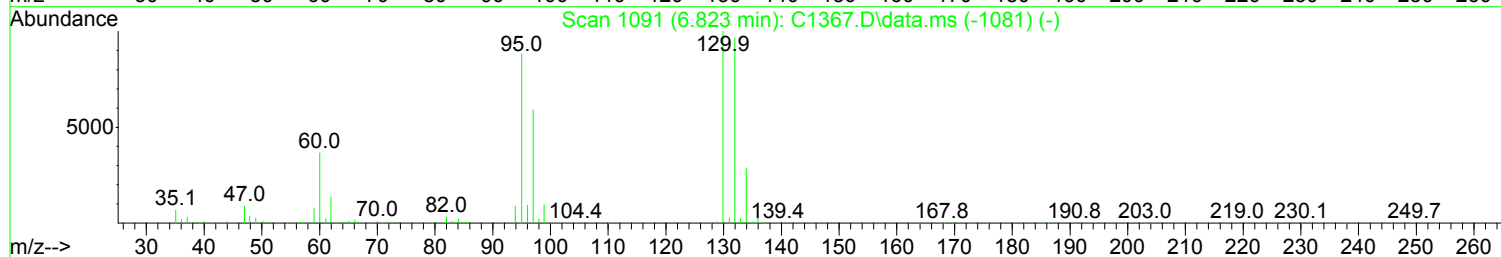
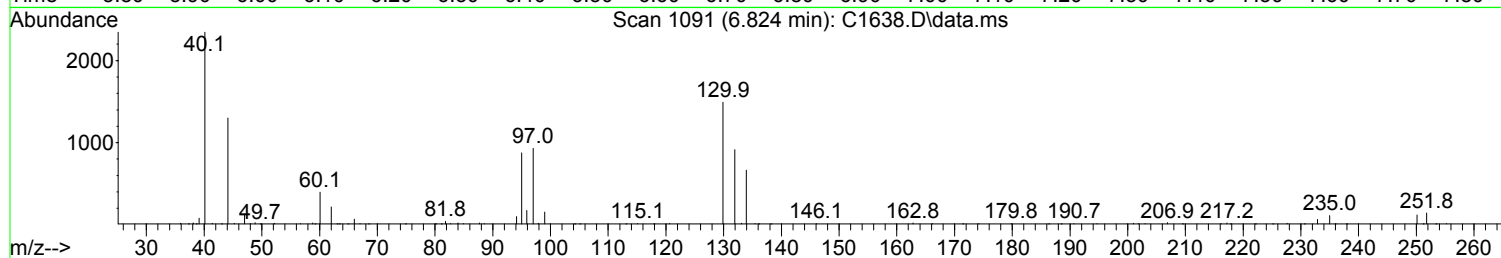
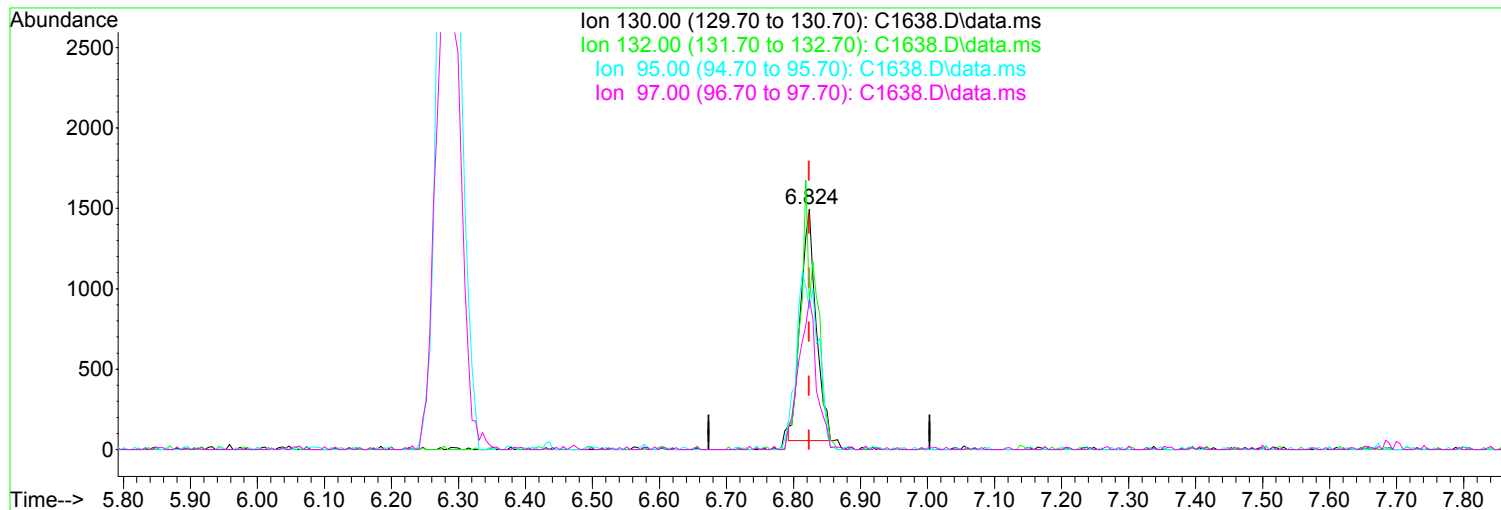
After

Poor integration.

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1638.D  
Acq On : 21 Jul 2022 04:56 pm  
Operator : K.Ruest  
Sample : R2206605-004|1.0  
Misc : EA 524 T4  
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 21 17:38:45 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration



TIC: C1638.D\data.ms

**(28) Trichloroethene**

6.824min (+ 0.000) 0.29 ppb

response 2304

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 130.00 | 100.00 | 100.00 |
| 132.00 | 96.60  | 61.24# |
| 95.00  | 88.60  | 58.70# |
| 97.00  | 58.90  | 62.38  |

**Manual Integration:**

Before

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1638.D  
 Acq On : 21 Jul 2022 04:56 pm  
 Operator : K.Ruest  
 Sample : R2206605-004|1.0  
 Misc : EA 524 T4  
 ALS Vial : 10 Sample Multiplier: 1

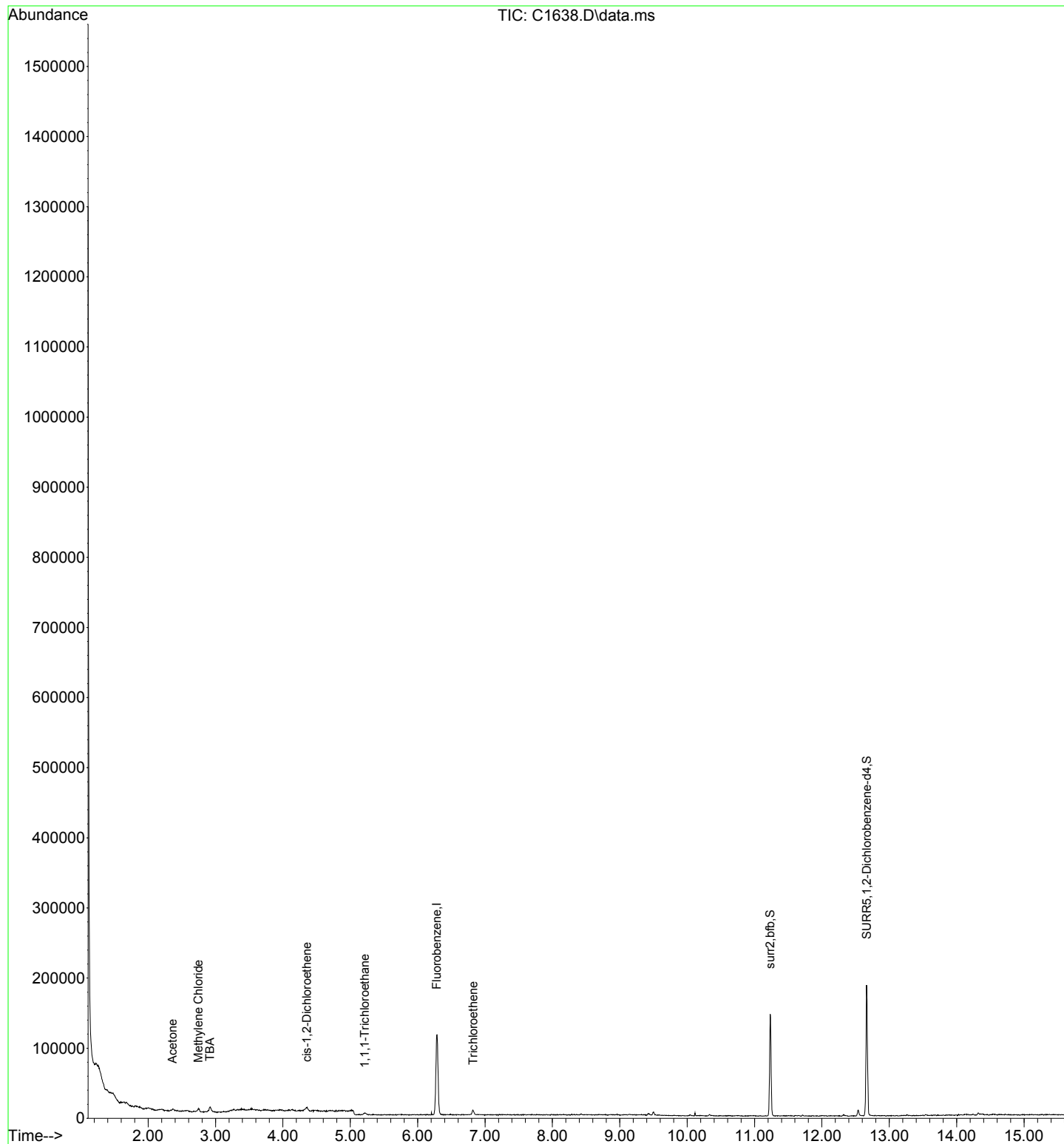
Quant Time: Jul 21 17:38:45 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

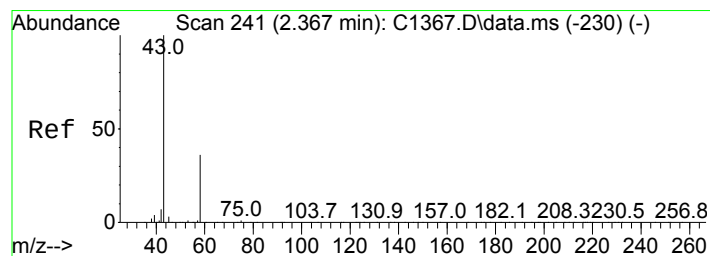
| Compound                      | R.T.   | QIon           | Response | Conc      | Units  | Dev(Min)  |
|-------------------------------|--------|----------------|----------|-----------|--------|-----------|
| -----                         |        |                |          |           |        |           |
| Internal Standards            |        |                |          |           |        |           |
| 1) Fluorobenzene              | 6.284  | 96             | 129557   | 5.00      | ppb    | 0.00      |
| System Monitoring Compounds   |        |                |          |           |        |           |
| 37) surr2,bfb                 | 11.233 | 95             | 43051    | 4.63      | ppb    | 0.00      |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =         | 92.60% |           |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 51792    | 4.71      | ppb    | 0.00      |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =         | 94.20% |           |
| Target Compounds              |        |                |          |           |        |           |
| 11) Acetone                   | 2.362  | 43             | 1704     | 0.678     | ppb    | Qvalue 84 |
| 12) Methylene Chloride        | 2.744  | 84             | 1586     | 0.202     | ppb    | # 81      |
| 13) TBA                       | 2.918  | 59             | 7842     | 8.568     | ppb    | 99        |
| 18) cis-1,2-Dichloroethene    | 4.354  | 96             | 3358     | 0.415     | ppb    | # 84      |
| 22) Chloroform                | 4.926  | 83             | 517m     | Below Cal |        |           |
| 23) 1,1,1-Trichloroethane     | 5.214  | 97             | 2321m    | 0.244     | ppb    |           |
| 28) Trichloroethene           | 6.824  | 130            | 2636m    | 0.335     | ppb    |           |
| -----                         |        |                |          |           |        |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1638.D  
Acq On : 21 Jul 2022 04:56 pm  
Operator : K.Ruest  
Sample : R2206605-004|1.0  
Misc : EA 524 T4  
ALS Vial : 10 Sample Multiplier: 1

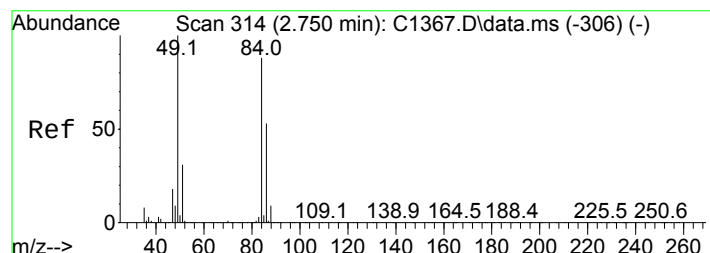
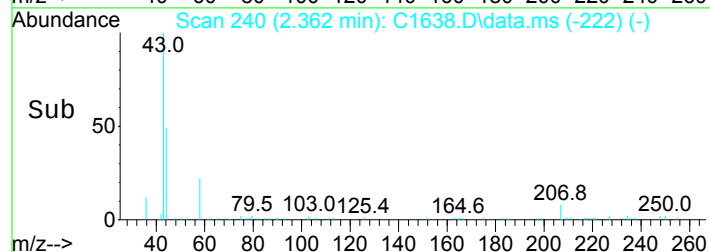
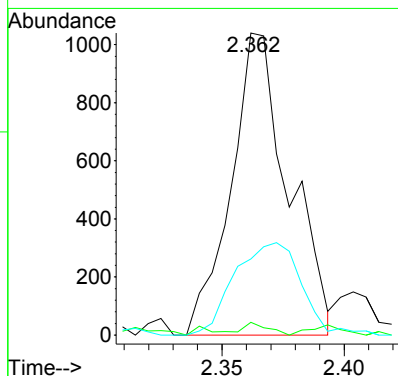
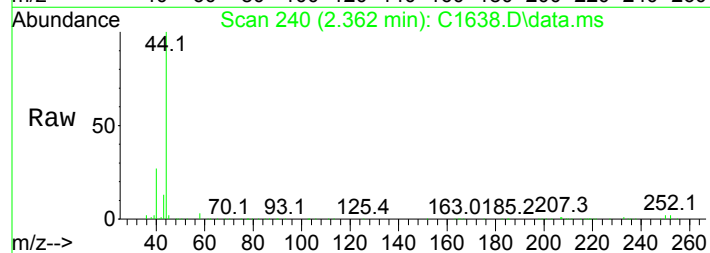
Quant Time: Jul 21 17:38:45 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration





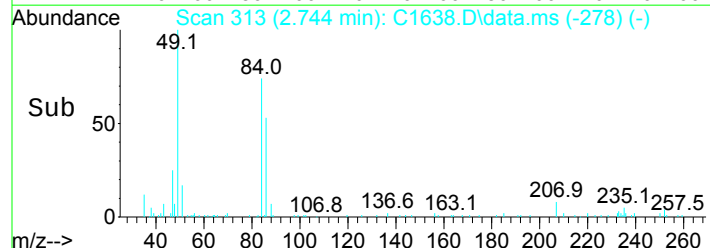
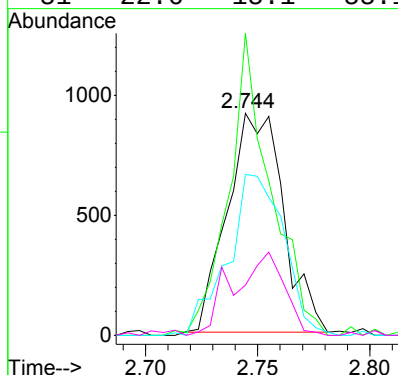
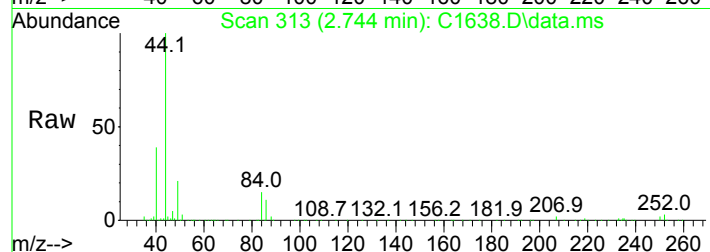
#11  
 Acetone  
 Concen: 0.68 ppb  
 RT: 2.362 min Scan# 240  
 Delta R.T. -0.003 min  
 Lab File: C1638.D  
 Acq: 21 Jul 2022 04:56 pm

|           |       |       |      |
|-----------|-------|-------|------|
| Tgt Ion:  | 43    | Resp: | 1704 |
| Ion Ratio | Lower | Upper |      |
| 43        | 100   |       |      |
| 42        | 4.2   | 0.0   | 27.9 |
| 58        | 25.2  | 15.4  | 55.4 |

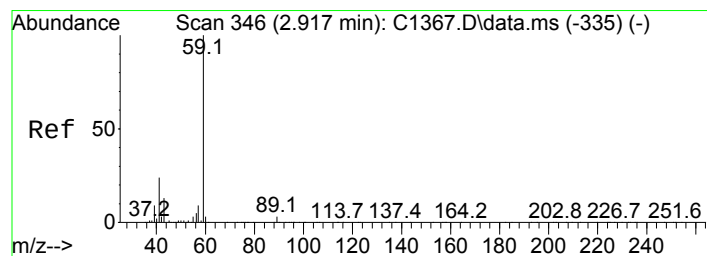


#12  
 Methylene Chloride  
 Concen: 0.20 ppb  
 RT: 2.744 min Scan# 313  
 Delta R.T. -0.005 min  
 Lab File: C1638.D  
 Acq: 21 Jul 2022 04:56 pm

|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 84    | Resp: | 1586   |
| Ion Ratio | Lower | Upper |        |
| 84        | 100   |       |        |
| 49        | 136.0 | 93.6  | 133.6# |
| 86        | 72.4  | 40.4  | 80.4   |
| 51        | 22.6  | 15.1  | 55.1   |

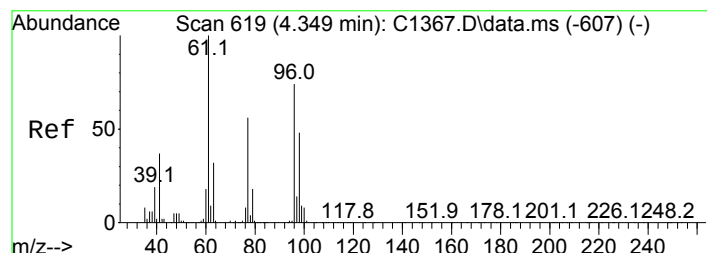
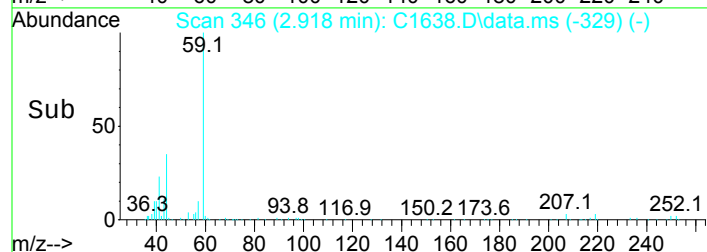
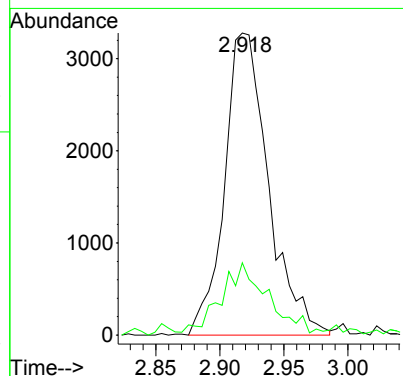
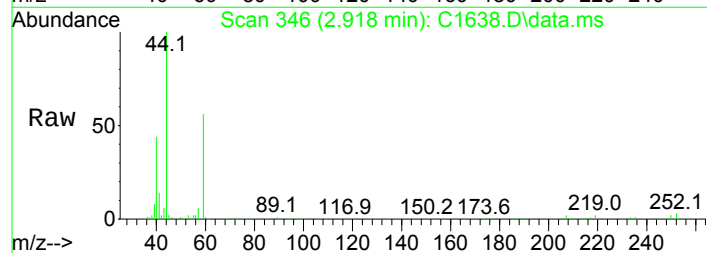






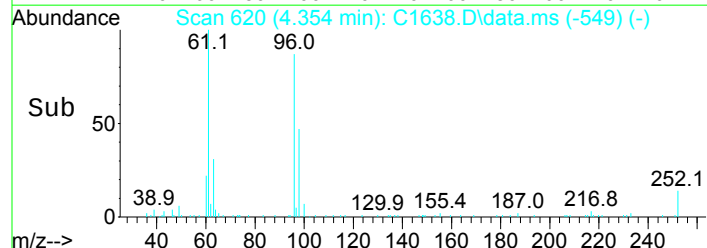
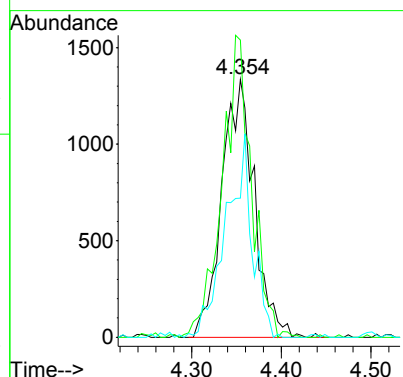
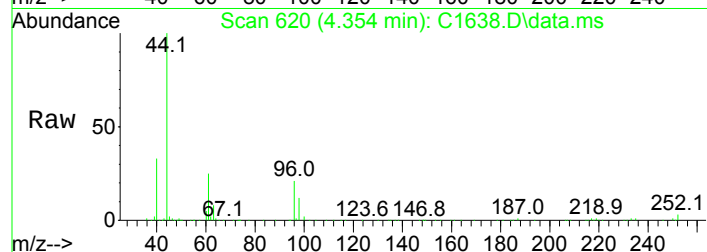
#13  
 TBA  
 Concen: 8.57 ppb  
 RT: 2.918 min Scan# 346  
 Delta R.T. 0.004 min  
 Lab File: C1638.D  
 Acq: 21 Jul 2022 04:56 pm

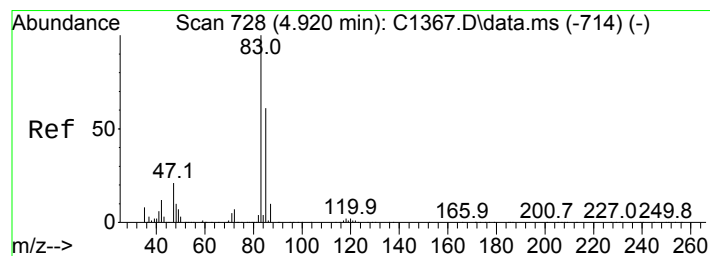
Tgt Ion: 59 Resp: 7842  
 Ion Ratio Lower Upper  
 59 100  
 41 24.0 4.3 44.3



#18  
 cis-1,2-Dichloroethene  
 Concen: 0.42 ppb  
 RT: 4.354 min Scan# 620  
 Delta R.T. 0.003 min  
 Lab File: C1638.D  
 Acq: 21 Jul 2022 04:56 pm

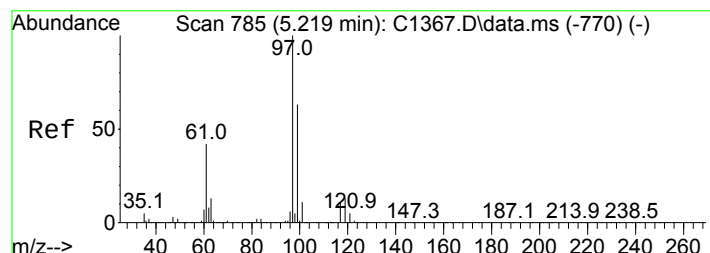
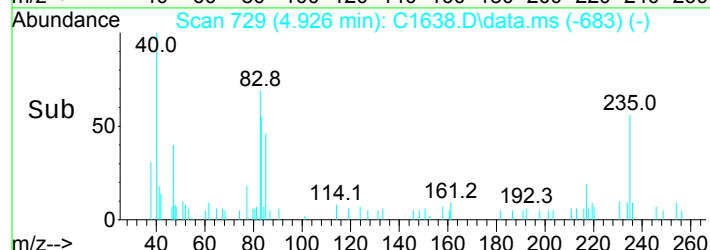
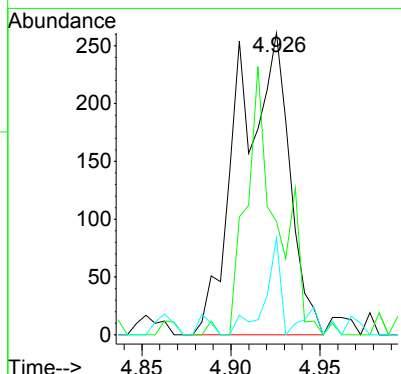
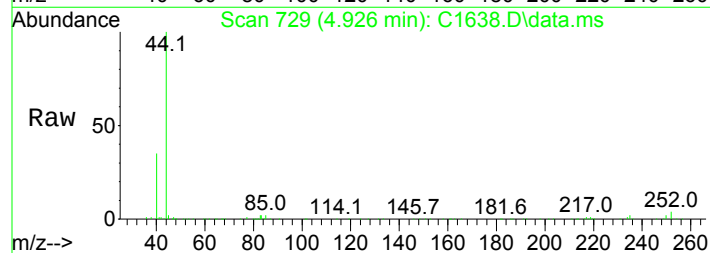
Tgt Ion: 96 Resp: 3358  
 Ion Ratio Lower Upper  
 96 100  
 61 115.3 115.8 155.8#  
 98 54.0 44.5 84.5





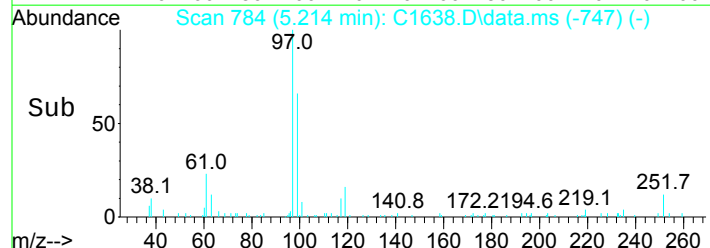
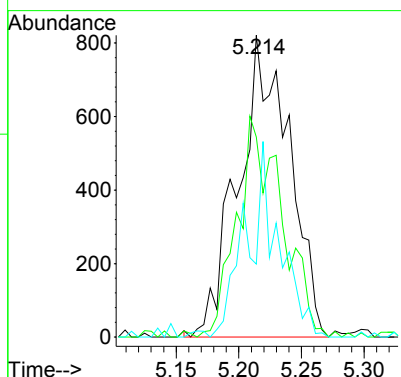
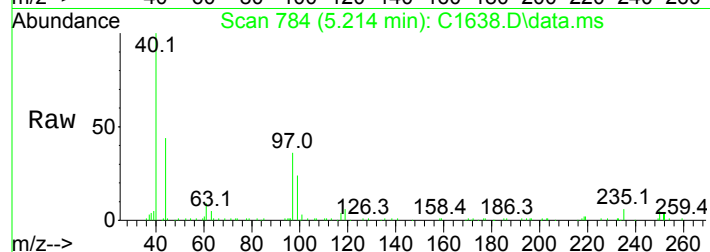
#22  
 Chloroform  
 Concen: Below Cal m  
 RT: 4.926 min Scan# 729  
 Delta R.T. 0.010 min  
 Lab File: C1638.D  
 Acq: 21 Jul 2022 04:56 pm

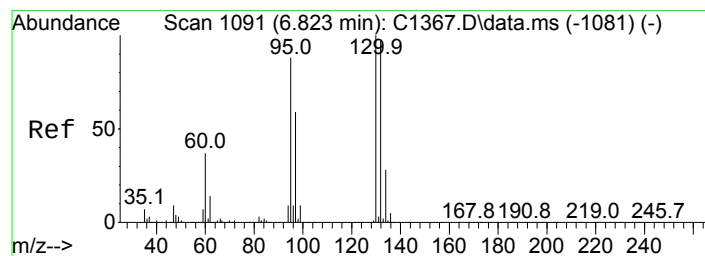
Tgt Ion: 83 Resp: 517  
 Ion Ratio Lower Upper  
 83 100  
 85 0.0 43.2 83.2#  
 47 0.0 1.8 41.8#



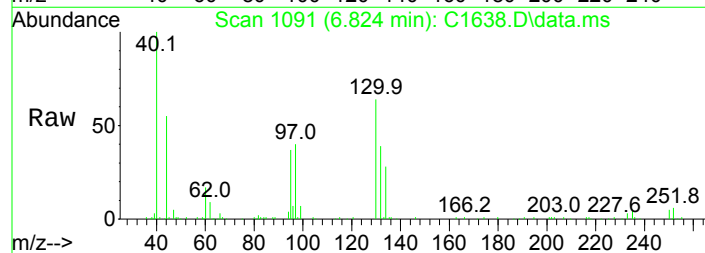
#23  
 1,1,1-Trichloroethane  
 Concen: 0.24 ppb m  
 RT: 5.214 min Scan# 784  
 Delta R.T. -0.006 min  
 Lab File: C1638.D  
 Acq: 21 Jul 2022 04:56 pm

Tgt Ion: 97 Resp: 2321  
 Ion Ratio Lower Upper  
 97 100  
 99 66.3 42.7 82.7  
 61 24.2 22.4 62.4

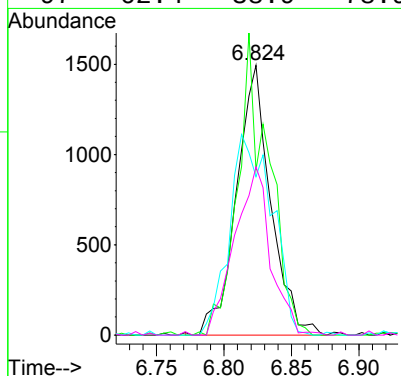
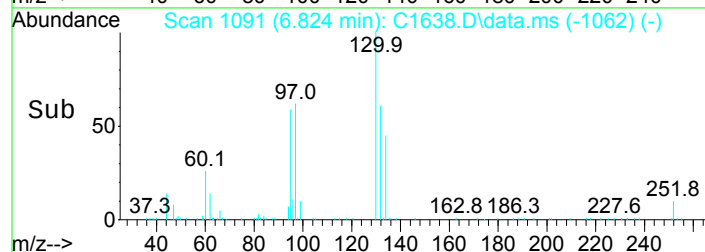




#28  
 Trichloroethene  
 Concen: 0.33 ppb m  
 RT: 6.824 min Scan# 1091  
 Delta R.T. 0.000 min  
 Lab File: C1638.D  
 Acq: 21 Jul 2022 04:56 pm



|           |       |       |        |
|-----------|-------|-------|--------|
| Tgt Ion:  | 130   | Resp: | 2636   |
| Ion Ratio | Lower | Upper |        |
| 130       | 100   |       |        |
| 132       | 61.2  | 76.6  | 116.6# |
| 95        | 58.7  | 68.6  | 108.6# |
| 97        | 62.4  | 38.9  | 78.9   |



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1635.D  
Acq On : 21 Jul 2022 03:39 pm  
Operator : K.Ruest  
Sample : R2206605-005|1.0  
Misc : EA 524 T4  
ALS Vial : 7 Sample Multiplier: 1

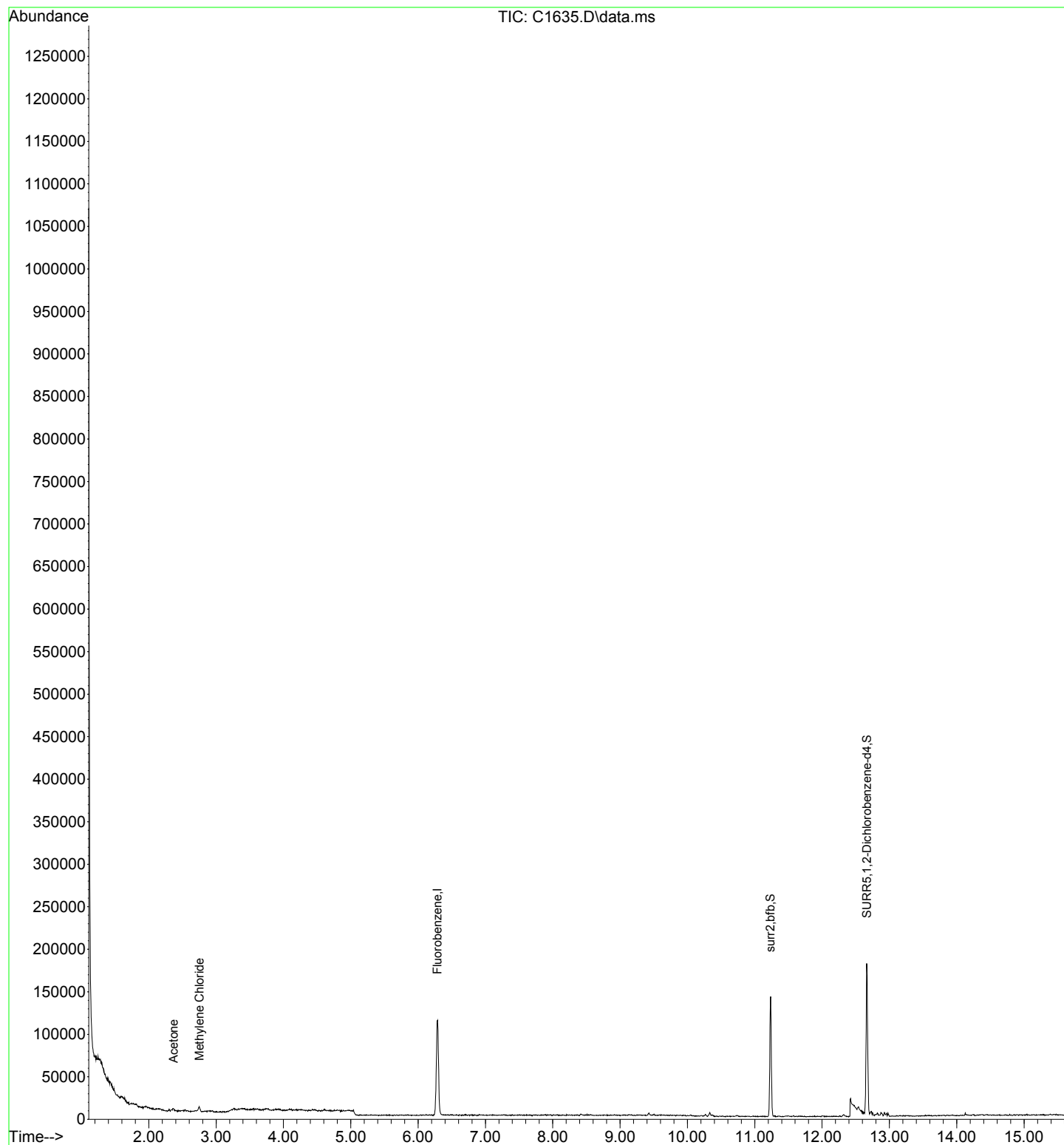
Quant Time: Jul 21 16:21:23 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

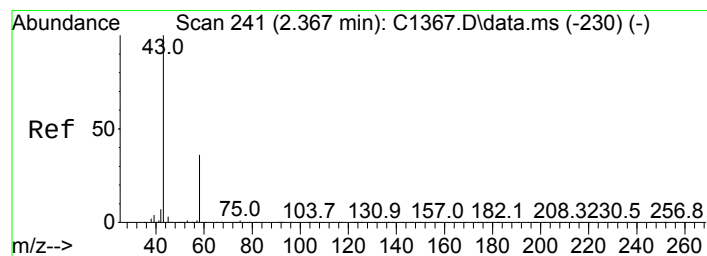
| Compound                      | R.T.   | QIon           | Response | Conc  | Units  | Dev(Min)  |
|-------------------------------|--------|----------------|----------|-------|--------|-----------|
| -----                         |        |                |          |       |        |           |
| Internal Standards            |        |                |          |       |        |           |
| 1) Fluorobenzene              | 6.289  | 96             | 128418   | 5.00  | ppb    | 0.00      |
| System Monitoring Compounds   |        |                |          |       |        |           |
| 37) surr2,bfb                 | 11.233 | 95             | 42430    | 4.61  | ppb    | 0.00      |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 92.20% |           |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 50298    | 4.61  | ppb    | 0.00      |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 92.20% |           |
| Target Compounds              |        |                |          |       |        |           |
| 11) Acetone                   | 2.367  | 43             | 1445     | 0.580 | ppb    | Qvalue 78 |
| 12) Methylene Chloride        | 2.750  | 84             | 2399     | 0.308 | ppb    | # 80      |
| -----                         |        |                |          |       |        |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1635.D  
Acq On : 21 Jul 2022 03:39 pm  
Operator : K.Ruest  
Sample : R2206605-005|1.0  
Misc : EA 524 T4  
ALS Vial : 7 Sample Multiplier: 1

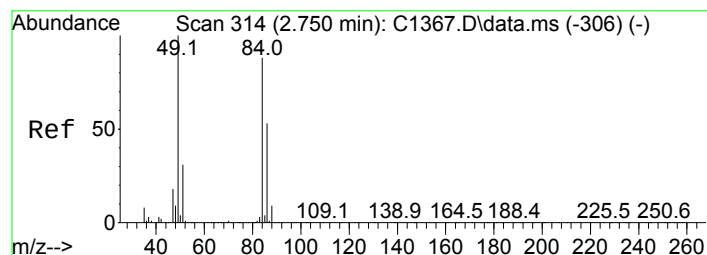
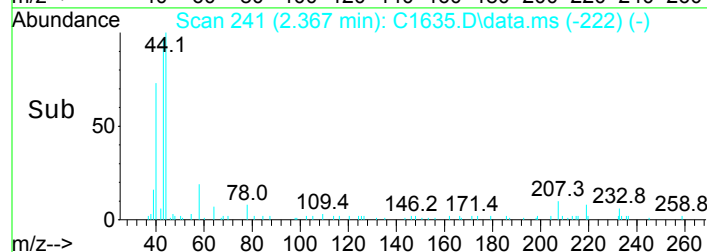
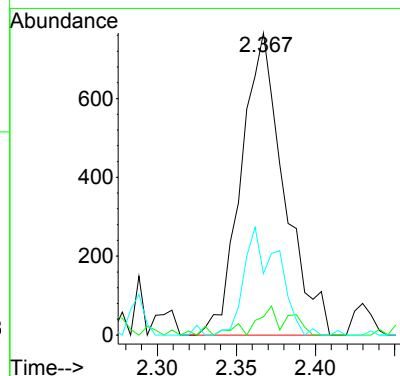
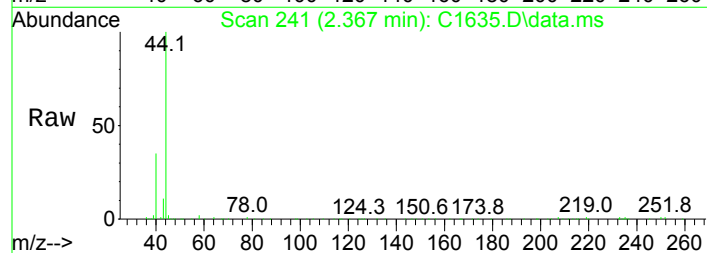
Quant Time: Jul 21 16:21:23 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration





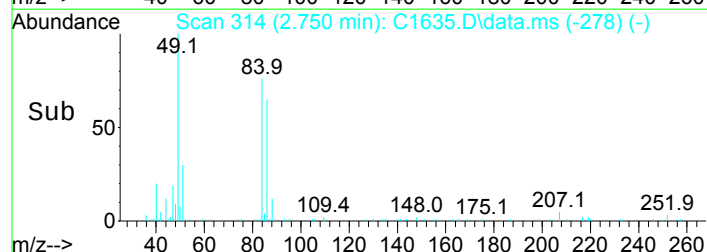
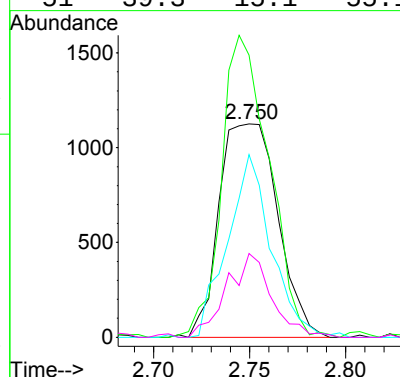
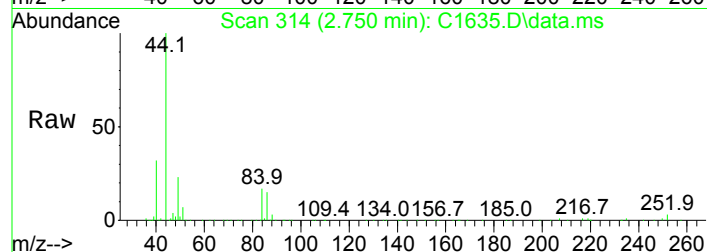
#11  
 Acetone  
 Concen: 0.58 ppb  
 RT: 2.367 min Scan# 241  
 Delta R.T. 0.003 min  
 Lab File: C1635.D  
 Acq: 21 Jul 2022 03:39 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 42      | 6.0   | 0.0   | 27.9  |
| 58      | 20.4  | 15.4  | 55.4  |



#12  
 Methylene Chloride  
 Concen: 0.31 ppb  
 RT: 2.750 min Scan# 314  
 Delta R.T. -0.000 min  
 Lab File: C1635.D  
 Acq: 21 Jul 2022 03:39 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 84      | 100   |       |       |
| 49      | 132.2 | 93.6  | 133.6 |
| 86      | 85.6  | 40.4  | 80.4# |
| 51      | 39.3  | 15.1  | 55.1  |



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1629.D  
Acq On : 21 Jul 2022 01:06 pm  
Operator : K.Ruest  
Sample : MBLK-FP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

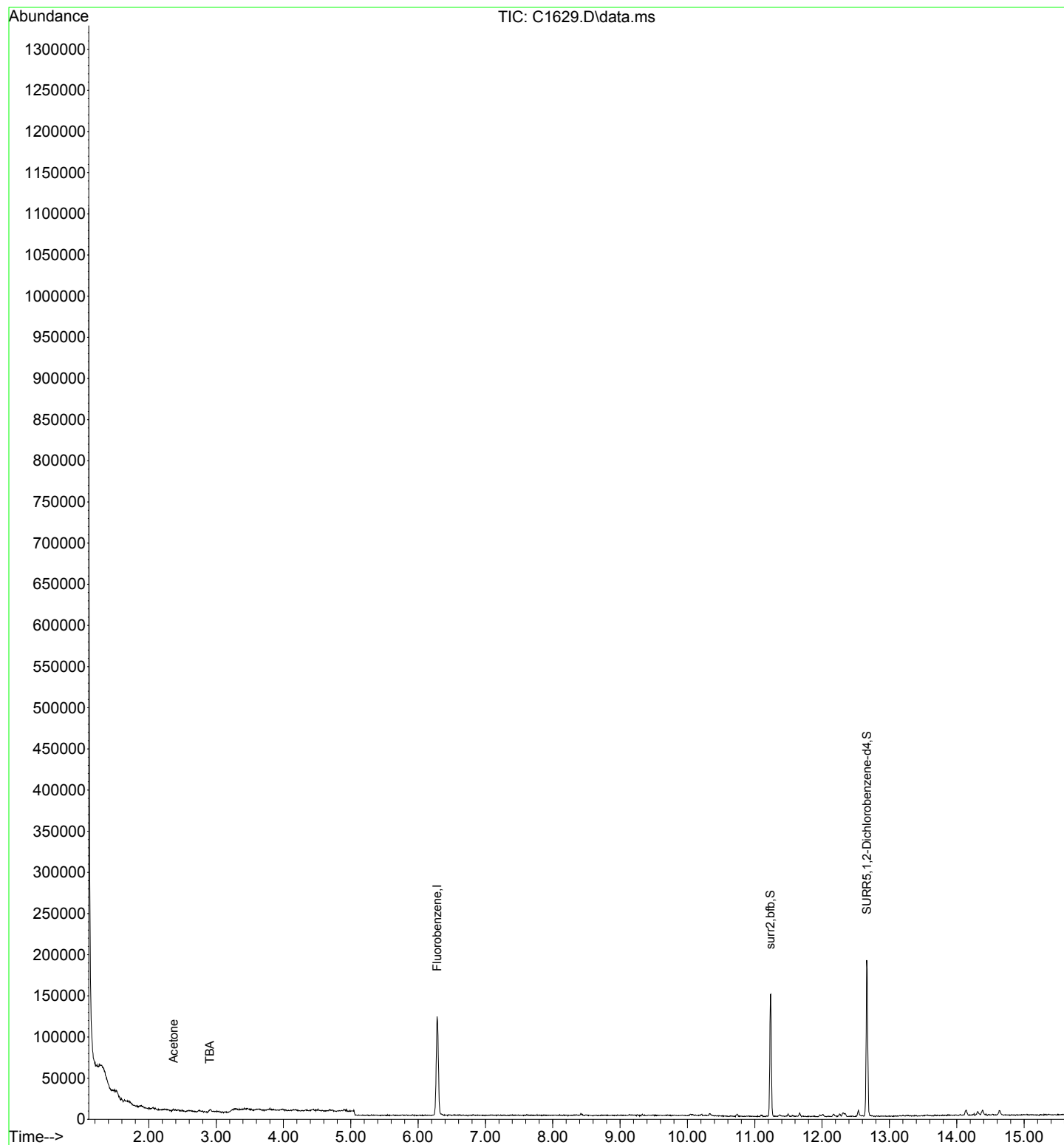
Quant Time: Jul 21 13:28:17 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc  | Units  | Dev(Min)  |
|-------------------------------|--------|----------------|----------|-------|--------|-----------|
| -----                         |        |                |          |       |        |           |
| Internal Standards            |        |                |          |       |        |           |
| 1) Fluorobenzene              | 6.284  | 96             | 136714   | 5.00  | ppb    | 0.00      |
| System Monitoring Compounds   |        |                |          |       |        |           |
| 37) surr2,bfb                 | 11.233 | 95             | 46492    | 4.74  | ppb    | 0.00      |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 94.80% |           |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 53692    | 4.62  | ppb    | 0.00      |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 92.40% |           |
| Target Compounds              |        |                |          |       |        |           |
| 11) Acetone                   | 2.367  | 43             | 2612     | 0.985 | ppb    | Qvalue 94 |
| 13) TBA                       | 2.907  | 59             | 2831     | 2.931 | ppb    | 78        |
| -----                         |        |                |          |       |        |           |

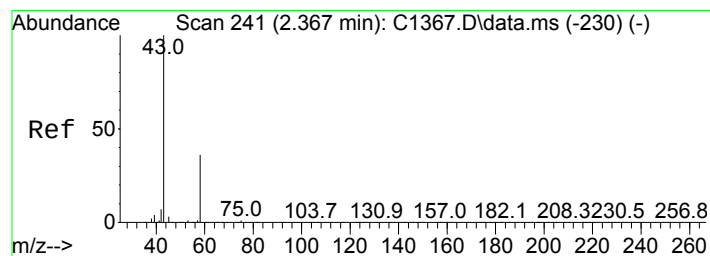
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSV0A16\Data\072122\  
Data File : C1629.D  
Acq On : 21 Jul 2022 01:06 pm  
Operator : K.Ruest  
Sample : MBLK-FP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 21 13:28:17 2022  
Quant Method : I:\ACQUDATA\MSV0A16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

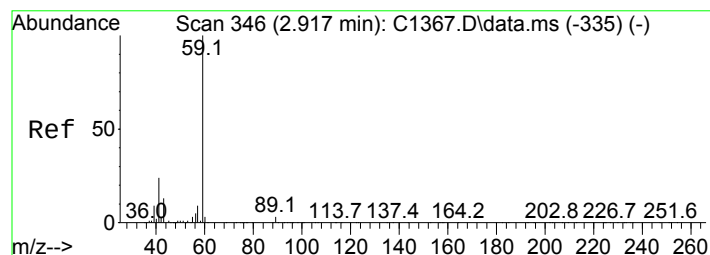
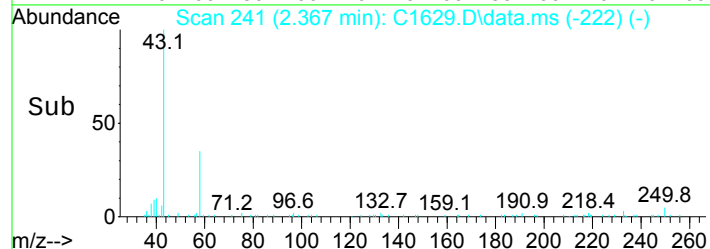
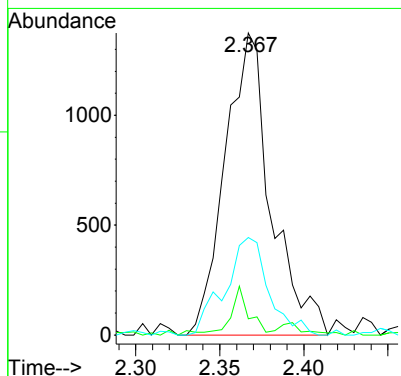
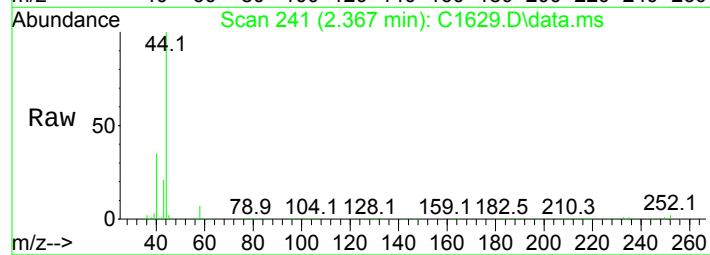






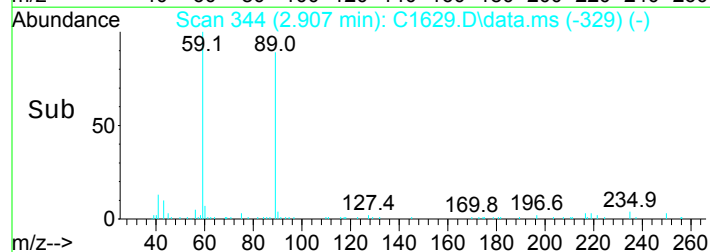
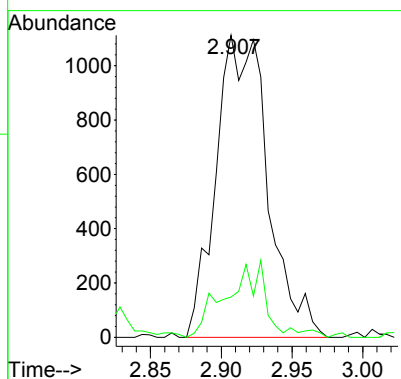
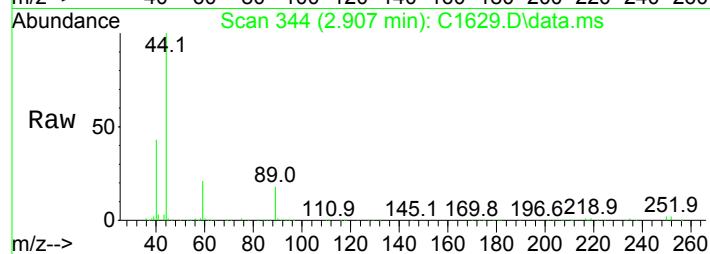
#11  
 Acetone  
 Concen: 0.98 ppb  
 RT: 2.367 min Scan# 241  
 Delta R.T. 0.003 min  
 Lab File: C1629.D  
 Acq: 21 Jul 2022 01:06 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 43      | 100   |       |       |
| 42      | 5.4   | 0.0   | 27.9  |
| 58      | 32.3  | 15.4  | 55.4  |



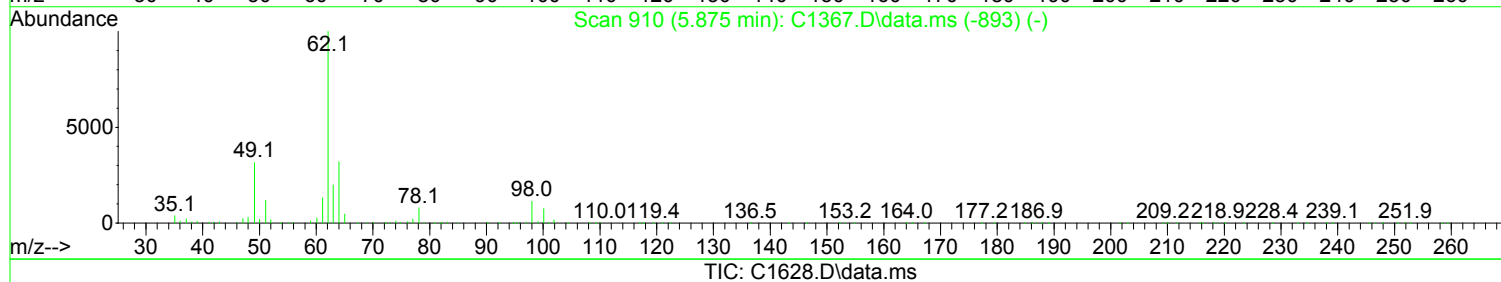
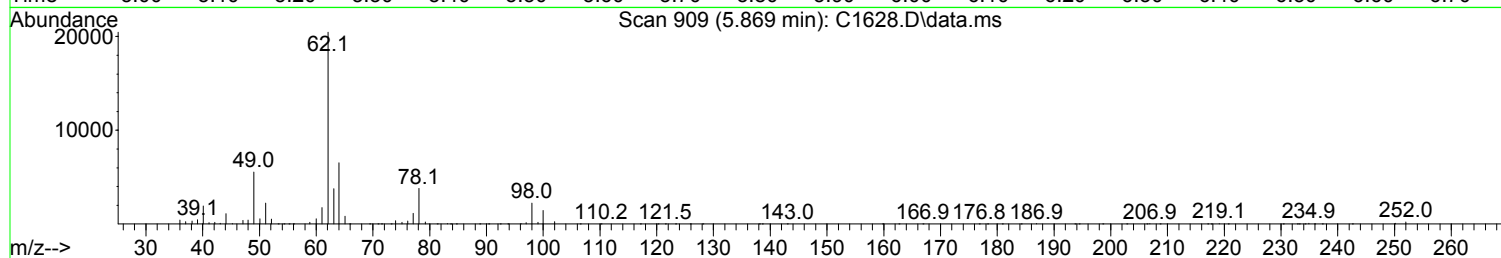
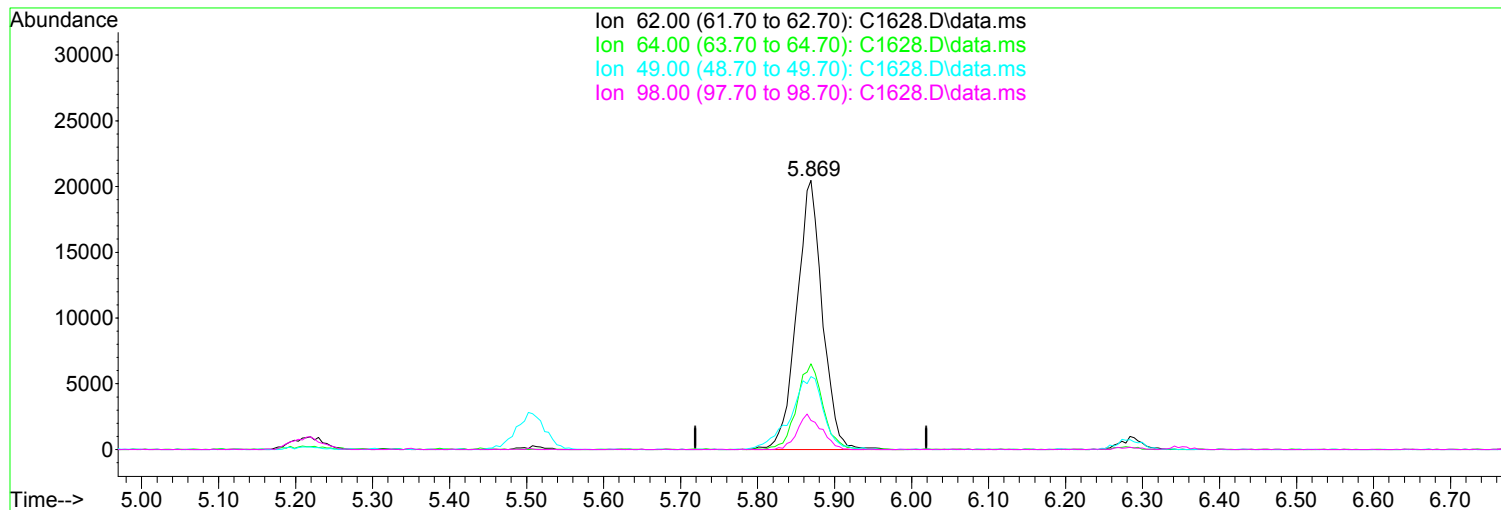
#13  
 TBA  
 Concen: 2.93 ppb  
 RT: 2.907 min Scan# 344  
 Delta R.T. -0.007 min  
 Lab File: C1629.D  
 Acq: 21 Jul 2022 01:06 pm

| Tgt Ion | Ratio | Lower | Upper |
|---------|-------|-------|-------|
| 59      | 100   |       |       |
| 41      | 13.4  | 4.3   | 44.3  |



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1628.D  
Acq On : 21 Jul 2022 12:29 pm  
Operator : K.Ruest  
Sample : LCS-FP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 21 12:45:57 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration



(27) 1,2-Dichloroethane

5.869min (-0.000) 4.63 ppb m

response 47333

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 62.00 | 100.00 | 100.00 |
| 64.00 | 32.50  | 31.88  |
| 49.00 | 31.60  | 27.13  |
| 98.00 | 11.40  | 10.85  |

Manual Integration:

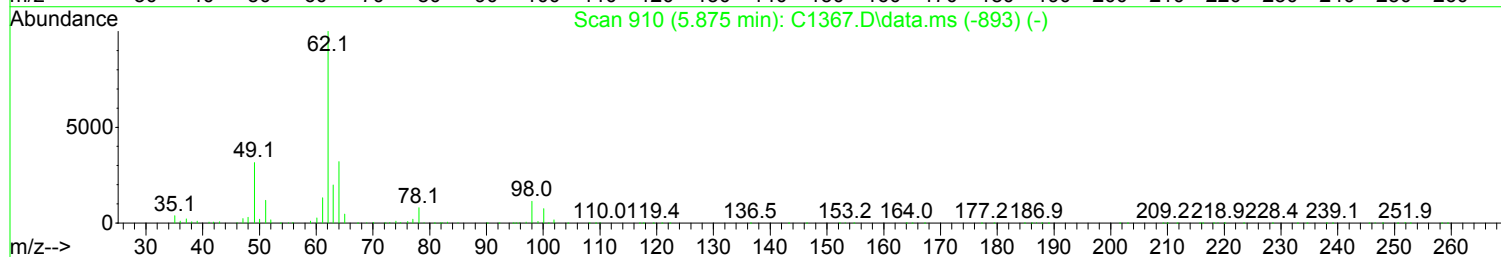
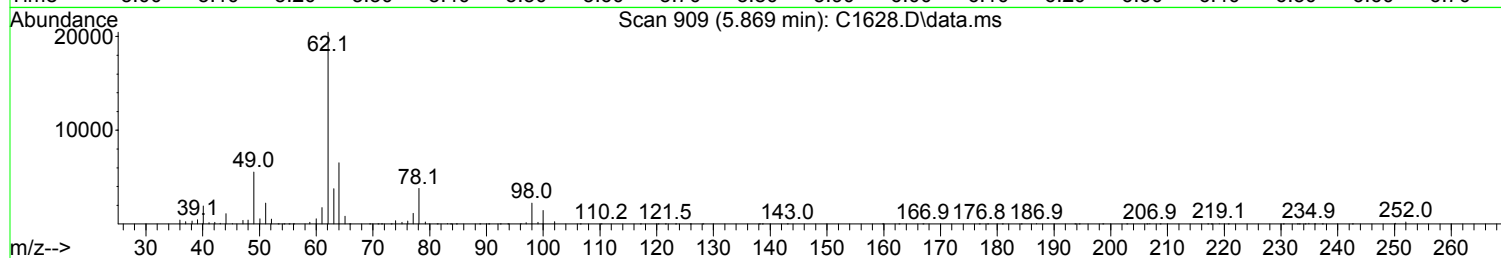
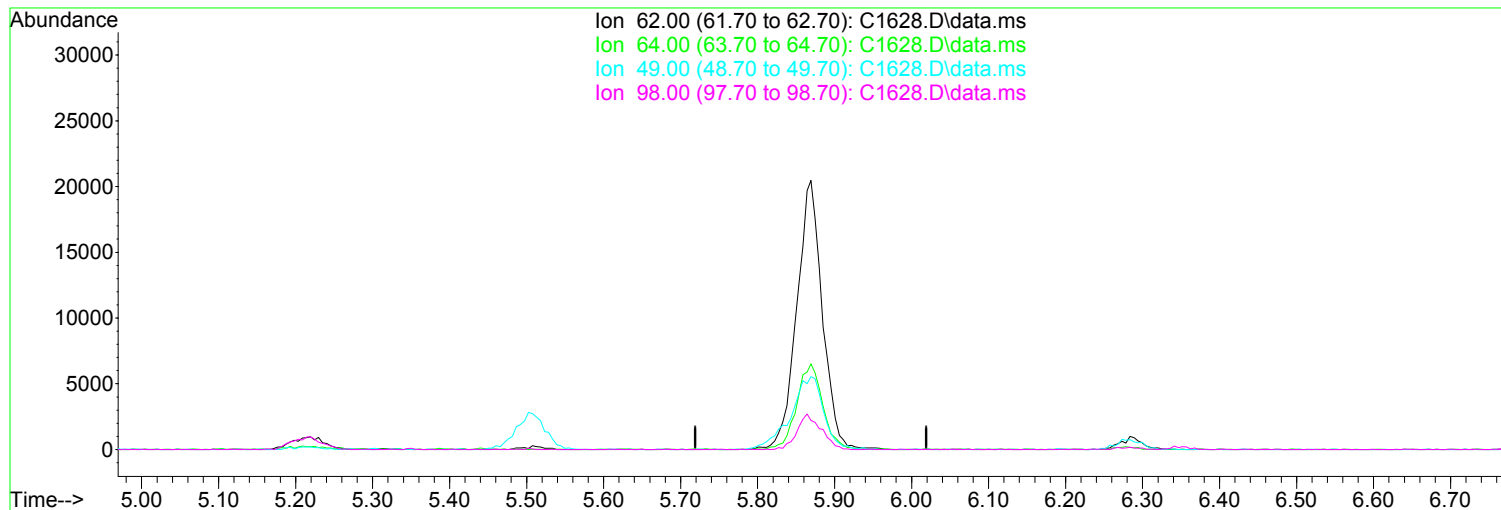
After

Peak not found.

07/21/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1628.D  
Acq On : 21 Jul 2022 12:29 pm  
Operator : K.Ruest  
Sample : LCS-FP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 21 12:45:57 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration



TIC: C1628.D\data.ms

**(27) 1,2-Dichloroethane**

5.869min (-5.869) 0.00 ppb

response 0

**Manual Integration:****Before****07/21/22**

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 62.00 | 100.00 | 0.00  |
| 64.00 | 32.50  | 0.00# |
| 49.00 | 31.60  | 0.00# |
| 98.00 | 11.40  | 0.00  |

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1628.D  
 Acq On : 21 Jul 2022 12:29 pm  
 Operator : K.Ruest  
 Sample : LCS-FP  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 21 12:45:57 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc    | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|---------|---------|----------|
| -----                         |        |                |          |         |         |          |
| Internal Standards            |        |                |          |         |         |          |
| 1) Fluorobenzene              | 6.284  | 96             | 139750   | 5.00    | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |         |         |          |
| 37) surr2,bfb                 | 11.233 | 95             | 52692    | 5.26    | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =       | 105.20% |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 61923    | 5.22    | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =       | 104.40% |          |
| Target Compounds              |        |                |          |         |         |          |
|                               |        |                |          |         |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 36701    | 4.317   | ppb     | 97       |
| 3) Chloromethane              | 1.334  | 50             | 39837    | 4.858   | ppb     | 94       |
| 4) Vinyl Chloride             | 1.408  | 62             | 40520    | 4.350   | ppb     | 96       |
| 5) Bromomethane               | 1.633  | 94             | 27052    | 4.438   | ppb     | 99       |
| 6) Chloroethane               | 1.706  | 64             | 24310    | 4.256   | ppb     | 94       |
| 7) Trichlorofluoromethane     | 1.900  | 101            | 50743    | 4.950   | ppb     | 96       |
| 8) FREON 123A                 | 2.131  | 67             | 34933    | 4.725   | ppb     | 93       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 33917    | 5.204   | ppb     | 93       |
| 10) Freon 113                 | 2.320  | 101            | 34974    | 5.460   | ppb     | 93       |
| 11) Acetone                   | 2.362  | 43             | 25343    | 9.346   | ppb     | 98       |
| 12) Methylene Chloride        | 2.745  | 84             | 38079    | 4.492   | ppb     | 95       |
| 13) TBA                       | 2.918  | 59             | 100874   | 102.170 | ppb     | 92       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 106096   | 4.750   | ppb     | 100      |
| 15) trans-1,2-Dichloroethene  | 3.038  | 96             | 36868    | 5.092   | ppb     | 90       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 59423    | 4.818   | ppb     | 99       |
| 17) 2,2-Dichloropropane       | 4.354  | 77             | 42237    | 5.597   | ppb     | 94       |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96             | 41425    | 4.752   | ppb     | 91       |
| 19) 2-Butanone                | 4.438  | 43             | 36028    | 8.365   | ppb     | 95       |
| 20) Bromochloromethane        | 4.726  | 130            | 30054    | 4.943   | ppb     | # 81     |
| 21) Tetrahydrofuran           | 4.889  | 42             | 13538    | 4.781   | ppb     | 93       |
| 22) Chloroform                | 4.920  | 83             | 75200    | 5.134   | ppb     | 97       |
| 23) 1,1,1-Trichloroethane     | 5.214  | 97             | 52310    | 5.102   | ppb     | 95       |
| 24) Carbontetrachloride       | 5.502  | 117            | 46437    | 5.266   | ppb     | 97       |
| 25) 1,1-Dichloropropene       | 5.508  | 75             | 43522    | 4.816   | ppb     | 98       |
| 26) Benzene                   | 5.827  | 78             | 146379   | 4.827   | ppb     | 99       |
| 27) 1,2-Dichloroethane        | 5.869  | 62             | 47333m   | 4.630   | ppb     |          |
| 28) Trichloroethene           | 6.818  | 130            | 44237    | 5.210   | ppb     | 97       |
| 29) 1,2-Diclpropane           | 7.123  | 63             | 38022    | 4.776   | ppb     | 98       |
| 30) Dibromomethane            | 7.264  | 93             | 28088    | 4.932   | ppb     | 92       |
| 31) Bromodichloromethane      | 7.511  | 83             | 55954    | 4.876   | ppb     | 99       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 62408    | 4.883   | ppb     | 97       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 84022    | 6.866   | ppb     | 98       |
| 34) Toluene                   | 8.501  | 91             | 169758   | 5.011   | ppb     | 98       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 55903    | 5.074   | ppb     | 96       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 41663    | 4.948   | ppb     | 97       |
| 38) Tetrachloroethene         | 9.146  | 164            | 38763    | 5.672   | ppb     | 97       |
| 39) 2-Hexanone                | 9.330  | 43             | 60978    | 9.290   | ppb     | 98       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 67403    | 4.761   | ppb     | 91       |
| 41) Dibromochloromethane      | 9.419  | 129            | 48973    | 5.051   | ppb     | 96       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 42626    | 4.909   | ppb     | 89       |
| 43) Chlorobenzene             | 10.074 | 112            | 115270   | 5.328   | ppb     | 98       |
| 44) 1,1,1,2-Tetrachloroethane | 10.169 | 131            | 42424    | 5.392   | ppb     | 96       |
| 45) Ethylbenzene              | 10.211 | 106            | 61045    | 5.516   | ppb     | 96       |
| 46) (m+p)Xylene               | 10.331 | 106            | 152829   | 11.243  | ppb     | 96       |
| 47) o-Xylene                  | 10.730 | 106            | 75095    | 5.618   | ppb     | 95       |
| 48) Styrene                   | 10.740 | 104            | 129572   | 5.455   | ppb     | 95       |

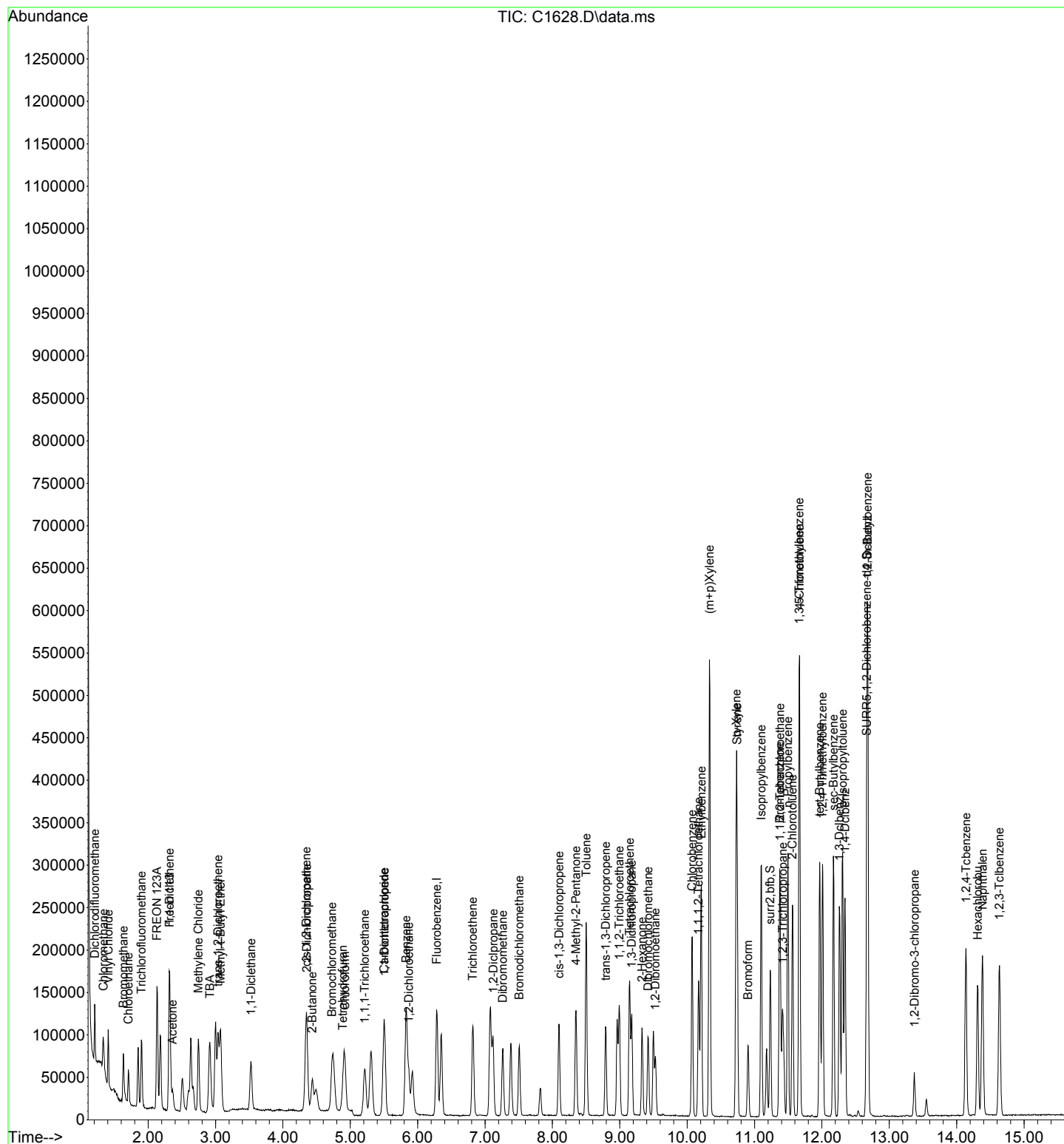
Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1628.D  
Acq On : 21 Jul 2022 12:29 pm  
Operator : K.Ruest  
Sample : LCS-FP  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 21 12:45:57 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.903 | 173  | 39764    | 5.799 | ppb   | 97       |
| 50) Isopropylbenzene          | 11.102 | 105  | 189469   | 5.994 | ppb   | 98       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 62139    | 5.471 | ppb   | 96       |
| 52) Bromobenzene              | 11.375 | 156  | 57573    | 5.341 | ppb   | 92       |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 20309    | 5.193 | ppb   | # 87     |
| 54) n-Propylbenzene           | 11.495 | 91   | 222263   | 5.926 | ppb   | 98       |
| 55) 2-Chlorotoluene           | 11.563 | 91   | 136006   | 5.764 | ppb   | 98       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 157547   | 5.680 | ppb   | 95       |
| 57) 1,3,5-Trimethylbenzene    | 11.663 | 105  | 162330   | 5.734 | ppb   | 97       |
| 58) tert-Butylbenzene         | 11.967 | 119  | 145609   | 5.957 | ppb   | 100      |
| 59) 1,2,4-Trimethylbenzene    | 12.009 | 105  | 160036   | 5.737 | ppb   | 96       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 203163   | 6.003 | ppb   | 100      |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 172670   | 5.888 | ppb   | 98       |
| 62) 1,3-Diclbz                | 12.261 | 146  | 109831   | 5.802 | ppb   | 96       |
| 63) 1,4-Diclbz                | 12.345 | 146  | 108544   | 5.625 | ppb   | 99       |
| 64) n-Butylbenzene            | 12.675 | 91   | 148352   | 5.836 | ppb   | 97       |
| 66) 1,2-Diclbz                | 12.680 | 146  | 107677   | 5.528 | ppb   | 99       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 11348    | 5.555 | ppb   | # 86     |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 77555    | 5.342 | ppb   | 99       |
| 69) Hexachlorobu              | 14.311 | 225  | 41090    | 6.620 | ppb   | 99       |
| 70) Naphthalen                | 14.384 | 128  | 196097   | 5.373 | ppb   | 97       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 77495    | 5.258 | ppb   | 98       |

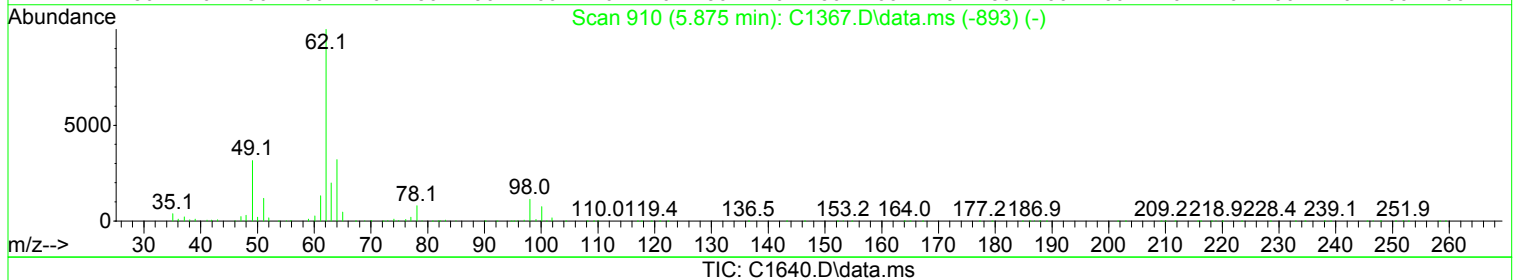
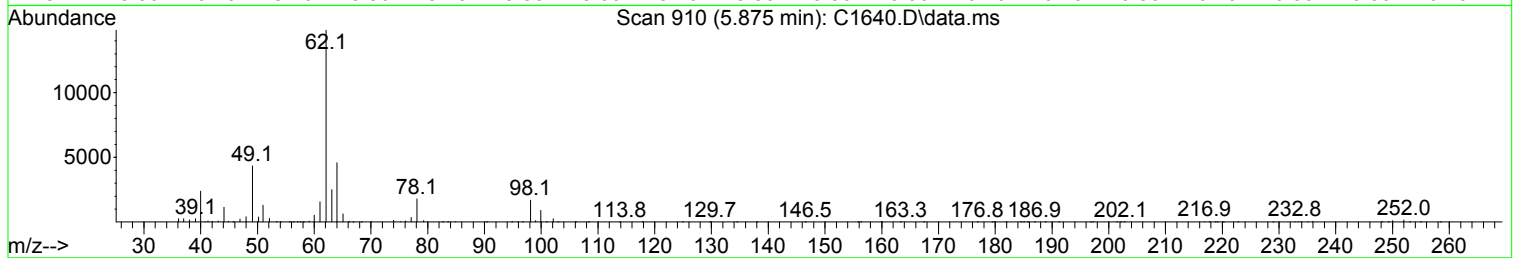
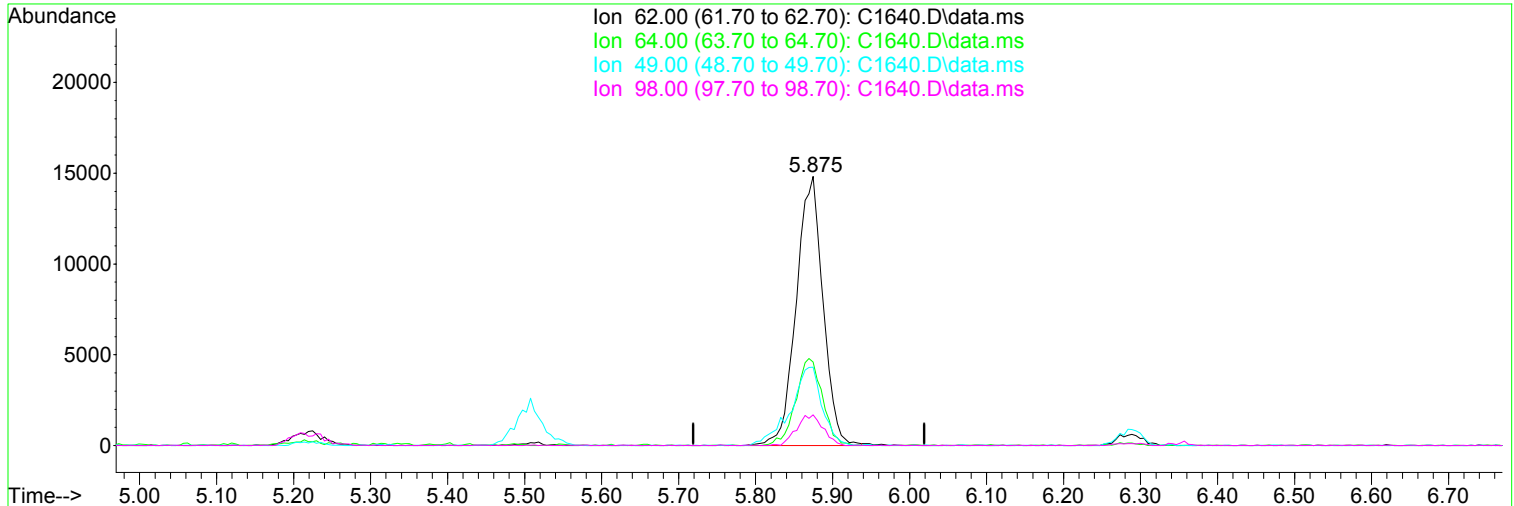
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quant Time: Jul 21 12:45:57 2022  
Quant Method : I:\ACQDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1640.D  
Acq On : 21 Jul 2022 05:47 pm  
Operator : K.Ruest  
Sample : R2206605-002MS|1.0  
Misc : EA 524 T4  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 21 18:03:28 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(27) 1,2-Dichloroethane**

5.875min (+ 0.005) 3.69 ppb m

response 35620

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 62.00 | 100.00 | 100.00 |
| 64.00 | 32.50  | 31.02  |
| 49.00 | 31.60  | 29.19  |
| 98.00 | 11.40  | 11.47  |

**Manual Integration:**

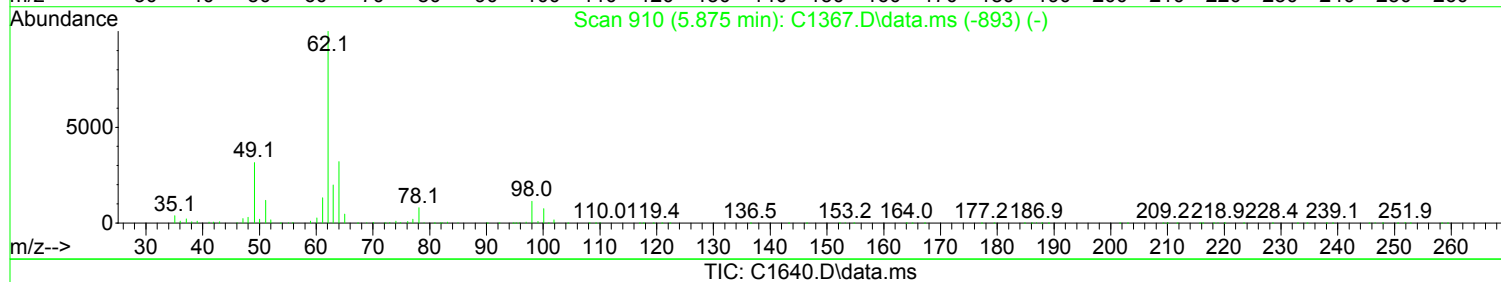
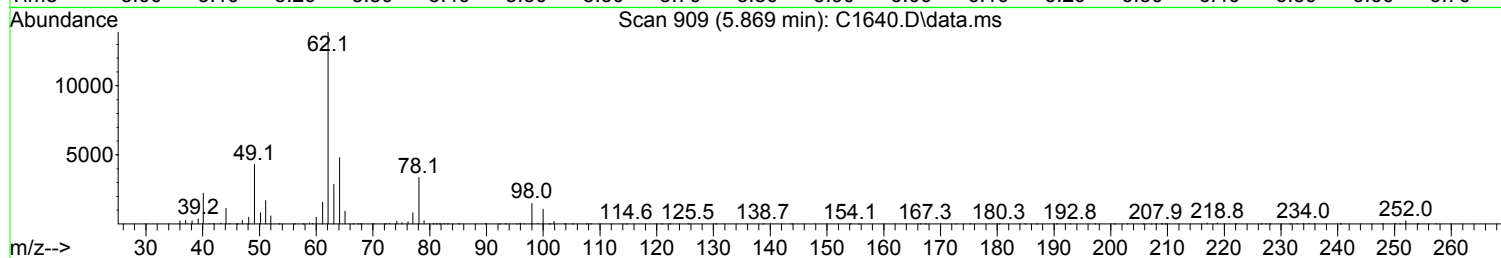
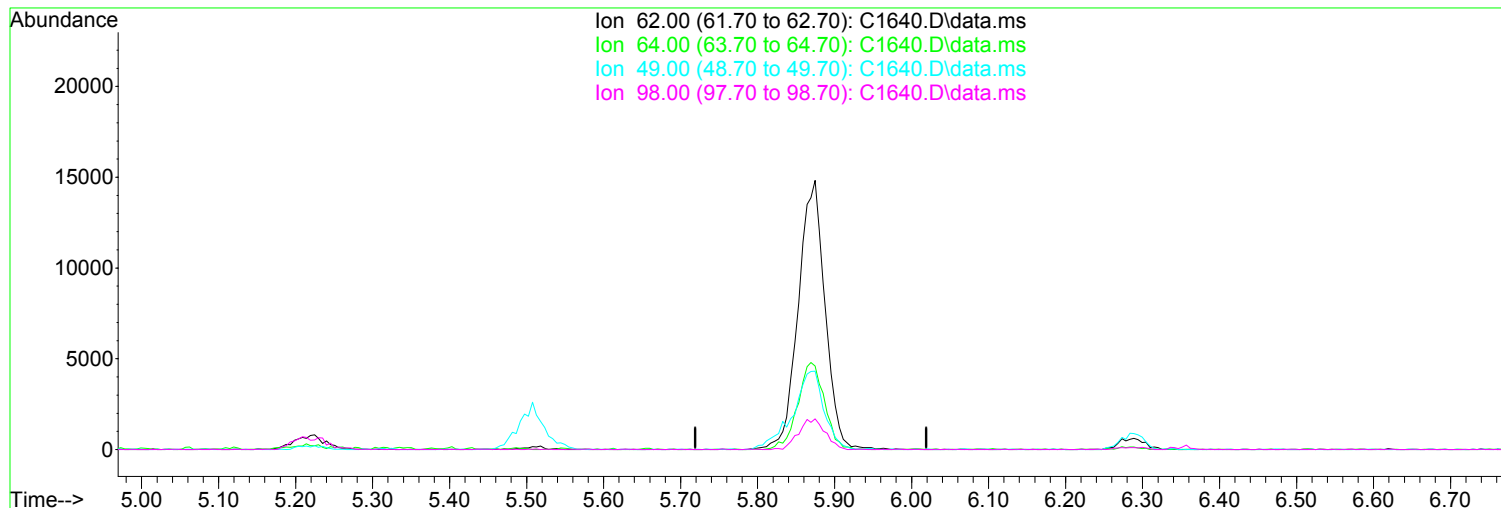
After

Peak not found.

07/22/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1640.D  
Acq On : 21 Jul 2022 05:47 pm  
Operator : K.Ruest  
Sample : R2206605-002MS|1.0  
Misc : EA 524 T4  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 21 18:03:28 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

**(27) 1,2-Dichloroethane**

5.869min (-5.869) 0.00 ppb

response 0

**Manual Integration:****Before**

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 62.00 | 100.00 | 0.00  |
| 64.00 | 32.50  | 0.00# |
| 49.00 | 31.60  | 0.00# |
| 98.00 | 11.40  | 0.00  |

**07/22/22**



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1640.D  
 Acq On : 21 Jul 2022 05:47 pm  
 Operator : K.Ruest  
 Sample : R2206605-002MS|1.0  
 Misc : EA 524 T4  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 21 18:03:28 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| -----                         |        |                |          |        |         |          |
| Internal Standards            |        |                |          |        |         |          |
| 1) Fluorobenzene              | 6.284  | 96             | 131808   | 5.00   | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 37) surr2,bfb                 | 11.233 | 95             | 47148    | 4.99   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 99.80%  |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 58367    | 5.21   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 104.20% |          |
| Target Compounds              |        |                |          |        |         |          |
|                               |        |                |          |        |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 22290    | 2.780  | ppb     | 97       |
| 3) Chloromethane              | 1.334  | 50             | 27489    | 3.554  | ppb     | 97       |
| 4) Vinyl Chloride             | 1.408  | 62             | 29153    | 3.318  | ppb     | 98       |
| 5) Bromomethane               | 1.633  | 94             | 19596    | 3.409  | ppb     | 100      |
| 6) Chloroethane               | 1.706  | 64             | 18272    | 3.391  | ppb     | 91       |
| 7) Trichlorofluoromethane     | 1.900  | 101            | 38463    | 3.978  | ppb     | 99       |
| 8) FREON 123A                 | 2.131  | 67             | 28137    | 4.035  | ppb     | 88       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 26545    | 4.319  | ppb     | 93       |
| 10) Freon 113                 | 2.325  | 101            | 25989    | 4.302  | ppb     | 95       |
| 11) Acetone                   | 2.367  | 43             | 22159    | 8.664  | ppb     | 99       |
| 12) Methylene Chloride        | 2.745  | 84             | 30523    | 3.817  | ppb     | 94       |
| 13) TBA                       | 2.918  | 59             | 83118    | 89.259 | ppb     | 96       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 79687    | 3.783  | ppb     | 98       |
| 15) trans-1,2-Dichloroethene  | 3.038  | 96             | 28031    | 4.105  | ppb     | 92       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 46549    | 4.001  | ppb     | 95       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 30763    | 4.322  | ppb     | 91       |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96             | 31773    | 3.864  | ppb     | 94       |
| 19) 2-Butanone                | 4.438  | 43             | 30031    | 7.393  | ppb     | 99       |
| 20) Bromochloromethane        | 4.732  | 130            | 22246    | 3.879  | ppb     | # 87     |
| 21) Tetrahydrofuran           | 4.899  | 42             | 10722    | 4.014  | ppb     | 90       |
| 22) Chloroform                | 4.920  | 83             | 51056    | 3.610  | ppb     | # 87     |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 40533    | 4.191  | ppb     | 99       |
| 24) Carbontetrachloride       | 5.502  | 117            | 35051    | 4.215  | ppb     | 92       |
| 25) 1,1-Dichloropropene       | 5.513  | 75             | 33939    | 3.982  | ppb     | 94       |
| 26) Benzene                   | 5.827  | 78             | 113461   | 3.967  | ppb     | 97       |
| 27) 1,2-Dichloroethane        | 5.875  | 62             | 35620m   | 3.694  | ppb     |          |
| 28) Trichloroethene           | 6.824  | 130            | 33882    | 4.231  | ppb     | 93       |
| 29) 1,2-Diclpropane           | 7.122  | 63             | 28761    | 3.830  | ppb     | 96       |
| 30) Dibromomethane            | 7.264  | 93             | 21113    | 3.931  | ppb     | 89       |
| 31) Bromodichloromethane      | 7.510  | 83             | 46878    | 4.331  | ppb     | 97       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 45963    | 3.813  | ppb     | 97       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 66222    | 5.738  | ppb     | 97       |
| 34) Toluene                   | 8.501  | 91             | 129310   | 4.047  | ppb     | 99       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 39552    | 3.806  | ppb     | 96       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 30506    | 3.841  | ppb     | 96       |
| 38) Tetrachloroethene         | 9.146  | 164            | 29397    | 4.561  | ppb     | 93       |
| 39) 2-Hexanone                | 9.330  | 43             | 48657    | 7.860  | ppb     | 98       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 51306    | 3.842  | ppb     | 92       |
| 41) Dibromochloromethane      | 9.419  | 129            | 45738    | 5.002  | ppb     | 92       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 32187    | 3.930  | ppb     | 94       |
| 43) Chlorobenzene             | 10.074 | 112            | 83820    | 4.108  | ppb     | 96       |
| 44) 1,1,1,2-Tetrachloroethane | 10.169 | 131            | 31128    | 4.195  | ppb     | 97       |
| 45) Ethylbenzene              | 10.211 | 106            | 44599    | 4.273  | ppb     | 92       |
| 46) (m+p)Xylene               | 10.331 | 106            | 112859   | 8.803  | ppb     | 98       |
| 47) o-Xylene                  | 10.730 | 106            | 54500    | 4.323  | ppb     | 96       |
| 48) Styrene                   | 10.740 | 104            | 92987    | 4.151  | ppb     | 97       |

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1640.D  
 Acq On : 21 Jul 2022 05:47 pm  
 Operator : K.Ruest  
 Sample : R2206605-002MS|1.0  
 Misc : EA 524 T4  
 ALS Vial : 11 Sample Multiplier: 1

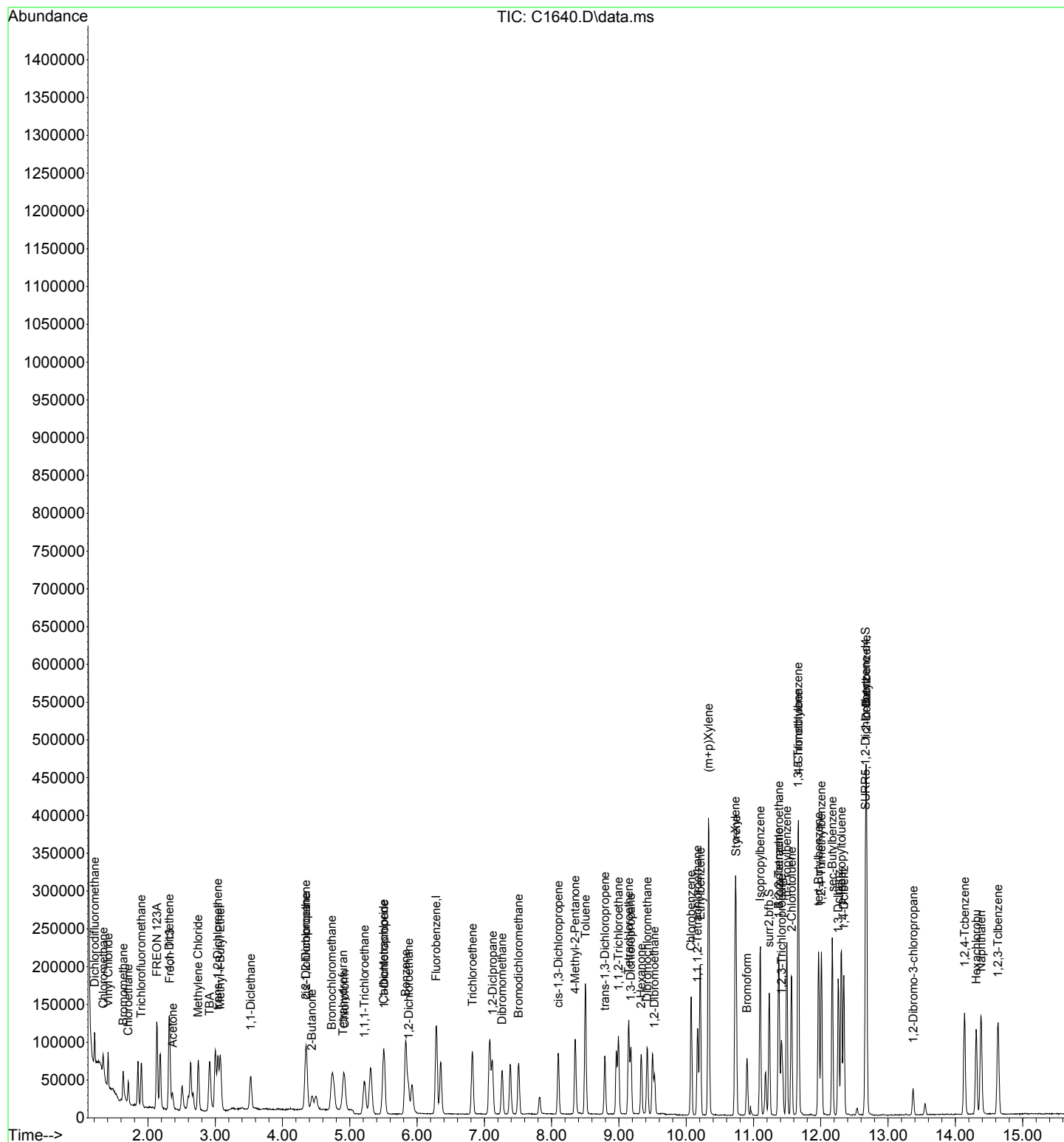
Quant Time: Jul 21 18:03:28 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.903 | 173  | 35327    | 5.463 | ppb   | 97       |
| 50) Isopropylbenzene          | 11.102 | 105  | 138573   | 4.648 | ppb   | 99       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 45471    | 4.244 | ppb   | 91       |
| 52) Bromobenzene              | 11.375 | 156  | 41120    | 4.044 | ppb   | 91       |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 15265    | 4.139 | ppb   | 95       |
| 54) n-Propylbenzene           | 11.495 | 91   | 160100   | 4.526 | ppb   | 98       |
| 55) 2-Chlorotoluene           | 11.569 | 91   | 98635    | 4.432 | ppb   | 97       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 114545   | 4.378 | ppb   | 96       |
| 57) 1,3,5-Trimethylbenzene    | 11.663 | 105  | 118509   | 4.438 | ppb   | 100      |
| 58) tert-Butylbenzene         | 11.967 | 119  | 103686   | 4.497 | ppb   | 99       |
| 59) 1,2,4-Trimethylbenzene    | 12.009 | 105  | 117067   | 4.449 | ppb   | 99       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 147431   | 4.619 | ppb   | 99       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 124727   | 4.509 | ppb   | 97       |
| 62) 1,3-Diclbz                | 12.261 | 146  | 78124    | 4.376 | ppb   | 99       |
| 63) 1,4-Diclbz                | 12.345 | 146  | 80303    | 4.412 | ppb   | 95       |
| 64) n-Butylbenzene            | 12.675 | 91   | 107707   | 4.492 | ppb   | 97       |
| 66) 1,2-Diclbz                | 12.680 | 146  | 77688    | 4.229 | ppb   | 97       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 8088     | 4.198 | ppb # | 79       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 51869    | 3.788 | ppb   | 93       |
| 69) Hexachlorobu              | 14.311 | 225  | 28230    | 4.822 | ppb   | 99       |
| 70) Naphthalen                | 14.384 | 128  | 137846   | 4.004 | ppb   | 97       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 53807    | 3.871 | ppb   | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1640.D  
Acq On : 21 Jul 2022 05:47 pm  
Operator : K.Ruest  
Sample : R2206605-002MS|1.0  
Misc : EA 524 T4  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 21 18:03:28 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1641.D  
 Acq On : 21 Jul 2022 06:13 pm  
 Operator : K.Ruest  
 Sample : R2206605-002DMS|1.0  
 Misc : EA 524 T4  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 21 18:50:35 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| -----                         |        |                |          |        |         |          |
| Internal Standards            |        |                |          |        |         |          |
| 1) Fluorobenzene              | 6.289  | 96             | 129320   | 5.00   | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 37) surr2,bfb                 | 11.238 | 95             | 47275    | 5.10   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 102.00% |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 57562    | 5.24   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 104.80% |          |
| Target Compounds              |        |                |          |        |         |          |
|                               |        |                |          |        |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 22342    | 2.840  | ppb     | 98       |
| 3) Chloromethane              | 1.334  | 50             | 27379    | 3.608  | ppb     | 97       |
| 4) Vinyl Chloride             | 1.408  | 62             | 29013    | 3.366  | ppb     | 99       |
| 5) Bromomethane               | 1.633  | 94             | 19308    | 3.423  | ppb     | 90       |
| 6) Chloroethane               | 1.706  | 64             | 17251    | 3.263  | ppb     | 96       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 37847    | 3.989  | ppb     | 99       |
| 8) FREON 123A                 | 2.131  | 67             | 28686    | 4.193  | ppb     | 95       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 25960    | 4.305  | ppb     | 90       |
| 10) Freon 113                 | 2.325  | 101            | 25423    | 4.289  | ppb     | 99       |
| 11) Acetone                   | 2.362  | 43             | 23796    | 9.483  | ppb     | 98       |
| 12) Methylene Chloride        | 2.750  | 84             | 30322    | 3.865  | ppb     | 92       |
| 13) TBA                       | 2.918  | 59             | 75395    | 82.523 | ppb     | 97       |
| 14) Methyl-t-Butyl Ether      | 3.080  | 73             | 78607    | 3.803  | ppb     | 96       |
| 15) trans-1,2-Dichloroethene  | 3.038  | 96             | 27813    | 4.151  | ppb     | 88       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 45315    | 3.970  | ppb     | 98       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 29916    | 4.284  | ppb     | 99       |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96             | 32828    | 4.069  | ppb     | 91       |
| 19) 2-Butanone                | 4.438  | 43             | 28665    | 7.193  | ppb     | 96       |
| 20) Bromochloromethane        | 4.737  | 130            | 21801    | 3.875  | ppb     | # 85     |
| 21) Tetrahydrofuran           | 4.894  | 42             | 10568    | 4.033  | ppb     | 92       |
| 22) Chloroform                | 4.915  | 83             | 51077    | 3.686  | ppb     | 92       |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 39274    | 4.139  | ppb     | 93       |
| 24) Carbontetrachloride       | 5.497  | 117            | 34333    | 4.208  | ppb     | 97       |
| 25) 1,1-Dichloropropene       | 5.508  | 75             | 33991    | 4.065  | ppb     | 97       |
| 26) Benzene                   | 5.833  | 78             | 111036   | 3.957  | ppb     | 99       |
| 27) 1,2-Dichloroethane        | 5.869  | 62             | 34442    | 3.641  | ppb     | 95       |
| 28) Trichloroethene           | 6.824  | 130            | 33540    | 4.269  | ppb     | 95       |
| 29) 1,2-Diclpropane           | 7.122  | 63             | 28907    | 3.924  | ppb     | 96       |
| 30) Dibromomethane            | 7.264  | 93             | 20761    | 3.940  | ppb     | # 79     |
| 31) Bromodichloromethane      | 7.510  | 83             | 46337    | 4.363  | ppb     | 96       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 45327    | 3.833  | ppb     | 100      |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 65629    | 5.796  | ppb     | 98       |
| 34) Toluene                   | 8.501  | 91             | 128592   | 4.102  | ppb     | 98       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 39204    | 3.846  | ppb     | 98       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 31667    | 4.064  | ppb     | 97       |
| 38) Tetrachloroethene         | 9.146  | 164            | 28441    | 4.497  | ppb     | 95       |
| 39) 2-Hexanone                | 9.330  | 43             | 48861    | 8.045  | ppb     | 98       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 50420    | 3.849  | ppb     | 94       |
| 41) Dibromochloromethane      | 9.419  | 129            | 45421    | 5.063  | ppb     | 95       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 31185    | 3.881  | ppb     | 93       |
| 43) Chlorobenzene             | 10.074 | 112            | 84992    | 4.246  | ppb     | 99       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 29895    | 4.106  | ppb     | 92       |
| 45) Ethylbenzene              | 10.205 | 106            | 45806    | 4.473  | ppb     | 97       |
| 46) (m+p)Xylene               | 10.331 | 106            | 114593   | 9.110  | ppb     | 99       |
| 47) o-Xylene                  | 10.730 | 106            | 55286    | 4.470  | ppb     | 94       |
| 48) Styrene                   | 10.740 | 104            | 92332    | 4.201  | ppb     | 100      |

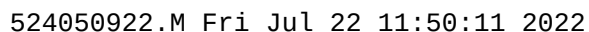
Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1641.D  
Acq On : 21 Jul 2022 06:13 pm  
Operator : K.Ruest  
Sample : R2206605-002DMS|1.0  
Misc : EA 524 T4  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 21 18:50:35 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 34599    | 5.453 | ppb   | 99       |
| 50) Isopropylbenzene          | 11.102 | 105  | 140786   | 4.813 | ppb   | 96       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 46143    | 4.390 | ppb   | 97       |
| 52) Bromobenzene              | 11.375 | 156  | 42223    | 4.233 | ppb   | 95       |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 15438    | 4.266 | ppb   | 94       |
| 54) n-Propylbenzene           | 11.495 | 91   | 163453   | 4.709 | ppb   | 96       |
| 55) 2-Chlorotoluene           | 11.563 | 91   | 99174    | 4.542 | ppb   | 98       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 113329   | 4.415 | ppb   | 94       |
| 57) 1,3,5-Trimethylbenzene    | 11.663 | 105  | 118792   | 4.535 | ppb   | 99       |
| 58) tert-Butylbenzene         | 11.967 | 119  | 105607   | 4.669 | ppb   | 100      |
| 59) 1,2,4-Trimethylbenzene    | 12.009 | 105  | 113339   | 4.390 | ppb   | 96       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 149928   | 4.787 | ppb   | 99       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 124454   | 4.586 | ppb   | 96       |
| 62) 1,3-Dclbenz               | 12.261 | 146  | 78589    | 4.487 | ppb   | 97       |
| 63) 1,4-Dclbenz               | 12.345 | 146  | 79072    | 4.428 | ppb   | 97       |
| 64) n-Butylbenzene            | 12.675 | 91   | 108976   | 4.633 | ppb   | 97       |
| 66) 1,2-Dclbenz               | 12.685 | 146  | 79946    | 4.435 | ppb   | 94       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 8207     | 4.341 | ppb   | 88       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 54511    | 4.057 | ppb   | 98       |
| 69) Hexachlorobu              | 14.316 | 225  | 28976    | 5.045 | ppb   | 97       |
| 70) Naphthalen                | 14.384 | 128  | 143291   | 4.243 | ppb   | 98       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 54847    | 4.022 | ppb   | 98       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quant Time: Jul 21 18:50:35 2022  
Quant Method : I:\ACQDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1627.D  
 Acq On : 21 Jul 2022 11:56 am  
 Operator : K.Ruest  
 Sample : CCV  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 21 12:12:41 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | Amount  | Calc.  | %Dev  | Area% | Dev(min) |
|------|---------------------------|---------|--------|-------|-------|----------|
| 1 I  | Fluorobenzene             | 5.000   | 5.000  | 0.0   | 99    | 0.00     |
| 2    | Dichlorodifluoromethane   | 5.000   | 5.700  | -14.0 | 92    | 0.00     |
| 3    | Chloromethane             | 5.000   | 5.222  | -4.4  | 89    | 0.00     |
| 4    | Vinyl Chloride            | 5.000   | 5.188  | -3.8  | 85    | 0.00     |
| 5    | Bromomethane              | 5.000   | 4.545  | 9.1   | 77    | 0.00     |
| 6    | Chloroethane              | 5.000   | 4.944  | 1.1   | 83    | 0.00     |
| 7    | Trichlorofluoromethane    | 5.000   | 5.205  | -4.1  | 87    | 0.00     |
| 8    | FREON 123A                | 5.000   | 5.129  | -2.6  | 89    | 0.00     |
| 9    | 1,1-Dicethene             | 5.000   | 5.165  | -3.3  | 88    | 0.00     |
| 10   | Freon 113                 | 5.000   | 5.331  | -6.6  | 88    | 0.00     |
| 11   | Acetone                   | 10.000  | 9.073  | 9.3   | 79    | 0.00     |
| 12   | Methylene Chloride        | 5.000   | 4.626  | 7.5   | 85    | 0.00     |
| 13   | TBA                       | 100.000 | 98.869 | 1.1   | 88    | 0.00     |
| 14   | Methyl-t-Butyl Ether      | 5.000   | 4.770  | 4.6   | 88    | 0.00     |
| 15   | trans-1,2-Dichloroethene  | 5.000   | 5.278  | -5.6  | 89    | 0.00     |
| 16   | 1,1-Dicethane             | 5.000   | 4.961  | 0.8   | 87    | 0.00     |
| 17   | 2,2-Dichloropropane       | 5.000   | 5.560  | -11.2 | 96    | 0.00     |
| 18   | cis-1,2-Dichloroethene    | 5.000   | 5.044  | -0.9  | 89    | 0.00     |
| 19   | 2-Butanone                | 10.000  | 9.001  | 10.0  | 83    | 0.00     |
| 20   | Bromochloromethane        | 5.000   | 4.820  | 3.6   | 90    | 0.00     |
| 21   | Tetrahydrofuran           | 5.000   | 4.792  | 4.2   | 86    | 0.00     |
| 22   | Chloroform                | 5.000   | 5.168  | -3.4  | 88    | 0.00     |
| 23   | 1,1,1-Trichloroethane     | 5.000   | 5.317  | -6.3  | 92    | 0.00     |
| 24   | Carbontetrachloride       | 5.000   | 5.371  | -7.4  | 92    | 0.00     |
| 25   | 1,1-Dichloropropene       | 5.000   | 5.102  | -2.0  | 86    | 0.00     |
| 26   | Benzene                   | 5.000   | 4.931  | 1.4   | 86    | 0.00     |
| 27   | 1,2-Dichloroethane        | 5.000   | 4.721  | 5.6   | 84    | 0.00     |
| 28   | Trichloroethene           | 5.000   | 5.232  | -4.6  | 88    | 0.00     |
| 29   | 1,2-Dicloropropane        | 5.000   | 5.108  | -2.2  | 92    | 0.00     |
| 30   | Dibromomethane            | 5.000   | 4.853  | 2.9   | 89    | 0.00     |
| 31   | Bromodichloromethane      | 5.000   | 5.072  | -1.4  | 90    | 0.00     |
| 32   | cis-1,3-Dichloropropene   | 5.000   | 4.863  | 2.7   | 88    | 0.00     |
| 33   | 4-Methyl-2-Pentanone      | 10.000  | 9.182  | 8.2   | 87    | 0.00     |
| 34   | Toluene                   | 5.000   | 5.199  | -4.0  | 91    | 0.00     |
| 35   | trans-1,3-Dichloropropene | 5.000   | 4.762  | 4.8   | 89    | 0.00     |
| 36   | 1,1,2-Trichloroethane     | 5.000   | 5.047  | -0.9  | 93    | 0.00     |
| 37 S | surr2,bfb                 | 5.000   | 5.151  | -3.0  | 105   | 0.00     |
| 38   | Tetrachloroethene         | 5.000   | 5.653  | -13.1 | 93    | 0.00     |
| 39   | 2-Hexanone                | 10.000  | 9.493  | 5.1   | 88    | 0.00     |
| 40   | 1,3-Dichloropropane       | 5.000   | 4.927  | 1.5   | 90    | 0.00     |
| 41   | Dibromochloromethane      | 5.000   | 5.172  | -3.4  | 97    | 0.00     |
| 42   | 1,2-Dibromoethane         | 5.000   | 5.173  | -3.5  | 98    | 0.00     |
| 43   | Chlorobenzene             | 5.000   | 5.494  | -9.9  | 99    | 0.00     |
| 44   | 1,1,1,2-Tetrachloroethane | 5.000   | 5.642  | -12.8 | 103   | 0.00     |
| 45   | Ethylbenzene              | 5.000   | 5.614  | -12.3 | 98    | 0.00     |
| 46   | (m+p)Xylene               | 10.000  | 11.347 | -13.5 | 100   | 0.00     |
| 47   | o-Xylene                  | 5.000   | 5.675  | -13.5 | 101   | 0.00     |
| 48   | Styrene                   | 5.000   | 5.489  | -9.8  | 100   | 0.00     |
| 49   | Bromoform                 | 5.000   | 5.723  | -14.5 | 107   | 0.00     |
| 50   | Isopropylbenzene          | 5.000   | 5.856  | -17.1 | 101   | 0.00     |
| 51   | 1,1,2,2-Tetrachloroethane | 5.000   | 5.714  | -14.3 | 107   | 0.00     |
| 52   | Bromobenzene              | 5.000   | 5.550  | -11.0 | 103   | 0.00     |

## Evaluate Continuing Calibration Report

 1st *FR* 07/21/22  
 2nd *FR* 07/25/22

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1627.D  
 Acq On : 21 Jul 2022 11:56 am  
 Operator : K.Ruest  
 Sample : CCV  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 21 12:12:41 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                    | Amount | Calc. | %Dev  | Area% | Dev(min) |
|------|-----------------------------|--------|-------|-------|-------|----------|
| 53   | 1,2,3-Trichloropropane      | 5.000  | 5.323 | -6.5  | 98    | 0.00     |
| 54   | n-Propylbenzene             | 5.000  | 5.948 | -19.0 | 102   | 0.00     |
| 55   | 2-Chlorotoluene             | 5.000  | 5.841 | -16.8 | 103   | 0.00     |
| 56   | 4-Chlorotoluene             | 5.000  | 5.808 | -16.2 | 104   | 0.00     |
| 57   | 1,3,5-Trimethylbenzene      | 5.000  | 5.920 | -18.4 | 102   | 0.00     |
| 58   | tert-Butylbenzene           | 5.000  | 5.929 | -18.6 | 103   | 0.00     |
| 59   | 1,2,4-Trimethylbenzene      | 5.000  | 5.971 | -19.4 | 107   | 0.00     |
| 60   | sec-Butylbenzene            | 5.000  | 6.125 | -22.5 | 104   | 0.00     |
| 61   | p-Isopropyltoluene          | 5.000  | 5.995 | -19.9 | 104   | 0.00     |
| 62   | 1,3-Dclbenz                 | 5.000  | 5.714 | -14.3 | 101   | 0.00     |
| 63   | 1,4-Dclbenz                 | 5.000  | 5.801 | -16.0 | 106   | 0.00     |
| 64   | n-Butylbenzene              | 5.000  | 5.819 | -16.4 | 103   | 0.00     |
| 65 S | SURR5,1,2-Dichlorobenzene-d | 5.000  | 5.116 | -2.3  | 106   | 0.00     |
| 66   | 1,2-Dclbenz                 | 5.000  | 5.647 | -12.9 | 103   | 0.00     |
| 67   | 1,2-Dibromo-3-chloropropane | 5.000  | 5.554 | -11.1 | 105   | 0.00     |
| 68   | 1,2,4-Tcbenzene             | 5.000  | 5.657 | -13.1 | 107   | 0.00     |
| 69   | Hexachlorobu                | 5.000  | 6.416 | -28.3 | 106   | 0.00     |
| 70   | Naphthalen                  | 5.000  | 5.487 | -9.7  | 107   | 0.00     |
| 71   | 1,2,3-Tclbenzene            | 5.000  | 5.679 | -13.6 | 106   | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
 Data File : C1627.D  
 Acq On : 21 Jul 2022 11:56 am  
 Operator : K.Ruest  
 Sample : CCV  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 21 12:12:41 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 17 14:23:39 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| -----                         |        |                |          |        |         |          |
| Internal Standards            |        |                |          |        |         |          |
| 1) Fluorobenzene              | 6.284  | 96             | 136376   | 5.00   | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 37) surr2,bfb                 | 11.233 | 95             | 50406    | 5.15   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 103.00% |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 59277    | 5.12   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 102.40% |          |
| Target Compounds              |        |                |          |        |         |          |
|                               |        |                |          |        | Qvalue  |          |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 47288    | 5.700  | ppb     | 96       |
| 3) Chloromethane              | 1.334  | 50             | 41790    | 5.222  | ppb     | 98       |
| 4) Vinyl Chloride             | 1.408  | 62             | 47161    | 5.188  | ppb     | 97       |
| 5) Bromomethane               | 1.633  | 94             | 27035    | 4.545  | ppb     | 98       |
| 6) Chloroethane               | 1.706  | 64             | 27558    | 4.944  | ppb     | 97       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 52071    | 5.205  | ppb     | 96       |
| 8) FREON 123A                 | 2.131  | 67             | 37000    | 5.129  | ppb     | 93       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 32850    | 5.165  | ppb     | 89       |
| 10) Freon 113                 | 2.325  | 101            | 33325    | 5.331  | ppb     | 96       |
| 11) Acetone                   | 2.367  | 43             | 24011    | 9.073  | ppb     | 98       |
| 12) Methylene Chloride        | 2.750  | 84             | 38274    | 4.626  | ppb     | 93       |
| 13) TBA                       | 2.912  | 59             | 95258    | 98.869 | ppb     | 93       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 103970   | 4.770  | ppb     | 98       |
| 15) trans-1,2-Dichloroethene  | 3.038  | 96             | 37294    | 5.278  | ppb     | 94       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 59715    | 4.961  | ppb     | 99       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 40950    | 5.560  | ppb     | 97       |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96             | 42912    | 5.044  | ppb     | # 86     |
| 19) 2-Butanone                | 4.438  | 43             | 37828    | 9.001  | ppb     | 98       |
| 20) Bromochloromethane        | 4.732  | 130            | 28600    | 4.820  | ppb     | # 87     |
| 21) Tetrahydrofuran           | 4.894  | 42             | 13242    | 4.792  | ppb     | 91       |
| 22) Chloroform                | 4.915  | 83             | 73852    | 5.168  | ppb     | 98       |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 53203    | 5.317  | ppb     | 96       |
| 24) Carbontetrachloride       | 5.497  | 117            | 46218    | 5.371  | ppb     | 91       |
| 25) 1,1-Dichloropropene       | 5.508  | 75             | 44991    | 5.102  | ppb     | 99       |
| 26) Benzene                   | 5.827  | 78             | 145920   | 4.931  | ppb     | 98       |
| 27) 1,2-Dichloroethane        | 5.869  | 62             | 47092    | 4.721  | ppb     | 94       |
| 28) Trichloroethene           | 6.818  | 130            | 43352    | 5.232  | ppb     | 94       |
| 29) 1,2-Diclpropane           | 7.117  | 63             | 39687    | 5.108  | ppb     | 98       |
| 30) Dibromomethane            | 7.264  | 93             | 26967    | 4.853  | ppb     | 84       |
| 31) Bromodichloromethane      | 7.505  | 83             | 56798    | 5.072  | ppb     | 95       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 60654    | 4.863  | ppb     | 98       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 109645   | 9.182  | ppb     | 96       |
| 34) Toluene                   | 8.501  | 91             | 171878   | 5.199  | ppb     | 98       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 51192    | 4.762  | ppb     | 96       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 41473    | 5.047  | ppb     | 99       |
| 38) Tetrachloroethene         | 9.146  | 164            | 37701    | 5.653  | ppb     | 96       |
| 39) 2-Hexanone                | 9.330  | 43             | 60805    | 9.493  | ppb     | 96       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 68074    | 4.927  | ppb     | 92       |
| 41) Dibromochloromethane      | 9.419  | 129            | 48928    | 5.172  | ppb     | 99       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 43834    | 5.173  | ppb     | 97       |
| 43) Chlorobenzene             | 10.074 | 112            | 115978   | 5.494  | ppb     | 99       |
| 44) 1,1,1,2-Tetrachloroethane | 10.169 | 131            | 43317    | 5.642  | ppb     | 97       |
| 45) Ethylbenzene              | 10.211 | 106            | 60628    | 5.614  | ppb     | 93       |
| 46) (m+p)Xylene               | 10.331 | 106            | 150518   | 11.347 | ppb     | 96       |
| 47) o-Xylene                  | 10.730 | 106            | 74022    | 5.675  | ppb     | 97       |
| 48) Styrene                   | 10.740 | 104            | 127227   | 5.489  | ppb     | 97       |

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1627.D  
Acq On : 21 Jul 2022 11:56 am  
Operator : K.Ruest  
Sample : CCV  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

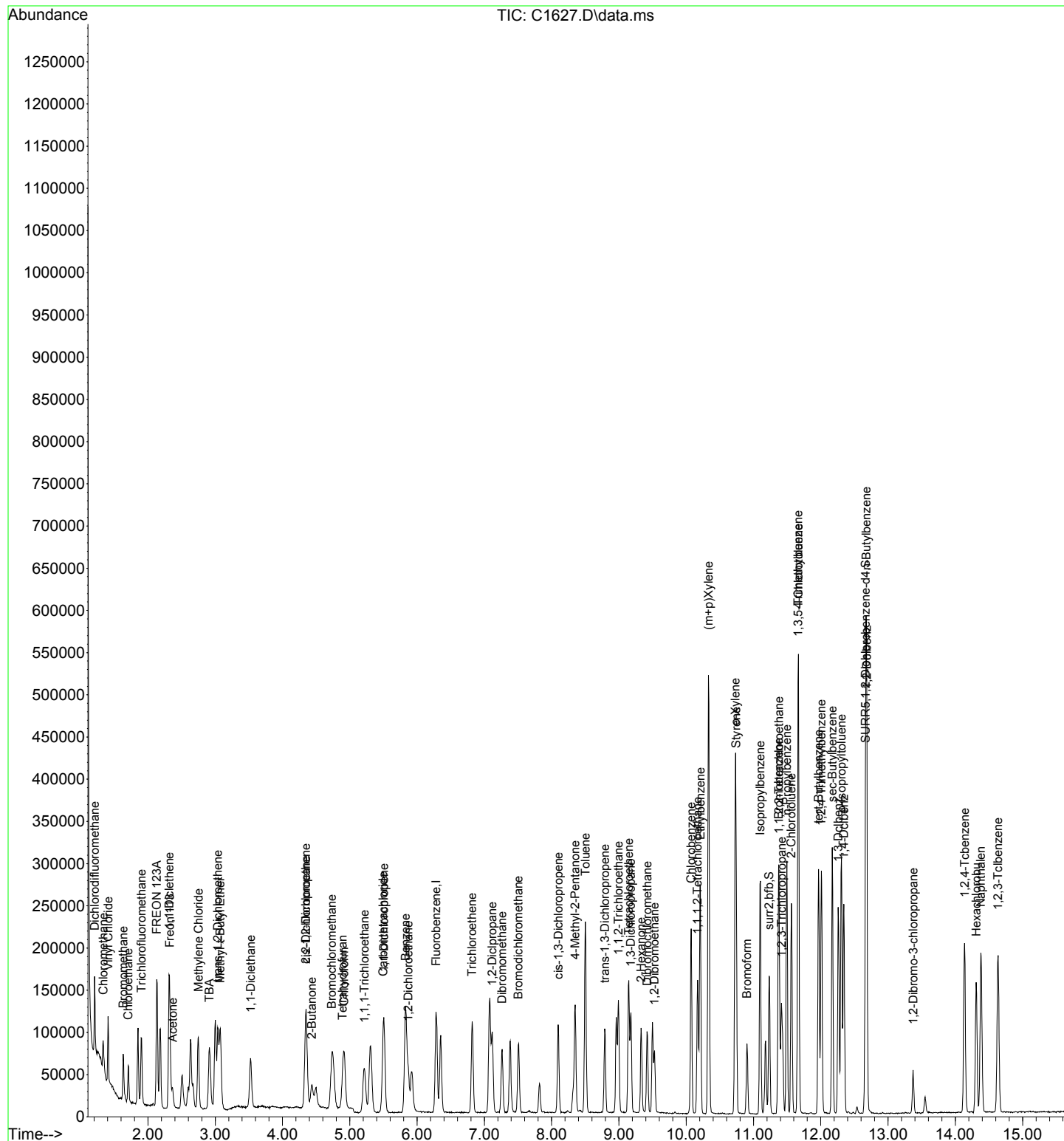
Quant Time: Jul 21 12:12:41 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.903 | 173  | 38296    | 5.723 | ppb   | 99       |
| 50) Isopropylbenzene          | 11.102 | 105  | 180646   | 5.856 | ppb   | 98       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 63341    | 5.714 | ppb   | 98       |
| 52) Bromobenzene              | 11.375 | 156  | 58378    | 5.550 | ppb   | 97       |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 20315    | 5.323 | ppb   | 98       |
| 54) n-Propylbenzene           | 11.495 | 91   | 217710   | 5.948 | ppb   | 97       |
| 55) 2-Chlorotoluene           | 11.563 | 91   | 134490   | 5.841 | ppb   | 97       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 157216   | 5.808 | ppb   | 93       |
| 57) 1,3,5-Trimethylbenzene    | 11.663 | 105  | 163554   | 5.920 | ppb   | 98       |
| 58) tert-Butylbenzene         | 11.967 | 119  | 141426   | 5.929 | ppb   | 99       |
| 59) 1,2,4-Trimethylbenzene    | 12.009 | 105  | 162543   | 5.971 | ppb   | 98       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 202270   | 6.125 | ppb   | 98       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 171582   | 5.995 | ppb   | 98       |
| 62) 1,3-Diclbz                | 12.261 | 146  | 105558   | 5.714 | ppb   | 96       |
| 63) 1,4-Diclbz                | 12.345 | 146  | 109255   | 5.801 | ppb   | 99       |
| 64) n-Butylbenzene            | 12.675 | 91   | 144359   | 5.819 | ppb   | 98       |
| 66) 1,2-Diclbz                | 12.685 | 146  | 107339   | 5.647 | ppb   | 97       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 11072    | 5.554 | ppb # | 70       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 80146    | 5.657 | ppb   | 98       |
| 69) Hexachlorobu              | 14.311 | 225  | 38864    | 6.416 | ppb   | 95       |
| 70) Naphthalen                | 14.379 | 128  | 195432   | 5.487 | ppb   | 97       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 81685    | 5.679 | ppb   | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1627.D  
Acq On : 21 Jul 2022 11:56 am  
Operator : K.Ruest  
Sample : CCV  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

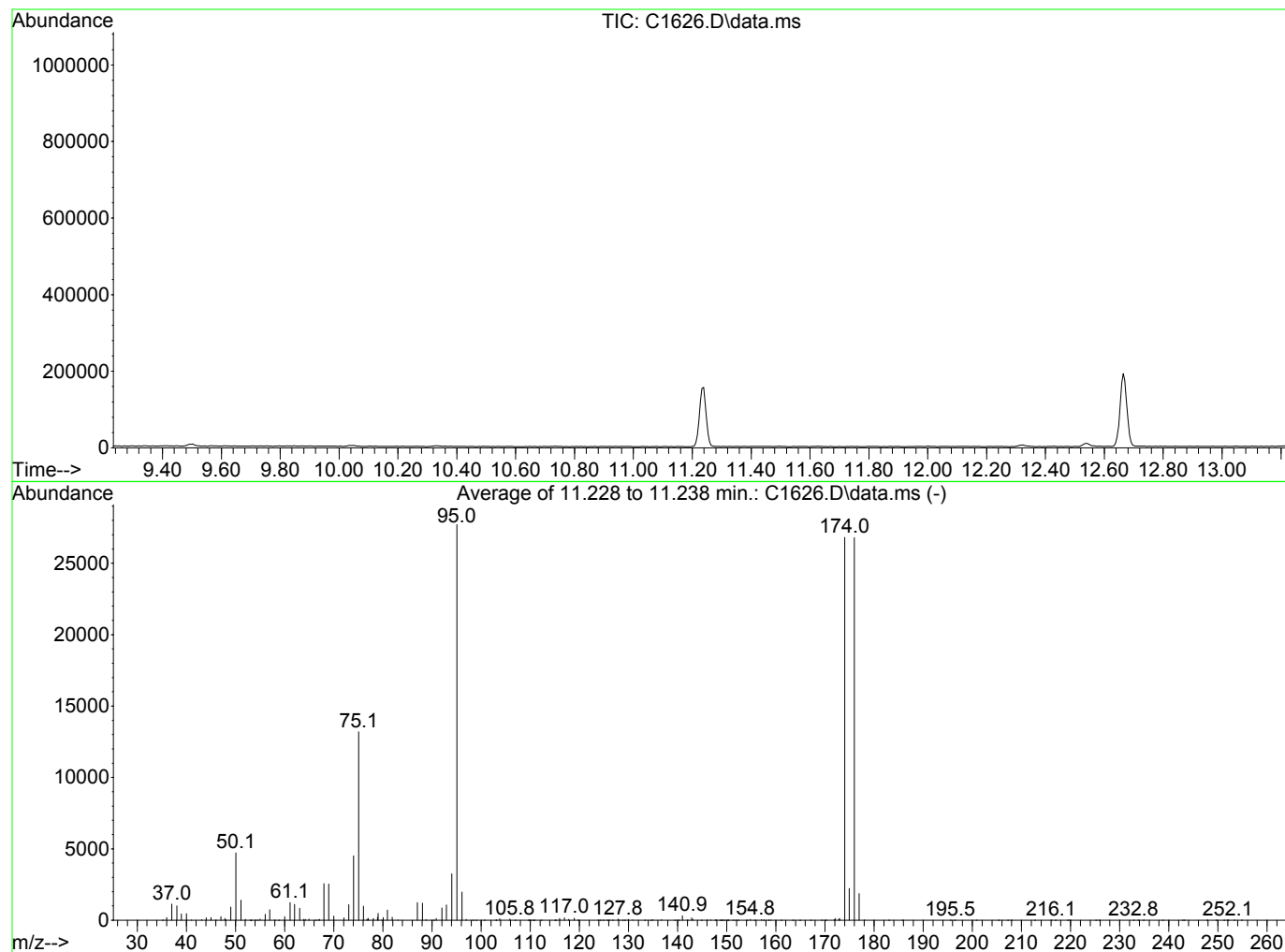
Quant Time: Jul 21 12:12:41 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 17 14:23:39 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\072122\  
Data File : C1626.D  
Acq On : 21 Jul 2022 11:23 am  
Operator : K.Ruest  
Sample : TUNE  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP62.P

Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Title : 524.2 Waters  
Last Update : Tue May 17 14:23:39 2022



AutoFind: Scans 1931, 1932, 1933; Background Corrected with Scan 1924

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 17.0      | 4722    | PASS             |
| 75          | 95           | 30           | 80           | 47.6      | 13200   | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 27709   | PASS             |
| 96          | 95           | 5            | 9            | 7.1       | 1978    | PASS             |
| 173         | 174          | 0.00         | 2            | 0.4       | 118     | PASS             |
| 174         | 95           | 50           | 120          | 96.7      | 26803   | PASS             |
| 175         | 174          | 5            | 9            | 8.3       | 2224    | PASS             |
| 176         | 174          | 95           | 101          | 99.9      | 26784   | PASS             |
| 177         | 176          | 5            | 9            | 7.0       | 1863    | PASS             |

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1359.D  
 Acq On : 09 May 2022 09:00 pm  
 Operator : K.Ruest  
 Sample : 50.0PPB  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 10 09:34:20 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| -----                         |        |                |          |        |         |          |
| Internal Standards            |        |                |          |        |         |          |
| 1) Fluorobenzene              | 6.289  | 96             | 137777   | 5.00   | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 37) surr2,bfb                 | 11.238 | 95             | 51873    | 2.77   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 55.40%# |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 62918    | 2.85   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 57.00%# |          |
| Target Compounds              |        |                |          |        |         |          |
|                               |        |                |          |        |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 384298   | 48.01  | ppb     | 97       |
| 3) Chloromethane              | 1.334  | 50             | 356221   | 46.04  | ppb     | 97       |
| 4) Vinyl Chloride             | 1.408  | 62             | 408880   | 52.25  | ppb     | 99       |
| 5) Bromomethane               | 1.633  | 94             | 264976   | 38.31  | ppb     | 94       |
| 6) Chloroethane               | 1.706  | 64             | 249564   | 48.31  | ppb     | 94       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 437290   | 43.40  | ppb     | 97       |
| 8) FREON 123A                 | 2.131  | 67             | 351113   | 48.63  | ppb     | 94       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 279347   | 44.10  | ppb     | 95       |
| 10) Freon 113                 | 2.325  | 101            | 255139   | 41.58  | ppb     | 99       |
| 11) Acetone                   | 2.362  | 43             | 235021   | 68.43  | ppb     | 99       |
| 12) Methylene Chloride        | 2.750  | 84             | 365371   | 45.43  | ppb     | 96       |
| 13) TBA                       | 2.912  | 59             | 895647   | 673.51 | ppb     | 94       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 1042668  | 44.23  | ppb     | 98       |
| 15) trans-1,2-Dichloroethene  | 3.043  | 96             | 319805   | 44.76  | ppb     | 94       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 552189   | 44.36  | ppb     | 98       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 318248m  | 42.97  | ppb     |          |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96             | 398887   | 47.42  | ppb     | 93       |
| 19) 2-Butanone                | 4.433  | 43             | 381392   | 69.15  | ppb     | 98       |
| 20) Bromochloromethane        | 4.732  | 130            | 283105   | 49.39  | ppb     | 91       |
| 21) Tetrahydrofuran           | 4.884  | 42             | 127243   | 33.99  | ppb     | 93       |
| 22) Chloroform                | 4.915  | 83             | 592139   | 44.05  | ppb     | 97       |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 440128   | 44.28  | ppb     | 99       |
| 24) Carbontetrachloride       | 5.502  | 117            | 381930   | 45.69  | ppb     | 95       |
| 25) 1,1-Dichloropropene       | 5.513  | 75             | 380991   | 42.93  | ppb     | 99       |
| 26) Benzene                   | 5.833  | 78             | 1346146  | 44.68  | ppb     | 99       |
| 27) 1,2-Dichloroethane        | 5.869  | 62             | 469815   | 45.75  | ppb     | 98       |
| 28) Trichloroethene           | 6.824  | 130            | 369608   | 45.77  | ppb     | 98       |
| 29) 1,2-Diclpropane           | 7.123  | 63             | 370190   | 46.37  | ppb     | 98       |
| 30) Dibromomethane            | 7.264  | 93             | 267275   | 49.01  | ppb     | 84       |
| 31) Bromodichloromethane      | 7.511  | 83             | 519372   | 49.01  | ppb     | 97       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 611641   | 51.69  | ppb     | 98       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 1147101  | 75.29  | ppb     | 97       |
| 34) Toluene                   | 8.507  | 91             | 1507588  | 46.26  | ppb     | 97       |
| 35) trans-1,3-Dichloropropene | 8.795  | 75             | 548915   | 53.64  | ppb     | 98       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 399255   | 49.46  | ppb     | 97       |
| 38) Tetrachloroethene         | 9.146  | 164            | 287538   | 44.45  | ppb     | 97       |
| 39) 2-Hexanone                | 9.330  | 43             | 609169   | 73.51  | ppb     | 98       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 674714   | 48.41  | ppb     | 93       |
| 41) Dibromochloromethane      | 9.424  | 129            | 471431   | 56.49  | ppb     | 96       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 424817   | 49.48  | ppb     | 94       |
| 43) Chlorobenzene             | 10.074 | 112            | 1047203  | 48.40  | ppb     | 98       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 384088   | 51.91  | ppb     | 95       |
| 45) Ethylbenzene              | 10.211 | 106            | 508840   | 45.53  | ppb     | 97       |
| 46) (m+p)Xylene               | 10.336 | 106            | 1293075  | 93.13  | ppb     | 98       |
| 47) o-Xylene                  | 10.730 | 106            | 649385   | 48.07  | ppb     | 98       |
| 48) Styrene                   | 10.740 | 104            | 1203642  | 51.18  | ppb     | 97       |

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1359.D  
 Acq On : 09 May 2022 09:00 pm  
 Operator : K.Ruest  
 Sample : 50.0PPB  
 Misc :  
 ALS Vial : 11 Sample Multiplier: 1

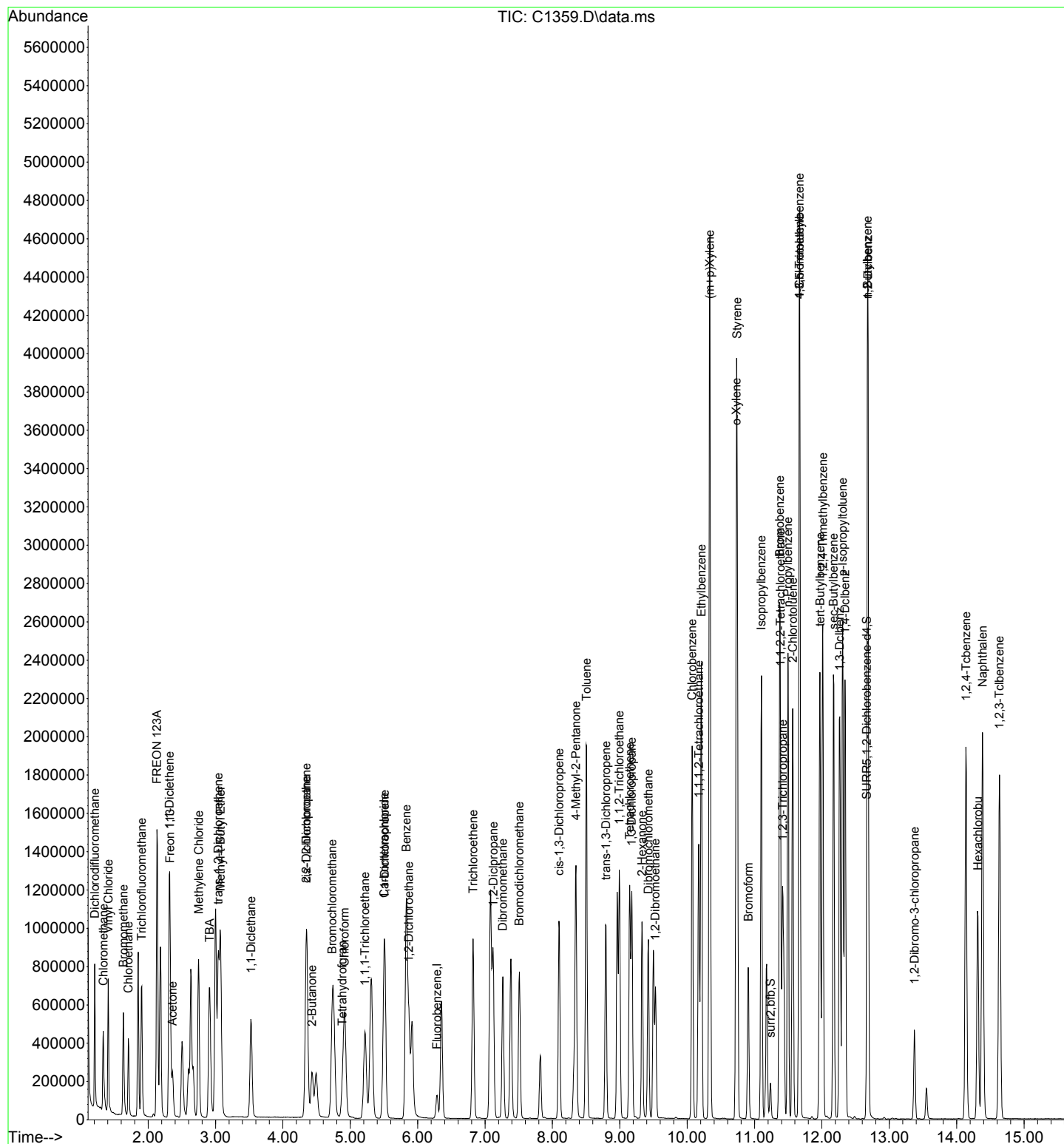
Quant Time: May 10 09:34:20 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 351810   | 55.97 | ppb   | 97       |
| 50) Isopropylbenzene          | 11.102 | 105  | 1459114  | 45.01 | ppb   | 99       |
| 51) 1,1,2,2-Tetrachloroethane | 11.385 | 83   | 560220m  | 46.41 | ppb   |          |
| 52) Bromobenzene              | 11.375 | 156  | 532653   | 52.56 | ppb   | 95       |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 190263   | 45.02 | ppb   | # 89     |
| 54) n-Propylbenzene           | 11.495 | 91   | 1777700  | 46.22 | ppb   | 98       |
| 55) 2-Chlorotoluene           | 11.569 | 91   | 1138607  | 46.89 | ppb   | 99       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 1376683  | 50.51 | ppb   | 96       |
| 57) 1,3,5-Trimethylbenzene    | 11.668 | 105  | 1368874  | 46.86 | ppb   | 97       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 1136935  | 45.72 | ppb   | 99       |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 1388415  | 48.09 | ppb   | 98       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 1590676  | 46.26 | ppb   | 98       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 1430639  | 47.11 | ppb   | 98       |
| 62) 1,3-Dclbenz               | 12.266 | 146  | 937121   | 51.21 | ppb   | 97       |
| 63) 1,4-Dclbenz               | 12.345 | 146  | 969836   | 50.98 | ppb   | 98       |
| 64) n-Butylbenzene            | 12.680 | 91   | 1241679  | 46.79 | ppb   | 99       |
| 66) 1,2-Dclbenz               | 12.685 | 146  | 976461   | 52.28 | ppb   | 98       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 104316   | 48.06 | ppb   | 86       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 747281   | 56.68 | ppb   | 96       |
| 69) Hexachlorobu              | 14.316 | 225  | 278687   | 46.77 | ppb   | 98       |
| 70) Naphthalen                | 14.384 | 128  | 2019891  | 51.63 | ppb   | 98       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 759603   | 57.46 | ppb   | 99       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1359.D  
Acq On : 09 May 2022 09:00 pm  
Operator : K.Ruest  
Sample : 50.0PPB  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

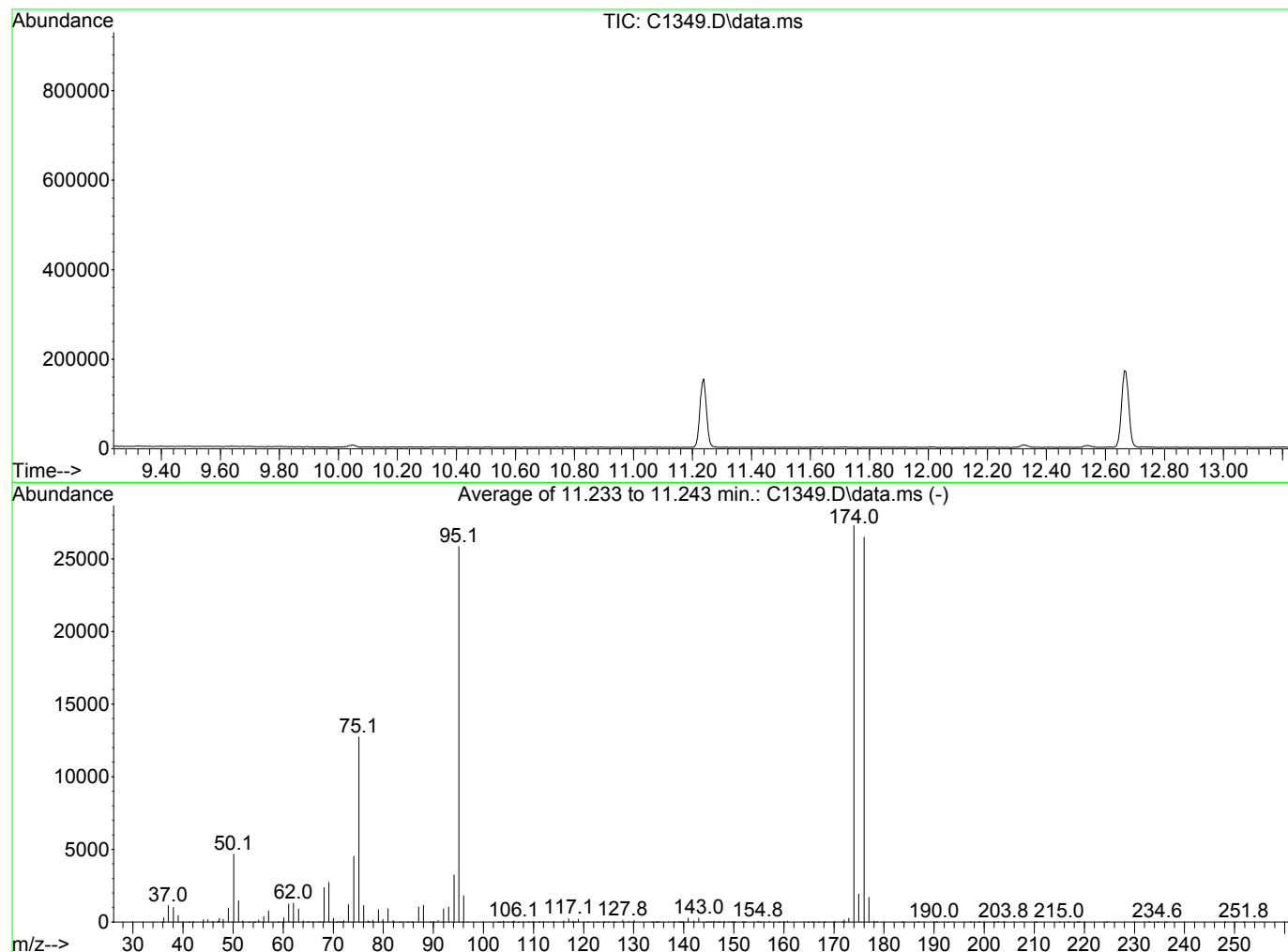
Quant Time: May 10 09:34:20 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\DATA\050922\  
Data File : C1349.D  
Acq On : 09 May 2022 04:45 pm  
Operator : K.Ruest  
Sample : TUNE  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Integration File: INTP62.P

Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Title : 524.2 Waters  
Last Update : Tue May 10 15:43:10 2022



AutoFind: Scans 1932, 1933, 1934; Background Corrected with Scan 1924

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 18.1      | 4664    | PASS             |
| 75          | 95           | 30           | 80           | 49.4      | 12752   | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 25835   | PASS             |
| 96          | 95           | 5            | 9            | 7.0       | 1808    | PASS             |
| 173         | 174          | 0.00         | 2            | 1.0       | 273     | PASS             |
| 174         | 95           | 50           | 120          | 105.6     | 27283   | PASS             |
| 175         | 174          | 5            | 9            | 7.0       | 1922    | PASS             |
| 176         | 174          | 95           | 101          | 97.0      | 26472   | PASS             |
| 177         | 176          | 5            | 9            | 6.4       | 1693    | PASS             |



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1351.D  
 Acq On : 09 May 2022 05:36 pm  
 Operator : K.Ruest  
 Sample : 0.5PPB  
 Misc :  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 10 09:33:55 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|------|---------|----------|
| -----                         |        |                |          |      |         |          |
| Internal Standards            |        |                |          |      |         |          |
| 1) Fluorobenzene              | 6.284  | 96             | 132344   | 5.00 | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |      |         |          |
| 37) surr2,bfb                 | 11.238 | 95             | 44879    | 2.49 | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =    | 49.80%# |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 52586    | 2.48 | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =    | 49.60%# |          |
| Target Compounds              |        |                |          |      |         |          |
|                               |        |                |          |      |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 4406     | 0.57 | ppb     | 96       |
| 3) Chloromethane              | 1.334  | 50             | 4543     | 0.61 | ppb     | 90       |
| 4) Vinyl Chloride             | 1.408  | 62             | 4472     | 0.59 | ppb     | 98       |
| 5) Bromomethane               | 1.633  | 94             | 3220     | 0.48 | ppb     | 94       |
| 6) Chloroethane               | 1.706  | 64             | 2955     | 0.60 | ppb     | 92       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 5125     | 0.53 | ppb     | 87       |
| 8) FREON 123A                 | 2.136  | 67             | 3811     | 0.55 | ppb     | 100      |
| 9) 1,1-Dicethene              | 2.315  | 96             | 3234     | 0.53 | ppb     | # 82     |
| 10) Freon 113                 | 2.330  | 101            | 3327     | 0.56 | ppb     | # 90     |
| 11) Acetone                   | 2.367  | 43             | 14223    | 4.31 | ppb     | 99       |
| 12) Methylene Chloride        | 2.750  | 84             | 4699     | 0.61 | ppb     | 87       |
| 13) TBA                       | 2.918  | 59             | 12403    | 9.71 | ppb     | 95       |
| 14) Methyl-t-Butyl Ether      | 3.080  | 73             | 11099    | 0.49 | ppb     | 96       |
| 15) trans-1,2-Dichloroethene  | 3.038  | 96             | 3580     | 0.52 | ppb     | 97       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 6083     | 0.51 | ppb     | 93       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 3862     | 0.54 | ppb     | 93       |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96             | 4291     | 0.53 | ppb     | # 77     |
| 19) 2-Butanone                | 4.443  | 43             | 22338    | 4.22 | ppb     | 98       |
| 20) Bromochloromethane        | 4.737  | 130            | 2997     | 0.54 | ppb     | # 83     |
| 21) Tetrahydrofuran           | 4.899  | 42             | 1824     | 0.51 | ppb     | 74       |
| 22) Chloroform                | 4.915  | 83             | 10302    | 0.80 | ppb     | # 74     |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 5095     | 0.53 | ppb     | 93       |
| 24) Carbontetrachloride       | 5.502  | 117            | 4515     | 0.56 | ppb     | # 81     |
| 25) 1,1-Dichloropropene       | 5.502  | 75             | 4636     | 0.54 | ppb     | 91       |
| 26) Benzene                   | 5.833  | 78             | 15197    | 0.53 | ppb     | 97       |
| 27) 1,2-Dichloroethane        | 5.869  | 62             | 4965     | 0.50 | ppb     | 96       |
| 28) Trichloroethene           | 6.824  | 130            | 4096     | 0.53 | ppb     | 94       |
| 29) 1,2-Diclpropane           | 7.117  | 63             | 3572     | 0.47 | ppb     | 90       |
| 30) Dibromomethane            | 7.269  | 93             | 2776     | 0.53 | ppb     | 92       |
| 31) Bromodichloromethane      | 7.510  | 83             | 6127     | 0.60 | ppb     | 97       |
| 32) cis-1,3-Dichloropropene   | 8.103  | 75             | 5992     | 0.53 | ppb     | 93       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 57599    | 3.94 | ppb     | 98       |
| 34) Toluene                   | 8.501  | 91             | 16999    | 0.54 | ppb     | 97       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 5014     | 0.51 | ppb     | 92       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 4036     | 0.52 | ppb     | 98       |
| 38) Tetrachloroethene         | 9.151  | 164            | 3177     | 0.51 | ppb     | 89       |
| 39) 2-Hexanone                | 9.330  | 43             | 30138    | 3.79 | ppb     | 97       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 6664     | 0.50 | ppb     | 86       |
| 41) Dibromochloromethane      | 9.419  | 129            | 4752     | 0.59 | ppb     | 83       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 4004     | 0.49 | ppb     | 96       |
| 43) Chlorobenzene             | 10.079 | 112            | 9915     | 0.48 | ppb     | 98       |
| 44) 1,1,1,2-Tetrachloroethane | 10.169 | 131            | 3616     | 0.51 | ppb     | 95       |
| 45) Ethylbenzene              | 10.211 | 106            | 5329     | 0.50 | ppb     | # 91     |
| 46) (m+p)Xylene               | 10.331 | 106            | 11904    | 0.89 | ppb     | 99       |
| 47) o-Xylene                  | 10.735 | 106            | 6039     | 0.47 | ppb     | # 85     |
| 48) Styrene                   | 10.740 | 104            | 9946     | 0.44 | ppb     | 95       |

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1351.D  
Acq On : 09 May 2022 05:36 pm  
Operator : K.Ruest  
Sample : 0.5PPB  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

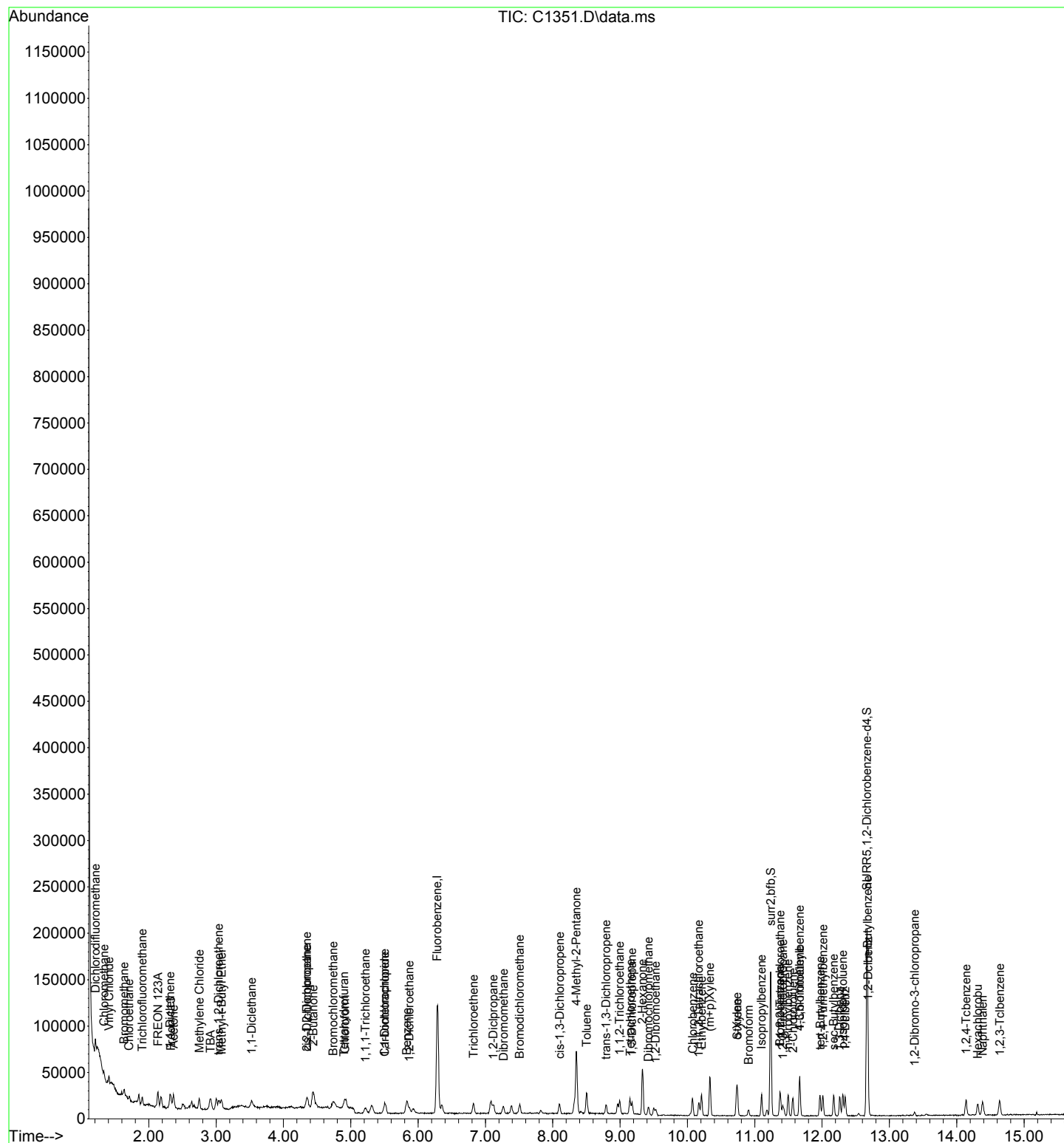
Quant Time: May 10 09:33:55 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|--------|------|----------|------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 3013     | 0.50 | ppb   | 94       |
| 50) Isopropylbenzene          | 11.102 | 105  | 14344    | 0.46 | ppb   | 98       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 5320     | 0.46 | ppb   | 99       |
| 52) Bromobenzene              | 11.375 | 156  | 4850     | 0.50 | ppb # | 82       |
| 53) 1,2,3-Trichloropropane    | 11.416 | 110  | 1767     | 0.44 | ppb # | 64       |
| 54) n-Propylbenzene           | 11.495 | 91   | 16140    | 0.44 | ppb   | 92       |
| 55) 2-Chlorotoluene           | 11.569 | 91   | 10176    | 0.44 | ppb   | 98       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 11799    | 0.45 | ppb   | 96       |
| 57) 1,3,5-Trimethylbenzene    | 11.668 | 105  | 11870    | 0.42 | ppb   | 87       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 10558    | 0.44 | ppb   | 96       |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 12402    | 0.45 | ppb   | 94       |
| 60) sec-Butylbenzene          | 12.171 | 105  | 14719    | 0.45 | ppb   | 98       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 12737    | 0.44 | ppb   | 93       |
| 62) 1,3-Dclbenz               | 12.261 | 146  | 8358     | 0.48 | ppb   | 96       |
| 63) 1,4-Dclbenz               | 12.344 | 146  | 8615     | 0.47 | ppb   | 96       |
| 64) n-Butylbenzene            | 12.680 | 91   | 11619    | 0.46 | ppb   | 88       |
| 66) 1,2-Dclbenz               | 12.685 | 146  | 8278     | 0.46 | ppb   | 95       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 1020     | 0.49 | ppb   | 94       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 6407     | 0.51 | ppb   | 95       |
| 69) Hexachlorobu              | 14.311 | 225  | 2925     | 0.51 | ppb   | 94       |
| 70) Naphthalen                | 14.384 | 128  | 14482    | 0.39 | ppb   | 99       |
| 71) 1,2,3-Tclbenzene          | 14.641 | 180  | 6326     | 0.50 | ppb   | 88       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1351.D  
Acq On : 09 May 2022 05:36 pm  
Operator : K.Ruest  
Sample : 0.5PPB  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 10 09:33:55 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1352.D  
 Acq On : 09 May 2022 06:02 pm  
 Operator : K.Ruest  
 Sample : 1.0PPB  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 10 09:33:59 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc  | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|-------|---------|----------|
| -----                         |        |                |          |       |         |          |
| Internal Standards            |        |                |          |       |         |          |
| 1) Fluorobenzene              | 6.289  | 96             | 134127   | 5.00  | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |       |         |          |
| 37) surr2,bfb                 | 11.238 | 95             | 45329    | 2.48  | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 49.60%# |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 54189    | 2.52  | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 50.40%# |          |
| Target Compounds              |        |                |          |       |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 7658     | 0.98  | ppb     | 96       |
| 3) Chloromethane              | 1.334  | 50             | 8025     | 1.07  | ppb     | 99       |
| 4) Vinyl Chloride             | 1.408  | 62             | 9049     | 1.19  | ppb     | 94       |
| 5) Bromomethane               | 1.633  | 94             | 6094     | 0.91  | ppb     | 91       |
| 6) Chloroethane               | 1.706  | 64             | 5648     | 1.12  | ppb     | 99       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 10515    | 1.07  | ppb     | 94       |
| 8) FREON 123A                 | 2.131  | 67             | 7508     | 1.07  | ppb     | 86       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 6758     | 1.10  | ppb     | 93       |
| 10) Freon 113                 | 2.325  | 101            | 6855     | 1.15  | ppb     | 87       |
| 11) Acetone                   | 2.367  | 43             | 26456    | 7.91  | ppb     | 94       |
| 12) Methylene Chloride        | 2.750  | 84             | 9000     | 1.15  | ppb     | 99       |
| 13) TBA                       | 2.918  | 59             | 19871    | 15.35 | ppb     | 94       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 21502    | 0.94  | ppb     | 92       |
| 15) trans-1,2-Dichloroethene  | 3.043  | 96             | 6757     | 0.97  | ppb     | 93       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 12045    | 0.99  | ppb     | 91       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 8188     | 1.14  | ppb     | 89       |
| 18) cis-1,2-Dichloroethene    | 4.354  | 96             | 8233     | 1.01  | ppb     | 92       |
| 19) 2-Butanone                | 4.438  | 43             | 41495    | 7.73  | ppb     | 97       |
| 20) Bromochloromethane        | 4.742  | 130            | 5741     | 1.03  | ppb     | # 75     |
| 21) Tetrahydrofuran           | 4.910  | 42             | 2872     | 0.79  | ppb     | # 80     |
| 22) Chloroform                | 4.920  | 83             | 15151    | 1.16  | ppb     | # 64     |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 10472    | 1.08  | ppb     | 96       |
| 24) Carbontetrachloride       | 5.497  | 117            | 8758     | 1.08  | ppb     | 89       |
| 25) 1,1-Dichloropropene       | 5.508  | 75             | 9398     | 1.09  | ppb     | 86       |
| 26) Benzene                   | 5.822  | 78             | 29625    | 1.01  | ppb     | 94       |
| 27) 1,2-Dichloroethane        | 5.864  | 62             | 9781     | 0.98  | ppb     | 93       |
| 28) Trichloroethene           | 6.824  | 130            | 8483     | 1.08  | ppb     | 93       |
| 29) 1,2-Diclpropane           | 7.122  | 63             | 7664     | 0.99  | ppb     | 87       |
| 30) Dibromomethane            | 7.259  | 93             | 5501     | 1.04  | ppb     | 93       |
| 31) Bromodichloromethane      | 7.510  | 83             | 11018    | 1.07  | ppb     | 95       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 11837    | 1.03  | ppb     | 100      |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 116737   | 7.87  | ppb     | 98       |
| 34) Toluene                   | 8.507  | 91             | 32453    | 1.02  | ppb     | 93       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 9879     | 0.99  | ppb     | 95       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 8218     | 1.05  | ppb     | 97       |
| 38) Tetrachloroethene         | 9.146  | 164            | 6946     | 1.10  | ppb     | 96       |
| 39) 2-Hexanone                | 9.335  | 43             | 62969    | 7.81  | ppb     | 96       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 13258    | 0.98  | ppb     | 97       |
| 41) Dibromochloromethane      | 9.424  | 129            | 9031     | 1.11  | ppb     | 83       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 7842     | 0.94  | ppb     | 91       |
| 43) Chlorobenzene             | 10.074 | 112            | 19889    | 0.94  | ppb     | 98       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 7378     | 1.02  | ppb     | 99       |
| 45) Ethylbenzene              | 10.211 | 106            | 10692    | 0.98  | ppb     | 93       |
| 46) (m+p)Xylene               | 10.331 | 106            | 24909    | 1.84  | ppb     | 99       |
| 47) o-Xylene                  | 10.730 | 106            | 11905    | 0.91  | ppb     | 93       |
| 48) Styrene                   | 10.740 | 104            | 20371    | 0.89  | ppb     | 97       |

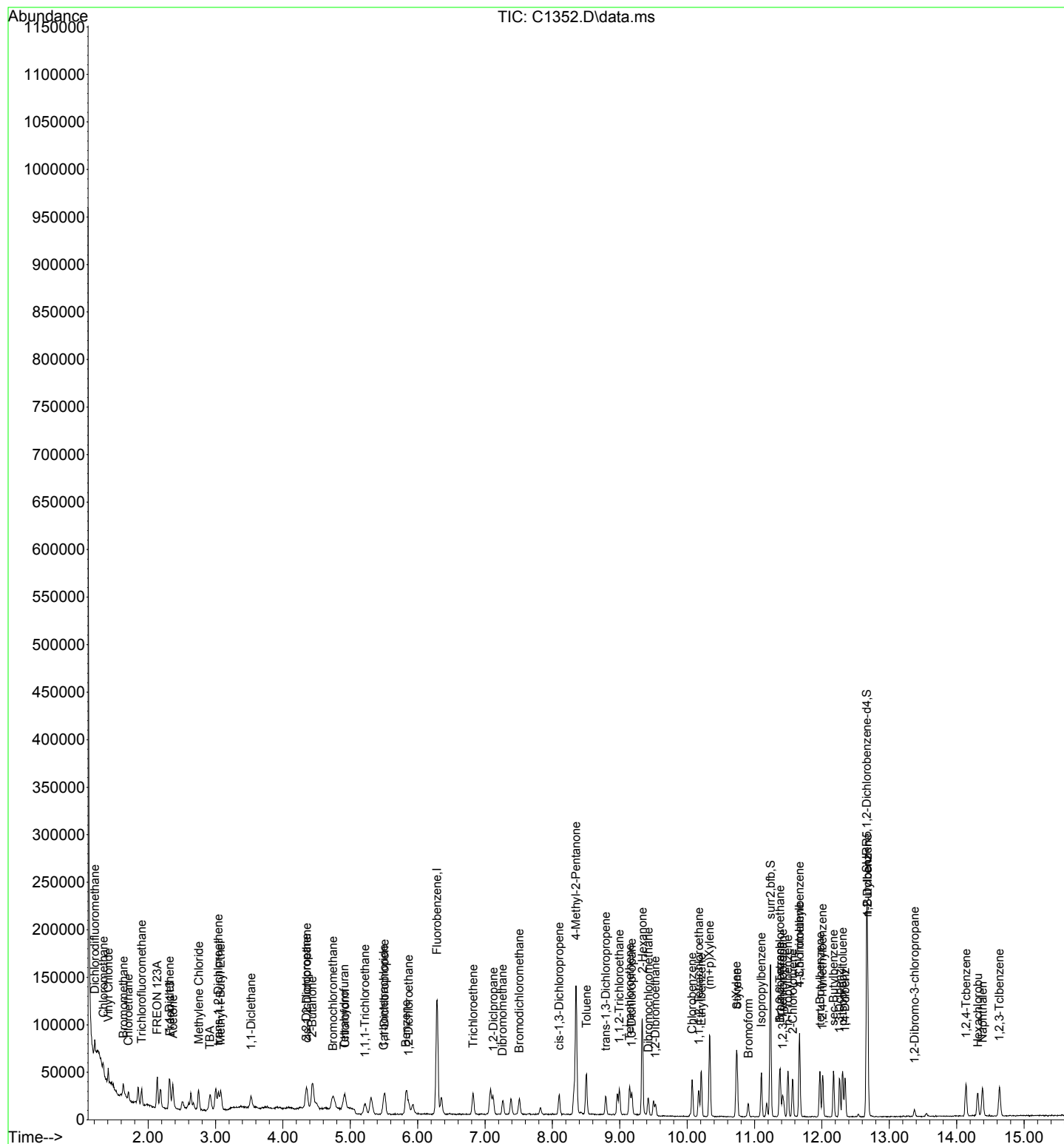
Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1352.D  
 Acq On : 09 May 2022 06:02 pm  
 Operator : K.Ruest  
 Sample : 1.0PPB  
 Misc :  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 10 09:33:59 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|--------|------|----------|------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 6193     | 1.01 | ppb   | 97       |
| 50) Isopropylbenzene          | 11.102 | 105  | 29354    | 0.93 | ppb   | 97       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 10281    | 0.87 | ppb   | 96       |
| 52) Bromobenzene              | 11.380 | 156  | 9577     | 0.97 | ppb   | # 84     |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 3715     | 0.90 | ppb   | 94       |
| 54) n-Propylbenzene           | 11.495 | 91   | 34701    | 0.93 | ppb   | 98       |
| 55) 2-Chlorotoluene           | 11.569 | 91   | 21260    | 0.90 | ppb   | 97       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 24843    | 0.94 | ppb   | 97       |
| 57) 1,3,5-Trimethylbenzene    | 11.668 | 105  | 24997    | 0.88 | ppb   | 97       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 22946    | 0.95 | ppb   | 93       |
| 59) 1,2,4-Trimethylbenzene    | 12.009 | 105  | 23237    | 0.83 | ppb   | 96       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 30621    | 0.91 | ppb   | 97       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 25737    | 0.87 | ppb   | 95       |
| 62) 1,3-Dclbenz               | 12.261 | 146  | 16718    | 0.94 | ppb   | 97       |
| 63) 1,4-Dclbenz               | 12.345 | 146  | 16482    | 0.89 | ppb   | 98       |
| 64) n-Butylbenzene            | 12.680 | 91   | 22436    | 0.87 | ppb   | 94       |
| 66) 1,2-Dclbenz               | 12.680 | 146  | 17540    | 0.96 | ppb   | 91       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 1665     | 0.79 | ppb   | 90       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 12628    | 0.98 | ppb   | 91       |
| 69) Hexachlorobu              | 14.316 | 225  | 5771     | 0.99 | ppb   | 92       |
| 70) Naphthalen                | 14.384 | 128  | 28623    | 0.75 | ppb   | 95       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 12765    | 0.99 | ppb   | 95       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quant Time: May 10 09:33:59 2022  
Quant Method : I:\ACQDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1353.D  
 Acq On : 09 May 2022 06:27 pm  
 Operator : K.Ruest  
 Sample : 2.0PPB  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 10 09:34:02 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc  | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|-------|---------|----------|
| -----                         |        |                |          |       |         |          |
| Internal Standards            |        |                |          |       |         |          |
| 1) Fluorobenzene              | 6.289  | 96             | 135431   | 5.00  | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |       |         |          |
| 37) surr2,bfb                 | 11.238 | 95             | 47382    | 2.57  | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 51.40%# |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 56457    | 2.60  | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 52.00%# |          |
| Target Compounds              |        |                |          |       |         |          |
|                               |        |                |          |       |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 12150    | 1.54  | ppb     | 99       |
| 3) Chloromethane              | 1.334  | 50             | 13645    | 1.79  | ppb     | 97       |
| 4) Vinyl Chloride             | 1.408  | 62             | 15687    | 2.04  | ppb     | 98       |
| 5) Bromomethane               | 1.628  | 94             | 10726    | 1.58  | ppb     | 92       |
| 6) Chloroethane               | 1.706  | 64             | 9765     | 1.92  | ppb     | 95       |
| 7) Trichlorofluoromethane     | 1.900  | 101            | 17863    | 1.80  | ppb     | 97       |
| 8) FREON 123A                 | 2.131  | 67             | 13742    | 1.94  | ppb     | 96       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 11610    | 1.86  | ppb     | 92       |
| 10) Freon 113                 | 2.325  | 101            | 11638    | 1.93  | ppb     | 93       |
| 11) Acetone                   | 2.367  | 43             | 50254    | 14.89 | ppb     | 98       |
| 12) Methylene Chloride        | 2.750  | 84             | 16337    | 2.07  | ppb     | 92       |
| 13) TBA                       | 2.918  | 59             | 39858    | 30.49 | ppb     | 89       |
| 14) Methyl-t-Butyl Ether      | 3.080  | 73             | 41035    | 1.77  | ppb     | 99       |
| 15) trans-1,2-Dichloroethene  | 3.038  | 96             | 13229    | 1.88  | ppb     | 96       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 22473    | 1.84  | ppb     | 87       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 13806    | 1.90  | ppb     | 96       |
| 18) cis-1,2-Dichloroethene    | 4.344  | 96             | 16293    | 1.97  | ppb     | 88       |
| 19) 2-Butanone                | 4.438  | 43             | 85538    | 15.78 | ppb     | 98       |
| 20) Bromochloromethane        | 4.737  | 130            | 11519    | 2.04  | ppb     | 87       |
| 21) Tetrahydrofuran           | 4.905  | 42             | 5496     | 1.49  | ppb     | 90       |
| 22) Chloroform                | 4.920  | 83             | 27204    | 2.06  | ppb     | 97       |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 18926    | 1.94  | ppb     | 98       |
| 24) Carbontetrachloride       | 5.502  | 117            | 15365    | 1.87  | ppb     | 94       |
| 25) 1,1-Dichloropropene       | 5.508  | 75             | 15993    | 1.83  | ppb     | 95       |
| 26) Benzene                   | 5.833  | 78             | 55648    | 1.88  | ppb     | 96       |
| 27) 1,2-Dichloroethane        | 5.869  | 62             | 19209    | 1.90  | ppb     | 95       |
| 28) Trichloroethene           | 6.824  | 130            | 15214    | 1.92  | ppb     | 94       |
| 29) 1,2-Diclpropane           | 7.117  | 63             | 15669    | 2.00  | ppb     | 85       |
| 30) Dibromomethane            | 7.269  | 93             | 10463    | 1.95  | ppb     | 86       |
| 31) Bromodichloromethane      | 7.510  | 83             | 21194    | 2.03  | ppb     | 97       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 23579    | 2.03  | ppb     | 100      |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 237079   | 15.83 | ppb     | 100      |
| 34) Toluene                   | 8.501  | 91             | 62493    | 1.95  | ppb     | 99       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 20571    | 2.05  | ppb     | 96       |
| 36) 1,1,2-Trichloroethane     | 8.999  | 97             | 15408    | 1.94  | ppb     | 96       |
| 38) Tetrachloroethene         | 9.146  | 164            | 12711    | 2.00  | ppb     | # 86     |
| 39) 2-Hexanone                | 9.330  | 43             | 119804   | 14.71 | ppb     | 97       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 26559    | 1.94  | ppb     | 95       |
| 41) Dibromochloromethane      | 9.424  | 129            | 17031    | 2.08  | ppb     | 95       |
| 42) 1,2-Dibromoethane         | 9.534  | 107            | 15476    | 1.83  | ppb     | 93       |
| 43) Chlorobenzene             | 10.074 | 112            | 39025    | 1.83  | ppb     | 96       |
| 44) 1,1,1,2-Tetrachloroethane | 10.169 | 131            | 13746    | 1.89  | ppb     | 92       |
| 45) Ethylbenzene              | 10.211 | 106            | 19158    | 1.74  | ppb     | 96       |
| 46) (m+p)Xylene               | 10.336 | 106            | 47746    | 3.50  | ppb     | 95       |
| 47) o-Xylene                  | 10.730 | 106            | 23612    | 1.78  | ppb     | 94       |
| 48) Styrene                   | 10.745 | 104            | 41629    | 1.80  | ppb     | 91       |

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1353.D  
 Acq On : 09 May 2022 06:27 pm  
 Operator : K.Ruest  
 Sample : 2.0PPB  
 Misc :  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 10 09:34:02 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

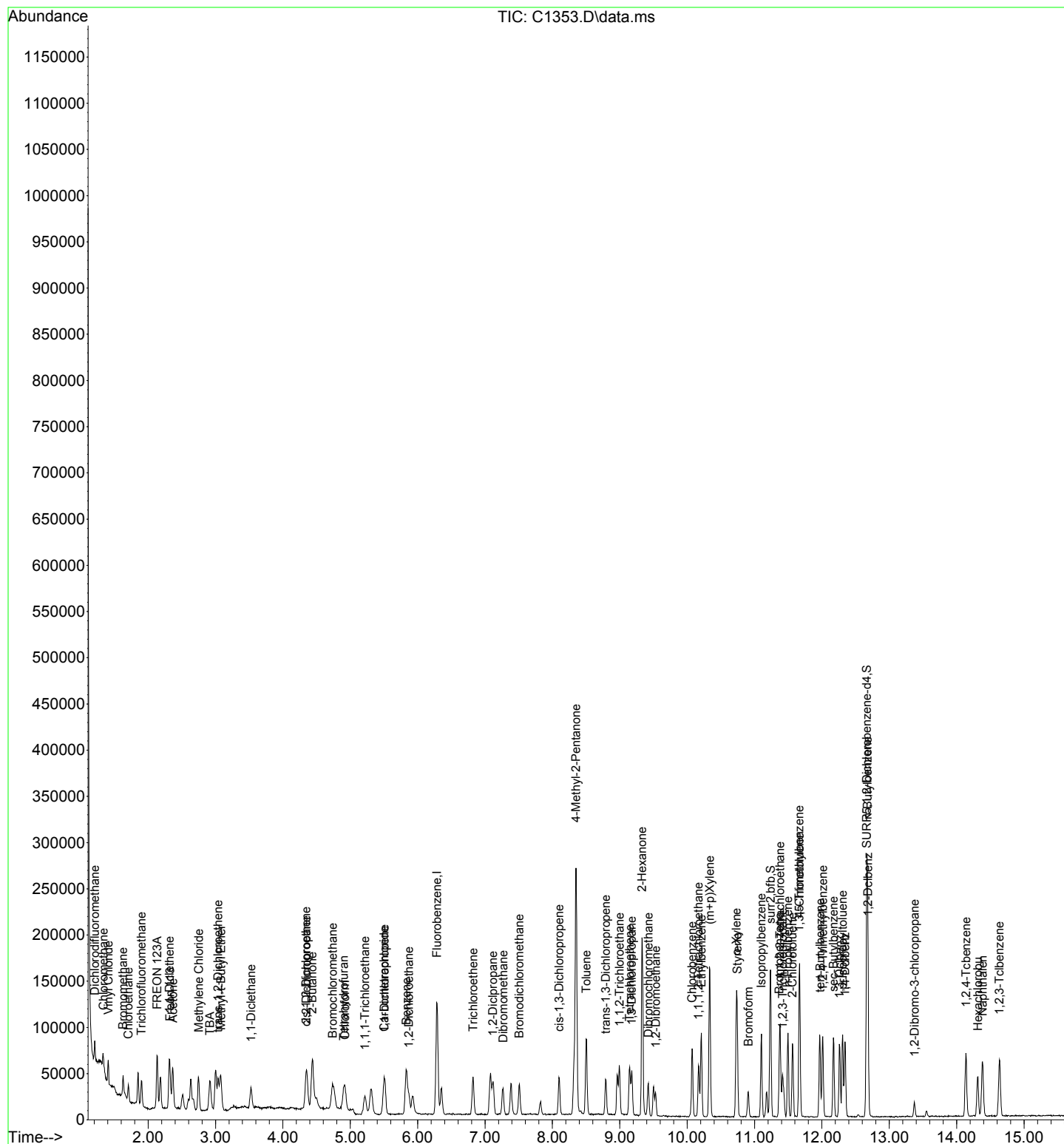
| Compound                      | R.T.   | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|--------|------|----------|------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 11977    | 1.94 | ppb   | 95       |
| 50) Isopropylbenzene          | 11.102 | 105  | 54567    | 1.71 | ppb   | 98       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 20800    | 1.75 | ppb   | 95       |
| 52) Bromobenzene              | 11.369 | 156  | 19233    | 1.93 | ppb   | 92       |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 7150     | 1.72 | ppb # | 77       |
| 54) n-Propylbenzene           | 11.495 | 91   | 62905    | 1.66 | ppb   | 97       |
| 55) 2-Chlorotoluene           | 11.563 | 91   | 41410    | 1.74 | ppb   | 98       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 47687    | 1.78 | ppb   | 92       |
| 57) 1,3,5-Trimethylbenzene    | 11.663 | 105  | 48081    | 1.67 | ppb   | 95       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 42899    | 1.76 | ppb   | 100      |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 45931    | 1.62 | ppb   | 95       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 55902    | 1.65 | ppb   | 98       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 48142    | 1.61 | ppb   | 99       |
| 62) 1,3-Dclbenz               | 12.261 | 146  | 33796    | 1.88 | ppb   | 99       |
| 63) 1,4-Dclbenz               | 12.345 | 146  | 33511    | 1.79 | ppb   | 98       |
| 64) n-Butylbenzene            | 12.675 | 91   | 40798    | 1.56 | ppb   | 94       |
| 66) 1,2-Dclbenz               | 12.685 | 146  | 34838    | 1.90 | ppb   | 97       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 3630     | 1.70 | ppb   | 89       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 25401    | 1.96 | ppb   | 93       |
| 69) Hexachlorobu              | 14.316 | 225  | 10696    | 1.83 | ppb   | 91       |
| 70) Naphthalen                | 14.384 | 128  | 61484    | 1.60 | ppb   | 95       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 25051    | 1.93 | ppb   | 99       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1353.D  
Acq On : 09 May 2022 06:27 pm  
Operator : K.Ruest  
Sample : 2.0PPB  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 10 09:34:02 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1354.D  
 Acq On : 09 May 2022 06:53 pm  
 Operator : K.Ruest  
 Sample : 5.0PPB  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 10 09:34:05 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc  | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|-------|---------|----------|
| -----                         |        |                |          |       |         |          |
| Internal Standards            |        |                |          |       |         |          |
| 1) Fluorobenzene              | 6.289  | 96             | 137277   | 5.00  | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |       |         |          |
| 37) surr2,bfb                 | 11.238 | 95             | 47975    | 2.57  | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 51.40%# |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.669 | 152            | 55872    | 2.54  | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =     | 50.80%# |          |
| Target Compounds              |        |                |          |       |         |          |
|                               |        |                |          |       |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 51520    | 6.46  | ppb     | 99       |
| 3) Chloromethane              | 1.334  | 50             | 46824    | 6.07  | ppb     | 98       |
| 4) Vinyl Chloride             | 1.407  | 62             | 55377    | 7.10  | ppb     | 94       |
| 5) Bromomethane               | 1.633  | 94             | 34968    | 5.07  | ppb     | 98       |
| 6) Chloroethane               | 1.712  | 64             | 33340    | 6.48  | ppb     | 96       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 59937    | 5.97  | ppb     | 97       |
| 8) FREON 123A                 | 2.131  | 67             | 41775    | 5.81  | ppb     | 92       |
| 9) 1,1-Dicethene              | 2.314  | 96             | 37210    | 5.90  | ppb     | 100      |
| 10) Freon 113                 | 2.325  | 101            | 37960    | 6.21  | ppb     | 98       |
| 11) Acetone                   | 2.367  | 43             | 30480    | 8.91  | ppb     | 95       |
| 12) Methylene Chloride        | 2.750  | 84             | 44846    | 5.60  | ppb     | 95       |
| 13) TBA                       | 2.917  | 59             | 108235   | 81.69 | ppb     | 96       |
| 14) Methyl-t-Butyl Ether      | 3.080  | 73             | 117895   | 5.02  | ppb     | 99       |
| 15) trans-1,2-Dichloroethene  | 3.043  | 96             | 42000    | 5.90  | ppb     | 96       |
| 16) 1,1-Dicethane             | 3.531  | 63             | 68787    | 5.55  | ppb     | 98       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 42743    | 5.79  | ppb     | 96       |
| 18) cis-1,2-Dichloroethene    | 4.354  | 96             | 48020    | 5.73  | ppb     | 89       |
| 19) 2-Butanone                | 4.443  | 43             | 45416    | 8.26  | ppb     | 95       |
| 20) Bromochloromethane        | 4.732  | 130            | 31802    | 5.57  | ppb     | 88       |
| 21) Tetrahydrofuran           | 4.889  | 42             | 15355    | 4.12  | ppb     | 93       |
| 22) Chloroform                | 4.920  | 83             | 83451    | 6.23  | ppb     | 97       |
| 23) 1,1,1-Trichloroethane     | 5.224  | 97             | 57824    | 5.84  | ppb     | 98       |
| 24) Carbontetrachloride       | 5.502  | 117            | 50012    | 6.00  | ppb     | 95       |
| 25) 1,1-Dichloropropene       | 5.513  | 75             | 52353    | 5.92  | ppb     | 97       |
| 26) Benzene                   | 5.833  | 78             | 169550   | 5.65  | ppb     | 97       |
| 27) 1,2-Dichloroethane        | 5.875  | 62             | 55731    | 5.45  | ppb     | 93       |
| 28) Trichloroethene           | 6.824  | 130            | 49214    | 6.12  | ppb     | 99       |
| 29) 1,2-Diclpropane           | 7.122  | 63             | 43285    | 5.44  | ppb     | 99       |
| 30) Dibromomethane            | 7.259  | 93             | 30372    | 5.59  | ppb     | 90       |
| 31) Bromodichloromethane      | 7.510  | 83             | 62832    | 5.95  | ppb     | 98       |
| 32) cis-1,3-Dichloropropene   | 8.103  | 75             | 68837    | 5.84  | ppb     | 98       |
| 33) 4-Methyl-2-Pentanone      | 8.354  | 43             | 126580   | 8.34  | ppb     | 97       |
| 34) Toluene                   | 8.501  | 91             | 189783   | 5.84  | ppb     | 97       |
| 35) trans-1,3-Dichloropropene | 8.795  | 75             | 57306    | 5.62  | ppb     | 96       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 44569    | 5.54  | ppb     | 100      |
| 38) Tetrachloroethene         | 9.146  | 164            | 40725    | 6.32  | ppb     | 92       |
| 39) 2-Hexanone                | 9.330  | 43             | 69464    | 8.41  | ppb     | 97       |
| 40) 1,3-Dichloropropane       | 9.183  | 76             | 75938    | 5.47  | ppb     | 92       |
| 41) Dibromochloromethane      | 9.424  | 129            | 50313    | 6.05  | ppb     | 96       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 44749    | 5.23  | ppb     | 96       |
| 43) Chlorobenzene             | 10.079 | 112            | 117305   | 5.44  | ppb     | 97       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 41885    | 5.68  | ppb     | 96       |
| 45) Ethylbenzene              | 10.211 | 106            | 61852    | 5.55  | ppb     | 91       |
| 46) (m+p)Xylene               | 10.336 | 106            | 150414   | 10.87 | ppb     | 93       |
| 47) o-Xylene                  | 10.730 | 106            | 72987    | 5.42  | ppb     | 98       |
| 48) Styrene                   | 10.745 | 104            | 127032   | 5.42  | ppb     | 91       |

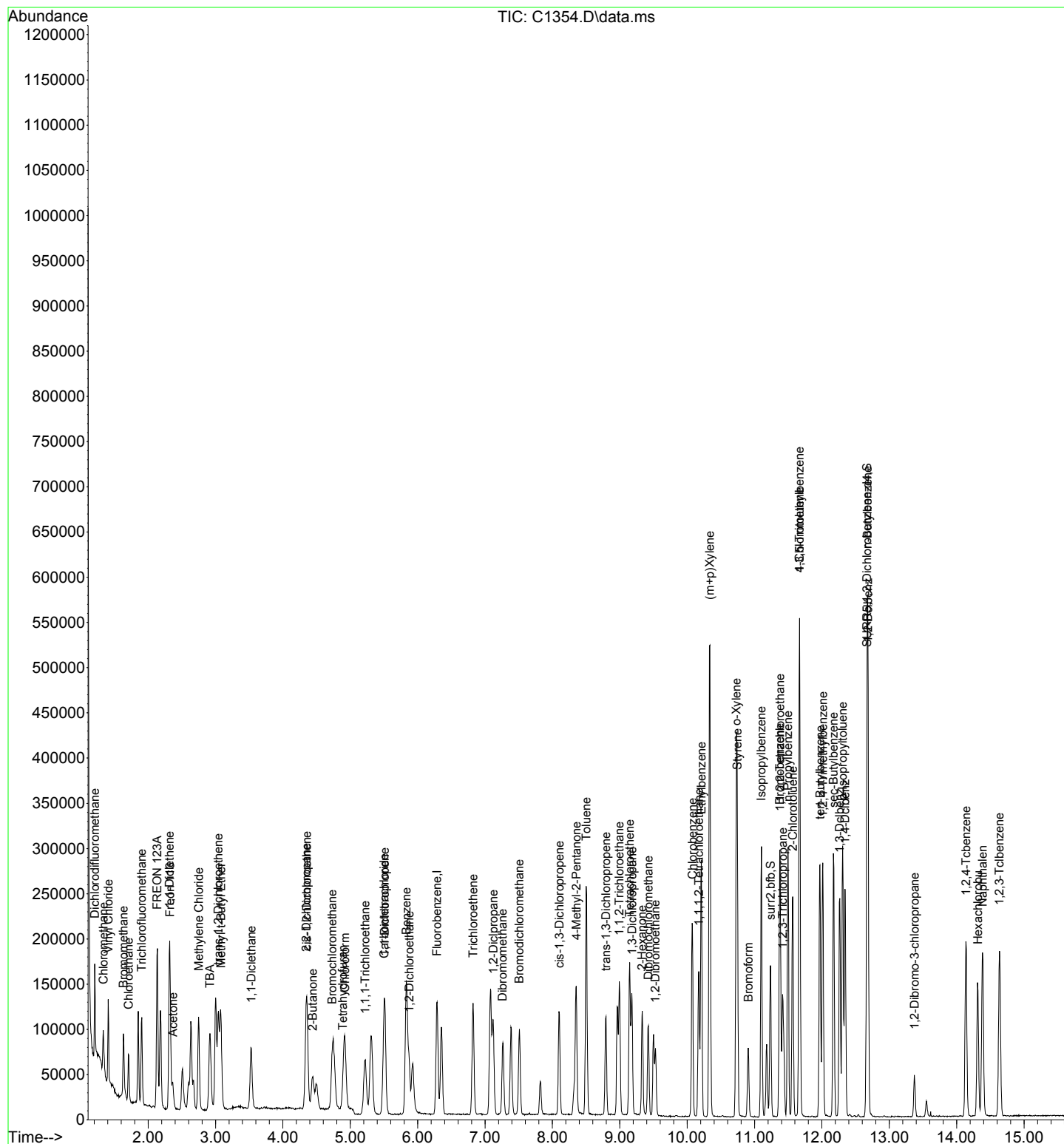
Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1354.D  
 Acq On : 09 May 2022 06:53 pm  
 Operator : K.Ruest  
 Sample : 5.0PPB  
 Misc :  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 10 09:34:05 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc | Units | Dev(Min) |
|-------------------------------|--------|------|----------|------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 35705    | 5.70 | ppb   | 97       |
| 50) Isopropylbenzene          | 11.102 | 105  | 179718   | 5.56 | ppb   | 97       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 59298    | 4.93 | ppb   | 98       |
| 52) Bromobenzene              | 11.374 | 156  | 56605    | 5.61 | ppb   | 99       |
| 53) 1,2,3-Trichloropropane    | 11.416 | 110  | 20713    | 4.92 | ppb # | 88       |
| 54) n-Propylbenzene           | 11.495 | 91   | 212462   | 5.54 | ppb   | 98       |
| 55) 2-Chlorotoluene           | 11.568 | 91   | 130987   | 5.41 | ppb   | 99       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 151649   | 5.58 | ppb   | 98       |
| 57) 1,3,5-Trimethylbenzene    | 11.668 | 105  | 160406   | 5.51 | ppb   | 99       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 137122   | 5.53 | ppb   | 99       |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 152507   | 5.30 | ppb   | 98       |
| 60) sec-Butylbenzene          | 12.171 | 105  | 195087   | 5.69 | ppb   | 99       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 165155   | 5.46 | ppb   | 100      |
| 62) 1,3-Dclbenz               | 12.266 | 146  | 104711   | 5.74 | ppb   | 96       |
| 63) 1,4-Dclbenz               | 12.344 | 146  | 102727   | 5.42 | ppb   | 97       |
| 64) n-Butylbenzene            | 12.680 | 91   | 139769   | 5.29 | ppb   | 97       |
| 66) 1,2-Dclbenz               | 12.685 | 146  | 103797   | 5.58 | ppb   | 97       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 10590    | 4.90 | ppb   | 86       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 74886    | 5.70 | ppb   | 98       |
| 69) Hexachlorobu              | 14.316 | 225  | 36556    | 6.16 | ppb   | 98       |
| 70) Naphthalen                | 14.384 | 128  | 182721   | 4.69 | ppb   | 96       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 76982    | 5.84 | ppb   | 99       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quant Time: May 10 09:34:05 2022  
Quant Method : I:\ACQDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1355.D  
 Acq On : 09 May 2022 07:18 pm  
 Operator : K.Ruest  
 Sample : 10.0PPB  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 10 09:34:08 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| -----                         |        |                |          |        |         |          |
| Internal Standards            |        |                |          |        |         |          |
| 1) Fluorobenzene              | 6.289  | 96             | 133754   | 5.00   | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 37) surr2,bfb                 | 11.238 | 95             | 48309    | 2.65   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 53.00%# |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.670 | 152            | 56189    | 2.62   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 52.40%# |          |
| Target Compounds              |        |                |          |        |         |          |
|                               |        |                |          |        |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 102861   | 13.24  | ppb     | 97       |
| 3) Chloromethane              | 1.334  | 50             | 90577    | 12.06  | ppb     | 96       |
| 4) Vinyl Chloride             | 1.408  | 62             | 106560   | 14.03  | ppb     | 99       |
| 5) Bromomethane               | 1.633  | 94             | 66166    | 9.85   | ppb     | 94       |
| 6) Chloroethane               | 1.712  | 64             | 62435    | 12.45  | ppb     | 95       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 119866   | 12.25  | ppb     | 98       |
| 8) FREON 123A                 | 2.131  | 67             | 85170    | 12.15  | ppb     | 94       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 73815    | 12.00  | ppb     | 96       |
| 10) Freon 113                 | 2.325  | 101            | 74520    | 12.51  | ppb     | 97       |
| 11) Acetone                   | 2.367  | 43             | 52757    | 15.82  | ppb     | 99       |
| 12) Methylene Chloride        | 2.750  | 84             | 85085    | 10.90  | ppb     | 96       |
| 13) TBA                       | 2.918  | 59             | 192816   | 149.36 | ppb     | 95       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 229341   | 10.02  | ppb     | 96       |
| 15) trans-1,2-Dichloroethene  | 3.043  | 96             | 80087    | 11.55  | ppb     | 94       |
| 16) 1,1-Dicethane             | 3.531  | 63             | 135069   | 11.18  | ppb     | 98       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 82924    | 11.53  | ppb     | 96       |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96             | 93271    | 11.42  | ppb     | 91       |
| 19) 2-Butanone                | 4.438  | 43             | 84364    | 15.76  | ppb     | 98       |
| 20) Bromochloromethane        | 4.737  | 130            | 63048    | 11.33  | ppb     | 89       |
| 21) Tetrahydrofuran           | 4.894  | 42             | 29046    | 7.99   | ppb     | 92       |
| 22) Chloroform                | 4.915  | 83             | 150716   | 11.55  | ppb     | 98       |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 114654   | 11.88  | ppb     | 96       |
| 24) Carbontetrachloride       | 5.502  | 117            | 99681    | 12.28  | ppb     | 99       |
| 25) 1,1-Dichloropropene       | 5.513  | 75             | 101447   | 11.77  | ppb     | 95       |
| 26) Benzene                   | 5.833  | 78             | 330099   | 11.28  | ppb     | 96       |
| 27) 1,2-Dichloroethane        | 5.870  | 62             | 105010   | 10.53  | ppb     | 96       |
| 28) Trichloroethene           | 6.824  | 130            | 94431    | 12.05  | ppb     | 96       |
| 29) 1,2-Dicpropene            | 7.123  | 63             | 83970    | 10.84  | ppb     | 98       |
| 30) Dibromomethane            | 7.264  | 93             | 58245    | 11.00  | ppb     | 90       |
| 31) Bromodichloromethane      | 7.511  | 83             | 119638   | 11.63  | ppb     | 96       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 135062   | 11.76  | ppb     | 99       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 235701   | 15.93  | ppb     | 99       |
| 34) Toluene                   | 8.502  | 91             | 372295   | 11.77  | ppb     | 97       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 113030   | 11.38  | ppb     | 98       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 86451    | 11.03  | ppb     | 95       |
| 38) Tetrachloroethene         | 9.146  | 164            | 76806    | 12.23  | ppb     | 96       |
| 39) 2-Hexanone                | 9.330  | 43             | 126853   | 15.77  | ppb     | 97       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 144468   | 10.68  | ppb     | 95       |
| 41) Dibromochloromethane      | 9.424  | 129            | 99778    | 12.32  | ppb     | 93       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 91175    | 10.94  | ppb     | 93       |
| 43) Chlorobenzene             | 10.074 | 112            | 229857   | 10.94  | ppb     | 97       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 81678    | 11.37  | ppb     | 96       |
| 45) Ethylbenzene              | 10.211 | 106            | 119463   | 11.01  | ppb     | 97       |
| 46) (m+p)Xylene               | 10.337 | 106            | 302696   | 22.46  | ppb     | 99       |
| 47) o-Xylene                  | 10.730 | 106            | 144183   | 10.99  | ppb     | 97       |
| 48) Styrene                   | 10.746 | 104            | 251814   | 11.03  | ppb     | 93       |

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1355.D  
 Acq On : 09 May 2022 07:18 pm  
 Operator : K.Ruest  
 Sample : 10.0PPB  
 Misc :  
 ALS Vial : 7 Sample Multiplier: 1

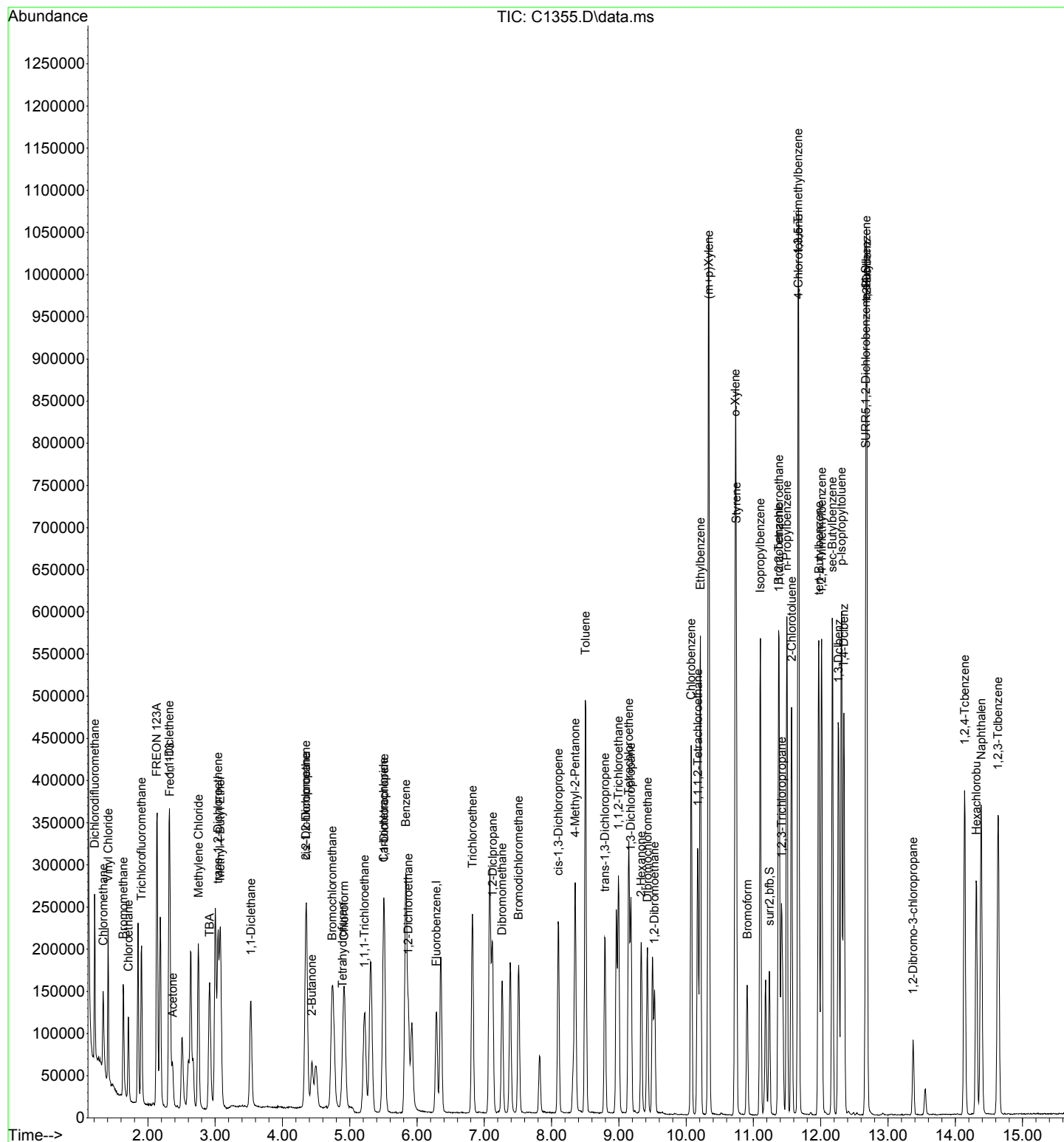
Quant Time: May 10 09:34:08 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 69310    | 11.36 | ppb   | 97       |
| 50) Isopropylbenzene          | 11.102 | 105  | 356234   | 11.32 | ppb   | 99       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 112770   | 9.62  | ppb   | 98       |
| 52) Bromobenzene              | 11.375 | 156  | 113399   | 11.53 | ppb   | 97       |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 39024    | 9.51  | ppb # | 85       |
| 54) n-Propylbenzene           | 11.495 | 91   | 424665   | 11.37 | ppb   | 97       |
| 55) 2-Chlorotoluene           | 11.569 | 91   | 261222   | 11.08 | ppb   | 97       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 301125   | 11.38 | ppb   | 98       |
| 57) 1,3,5-Trimethylbenzene    | 11.663 | 105  | 316145   | 11.15 | ppb   | 99       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 277590   | 11.50 | ppb   | 99       |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 307819   | 10.98 | ppb   | 99       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 387878   | 11.62 | ppb   | 100      |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 327170   | 11.10 | ppb   | 99       |
| 62) 1,3-Dclbenz               | 12.266 | 146  | 197575   | 11.12 | ppb   | 94       |
| 63) 1,4-Dclbenz               | 12.345 | 146  | 207043   | 11.21 | ppb   | 97       |
| 64) n-Butylbenzene            | 12.680 | 91   | 282958   | 10.98 | ppb   | 98       |
| 66) 1,2-Dclbenz               | 12.685 | 146  | 203188   | 11.21 | ppb   | 97       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 20309    | 9.64  | ppb   | 96       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 146973   | 11.48 | ppb   | 96       |
| 69) Hexachlorobu              | 14.311 | 225  | 68877    | 11.91 | ppb   | 98       |
| 70) Naphthalen                | 14.384 | 128  | 368774   | 9.71  | ppb   | 96       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 150974   | 11.76 | ppb   | 98       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1355.D  
Acq On : 09 May 2022 07:18 pm  
Operator : K.Ruest  
Sample : 10.0PPB  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 10 09:34:08 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1356.D  
 Acq On : 09 May 2022 07:44 pm  
 Operator : K.Ruest  
 Sample : 20.0PPB  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 10 09:34:11 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| -----                         |        |                |          |        |         |          |
| Internal Standards            |        |                |          |        |         |          |
| 1) Fluorobenzene              | 6.289  | 96             | 134575   | 5.00   | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 37) surr2,bfb                 | 11.233 | 95             | 49776    | 2.72   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 54.40%# |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 58708    | 2.72   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 54.40%# |          |
| Target Compounds              |        |                |          |        |         |          |
|                               |        |                |          |        |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 124306   | 15.90  | ppb     | 99       |
| 3) Chloromethane              | 1.334  | 50             | 137021   | 18.13  | ppb     | 96       |
| 4) Vinyl Chloride             | 1.408  | 62             | 152209   | 19.91  | ppb     | 97       |
| 5) Bromomethane               | 1.633  | 94             | 104168   | 15.42  | ppb     | 94       |
| 6) Chloroethane               | 1.706  | 64             | 93564    | 18.54  | ppb     | 97       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 146506   | 14.89  | ppb     | 99       |
| 8) FREON 123A                 | 2.131  | 67             | 114464   | 16.23  | ppb     | 93       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 100810   | 16.29  | ppb     | 95       |
| 10) Freon 113                 | 2.325  | 101            | 81022    | 13.52  | ppb     | 97       |
| 11) Acetone                   | 2.362  | 43             | 102642   | 30.60  | ppb     | 99       |
| 12) Methylene Chloride        | 2.750  | 84             | 147859   | 18.82  | ppb     | 97       |
| 13) TBA                       | 2.912  | 59             | 371197   | 285.78 | ppb     | 95       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 426948   | 18.54  | ppb     | 97       |
| 15) trans-1,2-Dichloroethene  | 3.043  | 96             | 120864   | 17.32  | ppb     | 93       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 213377   | 17.55  | ppb     | 98       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 114368   | 15.81  | ppb     | 99       |
| 18) cis-1,2-Dichloroethene    | 4.354  | 96             | 156303   | 19.03  | ppb     | 91       |
| 19) 2-Butanone                | 4.438  | 43             | 164335   | 30.50  | ppb     | 98       |
| 20) Bromochloromethane        | 4.732  | 130            | 115764   | 20.67  | ppb     | 90       |
| 21) Tetrahydrofuran           | 4.889  | 42             | 54123    | 14.80  | ppb     | 93       |
| 22) Chloroform                | 4.915  | 83             | 231096   | 17.60  | ppb     | 97       |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 157899   | 16.27  | ppb     | 98       |
| 24) Carbontetrachloride       | 5.502  | 117            | 130303   | 15.96  | ppb     | 97       |
| 25) 1,1-Dichloropropene       | 5.513  | 75             | 134516   | 15.52  | ppb     | 96       |
| 26) Benzene                   | 5.833  | 78             | 516275   | 17.54  | ppb     | 98       |
| 27) 1,2-Dichloroethane        | 5.869  | 62             | 194586   | 19.40  | ppb     | 97       |
| 28) Trichloroethene           | 6.824  | 130            | 138011   | 17.50  | ppb     | 98       |
| 29) 1,2-Diclpropane           | 7.122  | 63             | 145937   | 18.72  | ppb     | 97       |
| 30) Dibromomethane            | 7.264  | 93             | 109747   | 20.60  | ppb     | 91       |
| 31) Bromodichloromethane      | 7.510  | 83             | 206053   | 19.91  | ppb     | 97       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 239997   | 20.77  | ppb     | 99       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 475186   | 31.93  | ppb     | 98       |
| 34) Toluene                   | 8.501  | 91             | 561250   | 17.63  | ppb     | 98       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 211910   | 21.20  | ppb     | 99       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 159995   | 20.29  | ppb     | 99       |
| 38) Tetrachloroethene         | 9.146  | 164            | 102389   | 16.21  | ppb     | 98       |
| 39) 2-Hexanone                | 9.330  | 43             | 257161   | 31.77  | ppb     | 97       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 272362   | 20.01  | ppb     | 94       |
| 41) Dibromochloromethane      | 9.424  | 129            | 186557   | 22.89  | ppb     | 93       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 170135   | 20.29  | ppb     | 94       |
| 43) Chlorobenzene             | 10.074 | 112            | 386822   | 18.30  | ppb     | 98       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 145976   | 20.20  | ppb     | 95       |
| 45) Ethylbenzene              | 10.211 | 106            | 179988   | 16.49  | ppb     | 98       |
| 46) (m+p)Xylene               | 10.336 | 106            | 458212   | 33.79  | ppb     | 100      |
| 47) o-Xylene                  | 10.730 | 106            | 232603   | 17.63  | ppb     | 98       |
| 48) Styrene                   | 10.745 | 104            | 443702   | 19.32  | ppb     | 91       |



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1356.D  
 Acq On : 09 May 2022 07:44 pm  
 Operator : K.Ruest  
 Sample : 20.0PPB  
 Misc :  
 ALS Vial : 8 Sample Multiplier: 1

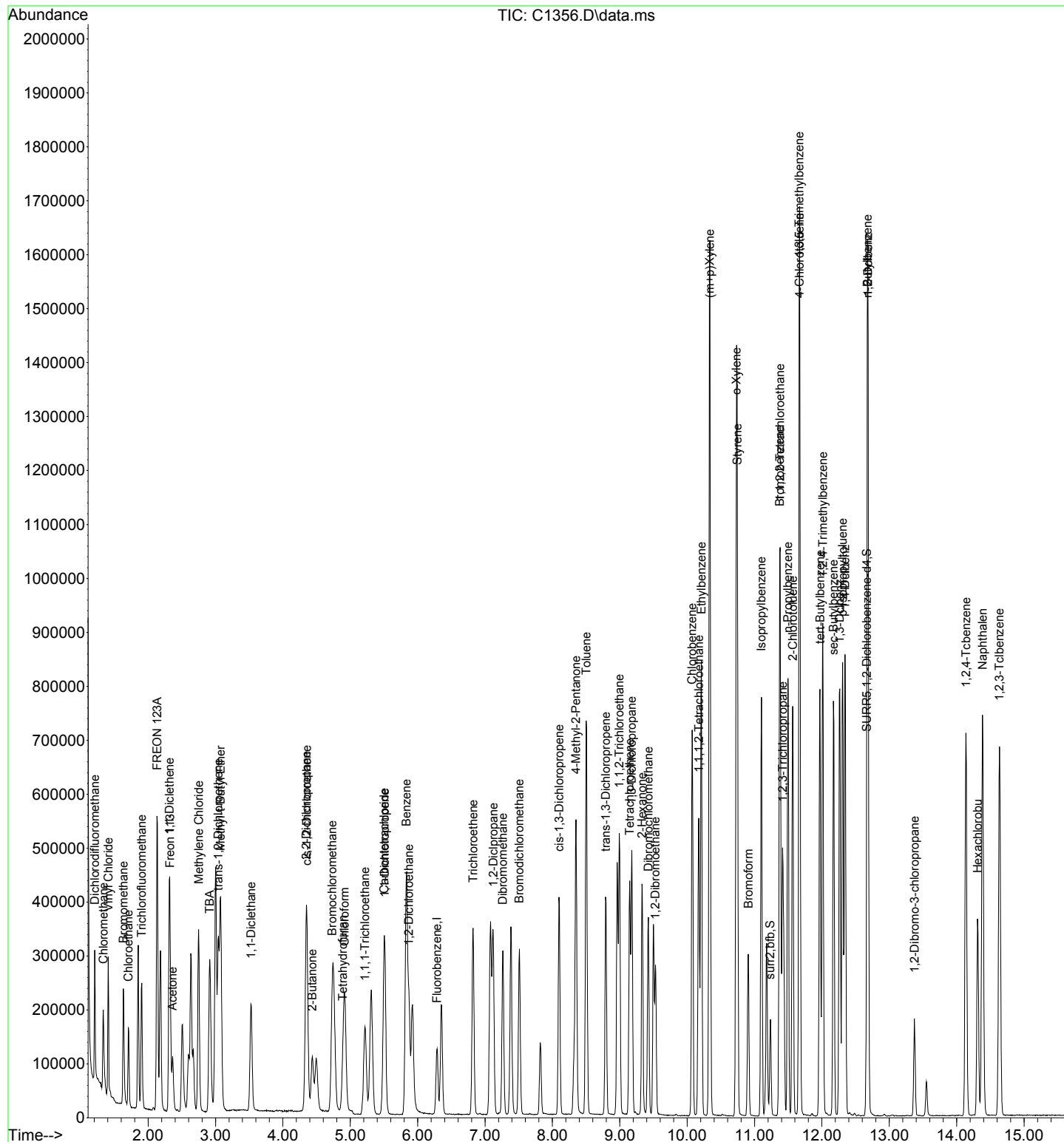
Quant Time: May 10 09:34:11 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 134684   | 21.94 | ppb   | 97       |
| 50) Isopropylbenzene          | 11.102 | 105  | 493106   | 15.57 | ppb   | 98       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 222252   | 18.85 | ppb   | 99       |
| 52) Bromobenzene              | 11.375 | 156  | 204572   | 20.67 | ppb   | 96       |
| 53) 1,2,3-Trichloropropane    | 11.416 | 110  | 76973    | 18.65 | ppb # | 87       |
| 54) n-Propylbenzene           | 11.495 | 91   | 594665   | 15.83 | ppb   | 98       |
| 55) 2-Chlorotoluene           | 11.569 | 91   | 409541   | 17.27 | ppb   | 99       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 494291   | 18.57 | ppb   | 96       |
| 57) 1,3,5-Trimethylbenzene    | 11.663 | 105  | 471673   | 16.53 | ppb   | 98       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 377820   | 15.56 | ppb   | 99       |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 484228   | 17.17 | ppb   | 99       |
| 60) sec-Butylbenzene          | 12.171 | 105  | 512597   | 15.26 | ppb   | 99       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 462728   | 15.60 | ppb   | 98       |
| 62) 1,3-Dclbenz               | 12.266 | 146  | 345811   | 19.35 | ppb   | 96       |
| 63) 1,4-Dclbenz               | 12.344 | 146  | 360099   | 19.38 | ppb   | 99       |
| 64) n-Butylbenzene            | 12.680 | 91   | 393131   | 15.17 | ppb   | 98       |
| 66) 1,2-Dclbenz               | 12.685 | 146  | 369686   | 20.26 | ppb   | 98       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 38996    | 18.40 | ppb   | 91       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 278596   | 21.63 | ppb   | 97       |
| 69) Hexachlorobu              | 14.311 | 225  | 91407    | 15.71 | ppb   | 98       |
| 70) Naphthalen                | 14.384 | 128  | 749707   | 19.62 | ppb   | 97       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 291778   | 22.60 | ppb   | 96       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1356.D  
Acq On : 09 May 2022 07:44 pm  
Operator : K.Ruest  
Sample : 20.0PPB  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 10 09:34:11 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1357.D  
 Acq On : 09 May 2022 08:09 pm  
 Operator : K.Ruest  
 Sample : 30.0PPB  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 10 09:34:14 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| -----                         |        |                |          |        |         |          |
| Internal Standards            |        |                |          |        |         |          |
| 1) Fluorobenzene              | 6.289  | 96             | 135807   | 5.00   | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 37) surr2,bfb                 | 11.238 | 95             | 50633    | 2.74   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 54.80%# |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.669 | 152            | 60956    | 2.80   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 56.00%# |          |
| Target Compounds              |        |                |          |        |         |          |
|                               |        |                |          |        |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 242096   | 30.68  | ppb     | 97       |
| 3) Chloromethane              | 1.334  | 50             | 222270   | 29.14  | ppb     | 96       |
| 4) Vinyl Chloride             | 1.407  | 62             | 256499   | 33.25  | ppb     | 98       |
| 5) Bromomethane               | 1.633  | 94             | 163985   | 24.05  | ppb     | 94       |
| 6) Chloroethane               | 1.706  | 64             | 157206   | 30.87  | ppb     | 97       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 281970   | 28.39  | ppb     | 97       |
| 8) FREON 123A                 | 2.131  | 67             | 197123   | 27.70  | ppb     | 93       |
| 9) 1,1-Dicethene              | 2.314  | 96             | 177685   | 28.46  | ppb     | 95       |
| 10) Freon 113                 | 2.325  | 101            | 176382   | 29.16  | ppb     | 97       |
| 11) Acetone                   | 2.362  | 43             | 153639   | 45.38  | ppb     | 97       |
| 12) Methylene Chloride        | 2.750  | 84             | 229039   | 28.89  | ppb     | 97       |
| 13) TBA                       | 2.912  | 59             | 557234   | 425.11 | ppb     | 95       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 638425   | 27.47  | ppb     | 99       |
| 15) trans-1,2-Dichloroethene  | 3.043  | 96             | 201114   | 28.56  | ppb     | 91       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 342695   | 27.93  | ppb     | 98       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 206847   | 28.34  | ppb     | 98       |
| 18) cis-1,2-Dichloroethene    | 4.354  | 96             | 244481   | 29.49  | ppb     | 90       |
| 19) 2-Butanone                | 4.438  | 43             | 252630   | 46.47  | ppb     | 98       |
| 20) Bromochloromethane        | 4.737  | 130            | 172957   | 30.61  | ppb     | 91       |
| 21) Tetrahydrofuran           | 4.894  | 42             | 79755    | 21.62  | ppb     | 95       |
| 22) Chloroform                | 4.915  | 83             | 370011   | 27.93  | ppb     | 98       |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 284971   | 29.09  | ppb     | 98       |
| 24) Carbontetrachloride       | 5.502  | 117            | 248898   | 30.21  | ppb     | 96       |
| 25) 1,1-Dichloropropene       | 5.508  | 75             | 248483   | 28.40  | ppb     | 99       |
| 26) Benzene                   | 5.833  | 78             | 846533   | 28.50  | ppb     | 98       |
| 27) 1,2-Dichloroethane        | 5.869  | 62             | 289817   | 28.63  | ppb     | 97       |
| 28) Trichloroethene           | 6.824  | 130            | 238154   | 29.92  | ppb     | 99       |
| 29) 1,2-Diclpropane           | 7.122  | 63             | 225805   | 28.70  | ppb     | 99       |
| 30) Dibromomethane            | 7.264  | 93             | 161765   | 30.09  | ppb     | 88       |
| 31) Bromodichloromethane      | 7.510  | 83             | 316621   | 30.31  | ppb     | 97       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 367171   | 31.48  | ppb     | 98       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 739184   | 49.22  | ppb     | 96       |
| 34) Toluene                   | 8.501  | 91             | 951475   | 29.62  | ppb     | 98       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 326315   | 32.35  | ppb     | 98       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 242688   | 30.50  | ppb     | 97       |
| 38) Tetrachloroethene         | 9.146  | 164            | 192691   | 30.22  | ppb     | 96       |
| 39) 2-Hexanone                | 9.330  | 43             | 395845   | 48.46  | ppb     | 98       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 408156   | 29.71  | ppb     | 92       |
| 41) Dibromochloromethane      | 9.424  | 129            | 282340   | 34.32  | ppb     | 95       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 260806   | 30.82  | ppb     | 94       |
| 43) Chlorobenzene             | 10.074 | 112            | 638061   | 29.92  | ppb     | 97       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 235508   | 32.29  | ppb     | 94       |
| 45) Ethylbenzene              | 10.211 | 106            | 323937   | 29.40  | ppb     | 100      |
| 46) (m+p)Xylene               | 10.336 | 106            | 816683   | 59.68  | ppb     | 99       |
| 47) o-Xylene                  | 10.730 | 106            | 403676   | 30.32  | ppb     | 99       |
| 48) Styrene                   | 10.745 | 104            | 736958   | 31.79  | ppb     | 92       |

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1357.D  
 Acq On : 09 May 2022 08:09 pm  
 Operator : K.Ruest  
 Sample : 30.0PPB  
 Misc :  
 ALS Vial : 9 Sample Multiplier: 1

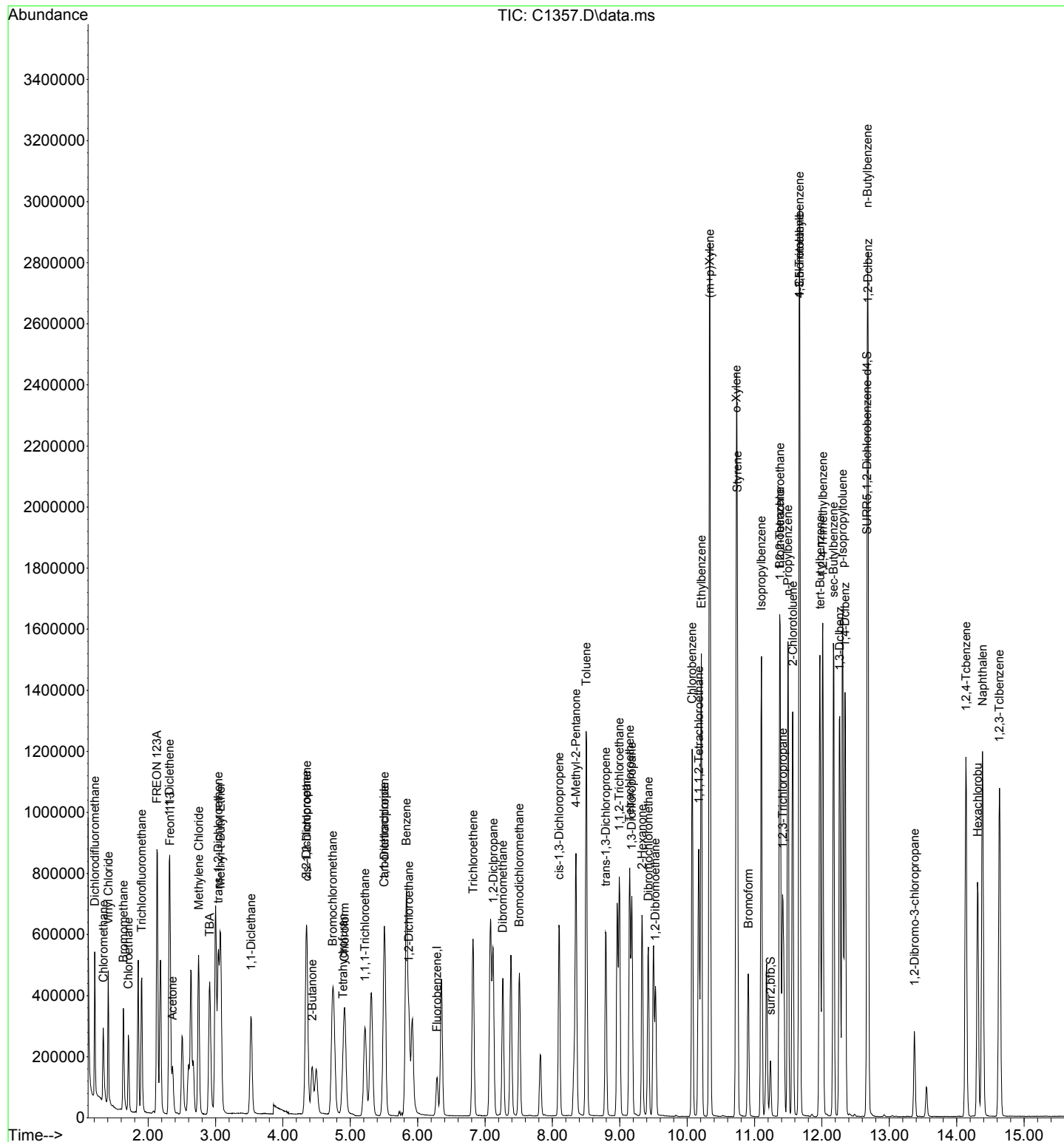
Quant Time: May 10 09:34:14 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 206125   | 33.27 | ppb   | 99       |
| 50) Isopropylbenzene          | 11.102 | 105  | 942551   | 29.50 | ppb   | 99       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 338576   | 28.45 | ppb   | 99       |
| 52) Bromobenzene              | 11.374 | 156  | 324366   | 32.47 | ppb   | 96       |
| 53) 1,2,3-Trichloropropane    | 11.416 | 110  | 115469   | 27.72 | ppb # | 89       |
| 54) n-Propylbenzene           | 11.495 | 91   | 1136882  | 29.99 | ppb   | 99       |
| 55) 2-Chlorotoluene           | 11.568 | 91   | 709242   | 29.63 | ppb   | 98       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 846249   | 31.50 | ppb   | 97       |
| 57) 1,3,5-Trimethylbenzene    | 11.668 | 105  | 874416   | 30.37 | ppb   | 99       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 743025   | 30.32 | ppb   | 100      |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 867539   | 30.49 | ppb   | 98       |
| 60) sec-Butylbenzene          | 12.171 | 105  | 1040002  | 30.68 | ppb   | 99       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 912808   | 30.49 | ppb   | 99       |
| 62) 1,3-Dclbenz               | 12.266 | 146  | 568317   | 31.50 | ppb   | 96       |
| 63) 1,4-Dclbenz               | 12.344 | 146  | 585343   | 31.22 | ppb   | 99       |
| 64) n-Butylbenzene            | 12.680 | 91   | 792094   | 30.28 | ppb   | 98       |
| 66) 1,2-Dclbenz               | 12.685 | 146  | 590032   | 32.05 | ppb   | 97       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 62052    | 29.01 | ppb   | 87       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 443894   | 34.15 | ppb   | 97       |
| 69) Hexachlorobu              | 14.311 | 225  | 188129   | 32.03 | ppb   | 98       |
| 70) Naphthalen                | 14.384 | 128  | 1181304  | 30.63 | ppb   | 97       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 456296   | 35.02 | ppb   | 98       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1357.D  
Acq On : 09 May 2022 08:09 pm  
Operator : K.Ruest  
Sample : 30.0PPB  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 10 09:34:14 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1358.D  
 Acq On : 09 May 2022 08:35 pm  
 Operator : K.Ruest  
 Sample : 40.0PPB  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 10 09:34:17 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units   | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|---------|----------|
| -----                         |        |                |          |        |         |          |
| Internal Standards            |        |                |          |        |         |          |
| 1) Fluorobenzene              | 6.289  | 96             | 143523   | 5.00   | ppb     | 0.00     |
| System Monitoring Compounds   |        |                |          |        |         |          |
| 37) surr2,bfb                 | 11.238 | 95             | 53377    | 2.73   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 54.60%# |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 62568    | 2.72   | ppb     | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 54.40%# |          |
| Target Compounds              |        |                |          |        |         |          |
|                               |        |                |          |        |         | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 376379   | 45.14  | ppb     | 97       |
| 3) Chloromethane              | 1.334  | 50             | 322421   | 40.00  | ppb     | 99       |
| 4) Vinyl Chloride             | 1.407  | 62             | 388749   | 47.69  | ppb     | 96       |
| 5) Bromomethane               | 1.633  | 94             | 235414   | 32.67  | ppb     | 96       |
| 6) Chloroethane               | 1.706  | 64             | 231039   | 42.93  | ppb     | 95       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 427053   | 40.69  | ppb     | 99       |
| 8) FREON 123A                 | 2.131  | 67             | 260481   | 34.63  | ppb     | 95       |
| 9) 1,1-Dicethene              | 2.314  | 96             | 267282   | 40.51  | ppb     | 95       |
| 10) Freon 113                 | 2.325  | 101            | 268123   | 41.95  | ppb     | 98       |
| 11) Acetone                   | 2.367  | 43             | 200130   | 55.94  | ppb     | 98       |
| 12) Methylene Chloride        | 2.750  | 84             | 312338   | 37.28  | ppb     | 96       |
| 13) TBA                       | 2.912  | 59             | 737867   | 532.65 | ppb     | 96       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 855027   | 34.82  | ppb     | 99       |
| 15) trans-1,2-Dichloroethene  | 3.043  | 96             | 294067   | 39.51  | ppb     | 93       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 487194   | 37.57  | ppb     | 99       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 297989   | 38.63  | ppb     | 98       |
| 18) cis-1,2-Dichloroethene    | 4.354  | 96             | 340912   | 38.91  | ppb     | 92       |
| 19) 2-Butanone                | 4.433  | 43             | 323014   | 56.22  | ppb     | 99       |
| 20) Bromochloromethane        | 4.737  | 130            | 234793   | 39.32  | ppb     | 91       |
| 21) Tetrahydrofuran           | 4.889  | 42             | 104289   | 26.75  | ppb     | 92       |
| 22) Chloroform                | 4.915  | 83             | 508506   | 36.32  | ppb     | 97       |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 418736   | 40.44  | ppb     | 99       |
| 24) Carbontetrachloride       | 5.502  | 117            | 374723   | 43.03  | ppb     | 98       |
| 25) 1,1-Dichloropropene       | 5.513  | 75             | 369867   | 40.01  | ppb     | 98       |
| 26) Benzene                   | 5.833  | 78             | 1194905  | 38.07  | ppb     | 98       |
| 27) 1,2-Dichloroethane        | 5.869  | 62             | 391172   | 36.56  | ppb     | 98       |
| 28) Trichloroethene           | 6.823  | 130            | 343489   | 40.83  | ppb     | 99       |
| 29) 1,2-Diclpropane           | 7.117  | 63             | 312997   | 37.64  | ppb     | 100      |
| 30) Dibromomethane            | 7.264  | 93             | 218636   | 38.49  | ppb     | 91       |
| 31) Bromodichloromethane      | 7.510  | 83             | 433048   | 39.23  | ppb     | 97       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 504493   | 40.93  | ppb     | 99       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 956574   | 60.27  | ppb     | 97       |
| 34) Toluene                   | 8.501  | 91             | 1357931  | 40.00  | ppb     | 98       |
| 35) trans-1,3-Dichloropropene | 8.795  | 75             | 445616   | 41.80  | ppb     | 98       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 324733   | 38.62  | ppb     | 95       |
| 38) Tetrachloroethene         | 9.146  | 164            | 284559   | 42.23  | ppb     | 98       |
| 39) 2-Hexanone                | 9.330  | 43             | 512523   | 59.37  | ppb     | 99       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 552054   | 38.03  | ppb     | 92       |
| 41) Dibromochloromethane      | 9.424  | 129            | 386827   | 44.50  | ppb     | 93       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 349275   | 39.05  | ppb     | 93       |
| 43) Chlorobenzene             | 10.079 | 112            | 895193   | 39.72  | ppb     | 97       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 323942   | 42.03  | ppb     | 96       |
| 45) Ethylbenzene              | 10.210 | 106            | 470988   | 40.45  | ppb     | 96       |
| 46) (m+p)Xylene               | 10.336 | 106            | 1177822  | 81.44  | ppb     | 99       |
| 47) o-Xylene                  | 10.730 | 106            | 572721   | 40.70  | ppb     | 100      |
| 48) Styrene                   | 10.745 | 104            | 1033804  | 42.20  | ppb     | 93       |

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
 Data File : C1358.D  
 Acq On : 09 May 2022 08:35 pm  
 Operator : K.Ruest  
 Sample : 40.0PPB  
 Misc :  
 ALS Vial : 10 Sample Multiplier: 1

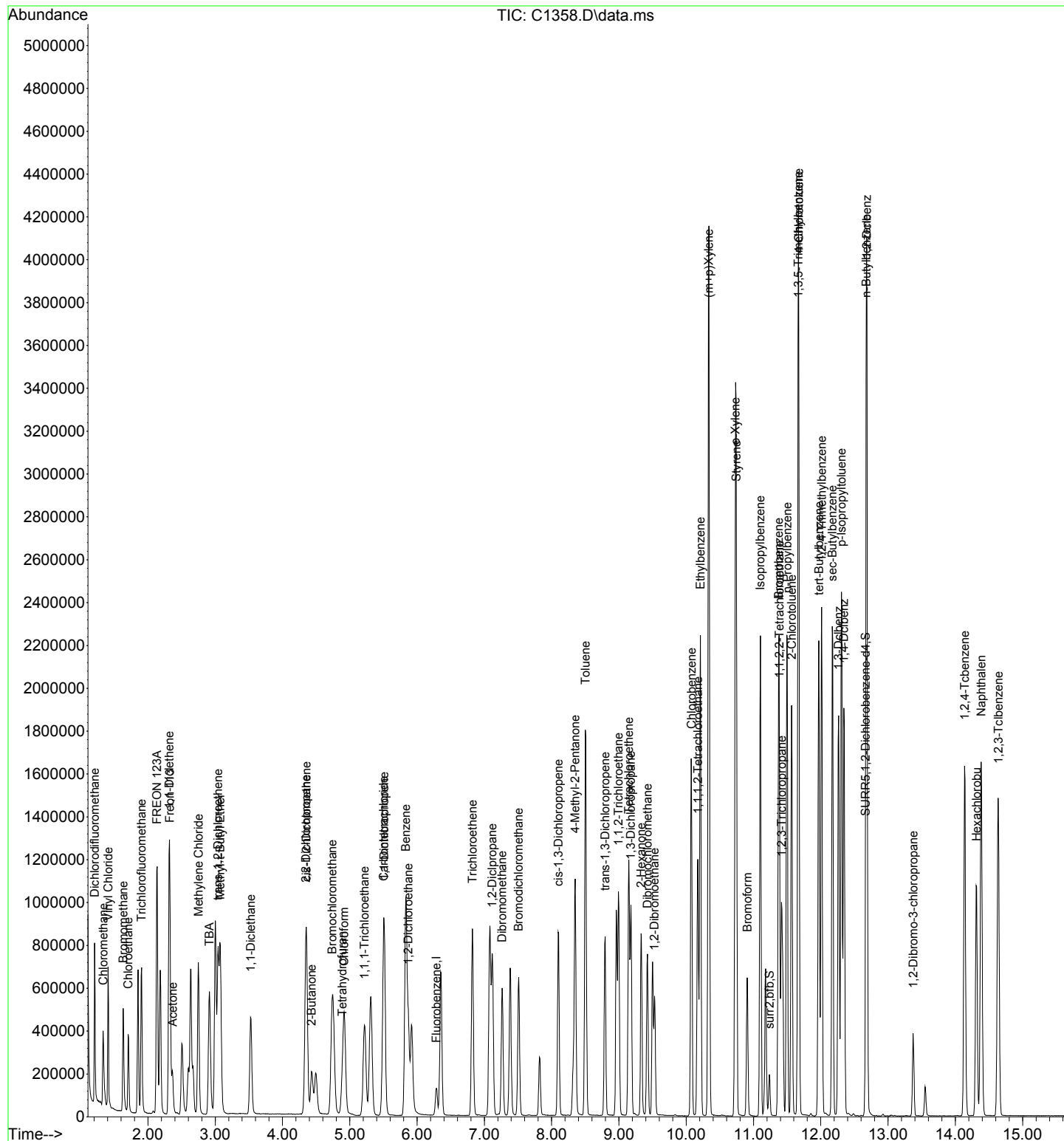
Quant Time: May 10 09:34:17 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue Mar 08 14:50:48 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 287742   | 43.94 | ppb   | 99       |
| 50) Isopropylbenzene          | 11.102 | 105  | 1401715  | 41.51 | ppb   | 99       |
| 51) 1,1,2,2-Tetrachloroethane | 11.385 | 83   | 459099   | 36.51 | ppb   | 99       |
| 52) Bromobenzene              | 11.374 | 156  | 449640   | 42.59 | ppb   | 94       |
| 53) 1,2,3-Trichloropropane    | 11.416 | 110  | 155812   | 35.39 | ppb # | 85       |
| 54) n-Propylbenzene           | 11.500 | 91   | 1696406  | 42.34 | ppb   | 97       |
| 55) 2-Chlorotoluene           | 11.568 | 91   | 1014374  | 40.11 | ppb   | 100      |
| 56) 4-Chlorotoluene           | 11.673 | 91   | 1203013  | 42.37 | ppb   | 93       |
| 57) 1,3,5-Trimethylbenzene    | 11.668 | 105  | 1270066  | 41.74 | ppb   | 99       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 1091534  | 42.14 | ppb   | 99       |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 1261132  | 41.94 | ppb   | 99       |
| 60) sec-Butylbenzene          | 12.171 | 105  | 1558941  | 43.52 | ppb   | 98       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 1365125  | 43.15 | ppb   | 98       |
| 62) 1,3-Dclbenz               | 12.266 | 146  | 798244   | 41.87 | ppb   | 98       |
| 63) 1,4-Dclbenz               | 12.344 | 146  | 822802   | 41.52 | ppb   | 99       |
| 64) n-Butylbenzene            | 12.680 | 91   | 1192710  | 43.14 | ppb   | 99       |
| 66) 1,2-Dclbenz               | 12.685 | 146  | 820416   | 42.17 | ppb   | 99       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 85322    | 37.74 | ppb   | 86       |
| 68) 1,2,4-Tcbenzene           | 14.137 | 180  | 633591   | 46.13 | ppb   | 99       |
| 69) Hexachlorobu              | 14.316 | 225  | 273759   | 44.10 | ppb   | 98       |
| 70) Naphthalen                | 14.384 | 128  | 1651467  | 40.52 | ppb   | 97       |
| 71) 1,2,3-Tclbenzene          | 14.641 | 180  | 632695   | 45.95 | ppb   | 99       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1358.D  
Acq On : 09 May 2022 08:35 pm  
Operator : K.Ruest  
Sample : 40.0PPB  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

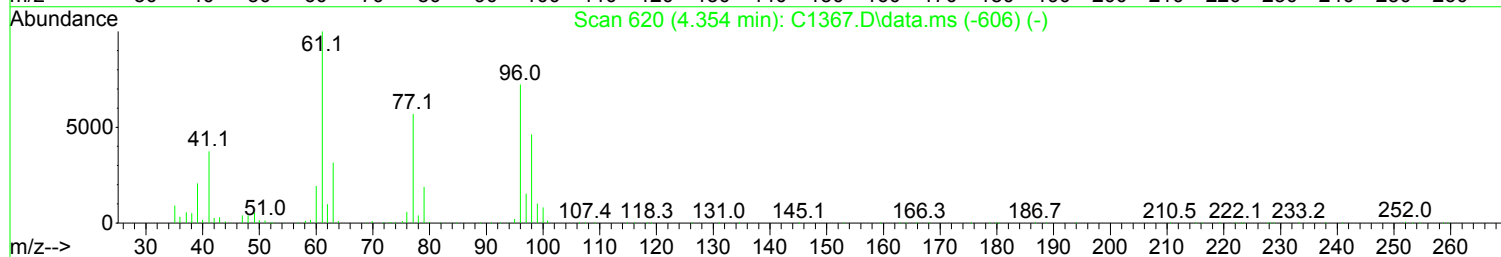
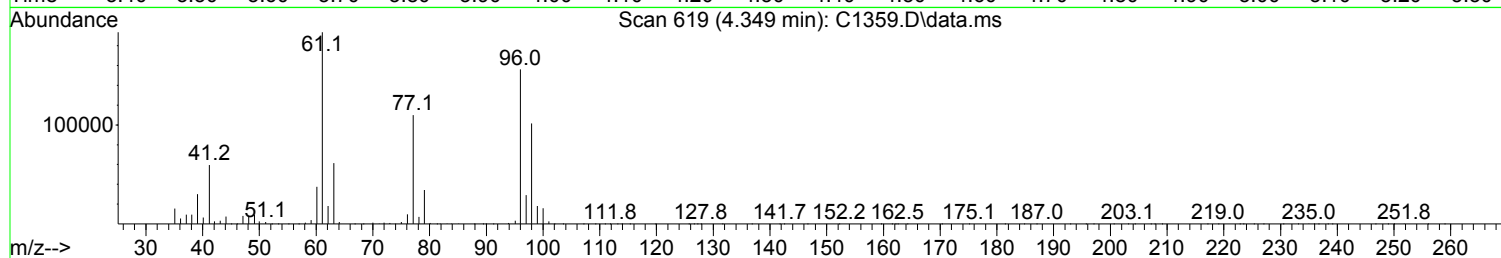
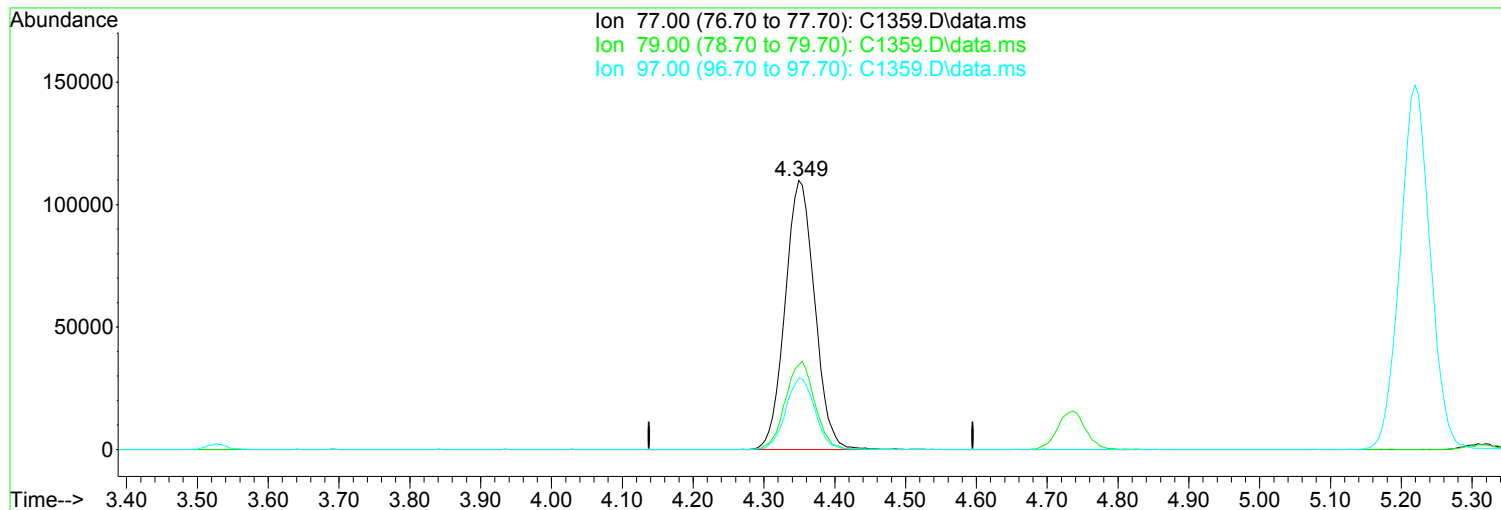
Quant Time: May 10 09:34:17 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration





Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1359.D  
Acq On : 09 May 2022 09:00 pm  
Operator : K.Ruest  
Sample : 50.0PPB  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 10 09:34:20 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



(17) 2,2-Dichloropropane

4.349min (-0.005) 42.97 ppb m

response 318248

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 77.00 | 100.00 | 100.00 |
| 79.00 | 33.10  | 31.36  |
| 97.00 | 27.10  | 26.61  |
| 0.00  | 0.00   | 0.00   |

Manual Integration:

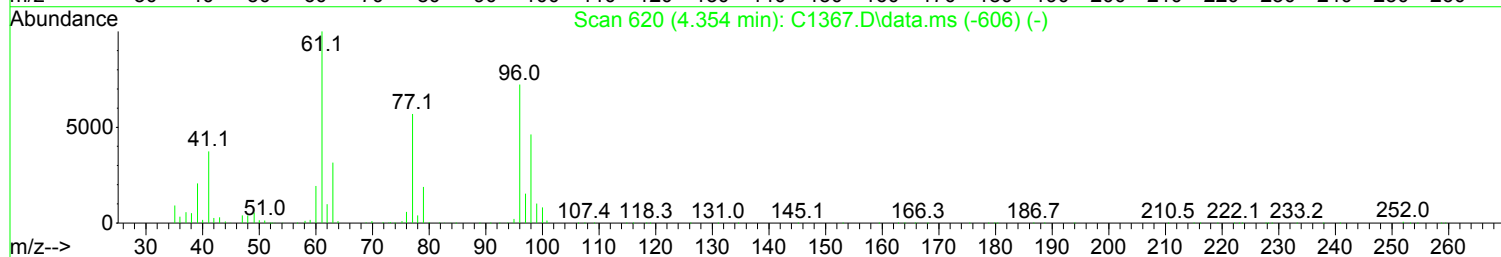
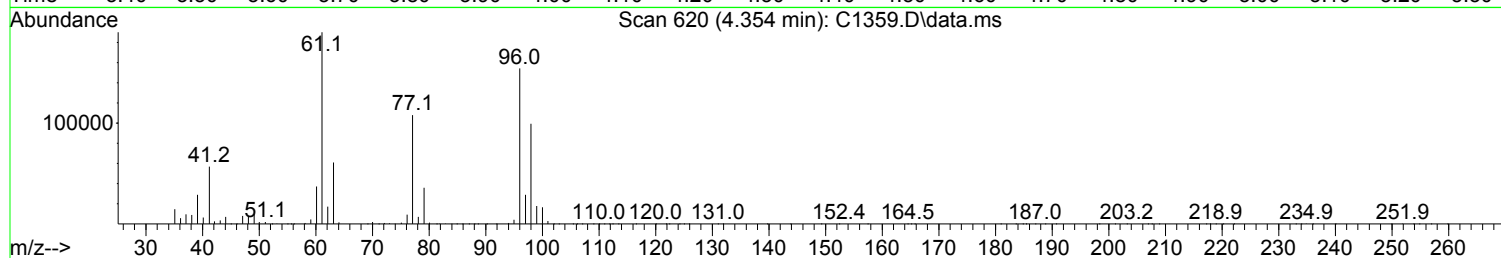
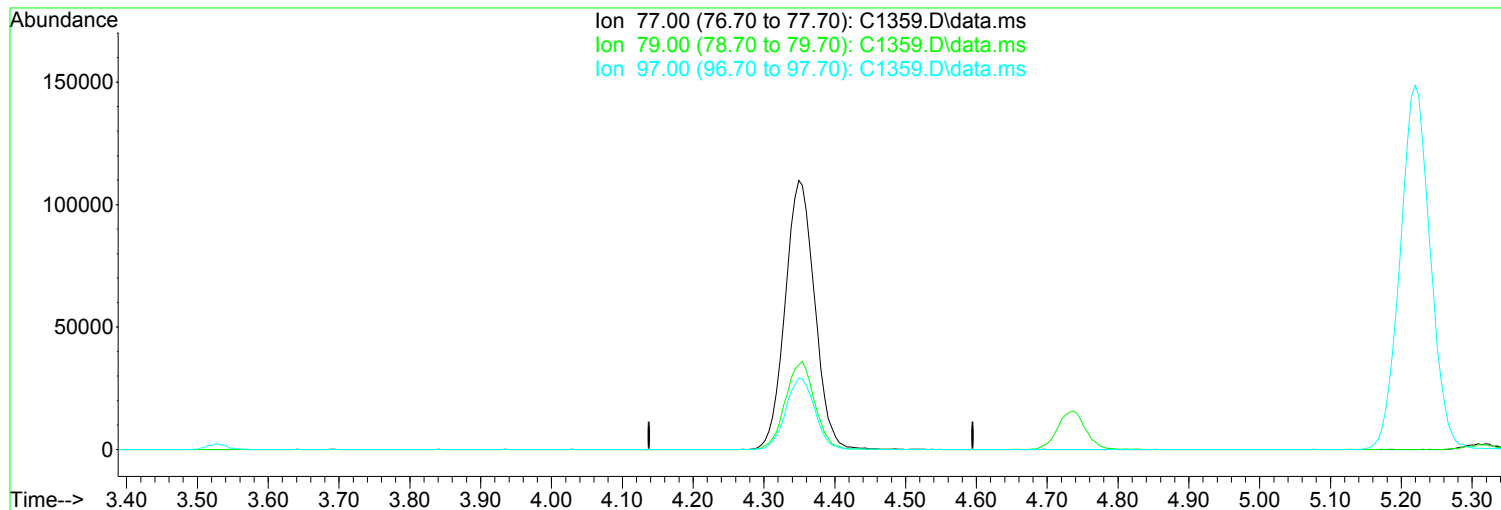
After

Poor integration.

05/10/22

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1359.D  
Acq On : 09 May 2022 09:00 pm  
Operator : K.Ruest  
Sample : 50.0PPB  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 10 09:34:20 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



TIC: C1359.D\data.ms

**(17) 2,2-Dichloropropane**

4.354min (-4.354) 0.00 ppb

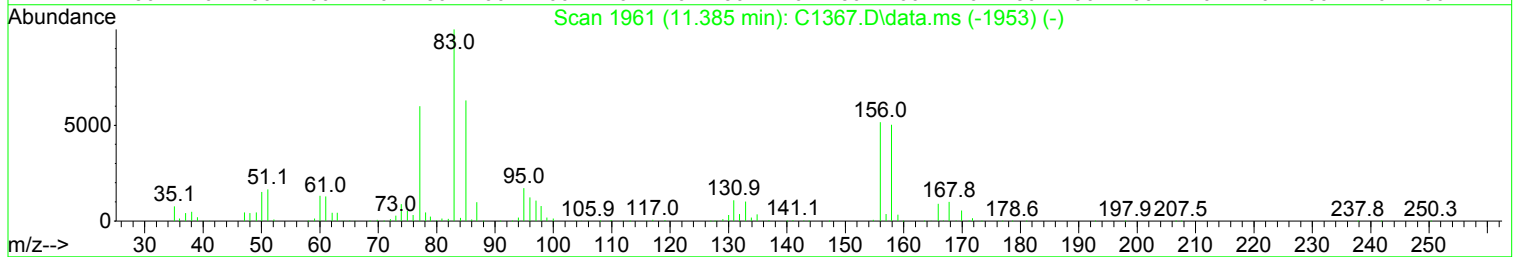
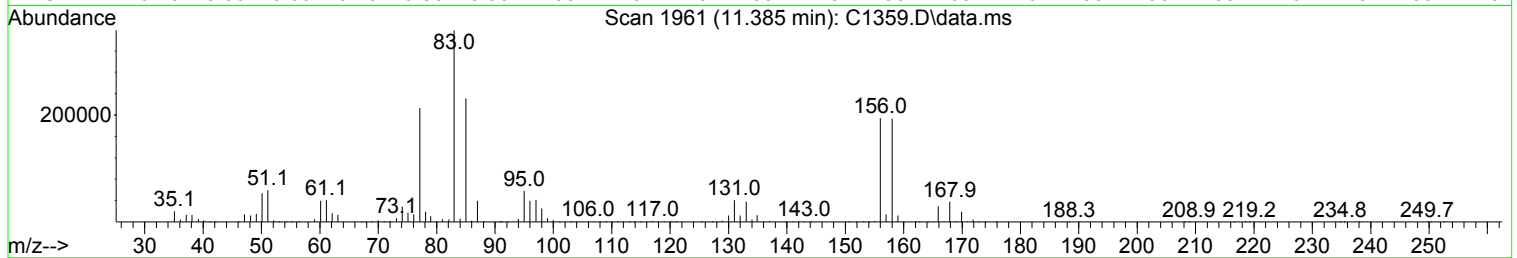
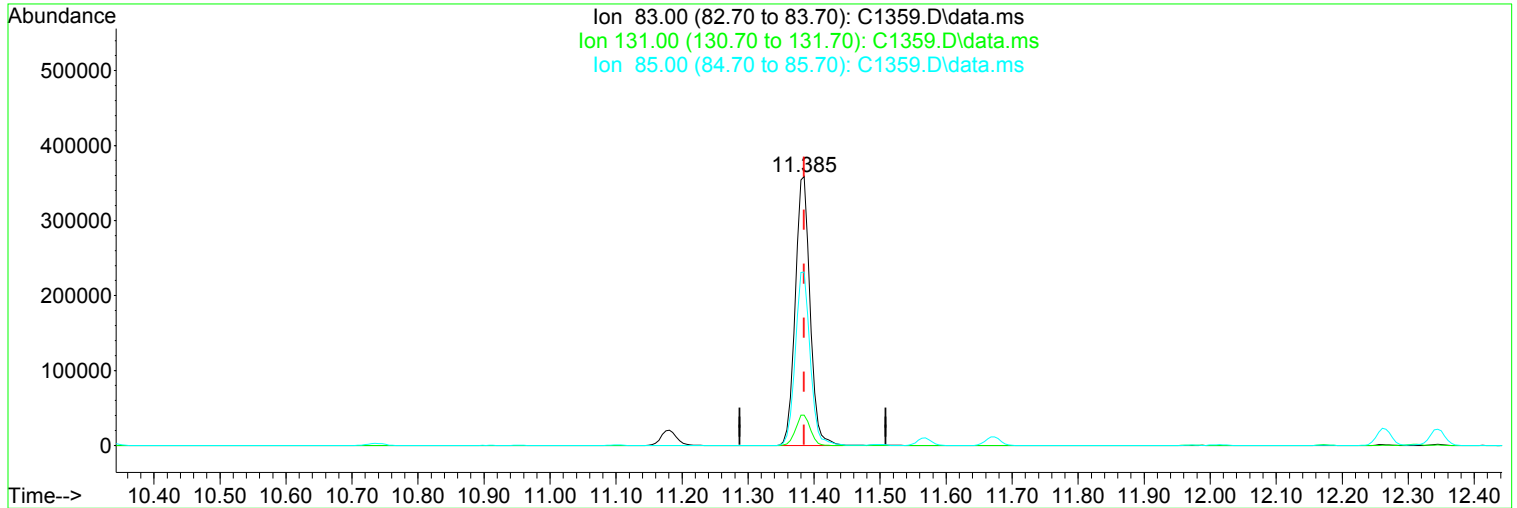
response 0

**Manual Integration:****Before****05/10/22**

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 77.00 | 100.00 | 0.00  |
| 79.00 | 33.10  | 0.00# |
| 97.00 | 27.10  | 0.00# |
| 0.00  | 0.00   | 0.00  |

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1359.D  
Acq On : 09 May 2022 09:00 pm  
Operator : K.Ruest  
Sample : 50.0PPB  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 10 09:34:20 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



TIC: C1359.D\data.ms

(51) 1,1,2,2-Tetrachloroethane

11.385min (+ 0.000) 46.41 ppb m

response 560220

| Ion    | Exp%   | Act%   |
|--------|--------|--------|
| 83.00  | 100.00 | 100.00 |
| 131.00 | 10.80  | 11.36  |
| 85.00  | 63.00  | 64.46  |
| 0.00   | 0.00   | 0.00   |

Manual Integration:

After

Poor integration.

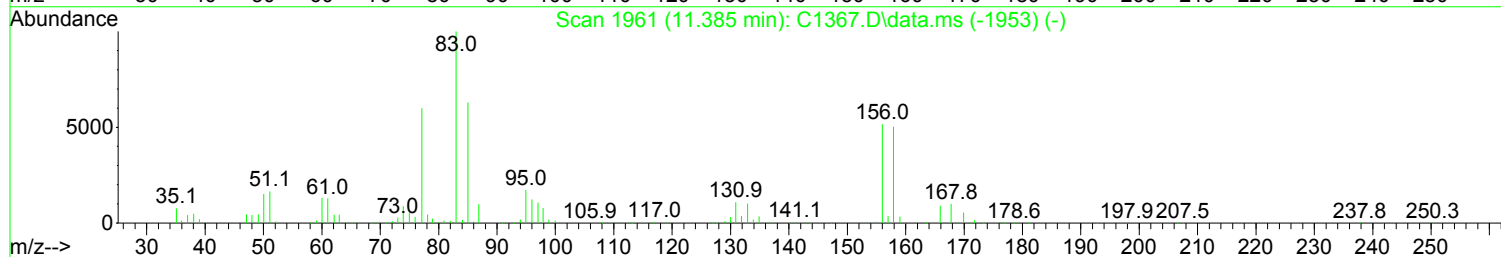
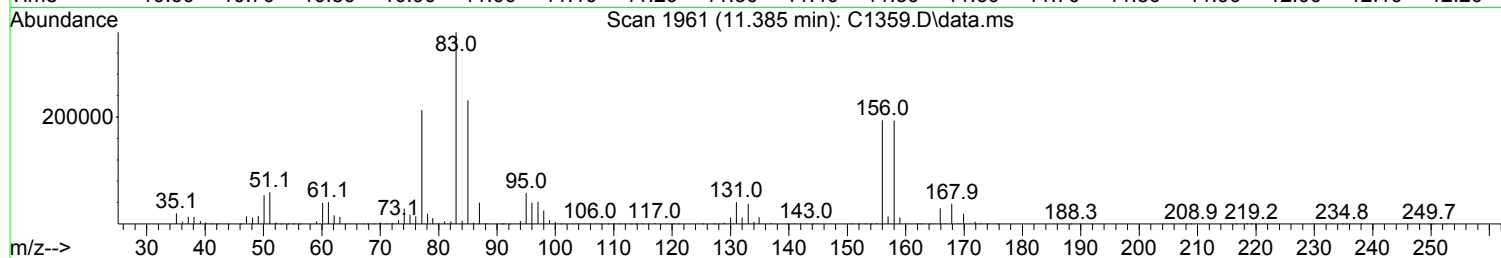
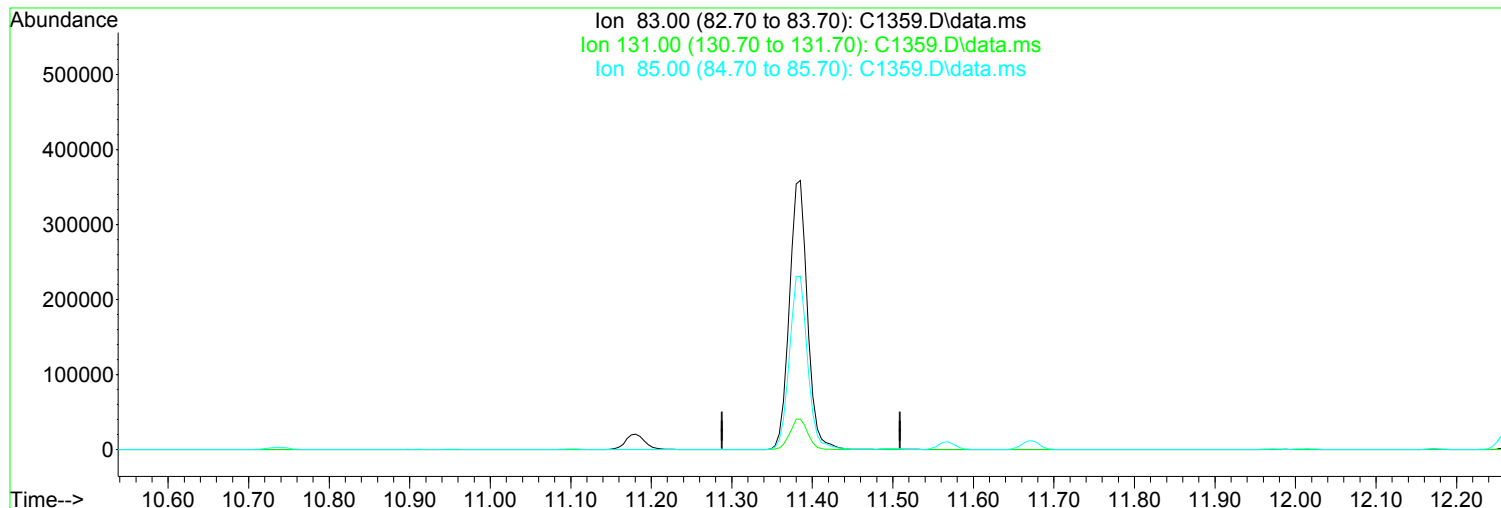
05/10/22

# Quantitation Report (Qedit)

1st BA 05/11/22  
2nd KR 05/12/22

Data Path : I:\ACQUDATA\MSVOA16\Data\050922\  
Data File : C1359.D  
Acq On : 09 May 2022 09:00 pm  
Operator : K.Ruest  
Sample : 50.0PPB  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: May 10 09:34:20 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue Mar 08 14:50:48 2022  
Response via : Initial Calibration



(51) 1,1,2,2-Tetrachloroethane

11.385min (-11.385) 0.00 ppb

response 0

| Ion    | Exp%   | Act%  |
|--------|--------|-------|
| 83.00  | 100.00 | 0.00  |
| 131.00 | 10.80  | 0.00  |
| 85.00  | 63.00  | 0.00# |
| 0.00   | 0.00   | 0.00  |

Manual Integration:

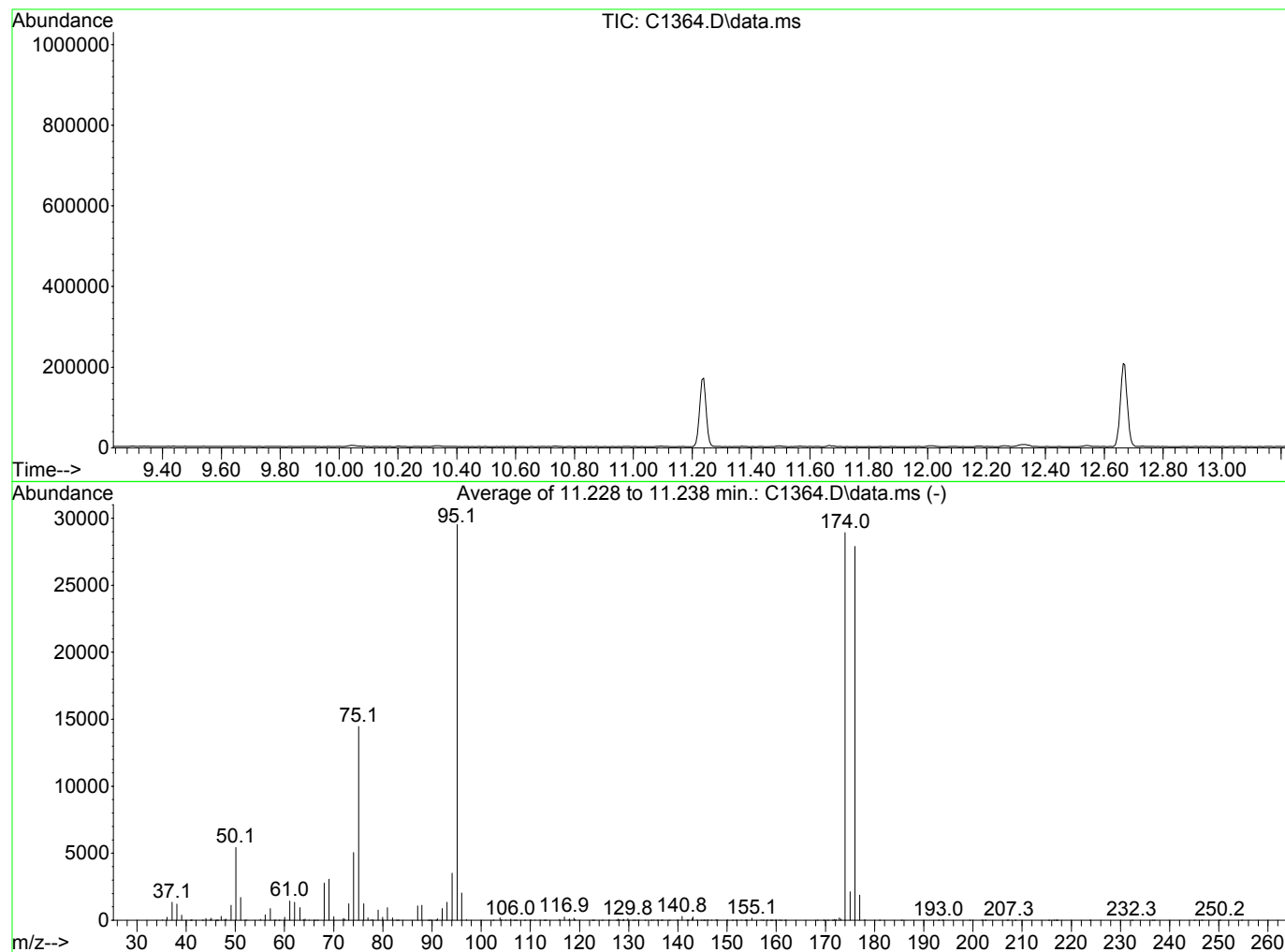
Before

05/10/22

Data Path : I:\ACQUDATA\MSVOA16\Data\051122\  
Data File : C1364.D  
Acq On : 11 May 2022 10:11 am  
Operator : K.Ruest  
Sample : TUNE  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Integration File: INTP62.P

Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Title : 524.2 Waters  
Last Update : Tue May 10 15:43:10 2022



AutoFind: Scans 1931, 1932, 1933; Background Corrected with Scan 1924

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|-------------|--------------|--------------|--------------|-----------|---------|------------------|
| 50          | 95           | 15           | 40           | 18.4      | 5444    | PASS             |
| 75          | 95           | 30           | 80           | 49.0      | 14471   | PASS             |
| 95          | 95           | 100          | 100          | 100.0     | 29533   | PASS             |
| 96          | 95           | 5            | 9            | 6.9       | 2031    | PASS             |
| 173         | 174          | 0.00         | 2            | 0.7       | 190     | PASS             |
| 174         | 95           | 50           | 120          | 98.0      | 28939   | PASS             |
| 175         | 174          | 5            | 9            | 7.4       | 2129    | PASS             |
| 176         | 174          | 95           | 101          | 96.4      | 27893   | PASS             |
| 177         | 176          | 5            | 9            | 6.8       | 1886    | PASS             |

## Evaluate Continuing Calibration Report

1st *FR* 05/11/22  
2nd *FR* 05/12/22

Data Path : I:\ACQUDATA\MSVOA16\Data\051122\  
 Data File : C1365.D  
 Acq On : 11 May 2022 10:45 am  
 Operator : K.Ruest  
 Sample : CCV  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 11 11:06:07 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 10 15:43:10 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                  | Amount  | Calc.   | %Dev  | Area% | Dev(min) |
|------|---------------------------|---------|---------|-------|-------|----------|
| 1 I  | Fluorobenzene             | 5.000   | 5.000   | 0.0   | 102   | 0.00     |
| 2    | Dichlorodifluoromethane   | 5.000   | 6.176   | -23.5 | 102   | 0.00     |
| 3    | Chloromethane             | 5.000   | 5.486   | -9.7  | 96    | 0.00     |
| 4    | Vinyl Chloride            | 5.000   | 5.687   | -13.7 | 96    | 0.00     |
| 5    | Bromomethane              | 5.000   | 5.486   | -9.7  | 96    | 0.00     |
| 6    | Chloroethane              | 5.000   | 5.757   | -15.1 | 99    | 0.00     |
| 7    | Trichlorofluoromethane    | 5.000   | 5.867   | -17.3 | 101   | 0.00     |
| 8    | FREON 123A                | 5.000   | 6.085   | -21.7 | 108   | 0.00     |
| 9    | 1,1-Dicethene             | 5.000   | 5.617   | -12.3 | 99    | 0.00     |
| 10   | Freon 113                 | 5.000   | 6.037   | -20.7 | 102   | 0.00     |
| 11   | Acetone                   | 10.000  | 10.565  | -5.6  | 94    | 0.00     |
| 12   | Methylene Chloride        | 5.000   | 5.159   | -3.2  | 98    | 0.00     |
| 13   | TBA                       | 100.000 | 128.771 | -28.8 | 118   | 0.00     |
| 14   | Methyl-t-Butyl Ether      | 5.000   | 5.219   | -4.4  | 99    | 0.00     |
| 15   | trans-1,2-Dichloroethene  | 5.000   | 5.583   | -11.7 | 97    | 0.00     |
| 16   | 1,1-Dicethane             | 5.000   | 5.441   | -8.8  | 98    | 0.00     |
| 17   | 2,2-Dichloropropane       | 5.000   | 6.152   | -23.0 | 109   | 0.00     |
| 18   | cis-1,2-Dichloroethene    | 5.000   | 5.390   | -7.8  | 98    | 0.00     |
| 19   | 2-Butanone                | 10.000  | 10.560  | -5.6  | 101   | 0.00     |
| 20   | Bromochloromethane        | 5.000   | 5.273   | -5.5  | 101   | 0.00     |
| 21   | Tetrahydrofuran           | 5.000   | 5.567   | -11.3 | 103   | 0.00     |
| 22   | Chloroform                | 5.000   | 5.630   | -12.6 | 100   | 0.00     |
| 23   | 1,1,1-Trichloroethane     | 5.000   | 5.665   | -13.3 | 101   | 0.00     |
| 24   | Carbontetrachloride       | 5.000   | 5.840   | -16.8 | 103   | 0.00     |
| 25   | 1,1-Dichloropropene       | 5.000   | 5.568   | -11.4 | 96    | 0.00     |
| 26   | Benzene                   | 5.000   | 5.463   | -9.3  | 98    | 0.00     |
| 27   | 1,2-Dichloroethane        | 5.000   | 5.201   | -4.0  | 96    | 0.00     |
| 28   | Trichloroethene           | 5.000   | 5.656   | -13.1 | 98    | 0.00     |
| 29   | 1,2-Dicloropropane        | 5.000   | 5.390   | -7.8  | 100   | 0.00     |
| 30   | Dibromomethane            | 5.000   | 5.149   | -3.0  | 97    | 0.00     |
| 31   | Bromodichloromethane      | 5.000   | 5.431   | -8.6  | 100   | 0.00     |
| 32   | cis-1,3-Dichloropropene   | 5.000   | 5.438   | -8.8  | 101   | 0.00     |
| 33   | 4-Methyl-2-Pentanone      | 10.000  | 10.370  | -3.7  | 101   | 0.00     |
| 34   | Toluene                   | 5.000   | 5.443   | -8.9  | 98    | 0.00     |
| 35   | trans-1,3-Dichloropropene | 5.000   | 5.320   | -6.4  | 103   | 0.00     |
| 36   | 1,1,2-Trichloroethane     | 5.000   | 5.241   | -4.8  | 99    | 0.00     |
| 37 S | surr2,bfb                 | 5.000   | 4.913   | 1.7   | 103   | 0.00     |
| 38   | Tetrachloroethene         | 5.000   | 5.983   | -19.7 | 101   | 0.00     |
| 39   | 2-Hexanone                | 10.000  | 10.223  | -2.2  | 97    | 0.00     |
| 40   | 1,3-Dichloropropane       | 5.000   | 5.290   | -5.8  | 99    | 0.00     |
| 41   | Dibromochloromethane      | 5.000   | 5.473   | -9.5  | 106   | 0.00     |
| 42   | 1,2-Dibromoethane         | 5.000   | 5.312   | -6.2  | 103   | 0.00     |
| 43   | Chlorobenzene             | 5.000   | 5.771   | -15.4 | 107   | 0.00     |
| 44   | 1,1,1,2-Tetrachloroethane | 5.000   | 5.777   | -15.5 | 109   | 0.00     |
| 45   | Ethylbenzene              | 5.000   | 5.786   | -15.7 | 104   | 0.00     |
| 46   | (m+p)Xylene               | 10.000  | 11.297  | -13.0 | 102   | 0.00     |
| 47   | o-Xylene                  | 5.000   | 5.569   | -11.4 | 102   | 0.00     |
| 48   | Styrene                   | 5.000   | 5.432   | -8.6  | 102   | 0.00     |
| 49   | Bromoform                 | 5.000   | 5.725   | -14.5 | 110   | 0.00     |
| 50   | Isopropylbenzene          | 5.000   | 5.638   | -12.8 | 100   | 0.00     |
| 51   | 1,1,2,2-Tetrachloroethane | 5.000   | 5.735   | -14.7 | 110   | 0.00     |
| 52   | Bromobenzene              | 5.000   | 5.385   | -7.7  | 103   | 0.00     |

## Evaluate Continuing Calibration Report

1st *FR* 05/11/22  
2nd *FR* 05/12/22

Data Path : I:\ACQUDATA\MSVOA16\Data\051122\  
 Data File : C1365.D  
 Acq On : 11 May 2022 10:45 am  
 Operator : K.Ruest  
 Sample : CCV  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 11 11:06:07 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 10 15:43:10 2022  
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 200%

|      | Compound                    | Amount | Calc. | %Dev  | Area% | Dev(min) |
|------|-----------------------------|--------|-------|-------|-------|----------|
| 53   | 1,2,3-Trichloropropane      | 5.000  | 5.747 | -14.9 | 109   | 0.00     |
| 54   | n-Propylbenzene             | 5.000  | 5.696 | -13.9 | 101   | 0.00     |
| 55   | 2-Chlorotoluene             | 5.000  | 5.645 | -12.9 | 102   | 0.00     |
| 56   | 4-Chlorotoluene             | 5.000  | 5.560 | -11.2 | 102   | 0.00     |
| 57   | 1,3,5-Trimethylbenzene      | 5.000  | 5.672 | -13.4 | 100   | 0.00     |
| 58   | tert-Butylbenzene           | 5.000  | 5.701 | -14.0 | 102   | 0.00     |
| 59   | 1,2,4-Trimethylbenzene      | 5.000  | 5.557 | -11.1 | 102   | 0.00     |
| 60   | sec-Butylbenzene            | 5.000  | 5.765 | -15.3 | 100   | 0.00     |
| 61   | p-Isopropyltoluene          | 5.000  | 5.714 | -14.3 | 102   | 0.00     |
| 62   | 1,3-Dclbenz                 | 5.000  | 5.644 | -12.9 | 102   | 0.00     |
| 63   | 1,4-Dclbenz                 | 5.000  | 5.563 | -11.3 | 105   | 0.00     |
| 64   | n-Butylbenzene              | 5.000  | 5.701 | -14.0 | 104   | 0.00     |
| 65 S | SURR5,1,2-Dichlorobenzene-d | 5.000  | 4.612 | 7.8   | 98    | 0.00     |
| 66   | 1,2-Dclbenz                 | 5.000  | 5.517 | -10.3 | 104   | 0.00     |
| 67   | 1,2-Dibromo-3-chloropropane | 5.000  | 5.906 | -18.1 | 114   | 0.00     |
| 68   | 1,2,4-Tcbenzene             | 5.000  | 5.525 | -10.5 | 108   | 0.00     |
| 69   | Hexachlorobu                | 5.000  | 5.858 | -17.2 | 100   | 0.00     |
| 70   | Naphthalen                  | 5.000  | 5.398 | -8.0  | 108   | 0.00     |
| 71   | 1,2,3-Tclbenzene            | 5.000  | 5.554 | -11.1 | 107   | 0.00     |

(# ) = Out of Range

SPCC's out = 0 CCC's out = 0

Data Path : I:\ACQUDATA\MSVOA16\Data\051122\  
 Data File : C1366.D  
 Acq On : 11 May 2022 11:22 am  
 Operator : K.Ruest  
 Sample : ICV/LCS  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 11 11:38:58 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 10 15:43:10 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc   | Units  | Dev(Min) |
|-------------------------------|--------|----------------|----------|--------|--------|----------|
| -----                         |        |                |          |        |        |          |
| Internal Standards            |        |                |          |        |        |          |
| 1) Fluorobenzene              | 6.284  | 96             | 141568   | 5.00   | ppb    | 0.00     |
| System Monitoring Compounds   |        |                |          |        |        |          |
| 37) surr2,bfb                 | 11.238 | 95             | 48461    | 4.77   | ppb    | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 95.40% |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.670 | 152            | 57058    | 4.74   | ppb    | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =      | 94.80% |          |
| Target Compounds              |        |                |          |        |        |          |
|                               |        |                |          |        | Qvalue |          |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 52700    | 6.120  | ppb    | 96       |
| 3) Chloromethane              | 1.334  | 50             | 54462    | 6.556  | ppb    | 99       |
| 4) Vinyl Chloride             | 1.408  | 62             | 51114    | 5.417  | ppb    | 100      |
| 5) Bromomethane               | 1.633  | 94             | 33614    | 5.444  | ppb    | 95       |
| 6) Chloroethane               | 1.706  | 64             | 32279    | 5.578  | ppb    | 98       |
| 7) Trichlorofluoromethane     | 1.900  | 101            | 60051    | 5.782  | ppb    | 96       |
| 8) FREON 123A                 | 2.131  | 67             | 40588    | 5.420  | ppb    | 95       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 36324    | 5.502  | ppb    | 93       |
| 10) Freon 113                 | 2.325  | 101            | 35517    | 5.474  | ppb    | 99       |
| 11) Acetone                   | 2.362  | 43             | 27209    | 9.905  | ppb    | 99       |
| 12) Methylene Chloride        | 2.750  | 84             | 42188    | 4.912  | ppb    | 96       |
| 13) TBA                       | 2.912  | 59             | 91511    | 91.497 | ppb    | 97       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 108455   | 4.793  | ppb    | 98       |
| 15) trans-1,2-Dichloroethene  | 3.043  | 96             | 39062    | 5.326  | ppb    | 91       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 65883    | 5.273  | ppb    | 98       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 45769    | 5.987  | ppb    | 95       |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96             | 46243    | 5.236  | ppb    | 86       |
| 19) 2-Butanone                | 4.433  | 43             | 42568    | 9.757  | ppb    | 98       |
| 20) Bromochloromethane        | 4.732  | 130            | 31621    | 5.134  | ppb    | # 84     |
| 21) Tetrahydrofuran           | 4.889  | 42             | 14042    | 4.895  | ppb    | 90       |
| 22) Chloroform                | 4.910  | 83             | 81293    | 5.414  | ppb    | # 33     |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 57207    | 5.507  | ppb    | 98       |
| 24) Carbontetrachloride       | 5.497  | 117            | 49807    | 5.576  | ppb    | 93       |
| 25) 1,1-Dichloropropene       | 5.508  | 75             | 50679    | 5.536  | ppb    | 97       |
| 26) Benzene                   | 5.833  | 78             | 156824   | 5.105  | ppb    | 98       |
| 27) 1,2-Dichloroethane        | 5.864  | 62             | 50449    | 4.872  | ppb    | 98       |
| 28) Trichloroethene           | 6.818  | 130            | 46225    | 5.374  | ppb    | 97       |
| 29) 1,2-Diclpropane           | 7.117  | 63             | 39754    | 4.929  | ppb    | 99       |
| 30) Dibromomethane            | 7.264  | 93             | 27618    | 4.787  | ppb    | 90       |
| 31) Bromodichloromethane      | 7.505  | 83             | 58870    | 5.064  | ppb    | 94       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 63850    | 4.932  | ppb    | 99       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 89015    | 7.181  | ppb    | 95       |
| 34) Toluene                   | 8.501  | 91             | 176062   | 5.130  | ppb    | 99       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 56245    | 5.040  | ppb    | 97       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 41320    | 4.844  | ppb    | 96       |
| 38) Tetrachloroethene         | 9.146  | 164            | 39063    | 5.642  | ppb    | 94       |
| 39) 2-Hexanone                | 9.335  | 43             | 64207    | 9.657  | ppb    | 99       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 68237    | 4.758  | ppb    | 93       |
| 41) Dibromochloromethane      | 9.424  | 129            | 45434    | 4.626  | ppb    | 98       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 41480    | 4.716  | ppb    | 99       |
| 43) Chlorobenzene             | 10.074 | 112            | 109049   | 4.976  | ppb    | 96       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 40389    | 5.067  | ppb    | 95       |
| 45) Ethylbenzene              | 10.211 | 106            | 58101    | 5.183  | ppb    | 96       |
| 46) (m+p)Xylene               | 10.331 | 106            | 144234   | 10.474 | ppb    | 98       |
| 47) o-Xylene                  | 10.730 | 106            | 67588    | 4.991  | ppb    | 94       |
| 48) Styrene                   | 10.740 | 104            | 115129   | 4.785  | ppb    | 97       |



Data Path : I:\ACQUDATA\MSVOA16\Data\051122\  
 Data File : C1366.D  
 Acq On : 11 May 2022 11:22 am  
 Operator : K.Ruest  
 Sample : ICV/LCS  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

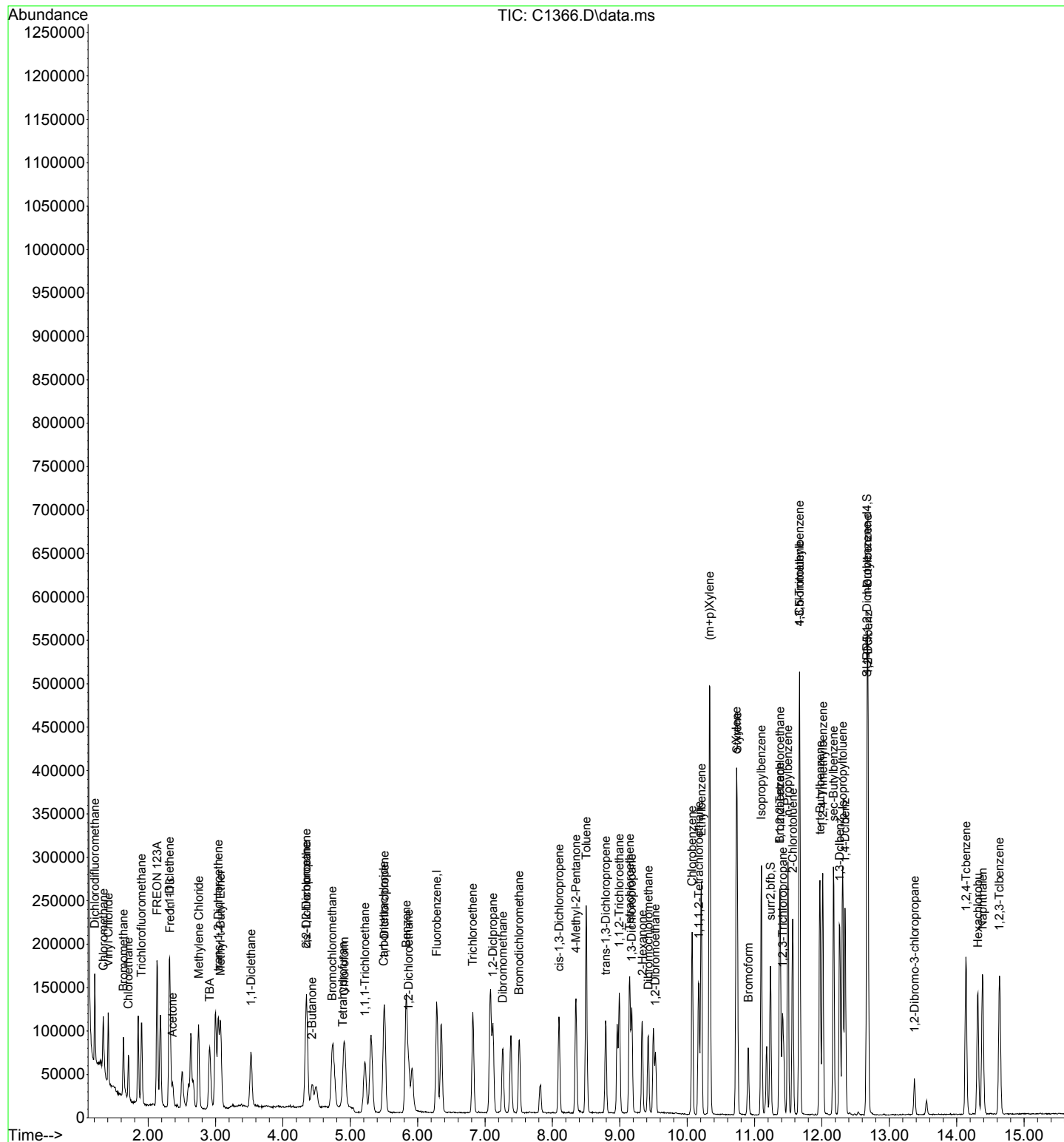
Quant Time: May 11 11:38:58 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 10 15:43:10 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 34034    | 4.900 | ppb   | 97       |
| 50) Isopropylbenzene          | 11.102 | 105  | 173168   | 5.408 | ppb   | 100      |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 53875    | 4.682 | ppb   | 96       |
| 52) Bromobenzene              | 11.375 | 156  | 51284    | 4.696 | ppb   | 95       |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 18166    | 4.586 | ppb # | 89       |
| 54) n-Propylbenzene           | 11.495 | 91   | 205685   | 5.414 | ppb   | 99       |
| 55) 2-Chlorotoluene           | 11.569 | 91   | 121349   | 5.077 | ppb   | 98       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 141543   | 5.037 | ppb   | 96       |
| 57) 1,3,5-Trimethylbenzene    | 11.668 | 105  | 147246   | 5.135 | ppb   | 98       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 130076   | 5.253 | ppb   | 99       |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 144203   | 5.103 | ppb   | 99       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 183826   | 5.362 | ppb   | 98       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 156230   | 5.259 | ppb   | 98       |
| 62) 1,3-Diclbz                | 12.266 | 146  | 93980    | 4.901 | ppb   | 96       |
| 63) 1,4-Diclbz                | 12.345 | 146  | 93707    | 4.793 | ppb   | 99       |
| 64) n-Butylbenzene            | 12.675 | 91   | 135170   | 5.249 | ppb   | 94       |
| 66) 1,2-Diclbz                | 12.685 | 146  | 94345    | 4.781 | ppb   | 98       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 9546     | 4.613 | ppb   | 92       |
| 68) 1,2,4-Tcbenzene           | 14.138 | 180  | 68195    | 4.637 | ppb   | 97       |
| 69) Hexachlorobu              | 14.316 | 225  | 34599    | 5.502 | ppb   | 98       |
| 70) Naphthalen                | 14.384 | 128  | 166975   | 4.516 | ppb   | 99       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 67723    | 4.536 | ppb   | 98       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\MSVOA16\Data\051122\  
Data File : C1366.D  
Acq On : 11 May 2022 11:22 am  
Operator : K.Ruest  
Sample : ICV/LCS  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 11 11:38:58 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 10 15:43:10 2022  
Response via : Initial Calibration



Data Path : I:\ACQUDATA\MSVOA16\Data\051122\  
 Data File : C1365.D  
 Acq On : 11 May 2022 10:45 am  
 Operator : K.Ruest  
 Sample : CCV  
 Misc :  
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 11 11:06:07 2022  
 Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
 Quant Title : 524.2 Waters  
 QLast Update : Tue May 10 15:43:10 2022  
 Response via : Initial Calibration

| Compound                      | R.T.   | QIon           | Response | Conc    | Units  | Dev(Min) |
|-------------------------------|--------|----------------|----------|---------|--------|----------|
| -----                         |        |                |          |         |        |          |
| Internal Standards            |        |                |          |         |        |          |
| 1) Fluorobenzene              | 6.284  | 96             | 140264   | 5.00    | ppb    | 0.00     |
| System Monitoring Compounds   |        |                |          |         |        |          |
| 37) surr2,bfb                 | 11.233 | 95             | 49442    | 4.91    | ppb    | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =       | 98.20% |          |
| 65) SURR5,1,2-Dichlorobenz... | 12.664 | 152            | 54956    | 4.61    | ppb    | 0.00     |
| Spiked Amount                 | 5.000  | Range 70 - 130 | Recovery | =       | 92.20% |          |
| Target Compounds              |        |                |          |         |        |          |
|                               |        |                |          |         |        | Qvalue   |
| 2) Dichlorodifluoromethane    | 1.208  | 85             | 52691    | 6.176   | ppb    | 97       |
| 3) Chloromethane              | 1.334  | 50             | 45154    | 5.486   | ppb    | 99       |
| 4) Vinyl Chloride             | 1.408  | 62             | 53173    | 5.687   | ppb    | 97       |
| 5) Bromomethane               | 1.633  | 94             | 33559    | 5.486   | ppb    | 99       |
| 6) Chloroethane               | 1.706  | 64             | 33008    | 5.757   | ppb    | 93       |
| 7) Trichlorofluoromethane     | 1.906  | 101            | 60366    | 5.867   | ppb    | 93       |
| 8) FREON 123A                 | 2.131  | 67             | 45151    | 6.085   | ppb    | 96       |
| 9) 1,1-Dicethene              | 2.315  | 96             | 36738    | 5.617   | ppb    | 96       |
| 10) Freon 113                 | 2.325  | 101            | 38811    | 6.037   | ppb    | 92       |
| 11) Acetone                   | 2.367  | 43             | 28755    | 10.565  | ppb    | 97       |
| 12) Methylene Chloride        | 2.745  | 84             | 43895    | 5.159   | ppb    | 96       |
| 13) TBA                       | 2.912  | 59             | 127605   | 128.771 | ppb    | 96       |
| 14) Methyl-t-Butyl Ether      | 3.075  | 73             | 116986   | 5.219   | ppb    | 91       |
| 15) trans-1,2-Dichloroethene  | 3.043  | 96             | 40571    | 5.583   | ppb    | 93       |
| 16) 1,1-Dicethane             | 3.526  | 63             | 67356    | 5.441   | ppb    | 99       |
| 17) 2,2-Dichloropropane       | 4.349  | 77             | 46599    | 6.152   | ppb    | 97       |
| 18) cis-1,2-Dichloroethene    | 4.349  | 96             | 47160    | 5.390   | ppb    | 95       |
| 19) 2-Butanone                | 4.433  | 43             | 45648    | 10.560  | ppb    | 98       |
| 20) Bromochloromethane        | 4.737  | 130            | 32176    | 5.273   | ppb    | # 82     |
| 21) Tetrahydrofuran           | 4.894  | 42             | 15824    | 5.567   | ppb    | 94       |
| 22) Chloroform                | 4.915  | 83             | 83758    | 5.630   | ppb    | 97       |
| 23) 1,1,1-Trichloroethane     | 5.219  | 97             | 58300    | 5.665   | ppb    | 93       |
| 24) Carbontetrachloride       | 5.497  | 117            | 51688    | 5.840   | ppb    | 99       |
| 25) 1,1-Dichloropropene       | 5.508  | 75             | 50505    | 5.568   | ppb    | 96       |
| 26) Benzene                   | 5.833  | 78             | 166262   | 5.463   | ppb    | 99       |
| 27) 1,2-Dichloroethane        | 5.864  | 62             | 53364    | 5.201   | ppb    | 95       |
| 28) Trichloroethene           | 6.824  | 130            | 48203    | 5.656   | ppb    | 96       |
| 29) 1,2-Diclpropane           | 7.117  | 63             | 43073    | 5.390   | ppb    | 98       |
| 30) Dibromomethane            | 7.264  | 93             | 29429    | 5.149   | ppb    | 89       |
| 31) Bromodichloromethane      | 7.511  | 83             | 62557    | 5.431   | ppb    | 98       |
| 32) cis-1,3-Dichloropropene   | 8.098  | 75             | 69761    | 5.438   | ppb    | 99       |
| 33) 4-Methyl-2-Pentanone      | 8.349  | 43             | 127354   | 10.370  | ppb    | 96       |
| 34) Toluene                   | 8.501  | 91             | 185082   | 5.443   | ppb    | 99       |
| 35) trans-1,3-Dichloropropene | 8.790  | 75             | 58821    | 5.320   | ppb    | 96       |
| 36) 1,1,2-Trichloroethane     | 8.994  | 97             | 44292    | 5.241   | ppb    | 94       |
| 38) Tetrachloroethene         | 9.146  | 164            | 41038    | 5.983   | ppb    | 98       |
| 39) 2-Hexanone                | 9.330  | 43             | 67347    | 10.223  | ppb    | 98       |
| 40) 1,3-Dichloropropane       | 9.178  | 76             | 75167    | 5.290   | ppb    | 93       |
| 41) Dibromochloromethane      | 9.424  | 129            | 53259    | 5.473   | ppb    | 96       |
| 42) 1,2-Dibromoethane         | 9.529  | 107            | 46291    | 5.312   | ppb    | 95       |
| 43) Chlorobenzene             | 10.074 | 112            | 125299   | 5.771   | ppb    | 98       |
| 44) 1,1,1,2-Tetrachloroethane | 10.174 | 131            | 45624    | 5.777   | ppb    | 93       |
| 45) Ethylbenzene              | 10.211 | 106            | 64261    | 5.786   | ppb    | 99       |
| 46) (m+p)Xylene               | 10.337 | 106            | 154138   | 11.297  | ppb    | 99       |
| 47) o-Xylene                  | 10.730 | 106            | 74722    | 5.569   | ppb    | 94       |
| 48) Styrene                   | 10.740 | 104            | 129499   | 5.432   | ppb    | 95       |

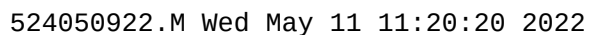
Data Path : I:\ACQUDATA\MSVOA16\Data\051122\  
Data File : C1365.D  
Acq On : 11 May 2022 10:45 am  
Operator : K.Ruest  
Sample : CCV  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Quant Time: May 11 11:06:07 2022  
Quant Method : I:\ACQUDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 10 15:43:10 2022  
Response via : Initial Calibration

| Compound                      | R.T.   | QIon | Response | Conc  | Units | Dev(Min) |
|-------------------------------|--------|------|----------|-------|-------|----------|
| 49) Bromoform                 | 10.908 | 173  | 39398    | 5.725 | ppb   | 98       |
| 50) Isopropylbenzene          | 11.102 | 105  | 178873   | 5.638 | ppb   | 99       |
| 51) 1,1,2,2-Tetrachloroethane | 11.380 | 83   | 65385    | 5.735 | ppb   | 99       |
| 52) Bromobenzene              | 11.375 | 156  | 58266    | 5.385 | ppb   | 94       |
| 53) 1,2,3-Trichloropropane    | 11.417 | 110  | 22556    | 5.747 | ppb   | 91       |
| 54) n-Propylbenzene           | 11.495 | 91   | 214408   | 5.696 | ppb   | 97       |
| 55) 2-Chlorotoluene           | 11.569 | 91   | 133689   | 5.645 | ppb   | 97       |
| 56) 4-Chlorotoluene           | 11.668 | 91   | 154809   | 5.560 | ppb   | 97       |
| 57) 1,3,5-Trimethylbenzene    | 11.663 | 105  | 161158   | 5.672 | ppb   | 98       |
| 58) tert-Butylbenzene         | 11.972 | 119  | 139874   | 5.701 | ppb   | 99       |
| 59) 1,2,4-Trimethylbenzene    | 12.014 | 105  | 155586   | 5.557 | ppb   | 97       |
| 60) sec-Butylbenzene          | 12.172 | 105  | 195835   | 5.765 | ppb   | 99       |
| 61) p-Isopropyltoluene        | 12.308 | 119  | 168203   | 5.714 | ppb   | 98       |
| 62) 1,3-Diclbz                | 12.266 | 146  | 107224   | 5.644 | ppb   | 97       |
| 63) 1,4-Diclbz                | 12.345 | 146  | 107746   | 5.563 | ppb   | 97       |
| 64) n-Butylbenzene            | 12.680 | 91   | 145450   | 5.701 | ppb   | 99       |
| 66) 1,2-Diclbz                | 12.685 | 146  | 107868   | 5.517 | ppb   | 98       |
| 67) 1,2-Dibromo-3-chloropr... | 13.372 | 75   | 12109    | 5.906 | ppb   | 88       |
| 68) 1,2,4-Tcbenzene           | 14.143 | 180  | 80514    | 5.525 | ppb   | 98       |
| 69) Hexachlorobu              | 14.311 | 225  | 36497    | 5.858 | ppb   | 99       |
| 70) Naphthalen                | 14.384 | 128  | 197737   | 5.398 | ppb   | 97       |
| 71) 1,2,3-Tclbenzene          | 14.636 | 180  | 82165    | 5.554 | ppb   | 97       |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quant Time: May 11 11:06:07 2022  
Quant Method : I:\ACQDATA\MSVOA16\Methods\524050922.M  
Quant Title : 524.2 Waters  
QLast Update : Tue May 10 15:43:10 2022  
Response via : Initial Calibration



1000

Date Measured. 10/30/2003

Ruh Method: 321050-10a

LIMS Run#: 763716

Figure 1. A schematic diagram of the experimental setup. The subject is seated in a chair, viewing a screen displaying a target. The target is a vertical line with a horizontal bar at the top. The subject's hand is positioned at the bottom of the target. The distance between the hand and the target is 10 cm. The target is 10 cm high and 10 cm wide. The subject is instructed to move the hand to the target and hold it there for 10 seconds. The distance between the hand and the target is 10 cm. The target is 10 cm high and 10 cm wide. The subject is instructed to move the hand to the target and hold it there for 10 seconds.

| Pos. | Sample      | Diln. | Diln. Prep./ | RL | Vial | HS | CI | pH | File# | OK? | Comments     |
|------|-------------|-------|--------------|----|------|----|----|----|-------|-----|--------------|
| 1    | BK          |       |              |    |      |    |    |    | C1363 |     |              |
| 2    | MVE         |       |              |    |      |    |    |    | C1364 | Y   | (ant) 10:11  |
| 1    | CV          |       |              |    |      |    |    |    | C1365 | Y   |              |
| 1    | LC5/1CV     |       |              |    |      |    |    |    | C1366 | Y   | *Cm↑         |
| 1    | BK          |       |              |    |      |    |    |    | C1367 | (N) |              |
| 2    | MVE         |       |              |    |      |    |    |    | C1368 | Y   |              |
| 3    | 0.5 Pds     |       |              |    |      |    |    |    | C1369 | Y   |              |
| 4    | P203795-011 | 1.0   |              |    |      |    |    |    | C1370 | Y   |              |
| 5    |             | 001   | 1.0          |    |      |    |    |    | C1371 | Y   |              |
| 6    |             | 002   | 1.0          |    |      |    |    |    | C1372 | Y   |              |
| 7    |             | 003   | 1.0          |    |      |    |    |    | C1373 | Y   |              |
| 8    |             | 004   | 1.0          |    |      |    |    |    | C1374 | Y   |              |
| 9    |             | 005   | 1.0          |    |      |    |    |    | C1375 | (N) | NP+ 3.5. JCE |
| 10   |             | 006   | 1.0          |    |      |    |    |    | C1376 | (N) | NP+ 4/0      |
| 11   |             | 007   | 1.0          |    |      |    |    |    | C1377 | Y   |              |
| 12   |             | 007   | 1.0          |    |      |    |    |    | C1378 | Y   |              |
| 13   |             | 006   | 35           |    |      |    |    |    | C1379 | Y   |              |
| 14   |             | 071   | 1.0          |    |      |    |    |    | C1380 | Y   |              |
| 15   |             | 011   | 1.0          |    |      |    |    |    | C1381 | Y   |              |
| 16   | BK          |       |              |    |      |    |    |    | C1382 | -   |              |

~~END~~  
KDS 11/12

All samples = 5 mL + 5 uL combined IS/ 5 mL purged

Combined IS/Slur: 222955

3. UL combined IS/ 5 mL purged  
 400 Secondary Jet: 222962 75 sec  
 Secondary Ca: 222962

Combined IS/Surr: 222955  
Surrogate:       

2nd Secondary No. : 224006-2nd

~~Internal Std~~  
~~Reagents:~~

Secondary  
Secondary

h: 27600 = 81

10

Analysis: 524 Analyst: W. Hunt pH strips: \_\_\_\_\_  
 Date: 5/9/22 Balance ID: 21A ResCl strips: \_\_\_\_\_  
 Instr: 16 50 mL Class A used for dilution FV Syringes: 217822C LIMS Run#: \_\_\_\_\_  
 Data Path: \\lacudata\msvoa\InstID\Date

| Pos. | Sample  | Diln. | Diln. Prep. | RL | Vial | HS | CI | pH | File# | OK? | Comments |
|------|---------|-------|-------------|----|------|----|----|----|-------|-----|----------|
| 1    | RV      |       |             |    |      |    |    |    | C1344 |     |          |
| 2    | RV      |       |             |    |      |    |    |    | C1345 |     |          |
| 3    | RV      |       |             |    |      |    |    |    | C1346 | (N) |          |
| 1    | RV      |       |             |    |      |    |    |    | C1347 |     |          |
| 2    | RV      |       |             |    |      |    |    |    | C1348 |     |          |
| 1    | TUNE    |       |             |    |      |    |    |    | C1349 | Y   |          |
|      | INST RV |       |             |    |      |    |    |    | C1350 | Y   |          |
|      | 0.5 PPB |       |             |    |      |    |    |    | C1351 | Y   |          |
|      | 1.0     |       |             |    |      |    |    |    | C1352 | Y   |          |
|      | 2.0     |       |             |    |      |    |    |    | C1353 | Y   |          |
|      | 5.0     |       |             |    |      |    |    |    | C1354 | Y   |          |
|      | 10.0    |       |             |    |      |    |    |    | C1355 | Y   |          |
|      | 20.0    |       |             |    |      |    |    |    | C1356 | Y   |          |
|      | 30.0    |       |             |    |      |    |    |    | C1357 | Y   |          |
|      | 40.0    |       |             |    |      |    |    |    | C1358 | Y   |          |
|      | 50.0    |       |             |    |      |    |    |    | C1359 | Y   |          |
|      | RV      |       |             |    |      |    |    |    | C1360 | -   |          |
|      | RV      |       |             |    |      |    |    |    | C1361 | -   |          |
|      | RV      |       |             |    |      |    |    |    | C1362 | N   |          |
|      | RV      |       |             |    |      |    |    |    | C1363 | -   |          |

All samples = 5 mL + 5 µL combined IS/ 5 mL purged  
 Combined IS/Surr: 222458  
 Surrogate: 222458  
 Internal Std: 222458  
 Reagents: 222458

**ALS Group USA, Corp.**

DBA ALS Environmental

QC/QC Report

Date Analyzed: 5/9/22 16:45

**ICAL Tune Summary**  
**Volatile Organic Compounds by GC/MS**

File ID: I:\ACQUDATA\MSVOA16\DATA\050922\C1349.D

Analytical Method: 524.2

Instrument ID: R-MS-16

| Target Mass | Relative to Mass | Lower Limit % | Upper Limit % | Relative Abundance % | Raw Abundance | Results Pass/Fail |
|-------------|------------------|---------------|---------------|----------------------|---------------|-------------------|
| 50          | 95               | 15            | 40            | 18.1                 | 4664          | PASS              |
| 75          | 95               | 30            | 80            | 49.4                 | 12752         | PASS              |
| 95          | 95               | 100           | 100           | 100.0                | 25835         | PASS              |
| 96          | 95               | 5             | 9             | 7.0                  | 1808          | PASS              |
| 173         | 174              | 0             | 2             | 1.0                  | 273           | PASS              |
| 174         | 95               | 50            | 120           | 105.6                | 27283         | PASS              |
| 175         | 174              | 5             | 9             | 7.0                  | 1922          | PASS              |
| 176         | 174              | 95            | 101           | 97.0                 | 26472         | PASS              |
| 177         | 176              | 5             | 9             | 6.4                  | 1693          | PASS              |

| Sample Name | Lab Code | File ID:                                | Date Analyzes: Q |
|-------------|----------|-----------------------------------------|------------------|
| INST BLK    | INST BLK | I:\ACQUDATA\MSVOA16\DATA\050922\C1350.D | 5/9/22 17:11     |
| 0.5PPB      | 0.5PPB   | I:\ACQUDATA\MSVOA16\DATA\050922\C1351.D | 5/9/22 17:36     |
| 1.0PPB      | 1.0PPB   | I:\ACQUDATA\MSVOA16\DATA\050922\C1352.D | 5/9/22 18:02     |
| 2.0PPB      | 2.0PPB   | I:\ACQUDATA\MSVOA16\DATA\050922\C1353.D | 5/9/22 18:27     |
| 5.0PPB      | 5.0PPB   | I:\ACQUDATA\MSVOA16\DATA\050922\C1354.D | 5/9/22 18:53     |
| 10.0PPB     | 10.0PPB  | I:\ACQUDATA\MSVOA16\DATA\050922\C1355.D | 5/9/22 19:18     |
| 20.0PPB     | 20.0PPB  | I:\ACQUDATA\MSVOA16\DATA\050922\C1356.D | 5/9/22 19:44     |
| 30.0PPB     | 30.0PPB  | I:\ACQUDATA\MSVOA16\DATA\050922\C1357.D | 5/9/22 20:09     |
| 40.0PPB     | 40.0PPB  | I:\ACQUDATA\MSVOA16\DATA\050922\C1358.D | 5/9/22 20:35     |
| 50.0PPB     | 50.0PPB  | I:\ACQUDATA\MSVOA16\DATA\050922\C1359.D | 5/9/22 21:00     |



**ALS Group USA, Corp.**

DBA ALS Environmental

QC/QC Report

Date Analyzed: 5/11/22 10:11

**ICAL Tune Summary**  
**Volatile Organic Compounds by GC/MS**

File ID: I:\ACQUDATA\MSVOA16\DATA\051122\C1364.D

Analytical Method: 524.2

Instrument ID: R-MS-16

| Target Mass | Relative to Mass | Lower Limit % | Upper Limit % | Relative Abundance % | Raw Abundance | Results Pass/Fail |
|-------------|------------------|---------------|---------------|----------------------|---------------|-------------------|
| 50          | 95               | 15            | 40            | 18.4                 | 5444          | PASS              |
| 75          | 95               | 30            | 80            | 49.0                 | 14471         | PASS              |
| 95          | 95               | 100           | 100           | 100.0                | 29533         | PASS              |
| 96          | 95               | 5             | 9             | 6.9                  | 2031          | PASS              |
| 173         | 174              | 0             | 2             | 0.7                  | 190           | PASS              |
| 174         | 95               | 50            | 120           | 98.0                 | 28939         | PASS              |
| 175         | 174              | 5             | 9             | 7.4                  | 2129          | PASS              |
| 176         | 174              | 95            | 101           | 96.4                 | 27893         | PASS              |
| 177         | 176              | 5             | 9             | 6.8                  | 1886          | PASS              |

| Sample Name | Lab Code | File ID:                                | Date Analyzes: Q |
|-------------|----------|-----------------------------------------|------------------|
| CCV         | CCV      | I:\ACQUDATA\MSVOA16\Data\051122\C1365.D | 5/11/22 10:45    |
| ICV/LCS     | ICV/LCS  | I:\ACQUDATA\MSVOA16\Data\051122\C1366.D | 5/11/22 11:22    |

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

| #  | Lab Code     | Sample Name | File Location                           | Acquisition Date |
|----|--------------|-------------|-----------------------------------------|------------------|
| 01 | RC2200044-01 | 0.5PPB      | I:\ACQUDATA\MSVOA16\Data\050922\C1351.D | 05/09/2022 17:36 |
| 02 | RC2200044-02 | 1.0PPB      | I:\ACQUDATA\MSVOA16\Data\050922\C1352.D | 05/09/2022 18:02 |
| 03 | RC2200044-03 | 2.0PPB      | I:\ACQUDATA\MSVOA16\Data\050922\C1353.D | 05/09/2022 18:27 |
| 04 | RC2200044-04 | 5.0PPB      | I:\ACQUDATA\MSVOA16\Data\050922\C1354.D | 05/09/2022 18:53 |
| 05 | RC2200044-05 | 10.0PPB     | I:\ACQUDATA\MSVOA16\Data\050922\C1355.D | 05/09/2022 19:18 |
| 06 | RC2200044-06 | 20.0PPB     | I:\ACQUDATA\MSVOA16\Data\050922\C1356.D | 05/09/2022 19:44 |
| 07 | RC2200044-07 | 30.0PPB     | I:\ACQUDATA\MSVOA16\Data\050922\C1357.D | 05/09/2022 20:09 |
| 08 | RC2200044-08 | 40.0PPB     | I:\ACQUDATA\MSVOA16\Data\050922\C1358.D | 05/09/2022 20:35 |
| 09 | RC2200044-09 | 50.0PPB     | I:\ACQUDATA\MSVOA16\Data\050922\C1359.D | 05/09/2022 21:00 |

**Analyte**

**1,1,1,2-Tetrachloroethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2732 | 02 | 1.000  | 0.275  | 03 | 2.000  | 0.2537 | 04 | 5.000  | 0.3051 |
| 05 | 10.000 | 0.3053 | 06 | 20.000 | 0.2712 | 07 | 30.000 | 0.289  | 08 | 40.000 | 0.2821 |
| 09 | 50.000 | 0.2788 |    |        |        |    |        |        |    |        |        |

**1,1,1-Trichloroethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.385  | 02 | 1.000  | 0.3904 | 03 | 2.000  | 0.3494 | 04 | 5.000  | 0.4212 |
| 05 | 10.000 | 0.4286 | 06 | 20.000 | 0.2933 | 07 | 30.000 | 0.3497 | 08 | 40.000 | 0.3647 |
| 09 | 50.000 | 0.3194 |    |        |        |    |        |        |    |        |        |

**1,1,2,2-Tetrachloroethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.402  | 02 | 1.000  | 0.3833 | 03 | 2.000  | 0.384  | 04 | 5.000  | 0.432  |
| 05 | 10.000 | 0.4216 | 06 | 20.000 | 0.4129 | 07 | 30.000 | 0.4155 | 08 | 40.000 | 0.3998 |
| 09 | 50.000 | 0.4066 |    |        |        |    |        |        |    |        |        |

**1,1,2-Trichloroethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.305  | 02 | 1.000  | 0.3064 | 03 | 2.000  | 0.2844 | 04 | 5.000  | 0.3247 |
| 05 | 10.000 | 0.3232 | 06 | 20.000 | 0.2972 | 07 | 30.000 | 0.2978 | 08 | 40.000 | 0.2828 |
| 09 | 50.000 | 0.2898 |    |        |        |    |        |        |    |        |        |

**1,1-Dichloroethane (SPCC)**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.4596 | 02 | 1.000  | 0.449  | 03 | 2.000  | 0.4148 | 04 | 5.000  | 0.5011 |
| 05 | 10.000 | 0.5049 | 06 | 20.000 | 0.3964 | 07 | 30.000 | 0.4206 | 08 | 40.000 | 0.4243 |
| 09 | 50.000 | 0.4008 |    |        |        |    |        |        |    |        |        |

**1,1-Dichloroethene (1,1-DCE)**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2444 | 02 | 1.000  | 0.2519 | 03 | 2.000  | 0.2143 | 04 | 5.000  | 0.2711 |
| 05 | 10.000 | 0.2759 | 06 | 20.000 | 0.1873 | 07 | 30.000 | 0.2181 | 08 | 40.000 | 0.2328 |
| 09 | 50.000 | 0.2028 |    |        |        |    |        |        |    |        |        |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

**Analyte**

**1,1-Dichloropropene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3503 | 02 | 1.000  | 0.3503 | 03 | 2.000  | 0.2952 | 04 | 5.000  | 0.3814 |
| 05 | 10.000 | 0.3792 | 06 | 20.000 | 0.2499 | 07 | 30.000 | 0.3049 | 08 | 40.000 | 0.3221 |
| 09 | 50.000 | 0.2765 |    |        |        |    |        |        |    |        |        |

**1,2,3-Trichlorobenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.478  | 02 | 1.000  | 0.4759 | 03 | 2.000  | 0.4624 | 04 | 5.000  | 0.5608 |
| 05 | 10.000 | 0.5644 | 06 | 20.000 | 0.542  | 07 | 30.000 | 0.56   | 08 | 40.000 | 0.551  |
| 09 | 50.000 | 0.5513 |    |        |        |    |        |        |    |        |        |

**1,2,3-Trichloropropane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.1335 | 02 | 1.000  | 0.1385 | 03 | 2.000  | 0.132  | 04 | 5.000  | 0.1509 |
| 05 | 10.000 | 0.1459 | 06 | 20.000 | 0.143  | 07 | 30.000 | 0.1417 | 08 | 40.000 | 0.1357 |
| 09 | 50.000 | 0.1381 |    |        |        |    |        |        |    |        |        |

**1,2,4-Trichlorobenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.4841 | 02 | 1.000  | 0.4707 | 03 | 2.000  | 0.4689 | 04 | 5.000  | 0.5455 |
| 05 | 10.000 | 0.5494 | 06 | 20.000 | 0.5175 | 07 | 30.000 | 0.5448 | 08 | 40.000 | 0.5518 |
| 09 | 50.000 | 0.5424 |    |        |        |    |        |        |    |        |        |

**1,2,4-Trimethylbenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF    |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|-------|
| 01 | 0.500  | 0.9371 | 02 | 1.000  | 0.8662 | 03 | 2.000  | 0.8479 | 04 | 5.000  | 1.111 |
| 05 | 10.000 | 1.151  | 06 | 20.000 | 0.8996 | 07 | 30.000 | 1.065  | 08 | 40.000 | 1.098 |
| 09 | 50.000 | 1.008  |    |        |        |    |        |        |    |        |       |

**1,2-Dichlorobenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.6255 | 02 | 1.000  | 0.6539 | 03 | 2.000  | 0.6431 | 04 | 5.000  | 0.7561 |
| 05 | 10.000 | 0.7596 | 06 | 20.000 | 0.6868 | 07 | 30.000 | 0.7241 | 08 | 40.000 | 0.7145 |
| 09 | 50.000 | 0.7087 |    |        |        |    |        |        |    |        |        |

**1,2-Dichlorobenzene-d4**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 5.000  | 0.3973 | 02 | 5.000  | 0.404  | 03 | 5.000  | 0.4169 | 04 | 5.000  | 0.407  |
| 05 | 5.000  | 0.4201 | 06 | 5.000  | 0.4362 | 07 | 5.000  | 0.4488 | 08 | 5.000  | 0.4359 |
| 09 | 5.000  | 0.4567 |    |        |        |    |        |        |    |        |        |

**1,2-Dichloroethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3752 | 02 | 1.000  | 0.3646 | 03 | 2.000  | 0.3546 | 04 | 5.000  | 0.406  |
| 05 | 10.000 | 0.3925 | 06 | 20.000 | 0.3615 | 07 | 30.000 | 0.3557 | 08 | 40.000 | 0.3407 |
| 09 | 50.000 | 0.341  |    |        |        |    |        |        |    |        |        |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

**Analyte**

**1,2-Dichloropropane (CCC)**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2699 | 02 | 1.000  | 0.2857 | 03 | 2.000  | 0.2892 | 04 | 5.000  | 0.3153 |
| 05 | 10.000 | 0.3139 | 06 | 20.000 | 0.2711 | 07 | 30.000 | 0.2771 | 08 | 40.000 | 0.2726 |
| 09 | 50.000 | 0.2687 |    |        |        |    |        |        |    |        |        |

**1,3,5-Trimethylbenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF    |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|-------|
| 01 | 0.500  | 0.8969 | 02 | 1.000  | 0.9318 | 03 | 2.000  | 0.8876 | 04 | 5.000  | 1.168 |
| 05 | 10.000 | 1.182  | 06 | 20.000 | 0.8762 | 07 | 30.000 | 1.073  | 08 | 40.000 | 1.106 |
| 09 | 50.000 | 0.9935 |    |        |        |    |        |        |    |        |       |

**1,3-Dichlorobenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.6315 | 02 | 1.000  | 0.6232 | 03 | 2.000  | 0.6239 | 04 | 5.000  | 0.7628 |
| 05 | 10.000 | 0.7386 | 06 | 20.000 | 0.6424 | 07 | 30.000 | 0.6975 | 08 | 40.000 | 0.6952 |
| 09 | 50.000 | 0.6802 |    |        |        |    |        |        |    |        |        |

**1,3-Dichloropropane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.5035 | 02 | 1.000  | 0.4942 | 03 | 2.000  | 0.4903 | 04 | 5.000  | 0.5532 |
| 05 | 10.000 | 0.5401 | 06 | 20.000 | 0.506  | 07 | 30.000 | 0.5009 | 08 | 40.000 | 0.4808 |
| 09 | 50.000 | 0.4897 |    |        |        |    |        |        |    |        |        |

**1,4-Dichlorobenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.651  | 02 | 1.000  | 0.6144 | 03 | 2.000  | 0.6186 | 04 | 5.000  | 0.7483 |
| 05 | 10.000 | 0.774  | 06 | 20.000 | 0.669  | 07 | 30.000 | 0.7184 | 08 | 40.000 | 0.7166 |
| 09 | 50.000 | 0.7039 |    |        |        |    |        |        |    |        |        |

**2,2-Dichloropropane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2918 | 02 | 1.000  | 0.3052 | 03 | 2.000  | 0.2549 | 04 | 5.000  | 0.3114 |
| 05 | 10.000 | 0.31   | 06 | 20.000 | 0.2125 | 07 | 30.000 | 0.2538 | 08 | 40.000 | 0.2595 |
| 09 | 50.000 | 0.231  |    |        |        |    |        |        |    |        |        |

**2-Chlorotoluene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.7689 | 02 | 1.000  | 0.7925 | 03 | 2.000  | 0.7644 | 04 | 5.000  | 0.9542 |
| 05 | 10.000 | 0.9765 | 06 | 20.000 | 0.7608 | 07 | 30.000 | 0.8704 | 08 | 40.000 | 0.8835 |
| 09 | 50.000 | 0.8264 |    |        |        |    |        |        |    |        |        |

**4-Bromofluorobenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 5.000  | 0.3391 | 02 | 5.000  | 0.338  | 03 | 5.000  | 0.3499 | 04 | 5.000  | 0.3495 |
| 05 | 5.000  | 0.3612 | 06 | 5.000  | 0.3699 | 07 | 5.000  | 0.3728 | 08 | 5.000  | 0.3719 |
| 09 | 5.000  | 0.3765 |    |        |        |    |        |        |    |        |        |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

**Analyte**

**4-Chlorotoluene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF    |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|-------|
| 01 | 0.500  | 0.8915 | 02 | 1.000  | 0.9261 | 03 | 2.000  | 0.8803 | 04 | 5.000  | 1.105 |
| 05 | 10.000 | 1.126  | 06 | 20.000 | 0.9182 | 07 | 30.000 | 1.039  | 08 | 40.000 | 1.048 |
| 09 | 50.000 | 0.9992 |    |        |        |    |        |        |    |        |       |

**Benzene**

| #  | Amount | RF    | #  | Amount | RF     | #  | Amount | RF    | #  | Amount | RF    |
|----|--------|-------|----|--------|--------|----|--------|-------|----|--------|-------|
| 01 | 0.500  | 1.148 | 02 | 1.000  | 1.104  | 03 | 2.000  | 1.027 | 04 | 5.000  | 1.235 |
| 05 | 10.000 | 1.234 | 06 | 20.000 | 0.9591 | 07 | 30.000 | 1.039 | 08 | 40.000 | 1.041 |
| 09 | 50.000 | 0.977 |    |        |        |    |        |       |    |        |       |

**Bromobenzene**

| #  | Amount | RF     | #  | Amount | RF    | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|-------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3665 | 02 | 1.000  | 0.357 | 03 | 2.000  | 0.355  | 04 | 5.000  | 0.4123 |
| 05 | 10.000 | 0.4239 | 06 | 20.000 | 0.38  | 07 | 30.000 | 0.3981 | 08 | 40.000 | 0.3916 |
| 09 | 50.000 | 0.3866 |    |        |       |    |        |        |    |        |        |

**Bromochloromethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2265 | 02 | 1.000  | 0.214  | 03 | 2.000  | 0.2126 | 04 | 5.000  | 0.2317 |
| 05 | 10.000 | 0.2357 | 06 | 20.000 | 0.2151 | 07 | 30.000 | 0.2123 | 08 | 40.000 | 0.2045 |
| 09 | 50.000 | 0.2055 |    |        |        |    |        |        |    |        |        |

**Bromomethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2433 | 02 | 1.000  | 0.2272 | 03 | 2.000  | 0.198  | 04 | 5.000  | 0.2547 |
| 05 | 10.000 | 0.2473 | 06 | 20.000 | 0.1935 | 07 | 30.000 | 0.2012 | 08 | 40.000 | 0.205  |
| 09 | 50.000 | 0.1923 |    |        |        |    |        |        |    |        |        |

**Carbon Tetrachloride**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3412 | 02 | 1.000  | 0.3265 | 03 | 2.000  | 0.2836 | 04 | 5.000  | 0.3643 |
| 05 | 10.000 | 0.3726 | 06 | 20.000 | 0.2421 | 07 | 30.000 | 0.3055 | 08 | 40.000 | 0.3264 |
| 09 | 50.000 | 0.2772 |    |        |        |    |        |        |    |        |        |

**Chlorobenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.7492 | 02 | 1.000  | 0.7414 | 03 | 2.000  | 0.7204 | 04 | 5.000  | 0.8545 |
| 05 | 10.000 | 0.8593 | 06 | 20.000 | 0.7186 | 07 | 30.000 | 0.783  | 08 | 40.000 | 0.7797 |
| 09 | 50.000 | 0.7601 |    |        |        |    |        |        |    |        |        |

**Chloroethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2233 | 02 | 1.000  | 0.2105 | 03 | 2.000  | 0.1803 | 04 | 5.000  | 0.2429 |
| 05 | 10.000 | 0.2334 | 06 | 20.000 | 0.1738 | 07 | 30.000 | 0.1929 | 08 | 40.000 | 0.2012 |
| 09 | 50.000 | 0.1811 |    |        |        |    |        |        |    |        |        |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

**Analyte**

**Chloromethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3433 | 02 | 1.000  | 0.2992 | 03 | 2.000  | 0.2519 | 04 | 5.000  | 0.3411 |
| 05 | 10.000 | 0.3386 | 06 | 20.000 | 0.2545 | 07 | 30.000 | 0.2728 | 08 | 40.000 | 0.2808 |
| 09 | 50.000 | 0.2585 |    |        |        |    |        |        |    |        |        |

**Dibromomethane**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2098 | 02 | 1.000  | 0.2051 | 03 | 2.000  | 0.1931 | 04 | 5.000  | 0.2212 |
| 05 | 10.000 | 0.2177 | 06 | 20.000 | 0.2039 | 07 | 30.000 | 0.1985 | 08 | 40.000 | 0.1904 |
| 09 | 50.000 | 0.194  |    |        |        |    |        |        |    |        |        |

**Dichlorodifluoromethane (CFC 12)**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3329 | 02 | 1.000  | 0.2855 | 03 | 2.000  | 0.2243 | 04 | 5.000  | 0.3753 |
| 05 | 10.000 | 0.3845 | 06 | 20.000 | 0.2309 | 07 | 30.000 | 0.2971 | 08 | 40.000 | 0.3278 |
| 09 | 50.000 | 0.2789 |    |        |        |    |        |        |    |        |        |

**Ethylbenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.4027 | 02 | 1.000  | 0.3986 | 03 | 2.000  | 0.3536 | 04 | 5.000  | 0.4506 |
| 05 | 10.000 | 0.4466 | 06 | 20.000 | 0.3344 | 07 | 30.000 | 0.3975 | 08 | 40.000 | 0.4102 |
| 09 | 50.000 | 0.3693 |    |        |        |    |        |        |    |        |        |

**Hexachlorobutadiene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.221  | 02 | 1.000  | 0.2151 | 03 | 2.000  | 0.1974 | 04 | 5.000  | 0.2663 |
| 05 | 10.000 | 0.2575 | 06 | 20.000 | 0.1698 | 07 | 30.000 | 0.2309 | 08 | 40.000 | 0.2384 |
| 09 | 50.000 | 0.2023 |    |        |        |    |        |        |    |        |        |

**Isopropylbenzene (Cumene)**

| #  | Amount | RF    | #  | Amount | RF    | #  | Amount | RF    | #  | Amount | RF    |
|----|--------|-------|----|--------|-------|----|--------|-------|----|--------|-------|
| 01 | 0.500  | 1.084 | 02 | 1.000  | 1.094 | 03 | 2.000  | 1.007 | 04 | 5.000  | 1.309 |
| 05 | 10.000 | 1.332 | 06 | 20.000 | 0.916 | 07 | 30.000 | 1.157 | 08 | 40.000 | 1.221 |
| 09 | 50.000 | 1.059 |    |        |       |    |        |       |    |        |       |

**Methylene Chloride**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3551 | 02 | 1.000  | 0.3355 | 03 | 2.000  | 0.3016 | 04 | 5.000  | 0.3267 |
| 05 | 10.000 | 0.3181 | 06 | 20.000 | 0.2747 | 07 | 30.000 | 0.2811 | 08 | 40.000 | 0.272  |
| 09 | 50.000 | 0.2652 |    |        |        |    |        |        |    |        |        |

**Styrene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.7515 | 02 | 1.000  | 0.7594 | 03 | 2.000  | 0.7685 | 04 | 5.000  | 0.9254 |
| 05 | 10.000 | 0.9413 | 06 | 20.000 | 0.8243 | 07 | 30.000 | 0.9044 | 08 | 40.000 | 0.9004 |
| 09 | 50.000 | 0.8736 |    |        |        |    |        |        |    |        |        |

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

**Analyte**

**Tetrachloroethene (PCE)**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2401 | 02 | 1.000  | 0.2589 | 03 | 2.000  | 0.2346 | 04 | 5.000  | 0.2967 |
| 05 | 10.000 | 0.2871 | 06 | 20.000 | 0.1902 | 07 | 30.000 | 0.2365 | 08 | 40.000 | 0.2478 |
| 09 | 50.000 | 0.2087 |    |        |        |    |        |        |    |        |        |

**Toluene**

| #  | Amount | RF    | #  | Amount | RF    | #  | Amount | RF    | #  | Amount | RF    |
|----|--------|-------|----|--------|-------|----|--------|-------|----|--------|-------|
| 01 | 0.500  | 1.284 | 02 | 1.000  | 1.21  | 03 | 2.000  | 1.154 | 04 | 5.000  | 1.382 |
| 05 | 10.000 | 1.392 | 06 | 20.000 | 1.043 | 07 | 30.000 | 1.168 | 08 | 40.000 | 1.183 |
| 09 | 50.000 | 1.094 |    |        |       |    |        |       |    |        |       |

**Trichloroethene (TCE)**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3095 | 02 | 1.000  | 0.3162 | 03 | 2.000  | 0.2808 | 04 | 5.000  | 0.3585 |
| 05 | 10.000 | 0.353  | 06 | 20.000 | 0.2564 | 07 | 30.000 | 0.2923 | 08 | 40.000 | 0.2992 |
| 09 | 50.000 | 0.2683 |    |        |        |    |        |        |    |        |        |

**Trichlorofluoromethane (CFC 11)**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3872 | 02 | 1.000  | 0.392  | 03 | 2.000  | 0.3297 | 04 | 5.000  | 0.4366 |
| 05 | 10.000 | 0.4481 | 06 | 20.000 | 0.2722 | 07 | 30.000 | 0.346  | 08 | 40.000 | 0.3719 |
| 09 | 50.000 | 0.3174 |    |        |        |    |        |        |    |        |        |

**cis-1,2-Dichloroethene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3242 | 02 | 1.000  | 0.3069 | 03 | 2.000  | 0.3008 | 04 | 5.000  | 0.3498 |
| 05 | 10.000 | 0.3487 | 06 | 20.000 | 0.2904 | 07 | 30.000 | 0.3    | 08 | 40.000 | 0.2969 |
| 09 | 50.000 | 0.2895 |    |        |        |    |        |        |    |        |        |

**cis-1,3-Dichloropropene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.4528 | 02 | 1.000  | 0.4413 | 03 | 2.000  | 0.4353 | 04 | 5.000  | 0.5014 |
| 05 | 10.000 | 0.5049 | 06 | 20.000 | 0.4458 | 07 | 30.000 | 0.4506 | 08 | 40.000 | 0.4394 |
| 09 | 50.000 | 0.4439 |    |        |        |    |        |        |    |        |        |

**m,p-Xylenes**

| #  | Amount  | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|---------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 1.000   | 0.4497 | 02 | 2.000  | 0.4643 | 03 | 4.000  | 0.4407 | 04 | 10.000 | 0.5478 |
| 05 | 20.000  | 0.5658 | 06 | 40.000 | 0.4256 | 07 | 60.000 | 0.5011 | 08 | 80.000 | 0.5129 |
| 09 | 100.000 | 0.4693 |    |        |        |    |        |        |    |        |        |

**n-Butylbenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF    |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|-------|
| 01 | 0.500  | 0.8779 | 02 | 1.000  | 0.8364 | 03 | 2.000  | 0.7531 | 04 | 5.000  | 1.018 |
| 05 | 10.000 | 1.058  | 06 | 20.000 | 0.7303 | 07 | 30.000 | 0.9721 | 08 | 40.000 | 1.039 |
| 09 | 50.000 | 0.9012 |    |        |        |    |        |        |    |        |       |

ALS Group USA, Corp.  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

**Analyte**

**n-Propylbenzene**

| #  | Amount | RF    | #  | Amount | RF    | #  | Amount | RF    | #  | Amount | RF    |
|----|--------|-------|----|--------|-------|----|--------|-------|----|--------|-------|
| 01 | 0.500  | 1.22  | 02 | 1.000  | 1.294 | 03 | 2.000  | 1.161 | 04 | 5.000  | 1.548 |
| 05 | 10.000 | 1.587 | 06 | 20.000 | 1.105 | 07 | 30.000 | 1.395 | 08 | 40.000 | 1.477 |
| 09 | 50.000 | 1.29  |    |        |       |    |        |       |    |        |       |

**o-Xylene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.4563 | 02 | 1.000  | 0.4438 | 03 | 2.000  | 0.4359 | 04 | 5.000  | 0.5317 |
| 05 | 10.000 | 0.539  | 06 | 20.000 | 0.4321 | 07 | 30.000 | 0.4954 | 08 | 40.000 | 0.4988 |
| 09 | 50.000 | 0.4713 |    |        |        |    |        |        |    |        |        |

**p-Isopropyltoluene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF    |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|-------|
| 01 | 0.500  | 0.9624 | 02 | 1.000  | 0.9594 | 03 | 2.000  | 0.8887 | 04 | 5.000  | 1.203 |
| 05 | 10.000 | 1.223  | 06 | 20.000 | 0.8596 | 07 | 30.000 | 1.12   | 08 | 40.000 | 1.189 |
| 09 | 50.000 | 1.038  |    |        |        |    |        |        |    |        |       |

**sec-Butylbenzene**

| #  | Amount | RF    | #  | Amount | RF     | #  | Amount | RF    | #  | Amount | RF    |
|----|--------|-------|----|--------|--------|----|--------|-------|----|--------|-------|
| 01 | 0.500  | 1.112 | 02 | 1.000  | 1.141  | 03 | 2.000  | 1.032 | 04 | 5.000  | 1.421 |
| 05 | 10.000 | 1.45  | 06 | 20.000 | 0.9523 | 07 | 30.000 | 1.276 | 08 | 40.000 | 1.358 |
| 09 | 50.000 | 1.155 |    |        |        |    |        |       |    |        |       |

**tert-Butylbenzene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.7978 | 02 | 1.000  | 0.8554 | 03 | 2.000  | 0.7919 | 04 | 5.000  | 0.9989 |
| 05 | 10.000 | 1.038  | 06 | 20.000 | 0.7019 | 07 | 30.000 | 0.9119 | 08 | 40.000 | 0.9507 |
| 09 | 50.000 | 0.8252 |    |        |        |    |        |        |    |        |        |

**trans-1,2-Dichloroethene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.2705 | 02 | 1.000  | 0.2519 | 03 | 2.000  | 0.2442 | 04 | 5.000  | 0.306  |
| 05 | 10.000 | 0.2994 | 06 | 20.000 | 0.2245 | 07 | 30.000 | 0.2468 | 08 | 40.000 | 0.2561 |
| 09 | 50.000 | 0.2321 |    |        |        |    |        |        |    |        |        |

**trans-1,3-Dichloropropene**

| #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     | #  | Amount | RF     |
|----|--------|--------|----|--------|--------|----|--------|--------|----|--------|--------|
| 01 | 0.500  | 0.3789 | 02 | 1.000  | 0.3683 | 03 | 2.000  | 0.3797 | 04 | 5.000  | 0.4174 |
| 05 | 10.000 | 0.4225 | 06 | 20.000 | 0.3937 | 07 | 30.000 | 0.4005 | 08 | 40.000 | 0.3881 |
| 09 | 50.000 | 0.3984 |    |        |        |    |        |        |    |        |        |



ALS Group USA, Corp.  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

| Analyte Name                     | Compound Type | Calibration Evaluation |       |             |                  | Calibration Evaluation |             |
|----------------------------------|---------------|------------------------|-------|-------------|------------------|------------------------|-------------|
|                                  |               | Fit Type               | Eval  | Eval Result | Control Criteria | Average RRF            | Minimum RRF |
| 1,1,1,2-Tetrachloroethane        | TRG           | Average RF             | % RSD | 5.9         | ≤20              | 0.2815                 |             |
| 1,1,1-Trichloroethane            | TRG           | Average RF             | % RSD | 12.2        | ≤20              | 0.3669                 |             |
| 1,1,2,2-Tetrachloroethane        | TRG           | Average RF             | % RSD | 4.0         | ≤20              | 0.4064                 |             |
| 1,1,2-Trichloroethane            | TRG           | Average RF             | % RSD | 5.0         | ≤20              | 0.3012                 |             |
| 1,1-Dichloroethane (SPCC)        | TRG           | Average RF             | % RSD | 9.2         | ≤20              | 0.4413                 |             |
| 1,1-Dichloroethene (1,1-DCE)     | TRG           | Average RF             | % RSD | 13.0        | ≤20              | 0.2332                 |             |
| 1,1-Dichloropropene              | TRG           | Average RF             | % RSD | 14.1        | ≤20              | 0.3233                 |             |
| 1,2,3-Trichlorobenzene           | TRG           | Average RF             | % RSD | 8.0         | ≤20              | 0.5273                 |             |
| 1,2,3-Trichloropropane           | TRG           | Average RF             | % RSD | 4.3         | ≤20              | 0.1399                 |             |
| 1,2,4-Trichlorobenzene           | TRG           | Average RF             | % RSD | 6.8         | ≤20              | 0.5195                 |             |
| 1,2,4-Trimethylbenzene           | TRG           | Average RF             | % RSD | 11.4        | ≤20              | 0.9981                 |             |
| 1,2-Dichlorobenzene              | TRG           | Average RF             | % RSD | 6.9         | ≤20              | 0.6969                 |             |
| 1,2-Dichlorobenzene-d4           | SURR          | Average RF             | % RSD | 4.9         | ≤20              | 0.4248                 |             |
| 1,2-Dichloroethane               | TRG           | Average RF             | % RSD | 6.0         | ≤20              | 0.3657                 |             |
| 1,2-Dichloropropane (CCC)        | TRG           | Average RF             | % RSD | 6.4         | ≤20              | 0.2848                 |             |
| 1,3,5-Trimethylbenzene           | TRG           | Average RF             | % RSD | 12.1        | ≤20              | 1.013                  |             |
| 1,3-Dichlorobenzene              | TRG           | Average RF             | % RSD | 7.5         | ≤20              | 0.6772                 |             |
| 1,3-Dichloropropane              | TRG           | Average RF             | % RSD | 4.8         | ≤20              | 0.5065                 |             |
| 1,4-Dichlorobenzene              | TRG           | Average RF             | % RSD | 8.1         | ≤20              | 0.6905                 |             |
| 2,2-Dichloropropane              | TRG           | Average RF             | % RSD | 13.4        | ≤20              | 0.27                   |             |
| 2-Chlorotoluene                  | TRG           | Average RF             | % RSD | 9.7         | ≤20              | 0.8442                 |             |
| 4-Bromofluorobenzene             | SURR          | Average RF             | % RSD | 4.2         | ≤20              | 0.3587                 |             |
| 4-Chlorotoluene                  | TRG           | Average RF             | % RSD | 9.3         | ≤20              | 0.9924                 |             |
| Benzene                          | TRG           | Average RF             | % RSD | 9.4         | ≤20              | 1.085                  |             |
| Bromobenzene                     | TRG           | Average RF             | % RSD | 6.2         | ≤20              | 0.3857                 |             |
| Bromochloromethane               | TRG           | Average RF             | % RSD | 5.1         | ≤20              | 0.2175                 |             |
| Bromomethane                     | TRG           | Average RF             | % RSD | 11.5        | ≤20              | 0.2181                 |             |
| Carbon Tetrachloride             | TRG           | Average RF             | % RSD | 13.5        | ≤20              | 0.3155                 |             |
| Chlorobenzene                    | TRG           | Average RF             | % RSD | 6.7         | ≤20              | 0.774                  |             |
| Chloroethane                     | TRG           | Average RF             | % RSD | 12.1        | ≤20              | 0.2044                 |             |
| Chloromethane                    | TRG           | Average RF             | % RSD | 13.1        | ≤20              | 0.2934                 |             |
| Dibromomethane                   | TRG           | Average RF             | % RSD | 5.4         | ≤20              | 0.2038                 |             |
| Dichlorodifluoromethane (CFC 12) | TRG           | Average RF             | % RSD | 18.6        | ≤20              | 0.3041                 |             |
| Ethylbenzene                     | TRG           | Average RF             | % RSD | 9.8         | ≤20              | 0.3959                 |             |

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

### Initial Calibration Summary Purgeable Organic Compounds by GC/MS

**Calibration ID:** RC2200044

**Signal ID:** 1

**Instrument ID:** R-MS-16

| Analyte Name                    | Compound Type | Calibration Evaluation |       |             |                  | Calibration Evaluation |             |
|---------------------------------|---------------|------------------------|-------|-------------|------------------|------------------------|-------------|
|                                 |               | Fit Type               | Eval  | Eval Result | Control Criteria | Average RRF            | Minimum RRF |
| Hexachlorobutadiene             | TRG           | Average RF             | % RSD | 13.6        | ≤20              | 0.2221                 |             |
| Isopropylbenzene (Cumene)       | TRG           | Average RF             | % RSD | 12.1        | ≤20              | 1.131                  |             |
| Methylene Chloride              | TRG           | Average RF             | % RSD | 10.6        | ≤20              | 0.3033                 |             |
| Styrene                         | TRG           | Average RF             | % RSD | 8.9         | ≤20              | 0.8499                 |             |
| Tetrachloroethene (PCE)         | TRG           | Average RF             | % RSD | 13.8        | ≤20              | 0.2445                 |             |
| Toluene                         | TRG           | Average RF             | % RSD | 9.9         | ≤20              | 1.212                  |             |
| Trichloroethene (TCE)           | TRG           | Average RF             | % RSD | 11.5        | ≤20              | 0.3038                 |             |
| Trichlorofluoromethane (CFC 11) | TRG           | Average RF             | % RSD | 15.5        | ≤20              | 0.3668                 |             |
| cis-1,2-Dichloroethene          | TRG           | Average RF             | % RSD | 7.5         | ≤20              | 0.3119                 |             |
| cis-1,3-Dichloropropene         | TRG           | Average RF             | % RSD | 5.8         | ≤20              | 0.4573                 |             |
| m,p-Xylenes                     | TRG           | Average RF             | % RSD | 10.0        | ≤20              | 0.4864                 |             |
| n-Butylbenzene                  | TRG           | Average RF             | % RSD | 13.3        | ≤20              | 0.9095                 |             |
| n-Propylbenzene                 | TRG           | Average RF             | % RSD | 12.7        | ≤20              | 1.342                  |             |
| o-Xylene                        | TRG           | Average RF             | % RSD | 8.4         | ≤20              | 0.4783                 |             |
| p-Isopropyltoluene              | TRG           | Average RF             | % RSD | 13.3        | ≤20              | 1.049                  |             |
| sec-Butylbenzene                | TRG           | Average RF             | % RSD | 14.4        | ≤20              | 1.211                  |             |
| tert-Butylbenzene               | TRG           | Average RF             | % RSD | 12.4        | ≤20              | 0.8746                 |             |
| trans-1,2-Dichloroethene        | TRG           | Average RF             | % RSD | 10.8        | ≤20              | 0.2591                 |             |
| trans-1,3-Dichloropropene       | TRG           | Average RF             | % RSD | 4.5         | ≤20              | 0.3942                 |             |

**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Verification Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

| #  | Lab Code     | Sample Name | File Location                          | Acquisition Date |
|----|--------------|-------------|----------------------------------------|------------------|
| 10 | RC2200044-10 | ICV         | I:\ACQDATA\MSVOA16\Data\050922\C1362.D | 05/09/2022 22:16 |
| 11 | RC2200044-11 | ICV/LCS     | I:\ACQDATA\MSVOA16\Data\051122\C1366.D | 05/11/2022 11:22 |

| Analyte Name                     | Expected | Result | Average RF | SSV<br>RF | % D    | Criteria | Curve Fit  |
|----------------------------------|----------|--------|------------|-----------|--------|----------|------------|
| 1,1,1,2-Tetrachloroethane        | 5.00     | 5.07   | 2.815E-1   | 2.853E-1  | 1.35   | ±30      | Average RF |
| 1,1,2,2-Tetrachloroethane        | 5.00     | 4.68   | 4.064E-1   | 3.806E-1  | -6.358 | ±30      | Average RF |
| 1,1,2-Trichloroethane            | 5.00     | 4.84   | 3.012E-1   | 2.919E-1  | -3.112 | ±30      | Average RF |
| 1,1-Dichloroethene (1,1-DCE)     | 5.00     | 5.50   | 2.332E-1   | 2.566E-1  | 10.04  | ±30      | Average RF |
| 1,2,3-Trichlorobenzene           | 5.00     | 4.54   | 5.273E-1   | 4.784E-1  | -9.280 | ±30      | Average RF |
| 1,2,3-Trichloropropane           | 5.00     | 4.59   | 1.399E-1   | 1.283E-1  | -8.288 | ±30      | Average RF |
| 1,2,4-Trichlorobenzene           | 5.00     | 4.64   | 5.195E-1   | 4.817E-1  | -7.268 | ±30      | Average RF |
| 1,2,4-Trimethylbenzene           | 5.00     | 5.10   | 9.981E-1   | 1.019E0   | 2.05   | ±30      | Average RF |
| 1,2-Dichlorobenzene              | 5.00     | 4.78   | 6.969E-1   | 6.664E-1  | -4.375 | ±30      | Average RF |
| 1,2-Dichloroethane               | 5.00     | 4.87   | 3.657E-1   | 3.564E-1  | -2.567 | ±30      | Average RF |
| 1,3,5-Trimethylbenzene           | 5.00     | 5.13   | 1.013E0    | 1.04E0    | 2.69   | ±30      | Average RF |
| 1,3-Dichlorobenzene              | 5.00     | 4.90   | 6.772E-1   | 6.639E-1  | -1.978 | ±30      | Average RF |
| 1,3-Dichloropropane              | 5.00     | 4.76   | 5.065E-1   | 4.82E-1   | -4.839 | ±30      | Average RF |
| 1,4-Dichlorobenzene              | 5.00     | 4.79   | 6.905E-1   | 6.619E-1  | -4.132 | ±30      | Average RF |
| 2,2-Dichloropropane              | 5.00     | 5.99   | 2.7E-1     | 3.233E-1  | 19.74  | ±30      | Average RF |
| 2-Chlorotoluene                  | 5.00     | 5.08   | 8.442E-1   | 8.572E-1  | 1.54   | ±30      | Average RF |
| 4-Chlorotoluene                  | 5.00     | 5.04   | 9.924E-1   | 9.998E-1  | 0.743  | ±30      | Average RF |
| p-Isopropyltoluene               | 5.00     | 5.26   | 1.049E0    | 1.104E0   | 5.17   | ±30      | Average RF |
| Benzene                          | 5.00     | 5.11   | 1.085E0    | 1.108E0   | 2.10   | ±30      | Average RF |
| Bromobenzene                     | 5.00     | 4.70   | 3.857E-1   | 3.623E-1  | -6.072 | ±30      | Average RF |
| Bromochloromethane               | 5.00     | 5.13   | 2.175E-1   | 2.234E-1  | 2.68   | ±30      | Average RF |
| Bromomethane                     | 5.00     | 5.44   | 2.181E-1   | 2.374E-1  | 8.88   | ±30      | Average RF |
| Carbon Tetrachloride             | 5.00     | 5.58   | 3.155E-1   | 3.518E-1  | 11.52  | ±30      | Average RF |
| Chlorobenzene                    | 5.00     | 4.98   | 7.74E-1    | 7.703E-1  | -0.481 | ±30      | Average RF |
| Chloroethane                     | 5.00     | 5.58   | 2.044E-1   | 2.28E-1   | 11.56  | ±30      | Average RF |
| Chloromethane                    | 5.00     | 6.56   | 2.934E-1   | 3.847E-1  | 31.12* | ±30      | Average RF |
| Dibromomethane                   | 5.00     | 4.79   | 2.038E-1   | 1.951E-1  | -4.252 | ±30      | Average RF |
| Dichlorodifluoromethane (CFC 12) | 5.00     | 6.12   | 3.041E-1   | 3.723E-1  | 22.40  | ±30      | Average RF |
| Methylene Chloride               | 5.00     | 4.91   | 3.033E-1   | 2.98E-1   | -1.752 | ±30      | Average RF |
| Ethylbenzene                     | 5.00     | 5.18   | 3.959E-1   | 4.104E-1  | 3.66   | ±30      | Average RF |
| Hexachlorobutadiene              | 5.00     | 5.50   | 2.221E-1   | 2.444E-1  | 10.05  | ±30      | Average RF |
| Isopropylbenzene (Cumene)        | 5.00     | 5.41   | 1.131E0    | 1.223E0   | 8.16   | ±30      | Average RF |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 5/9/2022

**Initial Calibration Verification Summary**  
**Purgeable Organic Compounds by GC/MS**

**Calibration ID:** RC2200044  
**Instrument ID:** R-MS-16

**Signal ID:** 1

| Analyte Name                    | Expected | Result | Average RF | SSV<br>RF | % D    | Criteria | Curve Fit  |
|---------------------------------|----------|--------|------------|-----------|--------|----------|------------|
| Styrene                         | 5.00     | 4.78   | 8.499E-1   | 8.132E-1  | -4.309 | ±30      | Average RF |
| Tetrachloroethene (PCE)         | 5.00     | 5.64   | 2.445E-1   | 2.759E-1  | 12.85  | ±30      | Average RF |
| Toluene                         | 5.00     | 5.13   | 1.212E0    | 1.244E0   | 2.60   | ±30      | Average RF |
| Trichloroethene (TCE)           | 5.00     | 5.37   | 3.038E-1   | 3.265E-1  | 7.48   | ±30      | Average RF |
| Trichlorofluoromethane (CFC 11) | 5.00     | 5.78   | 3.668E-1   | 4.242E-1  | 15.65  | ±30      | Average RF |
| cis-1,2-Dichloroethene          | 5.00     | 5.24   | 3.119E-1   | 3.266E-1  | 4.73   | ±30      | Average RF |
| cis-1,3-Dichloropropene         | 5.00     | 4.93   | 4.573E-1   | 4.51E-1   | -1.366 | ±30      | Average RF |
| m,p-Xylenes                     | 10.0     | 10.5   | 4.864E-1   | 5.094E-1  | 4.74   | ±30      | Average RF |
| n-Butylbenzene                  | 5.00     | 5.25   | 9.095E-1   | 9.548E-1  | 4.98   | ±30      | Average RF |
| n-Propylbenzene                 | 5.00     | 5.41   | 1.342E0    | 1.453E0   | 8.27   | ±30      | Average RF |
| o-Xylene                        | 5.00     | 4.99   | 4.783E-1   | 4.774E-1  | -0.173 | ±30      | Average RF |
| sec-Butylbenzene                | 5.00     | 5.36   | 1.211E0    | 1.298E0   | 7.24   | ±30      | Average RF |
| tert-Butylbenzene               | 5.00     | 5.25   | 8.746E-1   | 9.188E-1  | 5.06   | ±30      | Average RF |
| trans-1,2-Dichloroethene        | 5.00     | 5.33   | 2.591E-1   | 2.759E-1  | 6.51   | ±30      | Average RF |
| trans-1,3-Dichloropropene       | 5.00     | 5.04   | 3.942E-1   | 3.973E-1  | 0.795  | ±30      | Average RF |
| 1,1-Dichloroethane (SPCC)       | 5.00     | 5.27   | 4.413E-1   | 4.654E-1  | 5.46   | ±30      | Average RF |
| 1,2-Dichloropropane (CCC)       | 5.00     | 4.93   | 2.848E-1   | 2.808E-1  | -1.414 | ±30      | Average RF |
| 1,1,1-Trichloroethane           | 5.00     | 5.51   | 3.669E-1   | 4.041E-1  | 10.15  | ±30      | Average RF |
| 1,1-Dichloropropene             | 5.00     | 5.54   | 3.233E-1   | 3.58E-1   | 10.72  | ±30      | Average RF |

| Analyte Name           | Expected | Result | Average RF | SSV<br>RF | % D    | Criteria | Curve Fit  |
|------------------------|----------|--------|------------|-----------|--------|----------|------------|
| 1,2-Dichlorobenzene-d4 | 5.00     | 4.74   | 4.248E-1   | 4.03E-1   | -5.117 | ±30      | Average RF |
| 4-Bromofluorobenzene   | 5.00     | 4.77   | 3.587E-1   | 3.423E-1  | -4.579 | ±30      | Average RF |

**ALS Group USA, Corp.**  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 07/21/22 11:56

**Continuing Calibration Verification (CCV) Summary**  
**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

**Calibration Date:** 5/9/2022

**File ID:** I:\ACQUDATA\MSVOA16\Data\072122\C1627.D\

**Calibration ID:** RC2200044

**Signal ID:** 1

**Analysis Lot:** 771208

**Units:** ppb

| Analyte Name                     | Expected | Result | Average RF | CCV RF | % D  | % Drift | Criteria | Curve Fit  |
|----------------------------------|----------|--------|------------|--------|------|---------|----------|------------|
| 1,1,1-Trichloroethane            | 5.00     | 5.32   | 0.3669     | 0.3901 | 6.3  | NA      | ±30      | Average RF |
| 1,1-Dichloropropene              | 5.00     | 5.10   | 0.3233     | 0.3299 | 2.0  | NA      | ±30      | Average RF |
| 1,1,1,2-Tetrachloroethane        | 5.00     | 5.64   | 0.2815     | 0.3176 | 12.8 | NA      | ±30      | Average RF |
| 1,1,2,2-Tetrachloroethane        | 5.00     | 5.71   | 0.4064     | 0.4645 | 14.3 | NA      | ±30      | Average RF |
| 1,1,2-Trichloroethane            | 5.00     | 5.05   | 0.3012     | 0.3041 | 0.9  | NA      | ±30      | Average RF |
| 1,1-Dichloroethene (1,1-DCE)     | 5.00     | 5.17   | 0.2332     | 0.2409 | 3.3  | NA      | ±30      | Average RF |
| 1,2,3-Trichlorobenzene           | 5.00     | 5.68   | 0.5273     | 0.599  | 13.6 | NA      | ±30      | Average RF |
| 1,2,3-Trichloropropane           | 5.00     | 5.32   | 0.1399     | 0.149  | 6.5  | NA      | ±30      | Average RF |
| 1,2,4-Trichlorobenzene           | 5.00     | 5.66   | 0.5195     | 0.5877 | 13.1 | NA      | ±30      | Average RF |
| 1,2,4-Trimethylbenzene           | 5.00     | 5.97   | 0.9981     | 1.1919 | 19.4 | NA      | ±30      | Average RF |
| 1,2-Dichlorobenzene              | 5.00     | 5.65   | 0.6969     | 0.7871 | 12.9 | NA      | ±30      | Average RF |
| 1,2-Dichloroethane               | 5.00     | 4.72   | 0.3657     | 0.3453 | -5.6 | NA      | ±30      | Average RF |
| 1,3,5-Trimethylbenzene           | 5.00     | 5.92   | 1.0128     | 1.1993 | 18.4 | NA      | ±30      | Average RF |
| 1,3-Dichlorobenzene              | 5.00     | 5.71   | 0.6772     | 0.774  | 14.3 | NA      | ±30      | Average RF |
| 1,3-Dichloropropane              | 5.00     | 4.93   | 0.5065     | 0.4992 | -1.5 | NA      | ±30      | Average RF |
| 1,4-Dichlorobenzene              | 5.00     | 5.80   | 0.6905     | 0.8011 | 16.0 | NA      | ±30      | Average RF |
| 2,2-Dichloropropane              | 5.00     | 5.56   | 0.27       | 0.3003 | 11.2 | NA      | ±30      | Average RF |
| 2-Chlorotoluene                  | 5.00     | 5.84   | 0.8442     | 0.9862 | 16.8 | NA      | ±30      | Average RF |
| 4-Chlorotoluene                  | 5.00     | 5.81   | 0.9924     | 1.1528 | 16.2 | NA      | ±30      | Average RF |
| p-Isopropyltoluene               | 5.00     | 6.00   | 1.0493     | 1.2582 | 19.9 | NA      | ±30      | Average RF |
| Benzene                          | 5.00     | 4.93   | 1.085      | 1.07   | -1.4 | NA      | ±30      | Average RF |
| Bromobenzene                     | 5.00     | 5.55   | 0.3857     | 0.4281 | 11.0 | NA      | ±30      | Average RF |
| Bromochloromethane               | 5.00     | 4.82   | 0.2175     | 0.2097 | -3.6 | NA      | ±30      | Average RF |
| Bromomethane                     | 5.00     | 4.55   | 0.2181     | 0.1982 | -9.1 | NA      | ±30      | Average RF |
| Carbon Tetrachloride             | 5.00     | 5.37   | 0.3155     | 0.3389 | 7.4  | NA      | ±30      | Average RF |
| Chlorobenzene                    | 5.00     | 5.49   | 0.774      | 0.8504 | 9.9  | NA      | ±30      | Average RF |
| Chloroethane                     | 5.00     | 4.94   | 0.2044     | 0.2021 | -1.1 | NA      | ±30      | Average RF |
| Chloromethane                    | 5.00     | 5.22   | 0.2934     | 0.3064 | 4.4  | NA      | ±30      | Average RF |
| Dibromomethane                   | 5.00     | 4.85   | 0.2038     | 0.1977 | -2.9 | NA      | ±30      | Average RF |
| Dichlorodifluoromethane (CFC 12) | 5.00     | 5.70   | 0.3041     | 0.3467 | 14.0 | NA      | ±30      | Average RF |
| Methylene Chloride               | 5.00     | 4.63   | 0.3033     | 0.2807 | -7.5 | NA      | ±30      | Average RF |
| Ethylbenzene                     | 5.00     | 5.61   | 0.3959     | 0.4446 | 12.3 | NA      | ±30      | Average RF |
| Hexachlorobutadiene              | 5.00     | 6.42   | 0.2221     | 0.285  | 28.3 | NA      | ±30      | Average RF |
| Isopropylbenzene (Cumene)        | 5.00     | 5.86   | 1.131      | 1.3246 | 17.1 | NA      | ±30      | Average RF |
| Styrene                          | 5.00     | 5.49   | 0.8499     | 0.9329 | 9.8  | NA      | ±30      | Average RF |
| Tetrachloroethene (PCE)          | 5.00     | 5.65   | 0.2445     | 0.2764 | 13.1 | NA      | ±30      | Average RF |
| Toluene                          | 5.00     | 5.20   | 1.2121     | 1.2603 | 4.0  | NA      | ±30      | Average RF |
| Trichloroethene (TCE)            | 5.00     | 5.23   | 0.3038     | 0.3179 | 4.6  | NA      | ±30      | Average RF |
| Trichlorofluoromethane (CFC 11)  | 5.00     | 5.20   | 0.3668     | 0.3818 | 4.1  | NA      | ±30      | Average RF |

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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 07/21/22 11:56

**Continuing Calibration Verification (CCV) Summary**  
**Purgeable Organic Compounds by GC/MS**

**Analysis Method:** 524.2

**File ID:** I:\ACQUDATA\MSVOA16\Data\072122\C1627.D\

**Signal ID:** 1

**Calibration Date:** 5/9/2022

**Calibration ID:** RC2200044

**Analysis Lot:** 771208

**Units:** ppb

|                           |      |      |        |        |      |    |     |            |
|---------------------------|------|------|--------|--------|------|----|-----|------------|
| cis-1,2-Dichloroethene    | 5.00 | 5.04 | 0.3119 | 0.3147 | 0.9  | NA | ±30 | Average RF |
| cis-1,3-Dichloropropene   | 5.00 | 4.86 | 0.4573 | 0.4448 | -2.7 | NA | ±30 | Average RF |
| m,p-Xylenes               | 10.0 | 11.4 | 0.4864 | 0.5518 | 13.5 | NA | ±30 | Average RF |
| n-Butylbenzene            | 5.00 | 5.82 | 0.9095 | 1.0585 | 16.4 | NA | ±30 | Average RF |
| n-Propylbenzene           | 5.00 | 5.95 | 1.3419 | 1.5964 | 19.0 | NA | ±30 | Average RF |
| o-Xylene                  | 5.00 | 5.67 | 0.4783 | 0.5428 | 13.5 | NA | ±30 | Average RF |
| sec-Butylbenzene          | 5.00 | 6.12 | 1.2108 | 1.4832 | 22.5 | NA | ±30 | Average RF |
| tert-Butylbenzene         | 5.00 | 5.93 | 0.8746 | 1.037  | 18.6 | NA | ±30 | Average RF |
| trans-1,2-Dichloroethene  | 5.00 | 5.28 | 0.2591 | 0.2735 | 5.6  | NA | ±30 | Average RF |
| trans-1,3-Dichloropropene | 5.00 | 4.76 | 0.3942 | 0.3754 | -4.8 | NA | ±30 | Average RF |
| 1,1-Dichloroethane (SPCC) | 5.00 | 4.96 | 0.4413 | 0.4379 | -0.8 | NA | ±30 | Average RF |
| 1,2-Dichloropropane (CCC) | 5.00 | 5.11 | 0.2848 | 0.291  | 2.2  | NA | ±30 | Average RF |

| Analyte Name           | Expected | Result | Average RF | CCV RF | % D | % Drift | Criteria | Curve Fit  |
|------------------------|----------|--------|------------|--------|-----|---------|----------|------------|
| 1,2-Dichlorobenzene-d4 | 5.00     | 5.12   | 0.4248     | 0.4347 | 2.3 | NA      | ±30      | Average RF |
| 4-Bromofluorobenzene   | 5.00     | 5.15   | 0.3587     | 0.3696 | 3.0 | NA      | ±30      | Average RF |

ALS Group USA, Corp.  
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QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

**Analysis Run Log**  
**Purgeable Organic Compounds by GC/MS**

**Analysis Method:**

**Analysis Lot:** 771208  
**Instrument ID:** R-MS-16

| Raw Data File                            | Sample Name                         | Lab Code     | Date Analyzed | Time Analyzed | Q |
|------------------------------------------|-------------------------------------|--------------|---------------|---------------|---|
| I:\ACQUDATA\MSVOA16\Data\072122\C1626.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/21/2022     | 11:23:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1627.D\ | Continuing Calibration Verification | RQ2208443-02 | 7/21/2022     | 11:56:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1628.D\ | Lab Control Sample                  | RQ2208443-03 | 7/21/2022     | 12:29:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1629.D\ | Method Blank                        | RQ2208443-04 | 7/21/2022     | 13:06:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1631.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/21/2022     | 13:57:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1632.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/21/2022     | 14:23:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1633.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/21/2022     | 14:48:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1634.D\ | ZZZZZZZ                             | ZZZZZZZ      | 7/21/2022     | 15:14:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1635.D\ | TB-02-07192022                      | R2206605-005 | 7/21/2022     | 15:39:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1636.D\ | JC-3-07192022                       | R2206605-001 | 7/21/2022     | 16:05:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1637.D\ | JC-2-07192022                       | R2206605-003 | 7/21/2022     | 16:30:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1638.D\ | DUP-02-07192022                     | R2206605-004 | 7/21/2022     | 16:56:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1639.D\ | Post Treatment-07192022             | R2206605-002 | 7/21/2022     | 17:21:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1640.D\ | Post Treatment-07192022 MS          | RQ2208443-05 | 7/21/2022     | 17:47:00      |   |
| I:\ACQUDATA\MSVOA16\Data\072122\C1641.D\ | Post Treatment-07192022 DMS         | RQ2208443-06 | 7/21/2022     | 18:13:00      |   |

Analysis: 524 Analyst: KWest pH strips: 7.0-7.1 Turb Method: 52405000  
 Date: 7/2/12 Balance ID: 2/A ResCl strips: 102120 Run Method: J  
 Instr: 16 50 mL Class A used for dilution FV Syringes: 22906 LIMS Run#: 771208

Data Path: j:\acq\data\msv0a\InstID\Date

| Pos. | Sample       | Diln. | Diln. Prep    | RL | Vial | HS | CI | pH | File#     | OK? | Comments                   |
|------|--------------|-------|---------------|----|------|----|----|----|-----------|-----|----------------------------|
| 1    | BUL          |       |               |    |      |    |    |    | C1624     |     |                            |
| 2    | TUNE         |       |               |    |      |    |    |    | C1625 (N) |     | not                        |
| 1    | J            |       | P220208143.01 |    |      |    |    |    | C1626     | Y   | (auto) 11:23               |
| 2    | CV           |       |               |    |      |    |    |    | C1627     | Y   |                            |
| 1    | LC9.FP       |       |               |    |      |    |    |    | C1628     | Y   |                            |
| 1    | MRL.FP       |       |               |    |      |    |    |    | C1629     | Y   |                            |
| 2    | P.5 P20 m2L  |       |               |    |      |    |    |    | C1630     | Y   |                            |
| 3    | P2206306.001 | 1.0   |               |    |      |    |    |    | C1631     | Y   | vide booke on auto sampler |
| 4    | P2206343.001 | 1.0   |               |    |      |    |    |    | C1632     | Y   |                            |
| 5    | P2206522.001 | 1.0   |               |    |      |    |    |    | C1633     | Y   |                            |
| 6    | P2206620.001 | 1.0   |               |    |      |    |    |    | C1634     | Y   |                            |
| 7    | P2206605.005 | 1.0   |               |    |      |    |    |    | C1635     | Y   |                            |
| 8    |              | 1.0   |               |    |      |    |    |    | C1636     | Y   |                            |
| 9    |              | 1.0   |               |    |      |    |    |    | C1637     | Y   |                            |
| 10   |              | 1.0   |               |    |      |    |    |    | C1638     | Y   |                            |
| 11   |              | 1.0   |               |    |      |    |    |    | C1639     | Y   |                            |
| 12   | ms OD        | 1.0   |               |    |      |    |    |    | C1640     | Y   | 102.7 (note) - OK.         |
| 13   | ms OD        | 1.0   |               |    |      |    |    |    | C1641     | Y   |                            |
| 14   | BUL MS OD    | 1.0   |               |    |      |    |    |    | C1642     | Y   | 17.0-19.01 (K) not needed  |
| 15   | BUL          |       |               |    |      |    |    |    | C1643     |     |                            |

All samples = 5 mL + 5 uL combined IS/ 5 mL purged

1000 Primary Ket: 224112  
 500 Primary F+ 224100 2nd → 200ms  
 Primary T6 223956 = CCV

1000 Secondary Ket: 224113 5 uL  
 500 Secondary F+ 223854  
 500 Secondary T6 223605 2nd = LC5

Combined IS/Surr: 224111  
 Surrogate: /  
 Internal Std: /  
 Reagents: /

56125 224132 - 2nd uL 1/3rd uL = ms10





## Semivolatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**

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ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:25  
**Date Received:** 07/20/22 07:40

**Sample Name:** JC-3-07192022  
**Lab Code:** R2206605-001

**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.609  | 0.0400 | 0.0200 | 1    | 08/10/22 15:07 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 88    | 70 - 130       | 08/10/22 15:07 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 08:00  
**Date Received:** 07/20/22 07:40

**Sample Name:** Post Treatment-07192022  
**Lab Code:** R2206605-002

**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.589  | 0.0533 | 0.0267 | 1    | 08/10/22 15:25 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 91    | 70 - 130       | 08/10/22 15:25 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22 07:45  
**Date Received:** 07/20/22 07:40

**Sample Name:** JC-2-07192022  
**Lab Code:** R2206605-003

**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.533  | 0.0400 | 0.0200 | 1    | 08/10/22 16:36 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 84    | 70 - 130       | 08/10/22 16:36 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** DUP-02-07192022  
**Lab Code:** R2206605-004

**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|--------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.502  | 0.0400 | 0.0200 | 1    | 08/10/22 16:54 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 87    | 70 - 130       | 08/10/22 16:54 |   |

ALS Group USA, Corp.  
dba ALS Environmental

Analytical Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605  
**Date Collected:** 07/19/22  
**Date Received:** 07/20/22 07:40

**Sample Name:** TB-02-07192022  
**Lab Code:** R2206605-005

**Units:** ug/L  
**Basis:** As Received

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**Prep Method:** Method

| Analyte Name | Result   | MRL    | MDL    | Dil. | Date Analyzed  | Date Extracted | Q |
|--------------|----------|--------|--------|------|----------------|----------------|---|
| 1,4-Dioxane  | 0.0342 J | 0.0400 | 0.0200 | 1    | 08/10/22 17:12 | 8/3/22         |   |

| Surrogate Name | % Rec | Control Limits | Date Analyzed  | Q |
|----------------|-------|----------------|----------------|---|
| 1,4-Dioxane-d8 | 85    | 70 - 130       | 08/10/22 17:12 |   |

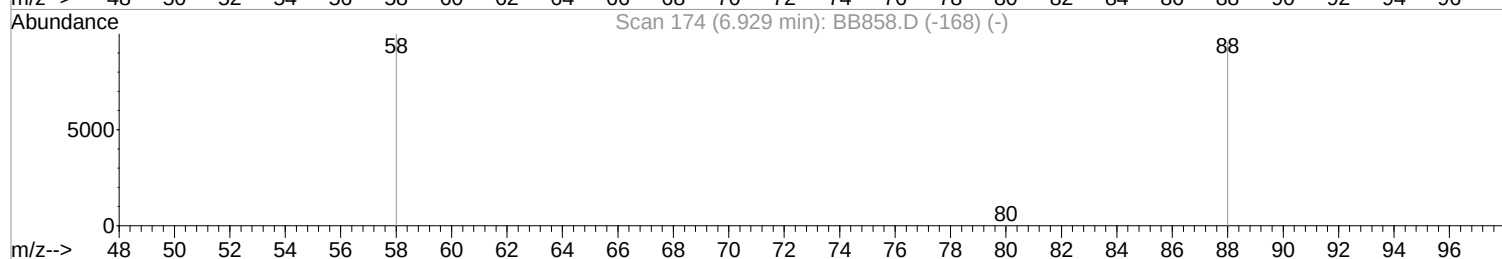
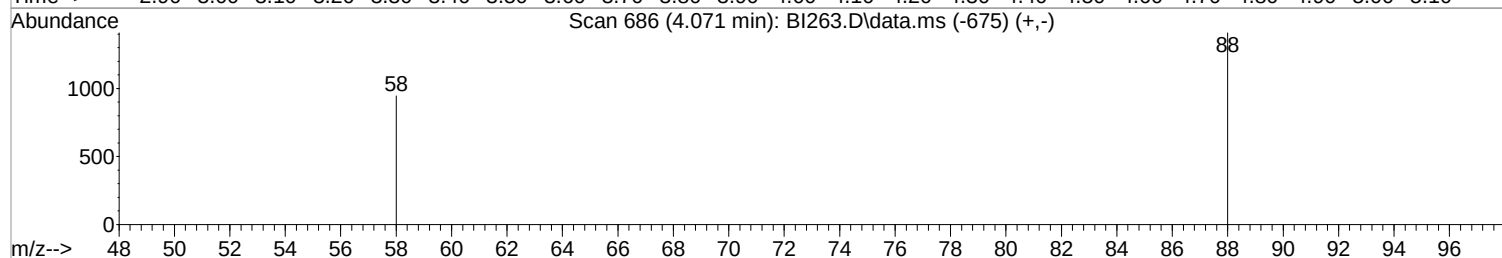
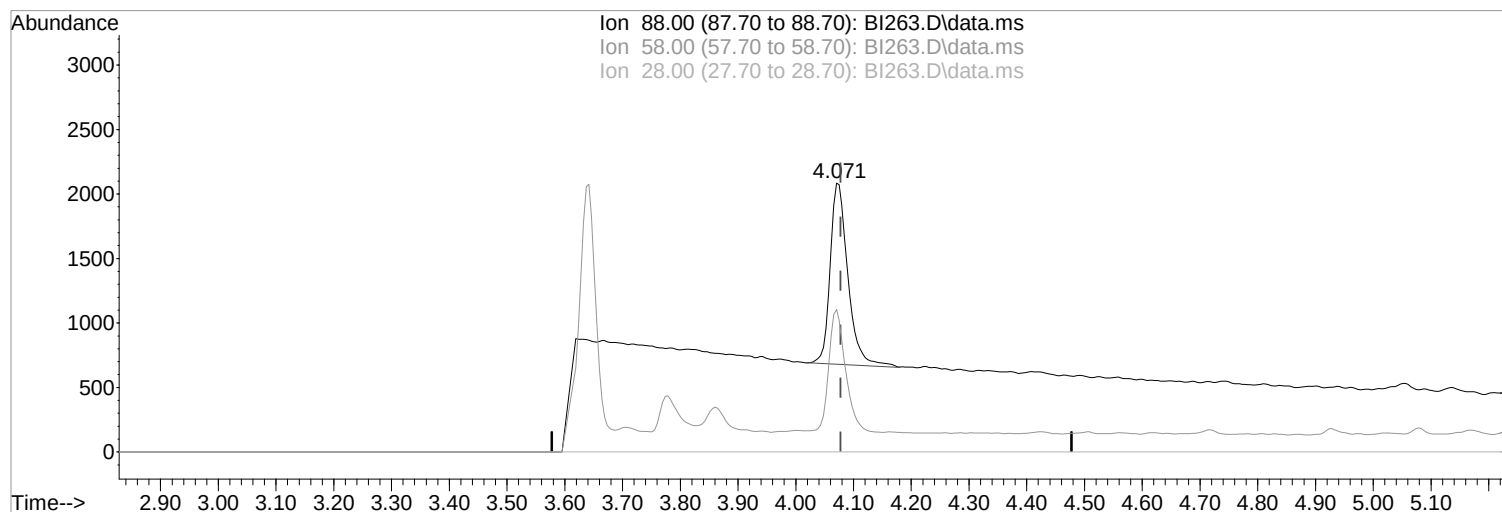
## Quantitation Report (Qedit)

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI263.D  
Acq On : 10 Aug 2022 3:07 pm  
Operator : MMCMAHON  
Sample : R2206605-001  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 15:31:31 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI263.D\data.ms

## (2) 1,4-Dioxane (T)

4.071min (-0.007) 30.47 PPB m

response 3001

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 54.30  | 52.95  |
| 28.00 | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

Manual Integration:

After

Poor integration.

08/10/22

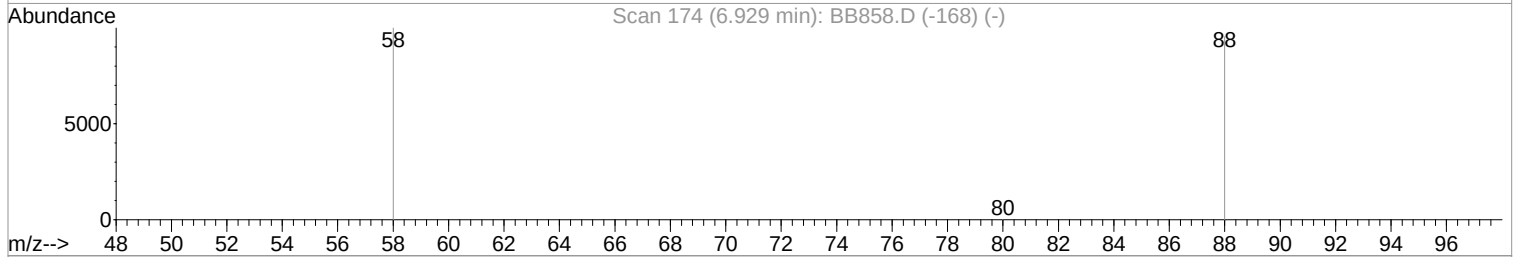
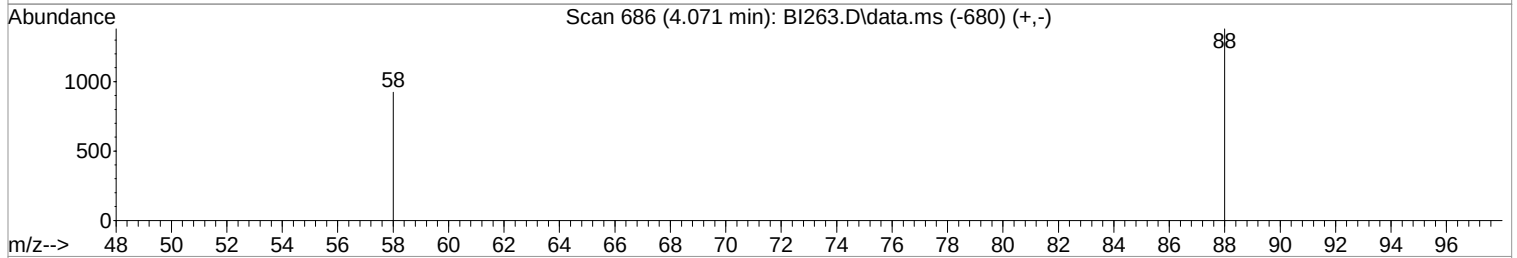
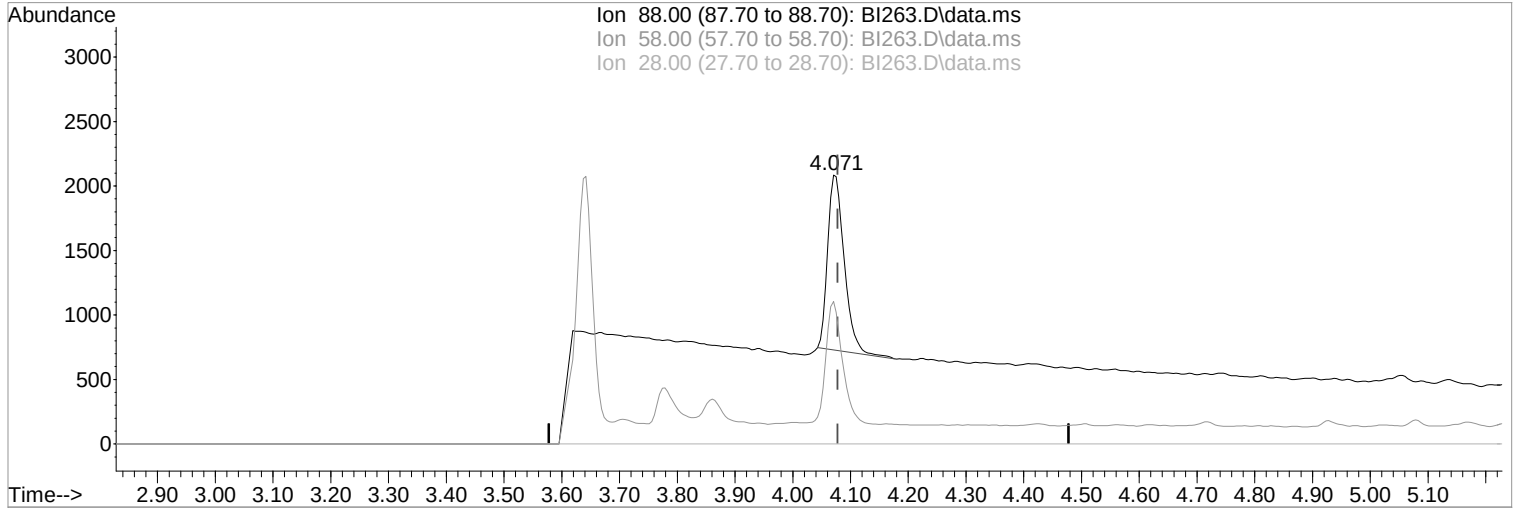
# Quantitation Report (Qedit)

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI263.D  
Acq On : 10 Aug 2022 3:07 pm  
Operator : MMCMAHON  
Sample : R2206605-001  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 15:31:31 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI263.D\data.ms

## (2) 1,4-Dioxane (T)

4.071min (-0.007) 27.41 PPB

response 2702

Manual Integration:

Before

08/10/22

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 54.30  | 66.84  |
| 28.00 | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI263.D  
Acq On : 10 Aug 2022 3:07 pm  
Operator : MMCMAHON  
Sample : R2206605-001  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 15:31:42 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

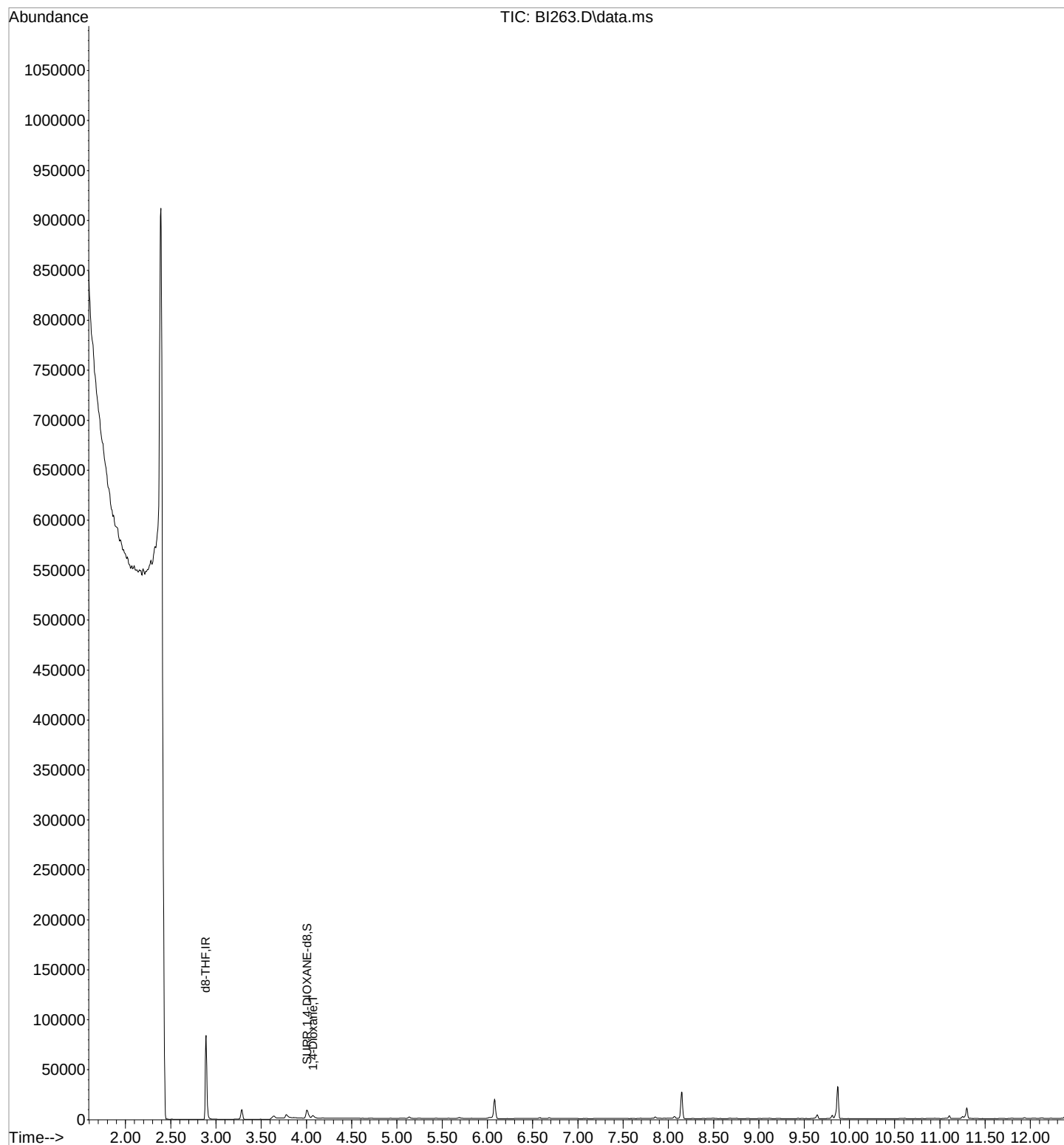
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|--------|----------|
| -----                       |                |      |          |        |        |          |
| Internal Standards          |                |      |          |        |        |          |
| 1) d8-THF                   | 2.887          | 46   | 43790    | 500.00 | PPB    | -0.02    |
| System Monitoring Compounds |                |      |          |        |        |          |
| 3) SURR, 1,4-DIOXANE-d8     | 4.007          | 96   | 8311     | 88.49  | PPB    | -0.01    |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 88.49% |          |
| Target Compounds            |                |      |          |        |        |          |
| 2) 1,4-Dioxane              | 4.071          | 88   | 3001m    | 30.47  | PPB    | Qvalue   |
| -----                       |                |      |          |        |        |          |

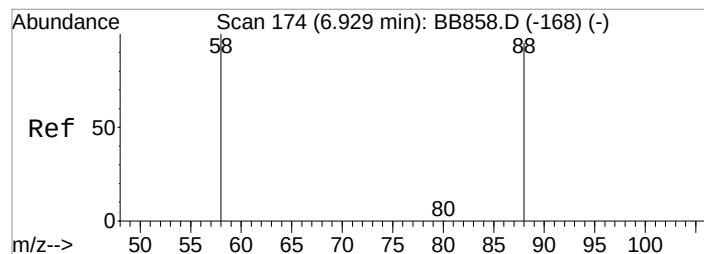
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI263.D  
Acq On : 10 Aug 2022 3:07 pm  
Operator : MMCMAHON  
Sample : R2206605-001  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

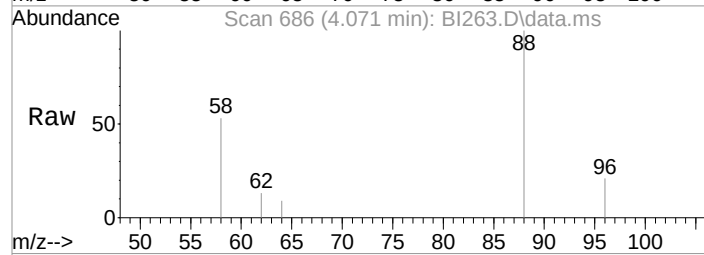
Inst : 5975 E

Quant Time: Aug 10 15:31:42 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

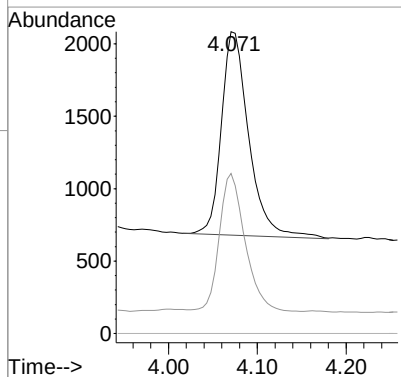
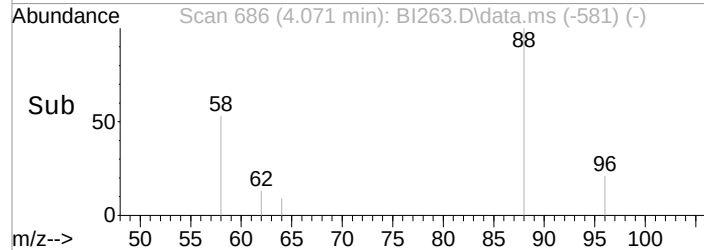




#2  
 1,4-Dioxane  
 Concen: 30.47 PPB m  
 RT: 4.071 min Scan# 686  
 Delta R.T. -0.007 min  
 Lab File: BI263.D  
 Acq: 10 Aug 2022 3:07 pm



Tgt Ion: 88 Resp: 3001  
 Ion Ratio Lower Upper  
 88 100  
 58 52.9 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI264.D  
Acq On : 10 Aug 2022 3:25 pm  
Operator : MMCMAHON  
Sample : R2206605-002  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 16:05:39 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

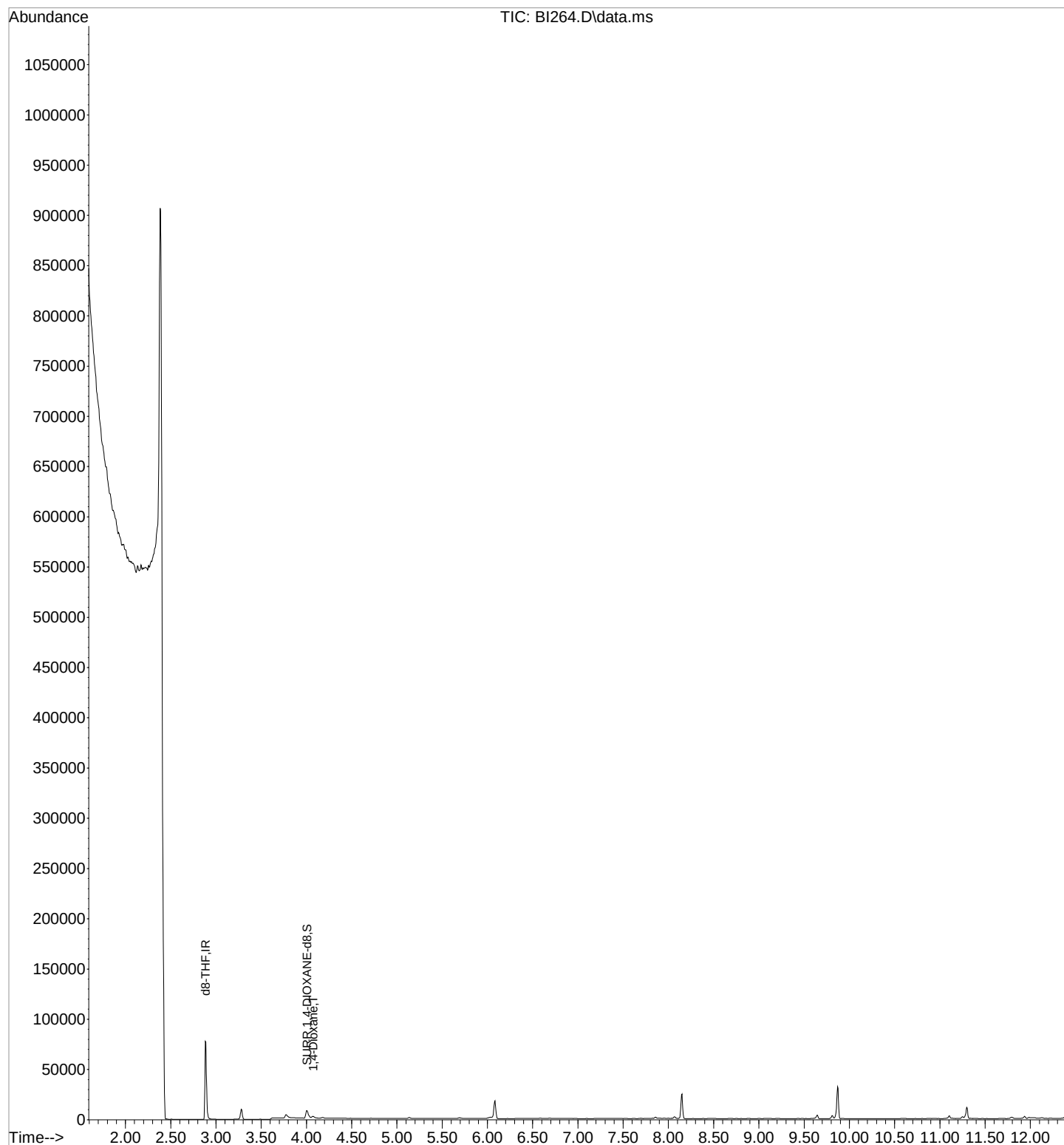
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min)     |
|-----------------------------|----------------|------|----------|--------|--------|--------------|
| -----                       |                |      |          |        |        |              |
| Internal Standards          |                |      |          |        |        |              |
| 1) d8-THF                   | 2.883          | 46   | 40740    | 500.00 | PPB    | -0.03        |
| System Monitoring Compounds |                |      |          |        |        |              |
| 3) SURR, 1,4-DIOXANE-d8     | 4.007          | 96   | 7978     | 91.30  | PPB    | -0.01        |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 91.30% |              |
| Target Compounds            |                |      |          |        |        |              |
| 2) 1,4-Dioxane              | 4.075          | 88   | 2030     | 22.07  | PPB    | Qvalue<br>87 |
| -----                       |                |      |          |        |        |              |

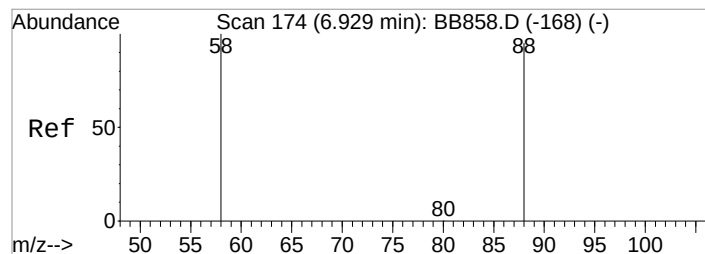
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI264.D  
Acq On : 10 Aug 2022 3:25 pm  
Operator : MMCMAHON  
Sample : R2206605-002  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

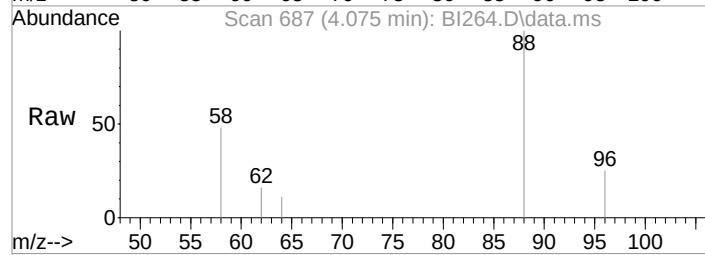
Inst : 5975 E

Quant Time: Aug 10 16:05:39 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

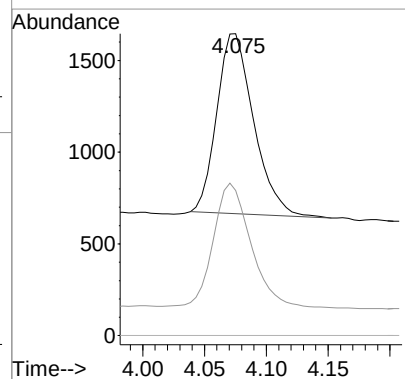
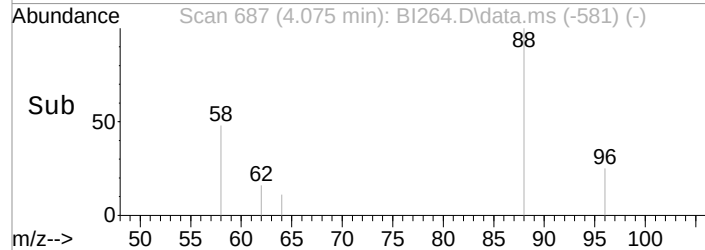




#2  
 1,4-Dioxane  
 Concen: 22.07 PPB  
 RT: 4.075 min Scan# 687  
 Delta R.T. -0.003 min  
 Lab File: BI264.D  
 Acq: 10 Aug 2022 3:25 pm



Tgt Ion: 88 Resp: 2030  
 Ion Ratio Lower Upper  
 88 100  
 58 63.4 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI268.D  
Acq On : 10 Aug 2022 4:36 pm  
Operator : MMCMAHON  
Sample : R2206605-003  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 17:10:59 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

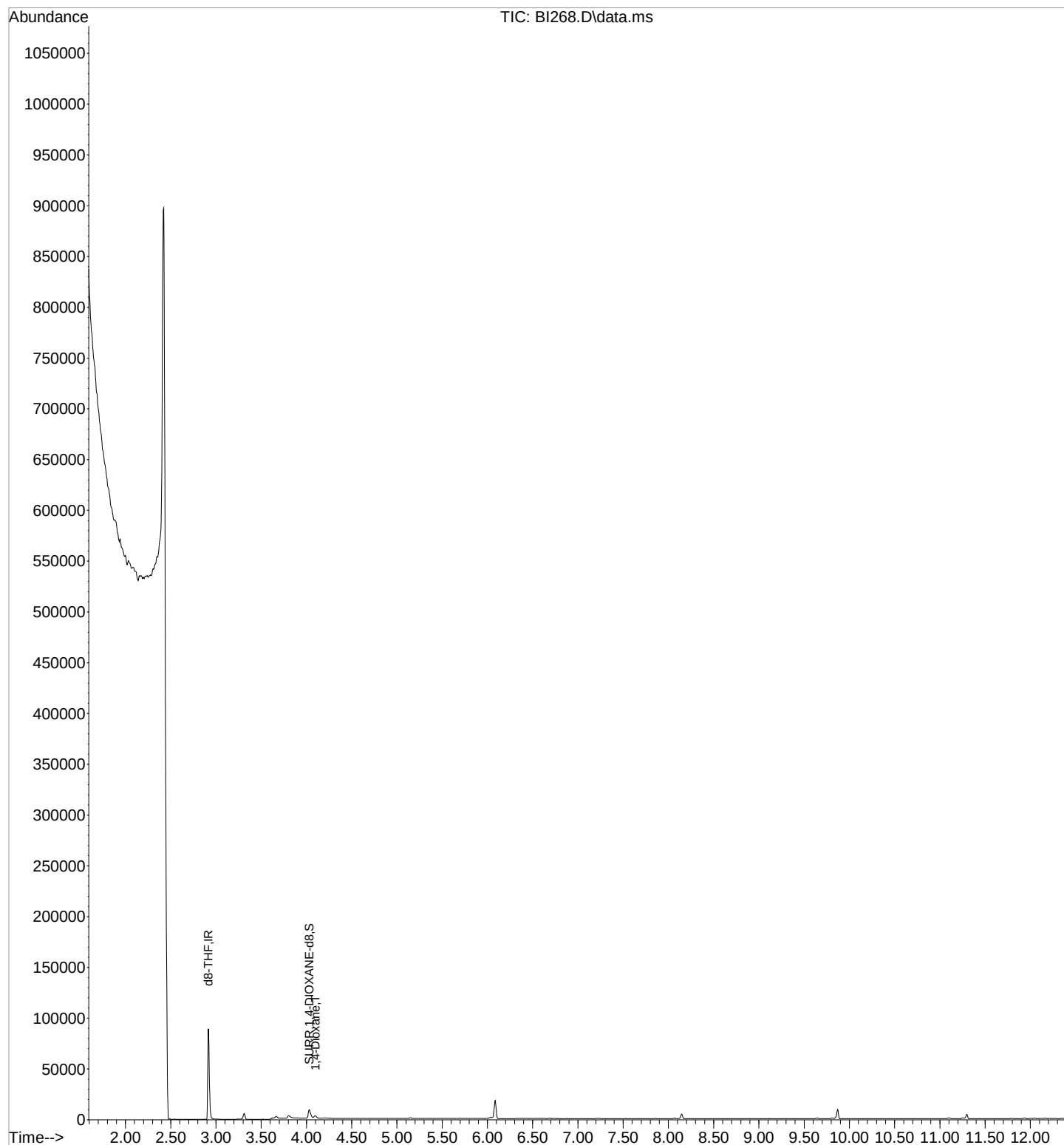
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min)     |
|-----------------------------|----------------|------|----------|--------|--------|--------------|
| -----                       |                |      |          |        |        |              |
| Internal Standards          |                |      |          |        |        |              |
| 1) d8-THF                   | 2.914          | 46   | 46464    | 500.00 | PPB    | 0.00         |
| System Monitoring Compounds |                |      |          |        |        |              |
| 3) SURR, 1,4-DIOXANE-d8     | 4.030          | 96   | 8378     | 84.07  | PPB    | 0.00         |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 84.07% |              |
| Target Compounds            |                |      |          |        |        |              |
| 2) 1,4-Dioxane              | 4.098          | 88   | 2787     | 26.63  | PPB    | Qvalue<br>88 |
| -----                       |                |      |          |        |        |              |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

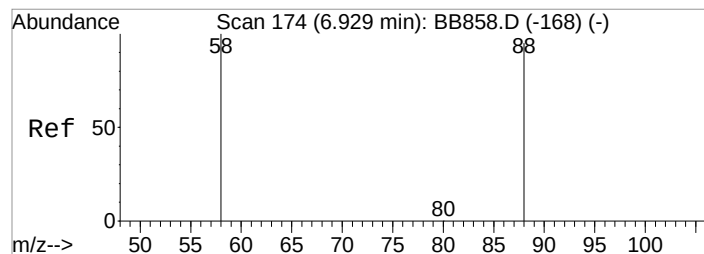
Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI268.D  
Acq On : 10 Aug 2022 4:36 pm  
Operator : MMCMAHON  
Sample : R2206605-003  
Misc :  
ALS Vial : 15 Sample Multiplier: 1

Inst : 5975 E

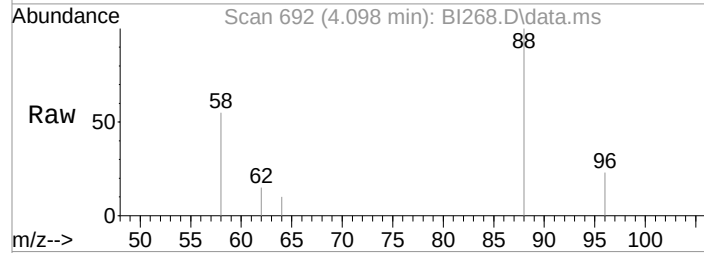
Quant Time: Aug 10 17:10:59 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



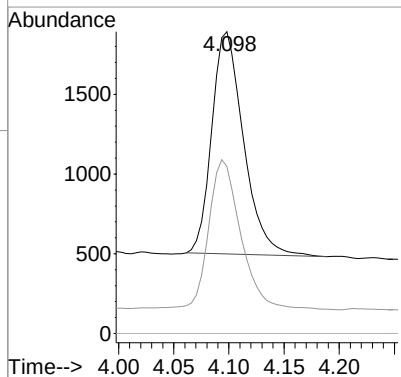
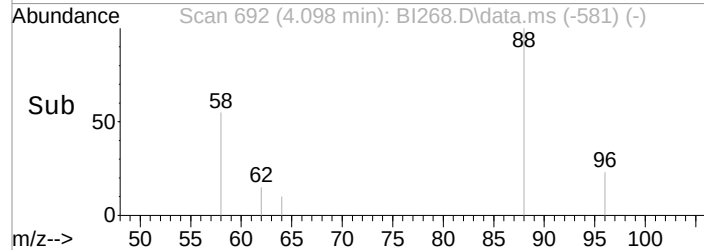




#2  
 1,4-Dioxane  
 Concen: 26.63 PPB  
 RT: 4.098 min Scan# 692  
 Delta R.T. 0.020 min  
 Lab File: BI268.D  
 Acq: 10 Aug 2022 4:36 pm



Tgt Ion: 88 Resp: 2787  
 Ion Ratio Lower Upper  
 88 100  
 58 63.2 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI269.D  
Acq On : 10 Aug 2022 4:54 pm  
Operator : MMCMAHON  
Sample : R2206605-004  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 17:11:12 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

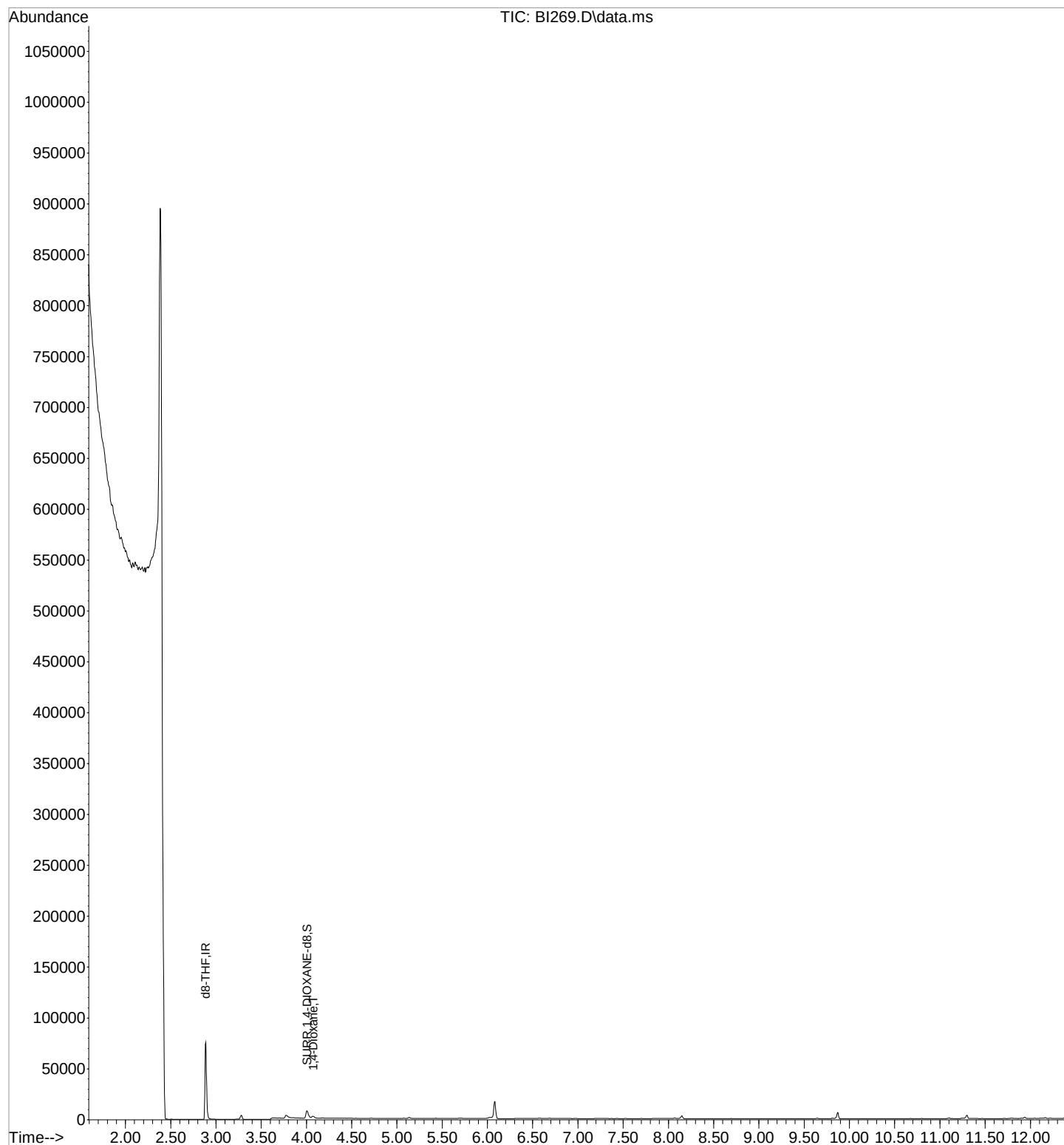
| Compound                    | R.T.  | QIon     | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|-------|----------|----------|--------|--------|----------|
| -----                       |       |          |          |        |        |          |
| Internal Standards          |       |          |          |        |        |          |
| 1) d8-THF                   | 2.883 | 46       | 39710    | 500.00 | PPB    | -0.03    |
|                             |       |          |          |        |        |          |
| System Monitoring Compounds |       |          |          |        |        |          |
| 3) SURR, 1,4-DIOXANE-d8     | 4.007 | 96       | 7410     | 87.00  | PPB    | -0.01    |
| Spiked Amount 100.000       | Range | 70 - 130 | Recovery | =      | 87.00% |          |
|                             |       |          |          |        |        |          |
| Target Compounds            |       |          |          |        |        | Qvalue   |
| 2) 1,4-Dioxane              | 4.075 | 88       | 2247     | 25.11  | PPB    | 88       |
| -----                       |       |          |          |        |        |          |

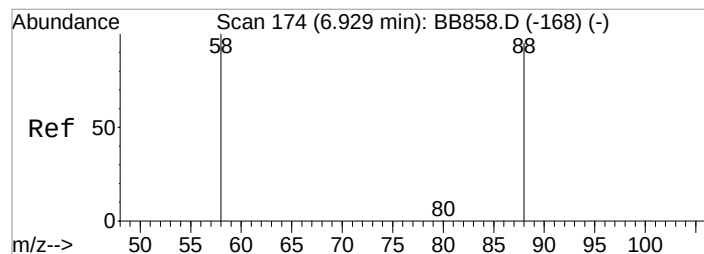
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI269.D  
Acq On : 10 Aug 2022 4:54 pm  
Operator : MMCMAHON  
Sample : R2206605-004  
Misc :  
ALS Vial : 16 Sample Multiplier: 1

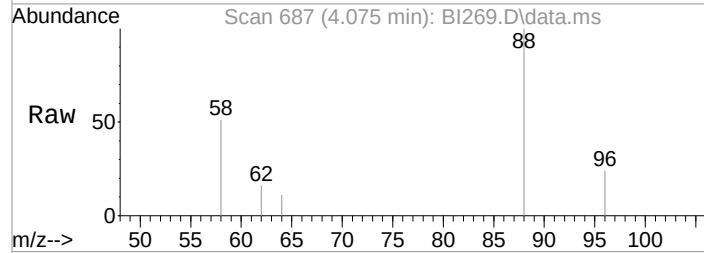
Inst : 5975 E

Quant Time: Aug 10 17:11:12 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

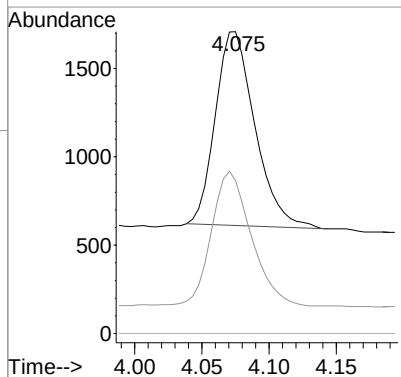
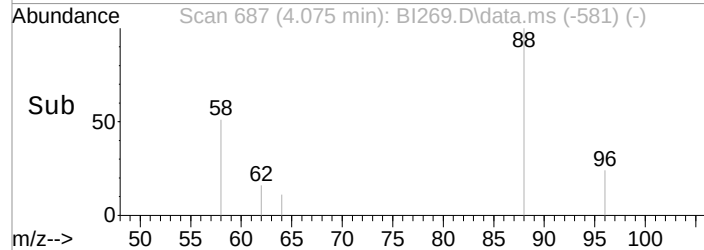




#2  
 1,4-Dioxane  
 Concen: 25.11 PPB  
 RT: 4.075 min Scan# 687  
 Delta R.T. -0.003 min  
 Lab File: BI269.D  
 Acq: 10 Aug 2022 4:54 pm



Tgt Ion: 88 Resp: 2247  
 Ion Ratio Lower Upper  
 88 100  
 58 63.2 34.3 74.3  
 28 0.0 0.0 20.0



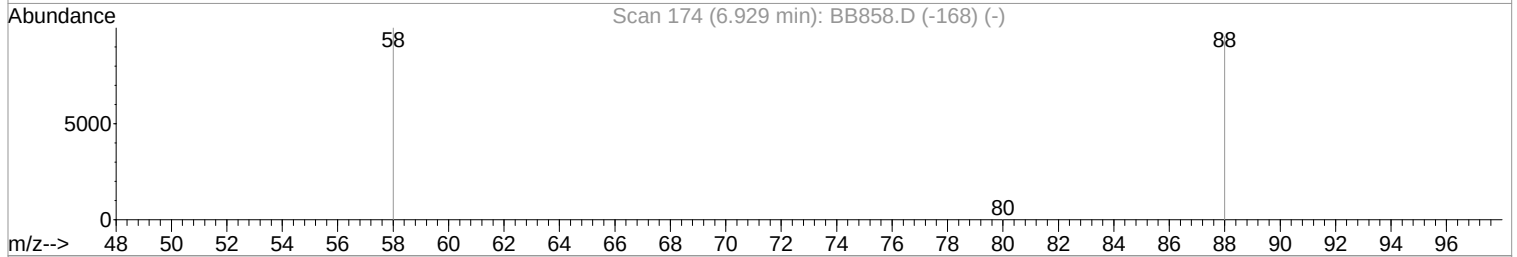
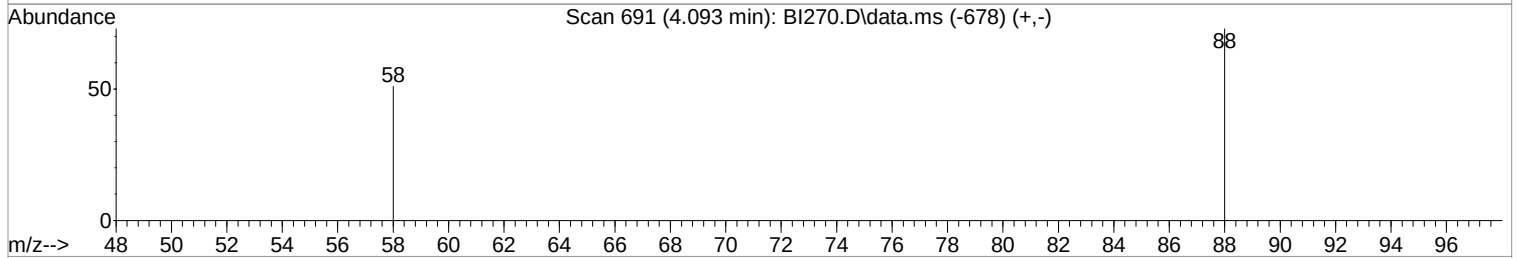
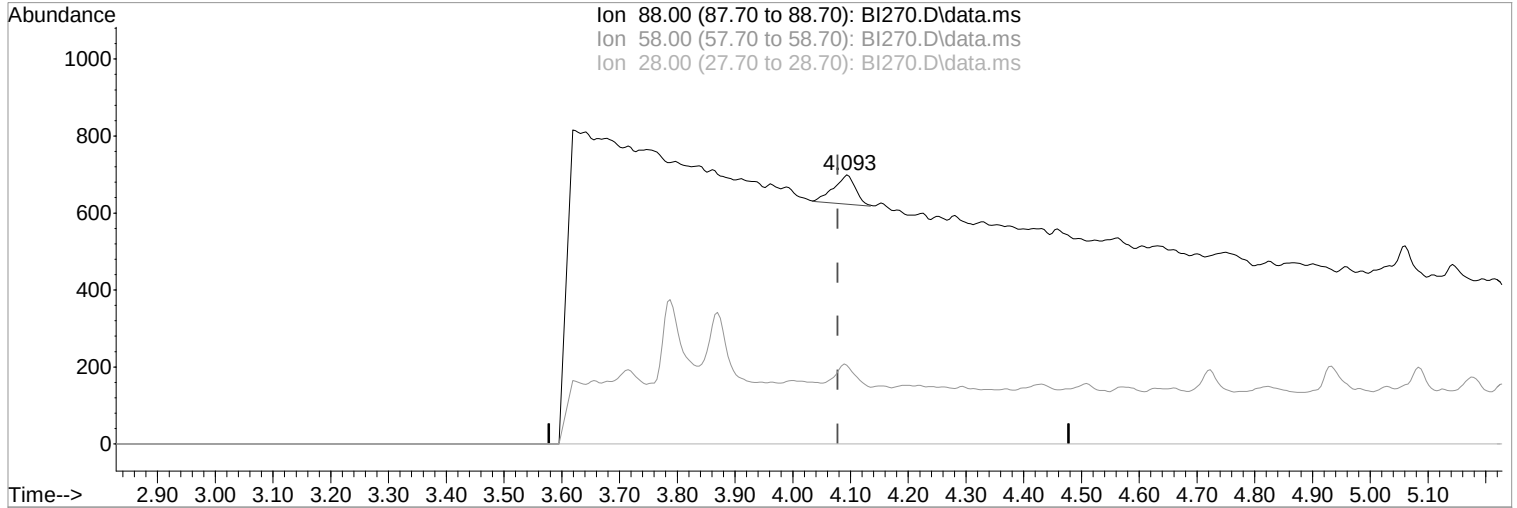
# Quantitation Report (Qedit)

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI270.D  
Acq On : 10 Aug 2022 5:12 pm  
Operator : MMCMAHON  
Sample : R2206605-005  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 11 08:14:33 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI270.D\data.ms

## (2) 1,4-Dioxane (T)

4.093min (+ 0.015) 1.71 PPB m

response 199

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 54.30  | 29.33# |
| 28.00 | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

Manual Integration:

After

Poor integration.

08/11/22

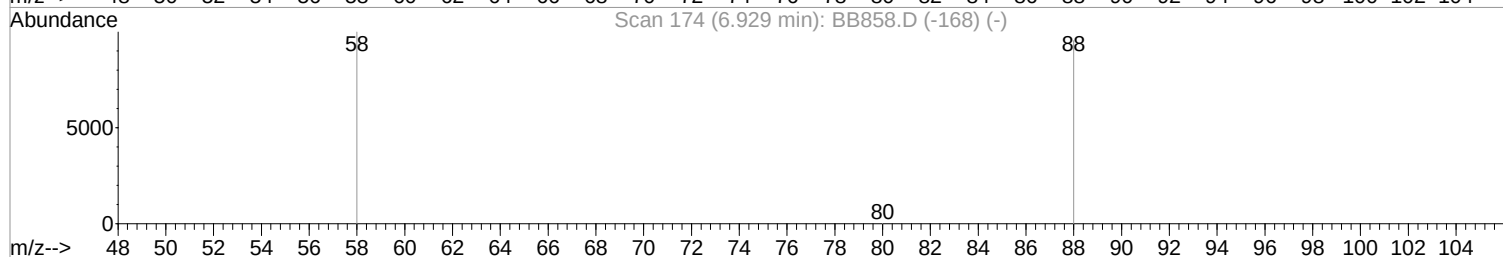
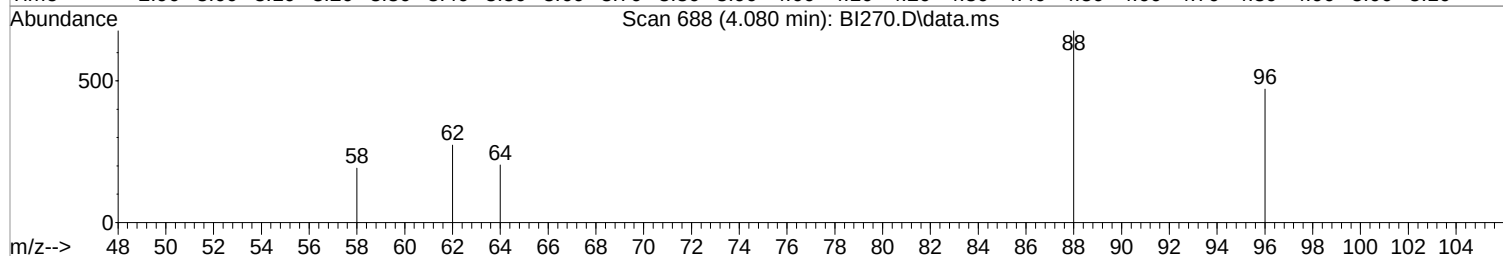
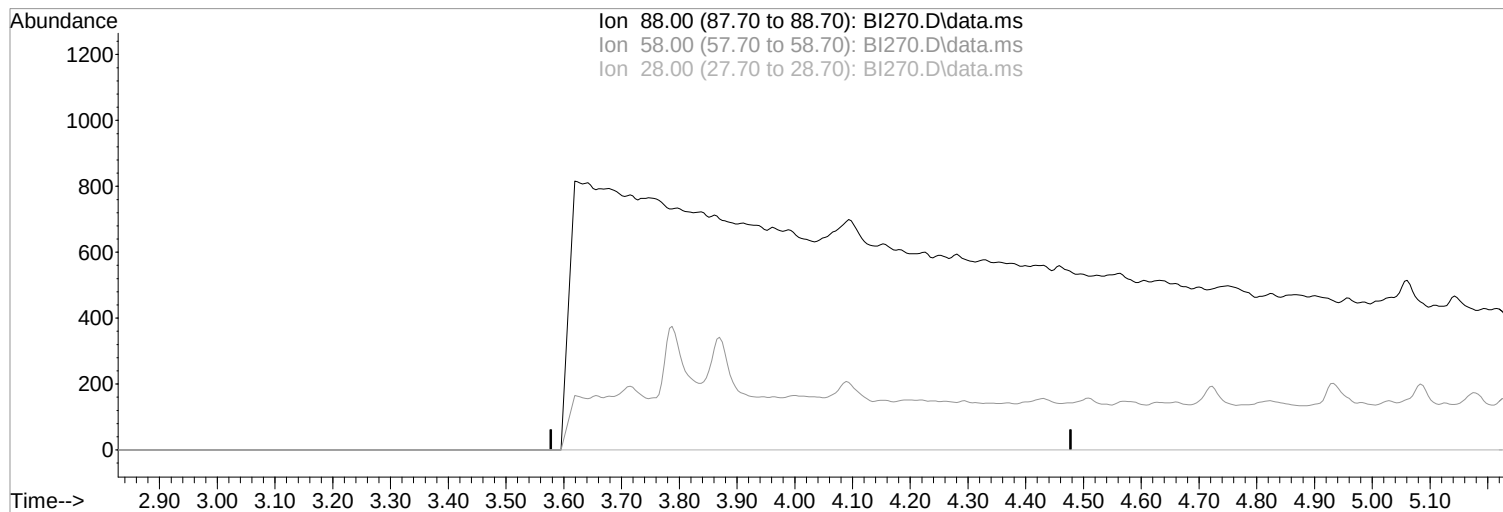
## Quantitation Report (Qedit)

1st MEM 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI270.D  
Acq On : 10 Aug 2022 5:12 pm  
Operator : MMCMAHON  
Sample : R2206605-005  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 11 08:14:33 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI270.D\data.ms

## (2) 1,4-Dioxane (T)

4.078min (-4.078) 0.00 PPB

response 0

## Manual Integration:

Before

08/11/22

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 88.00 | 100.00 | 0.00  |
| 58.00 | 54.30  | 0.00# |
| 28.00 | 0.00   | 0.00  |
| 0.00  | 0.00   | 0.00  |

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI270.D  
Acq On : 10 Aug 2022 5:12 pm  
Operator : MMCMAHON  
Sample : R2206605-005  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 11 08:14:41 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

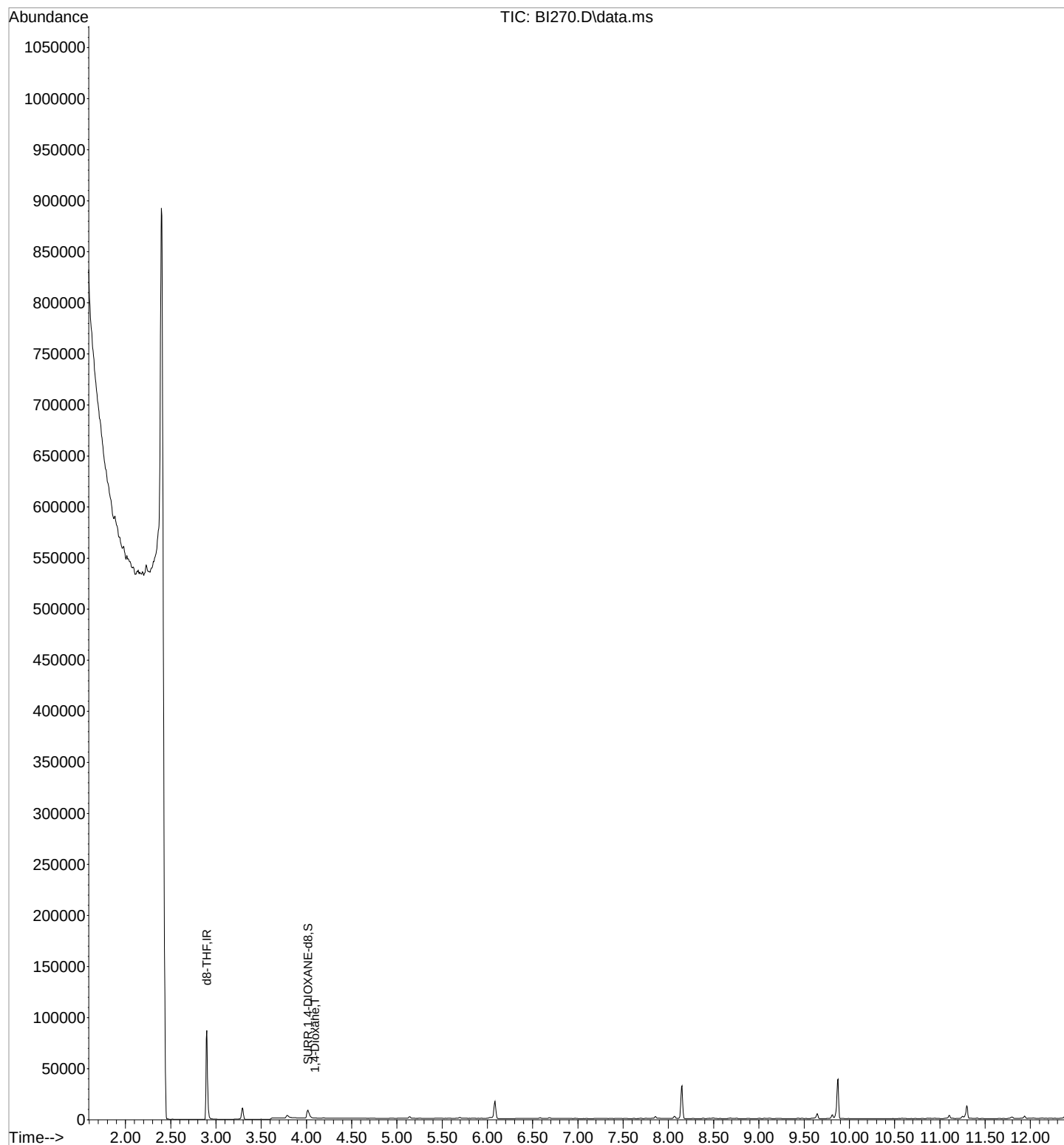
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|--------|----------|
| -----                       |                |      |          |        |        |          |
| Internal Standards          |                |      |          |        |        |          |
| 1) d8-THF                   | 2.897          | 46   | 44667    | 500.00 | PPB    | -0.01    |
| System Monitoring Compounds |                |      |          |        |        |          |
| 3) SURR, 1,4-DIOXANE-d8     | 4.016          | 96   | 8187     | 85.46  | PPB    | 0.00     |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 85.46% |          |
| Target Compounds            |                |      |          |        |        |          |
| 2) 1,4-Dioxane              | 4.093          | 88   | 199m     | 1.71   | PPB    | Qvalue   |
| -----                       |                |      |          |        |        |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

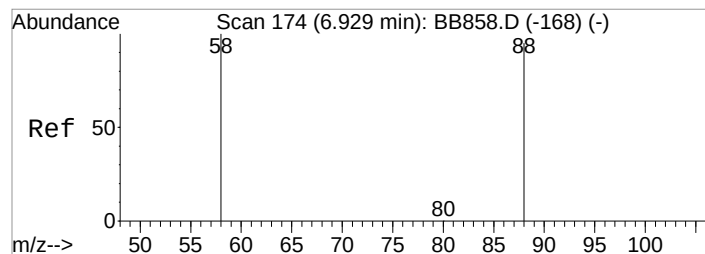
Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI270.D  
Acq On : 10 Aug 2022 5:12 pm  
Operator : MMCMAHON  
Sample : R2206605-005  
Misc :  
ALS Vial : 17 Sample Multiplier: 1

Inst : 5975 E

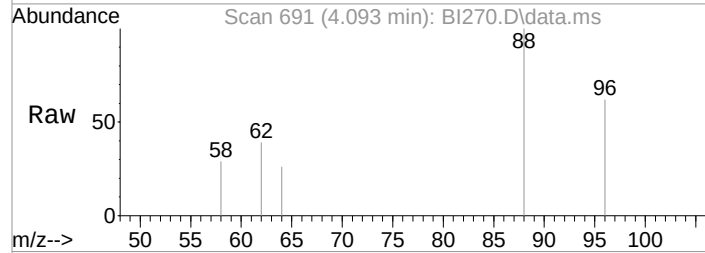
Quant Time: Aug 11 08:14:41 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



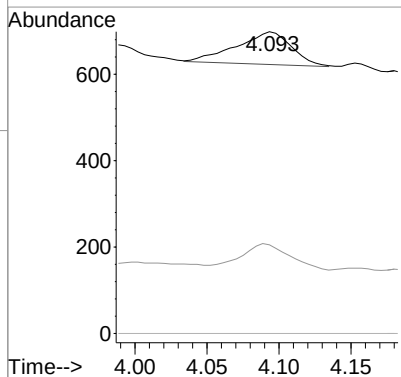
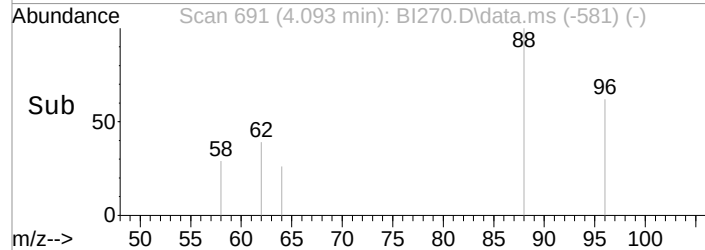




#2  
 1,4-Dioxane  
 Concen: 1.71 PPB m  
 RT: 4.093 min Scan# 691  
 Delta R.T. 0.015 min  
 Lab File: BI270.D  
 Acq: 10 Aug 2022 5:12 pm



Tgt Ion: 88 Resp: 199  
 Ion Ratio Lower Upper  
 88 100  
 58 29.3 34.3 74.3#  
 28 0.0 0.0 20.0



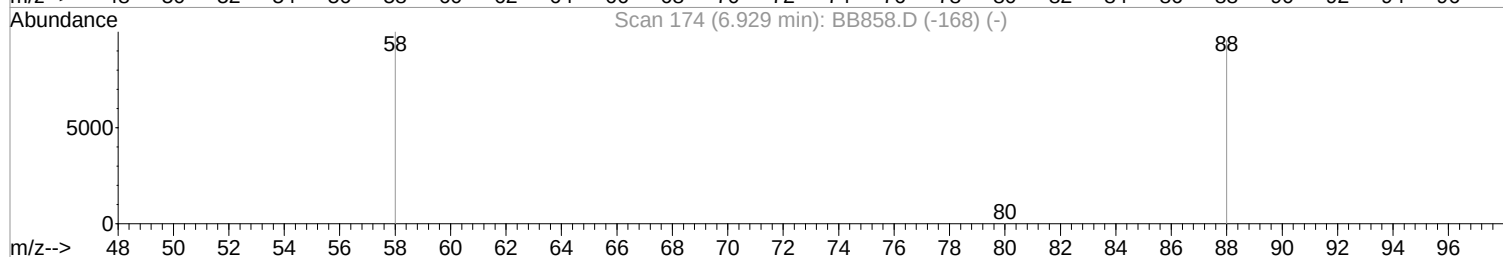
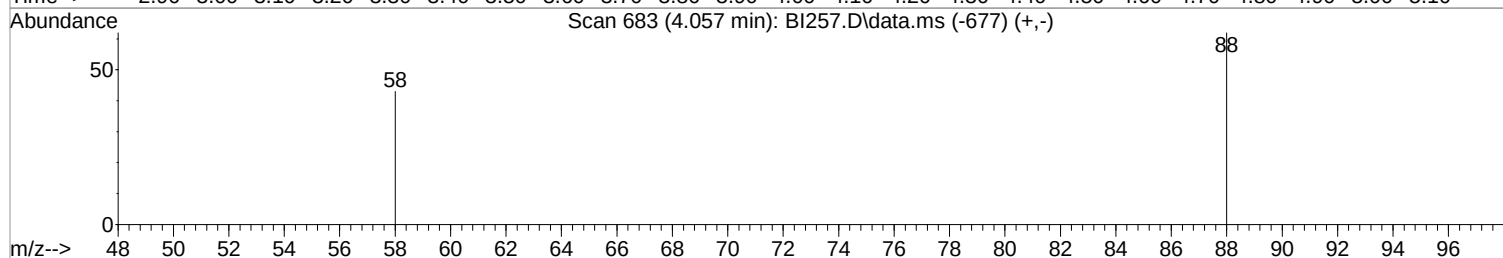
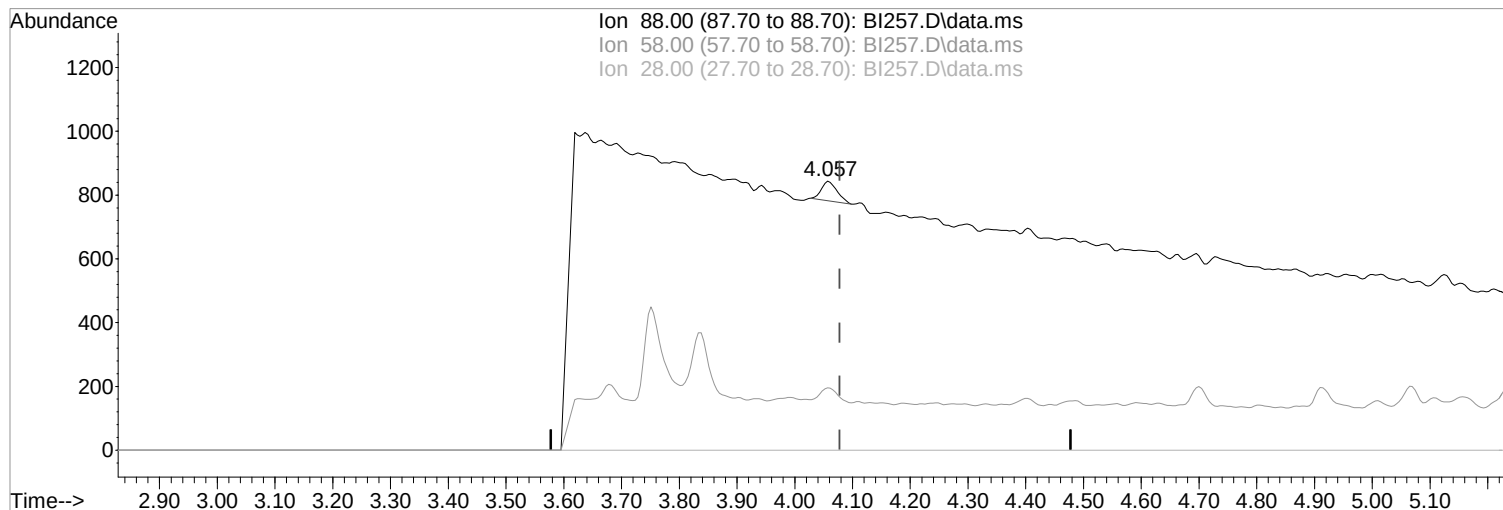
# Quantitation Report (Qedit)

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI257.D  
Acq On : 10 Aug 2022 1:21 pm  
Operator : MMCMAHON  
Sample : rq2209067-01  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 13:52:13 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI257.D\data.ms

## (2) 1,4-Dioxane (T)

4.057min (-0.021) 0.99 PPB m

response 112

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 54.30  | 23.22# |
| 28.00 | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

## Manual Integration:

After

Peak not found.

08/11/22

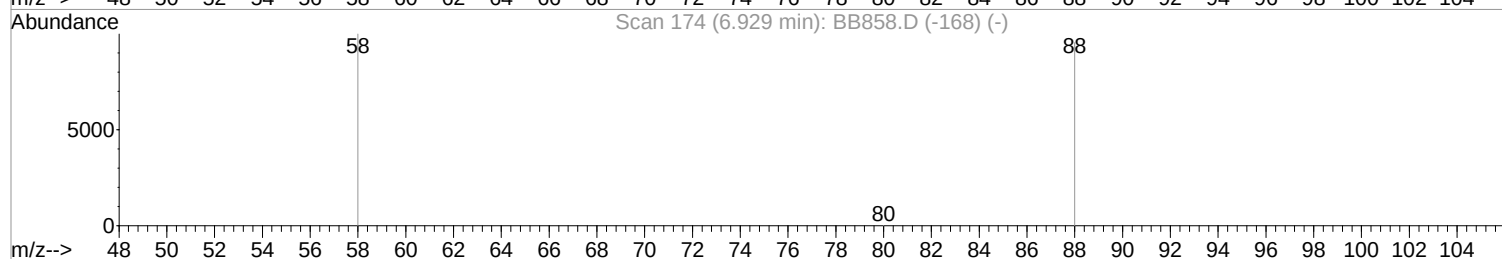
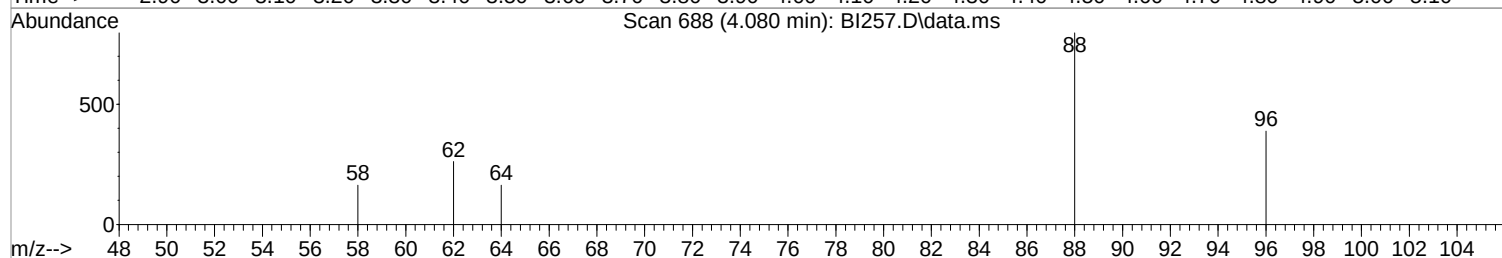
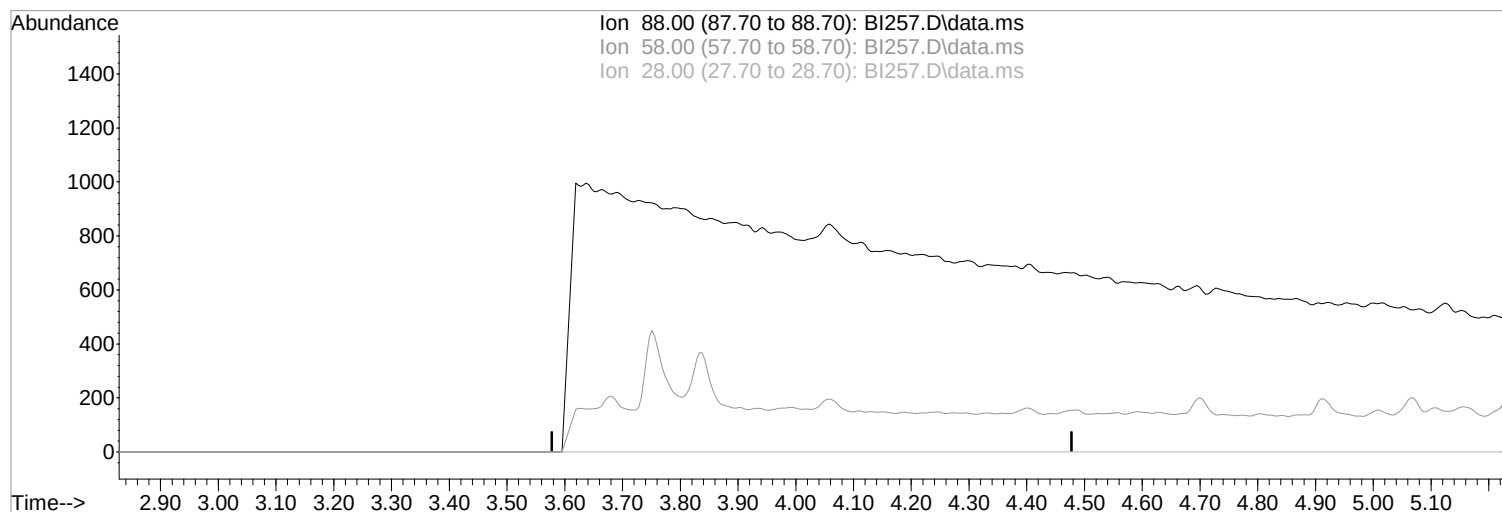
## Quantitation Report (Qedit)

1st MEM 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI257.D  
Acq On : 10 Aug 2022 1:21 pm  
Operator : MMCMAHON  
Sample : rq2209067-01  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 13:51:47 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI257.D\data.ms

## (2) 1,4-Dioxane (T)

4.078min (-4.078) 0.00 PPB

response 0

Manual Integration:

Before

08/10/22

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 88.00 | 100.00 | 0.00  |
| 58.00 | 54.30  | 0.00# |
| 28.00 | 0.00   | 0.00  |
| 0.00  | 0.00   | 0.00  |

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI257.D  
Acq On : 10 Aug 2022 1:21 pm  
Operator : MMCMAHON  
Sample : rq2209067-01  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 11 08:37:10 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

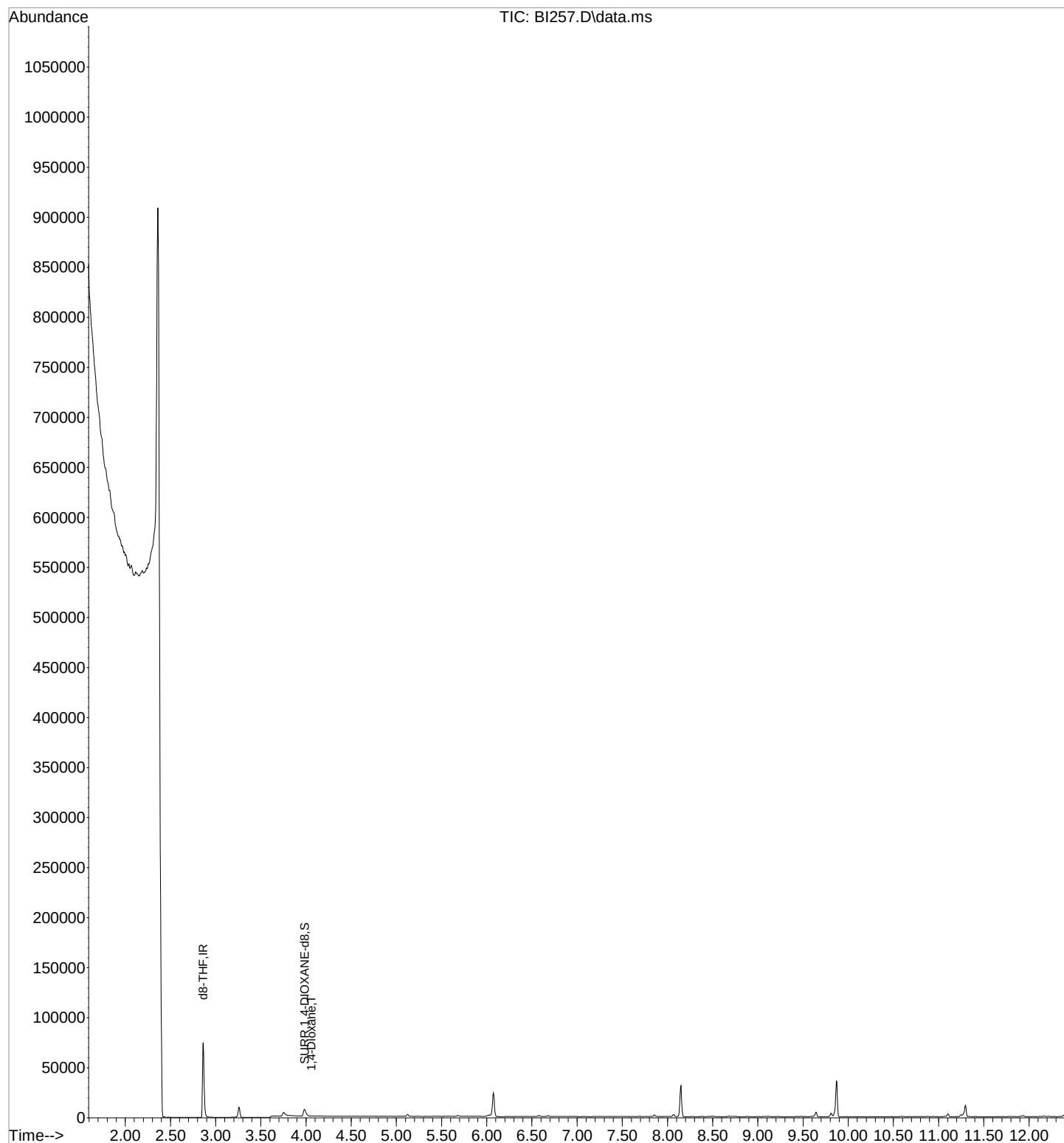
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|--------|----------|
| -----                       |                |      |          |        |        |          |
| Internal Standards          |                |      |          |        |        |          |
| 1) d8-THF                   | 2.859          | 46   | 39077    | 500.00 | PPB    | -0.05    |
|                             |                |      |          |        |        |          |
| System Monitoring Compounds |                |      |          |        |        |          |
| 3) SURR, 1,4-DIOXANE-d8     | 3.984          | 96   | 7106     | 84.78  | PPB    | -0.04    |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 84.78% |          |
|                             |                |      |          |        |        |          |
| Target Compounds            |                |      |          |        |        | Qvalue   |
| 2) 1,4-Dioxane              | 4.057          | 88   | 112m     | 0.99   | PPB    |          |
| -----                       |                |      |          |        |        |          |

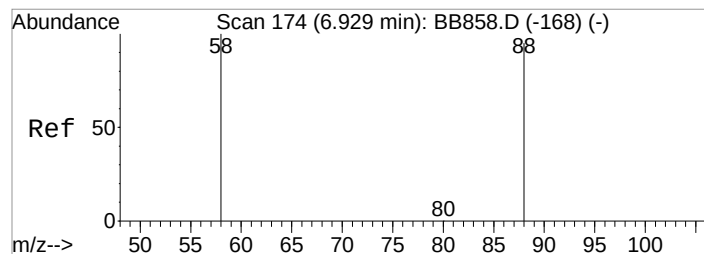
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI257.D  
Acq On : 10 Aug 2022 1:21 pm  
Operator : MMCMAHON  
Sample : rq2209067-01  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

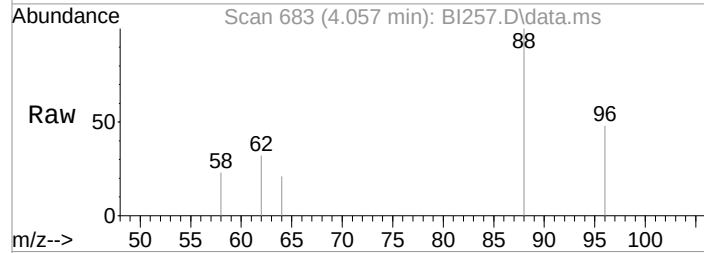
Inst : 5975 E

Quant Time: Aug 11 08:37:10 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

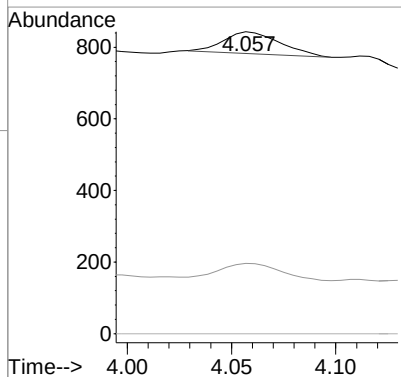
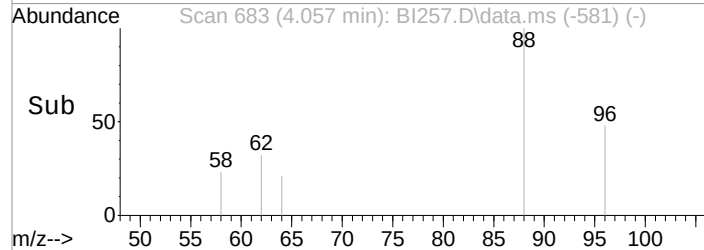




#2  
 1,4-Dioxane  
 Concen: 0.99 PPB m  
 RT: 4.057 min Scan# 683  
 Delta R.T. -0.021 min  
 Lab File: BI257.D  
 Acq: 10 Aug 2022 1:21 pm



Tgt Ion: 88 Resp: 112  
 Ion Ratio Lower Upper  
 88 100  
 58 23.2 34.3 74.3#  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI259.D  
Acq On : 10 Aug 2022 1:57 pm  
Operator : MMCMAHON  
Sample : RQ2209067-02  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 14:32:26 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

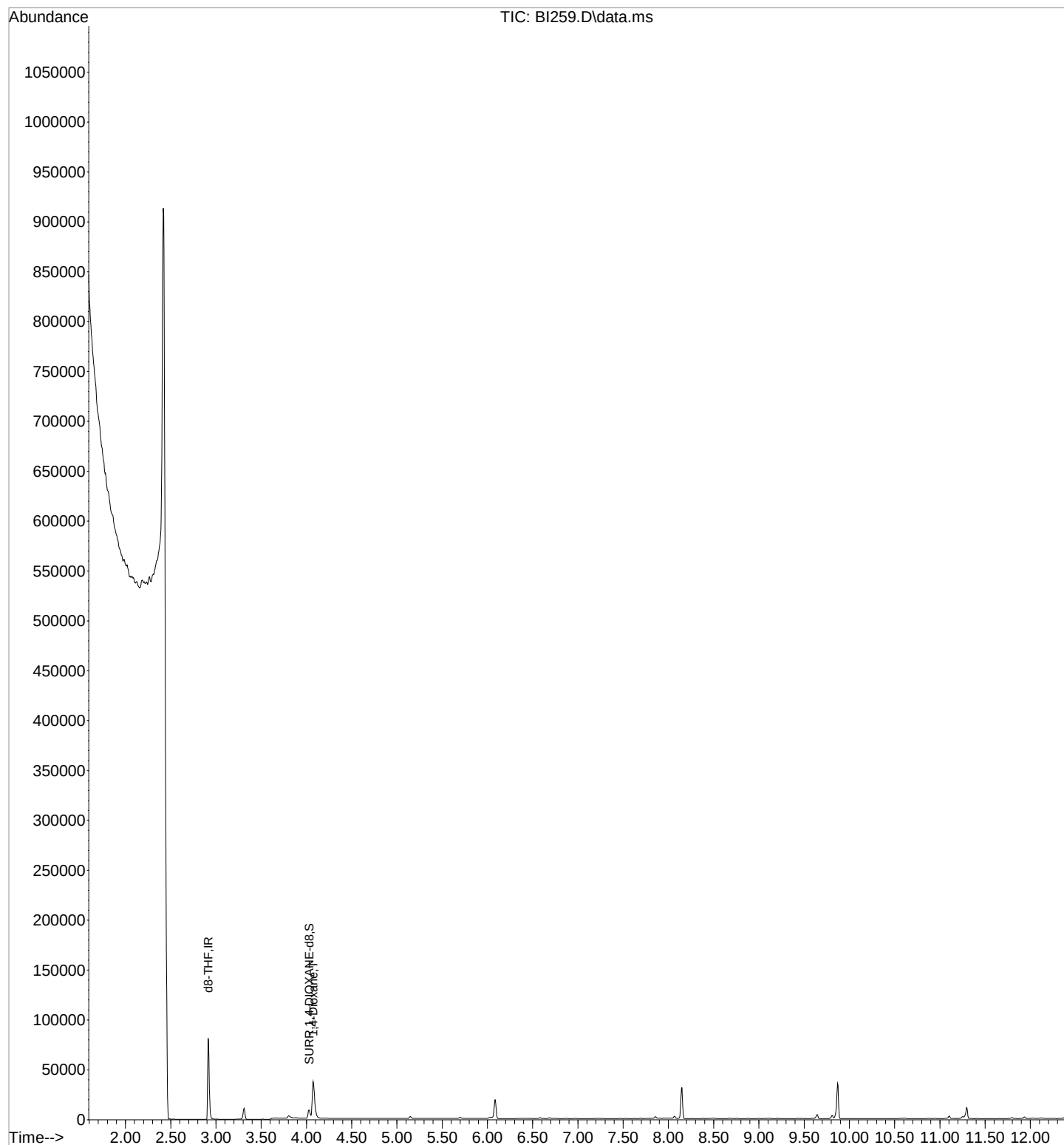
| Compound                    | R.T.    | QIon  | Response | Conc     | Units | Dev(Min)     |
|-----------------------------|---------|-------|----------|----------|-------|--------------|
| -----                       |         |       |          |          |       |              |
| Internal Standards          |         |       |          |          |       |              |
| 1) d8-THF                   | 2.914   | 46    | 42114    | 500.00   | PPB   | 0.00         |
| System Monitoring Compounds |         |       |          |          |       |              |
| 3) SURR, 1,4-DIOXANE-d8     | 4.029   | 96    | 7659     | 84.79    | PPB   | 0.00         |
| Spiked Amount               | 100.000 | Range | 70 - 130 | Recovery | =     | 84.79%       |
| Target Compounds            |         |       |          |          |       |              |
| 2) 1,4-Dioxane              | 4.075   | 88    | 41538    | 443.50   | PPB   | Qvalue<br>84 |
| -----                       |         |       |          |          |       |              |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

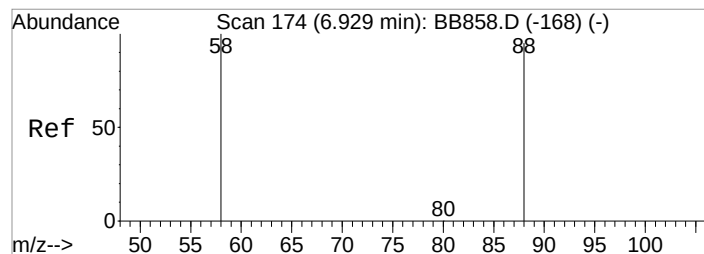
Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI259.D  
Acq On : 10 Aug 2022 1:57 pm  
Operator : MMCMAHON  
Sample : RQ2209067-02  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Inst : 5975 E

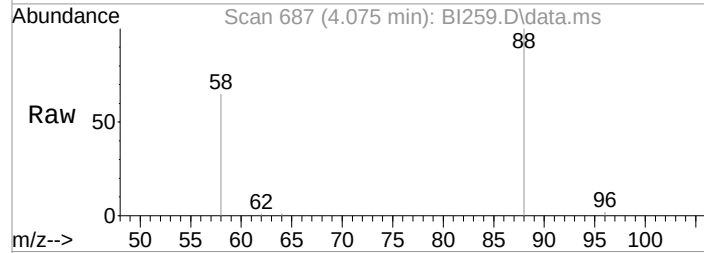
Quant Time: Aug 10 14:32:26 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



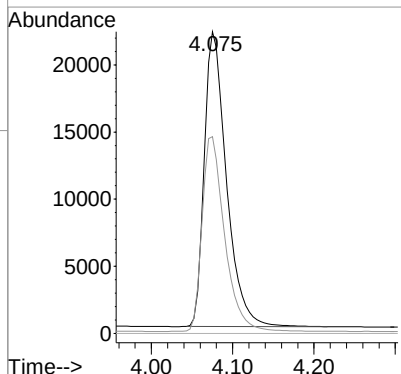
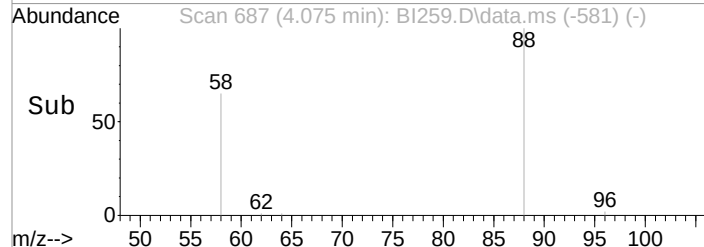




#2  
 1,4-Dioxane  
 Concen: 443.50 PPB  
 RT: 4.075 min Scan# 687  
 Delta R.T. -0.003 min  
 Lab File: BI259.D  
 Acq: 10 Aug 2022 1:57 pm



Tgt Ion: 88 Resp: 41538  
 Ion Ratio Lower Upper  
 88 100  
 58 65.9 34.3 74.3  
 28 0.0 0.0 20.0



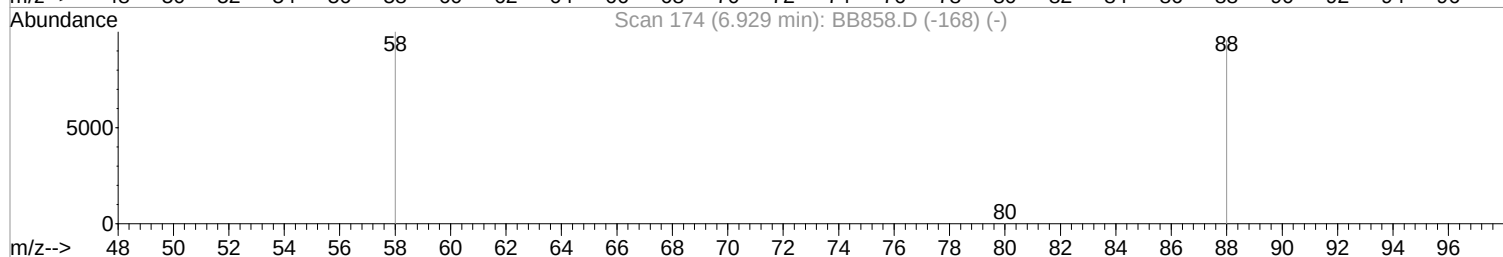
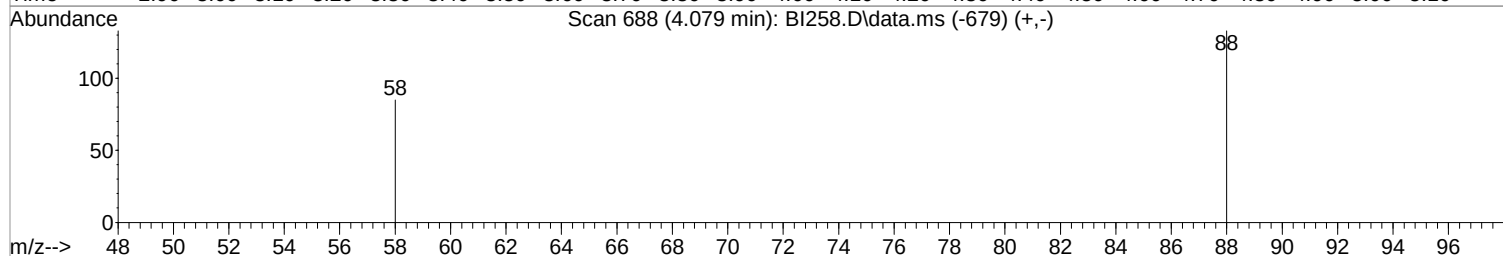
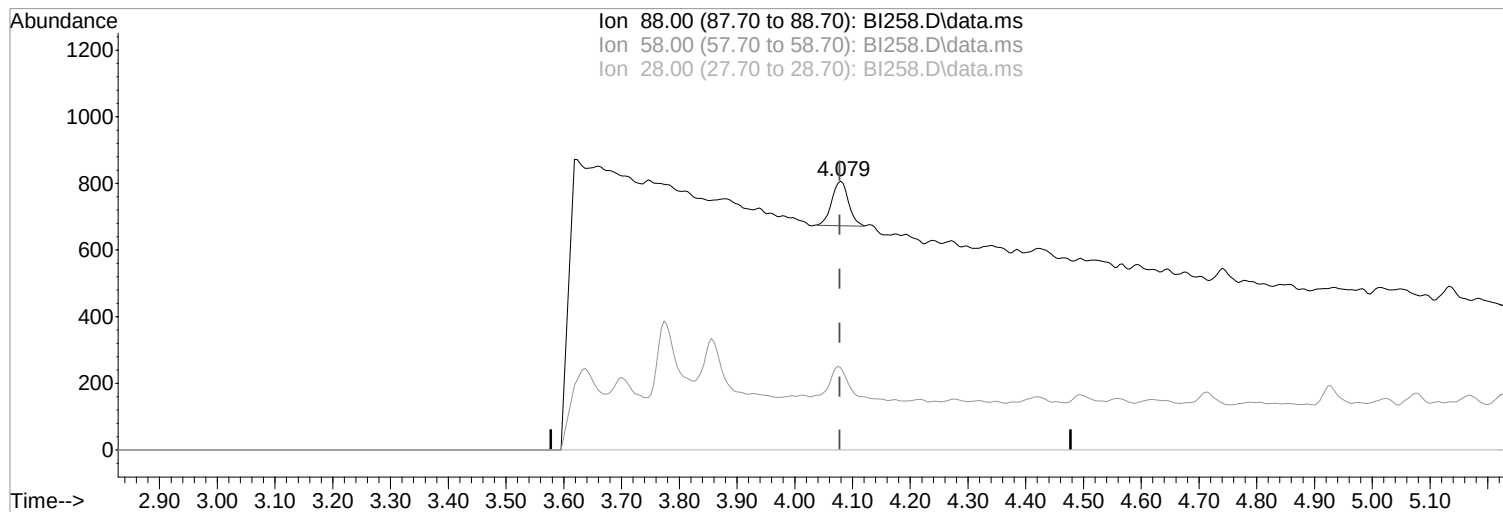
## Quantitation Report (Qedit)

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI258.D  
Acq On : 10 Aug 2022 1:39 pm  
Operator : MMCMAHON  
Sample : RQ2209067-04  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 13:52:29 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI258.D\data.ms

## (2) 1,4-Dioxane (T)

4.079min (+ 0.001) 2.59 PPB m

response 270

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 54.30  | 30.61# |
| 28.00 | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

## Manual Integration:

After

Peak not found.

08/10/22

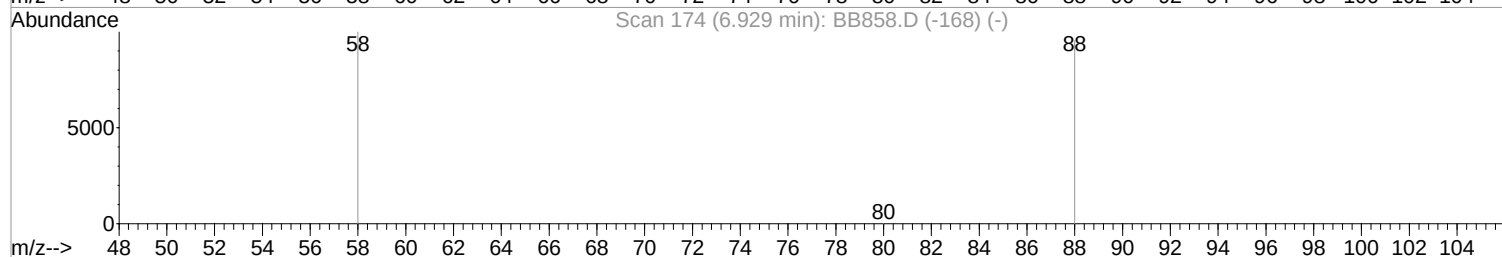
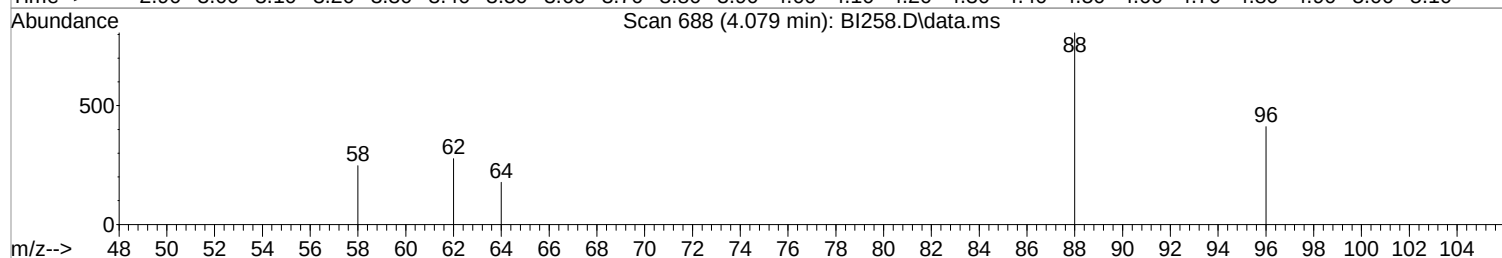
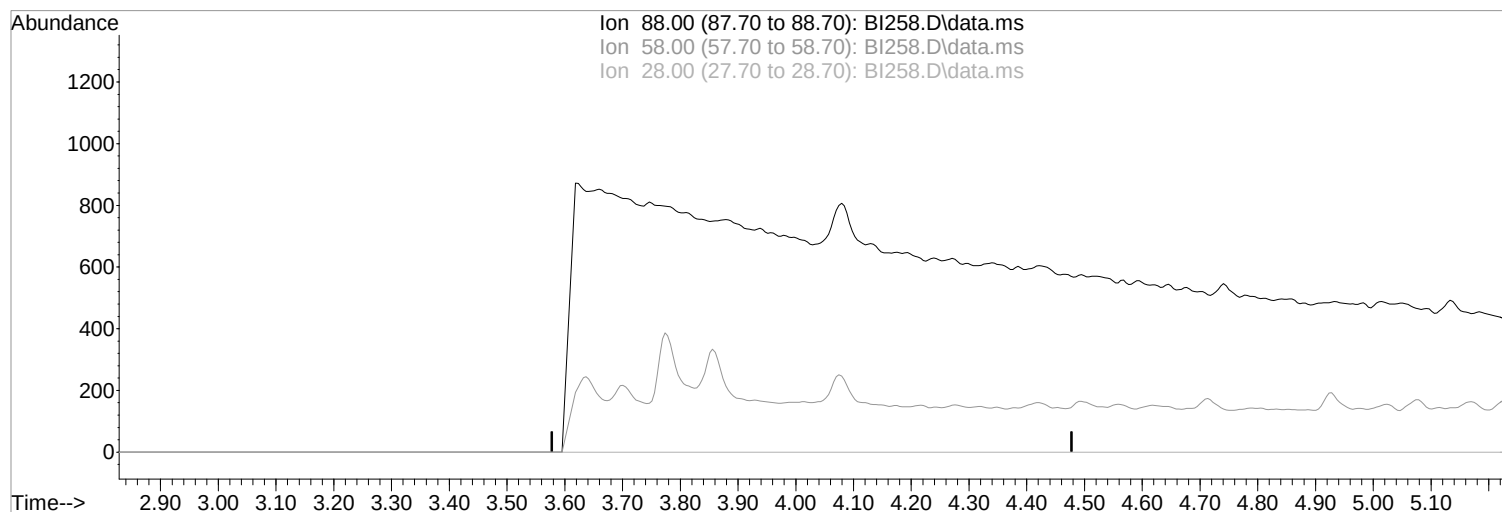
## Quantitation Report (Qedit)

1st MEM 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI258.D  
Acq On : 10 Aug 2022 1:39 pm  
Operator : MMCMAHON  
Sample : RQ2209067-04  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 13:52:29 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI258.D\data.ms

## (2) 1,4-Dioxane (T)

Manual Integration:

4.078min (-4.078) 0.00 PPB

Before

response 0

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 88.00 | 100.00 | 0.00  |
| 58.00 | 54.30  | 0.00# |
| 28.00 | 0.00   | 0.00  |
| 0.00  | 0.00   | 0.00  |

08/10/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI258.D  
Acq On : 10 Aug 2022 1:39 pm  
Operator : MMCMAHON  
Sample : RQ2209067-04  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 13:52:50 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

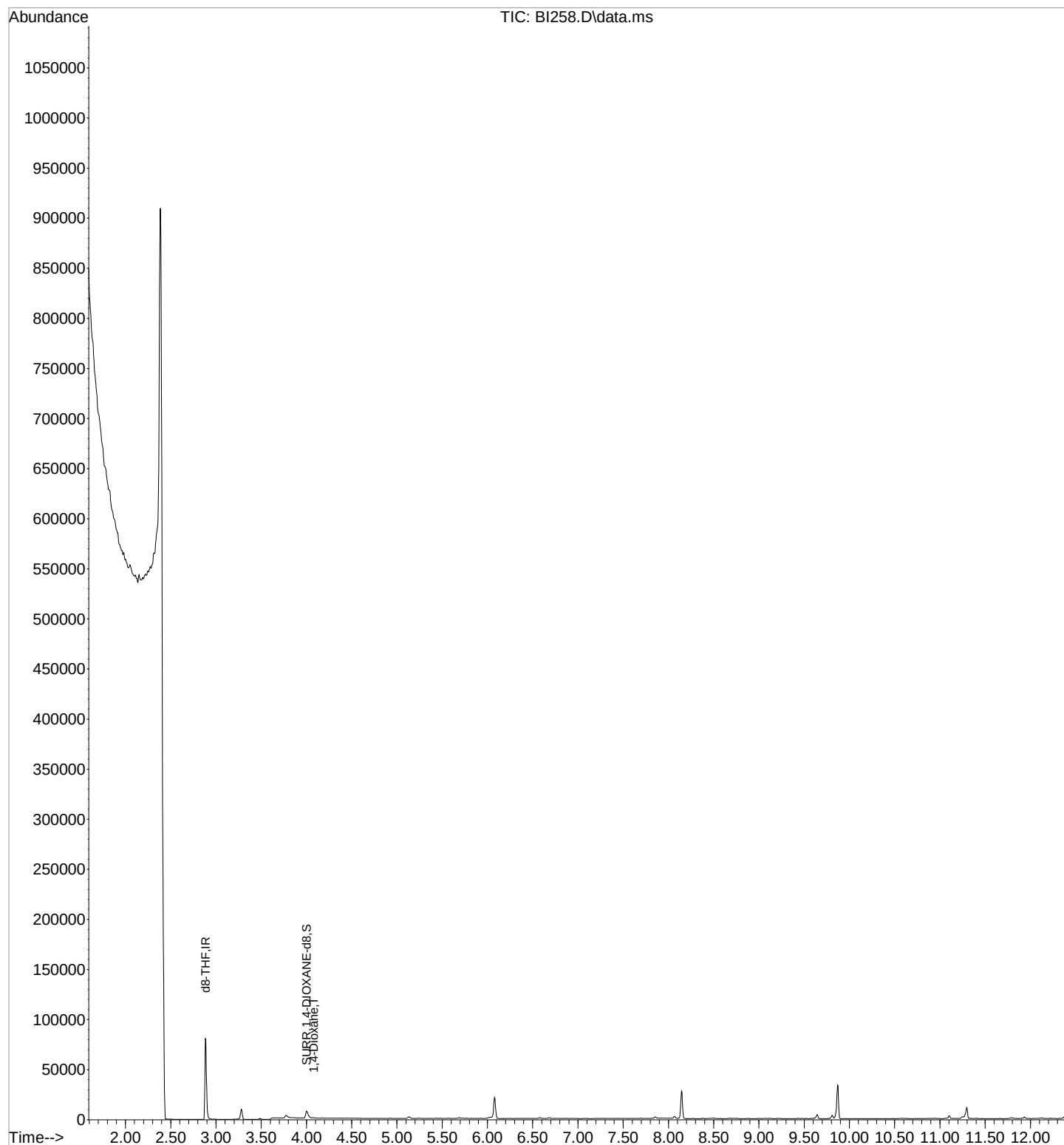
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|--------|----------|
| -----                       |                |      |          |        |        |          |
| Internal Standards          |                |      |          |        |        |          |
| 1) d8-THF                   | 2.883          | 46   | 42085    | 500.00 | PPB    | -0.03    |
| System Monitoring Compounds |                |      |          |        |        |          |
| 3) SURR, 1,4-DIOXANE-d8     | 4.002          | 96   | 7314     | 81.03  | PPB    | -0.02    |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 81.03% |          |
| Target Compounds            |                |      |          |        |        |          |
| 2) 1,4-Dioxane              | 4.079          | 88   | 270m     | 2.59   | PPB    | Qvalue   |
| -----                       |                |      |          |        |        |          |

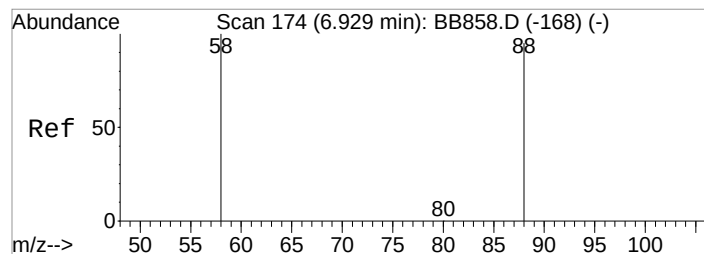
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI258.D  
Acq On : 10 Aug 2022 1:39 pm  
Operator : MMCMAHON  
Sample : RQ2209067-04  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

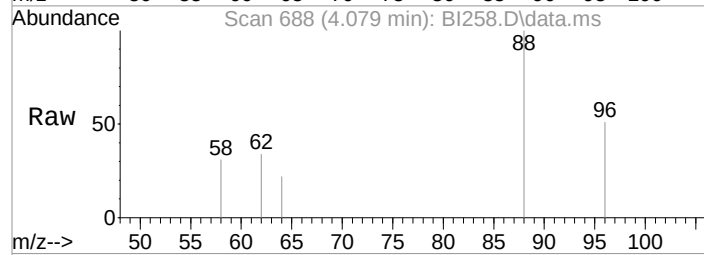
Inst : 5975 E

Quant Time: Aug 10 13:52:50 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

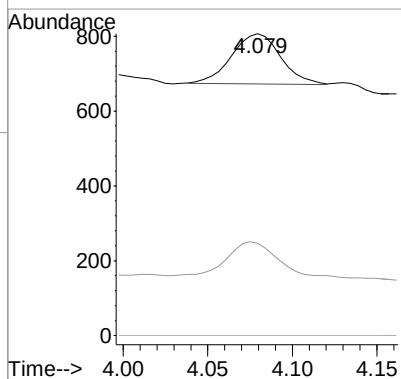
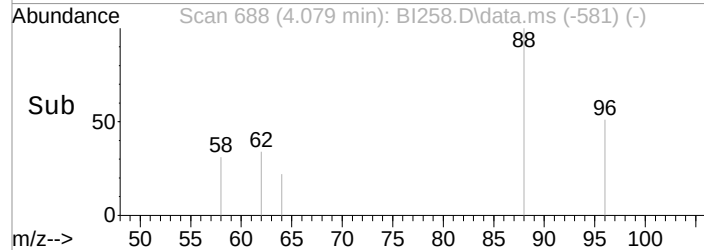




#2  
 1,4-Dioxane  
 Concen: 2.59 PPB m  
 RT: 4.079 min Scan# 688  
 Delta R.T. 0.001 min  
 Lab File: BI258.D  
 Acq: 10 Aug 2022 1:39 pm



Tgt Ion: 88 Resp: 270  
 Ion Ratio Lower Upper  
 88 100  
 58 30.6 34.3 74.3#  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI260.D  
Acq On : 10 Aug 2022 2:14 pm  
Operator : MMCMAHON  
Sample : RQ2209067-03  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 14:32:55 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

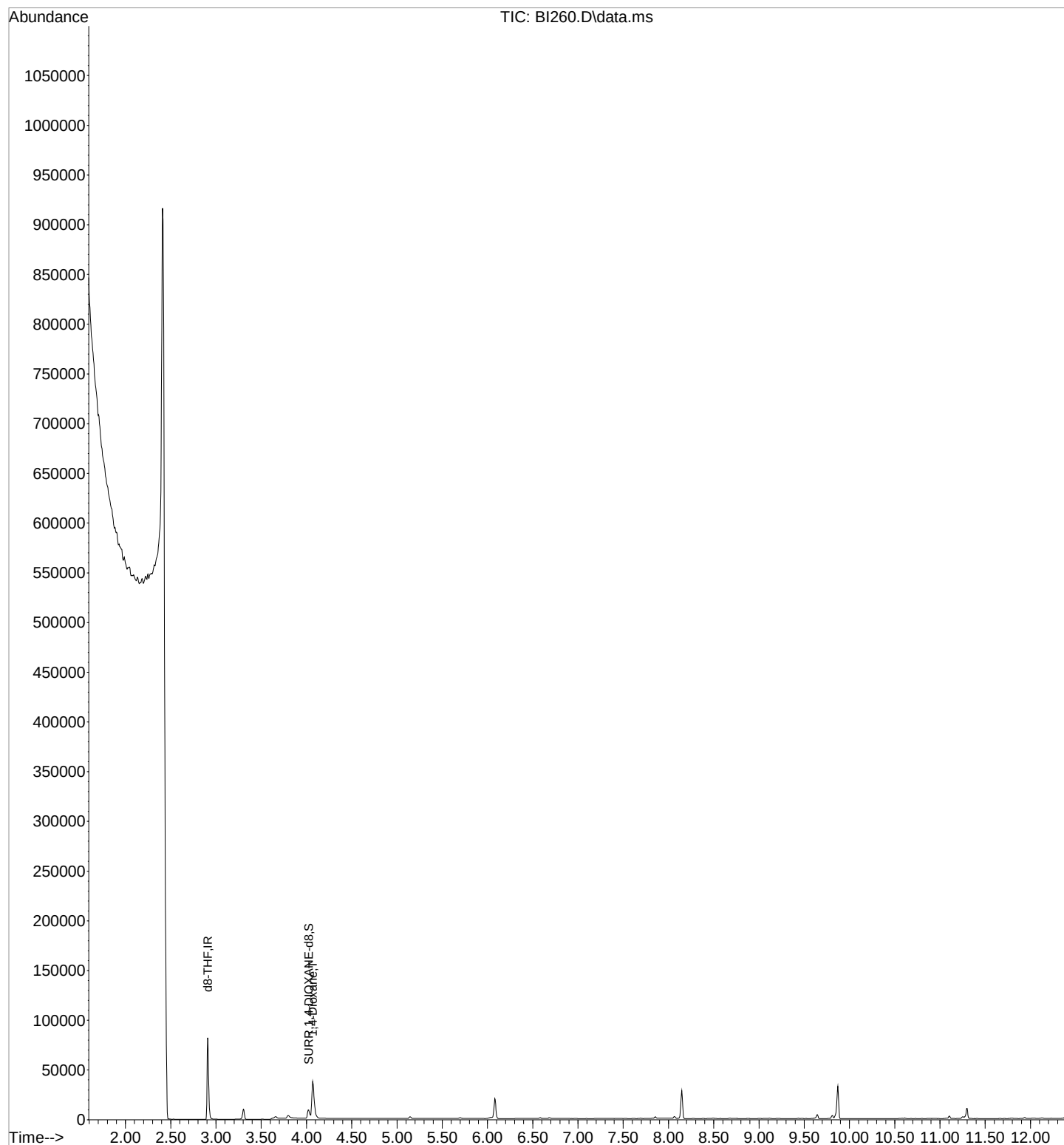
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min)  |
|-----------------------------|----------------|------|----------|--------|--------|-----------|
| -----                       |                |      |          |        |        |           |
| Internal Standards          |                |      |          |        |        |           |
| 1) d8-THF                   | 2.907          | 46   | 42509    | 500.00 | PPB    | 0.00      |
| System Monitoring Compounds |                |      |          |        |        |           |
| 3) SURR, 1,4-DIOXANE-d8     | 4.024          | 96   | 7989     | 87.62  | PPB    | 0.00      |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 87.62% |           |
| Target Compounds            |                |      |          |        |        |           |
| 2) 1,4-Dioxane              | 4.069          | 88   | 41991    | 444.17 | PPB    | Qvalue 83 |
| -----                       |                |      |          |        |        |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

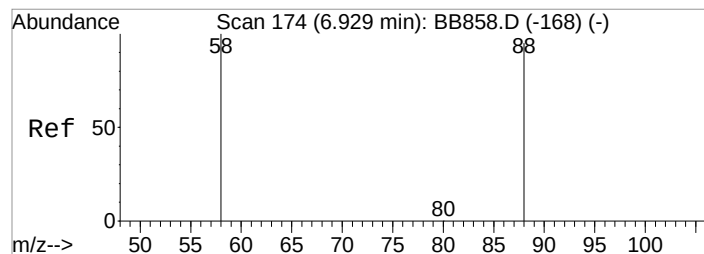
Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI260.D  
Acq On : 10 Aug 2022 2:14 pm  
Operator : MMCMAHON  
Sample : RQ2209067-03  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Inst : 5975 E

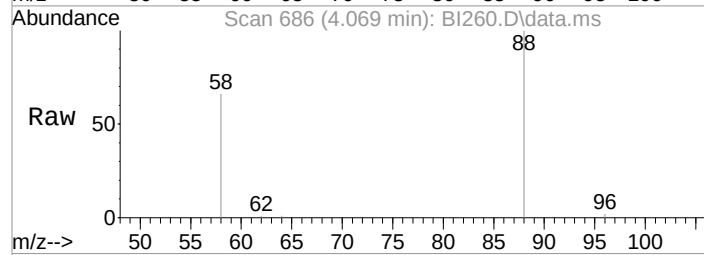
Quant Time: Aug 10 14:32:55 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



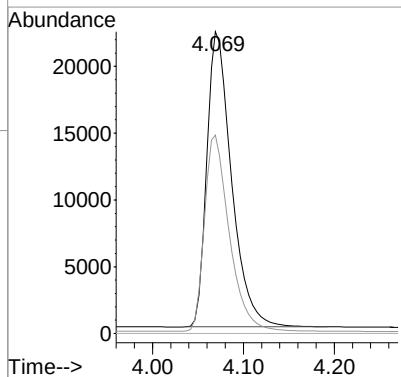
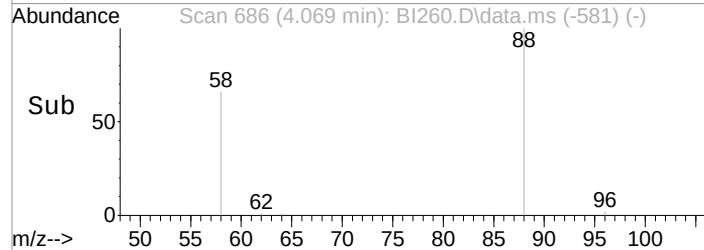




#2  
 1,4-Dioxane  
 Concen: 444.17 PPB  
 RT: 4.069 min Scan# 686  
 Delta R.T. -0.009 min  
 Lab File: BI260.D  
 Acq: 10 Aug 2022 2:14 pm



Tgt Ion: 88 Resp: 41991  
 Ion Ratio Lower Upper  
 88 100  
 58 66.4 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI265.D  
Acq On : 10 Aug 2022 3:43 pm  
Operator : MMCMAHON  
Sample : RQ2209067-05  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 16:05:48 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

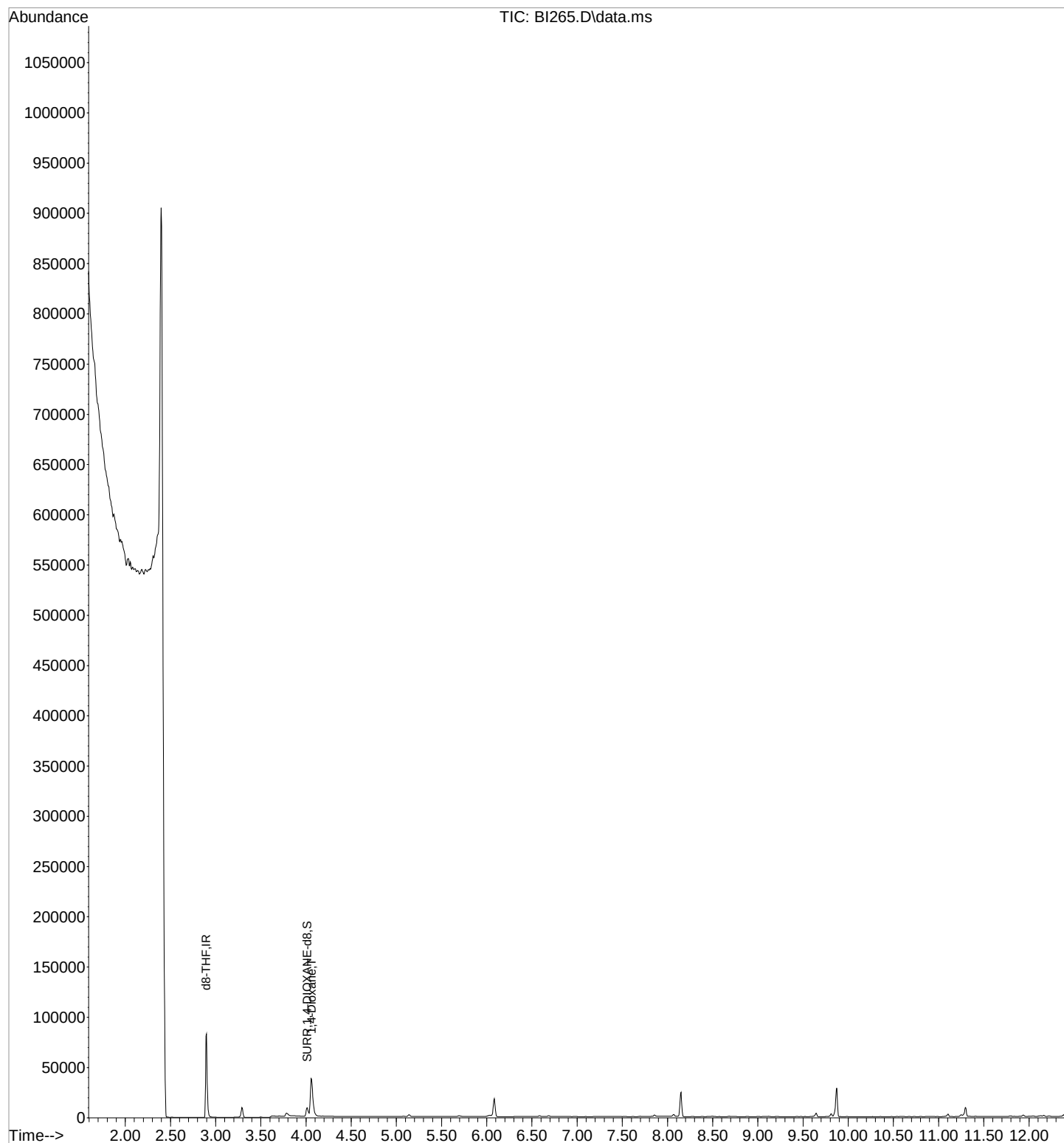
| Compound                    | R.T.    | QIon  | Response | Conc     | Units | Dev(Min)     |
|-----------------------------|---------|-------|----------|----------|-------|--------------|
| -----                       |         |       |          |          |       |              |
| Internal Standards          |         |       |          |          |       |              |
| 1) d8-THF                   | 2.894   | 46    | 43363    | 500.00   | PPB   | -0.02        |
| System Monitoring Compounds |         |       |          |          |       |              |
| 3) SURR, 1,4-DIOXANE-d8     | 4.011   | 96    | 7682     | 82.60    | PPB   | 0.00         |
| Spiked Amount               | 100.000 | Range | 70 - 130 | Recovery | =     | 82.60%       |
| Target Compounds            |         |       |          |          |       |              |
| 2) 1,4-Dioxane              | 4.061   | 88    | 44301    | 459.43   | PPB   | Qvalue<br>88 |
| -----                       |         |       |          |          |       |              |

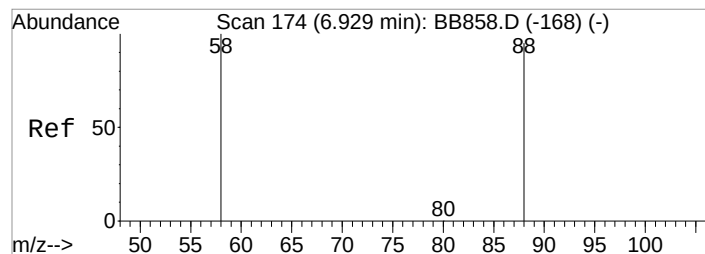
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI265.D  
Acq On : 10 Aug 2022 3:43 pm  
Operator : MMCMAHON  
Sample : RQ2209067-05  
Misc :  
ALS Vial : 12 Sample Multiplier: 1

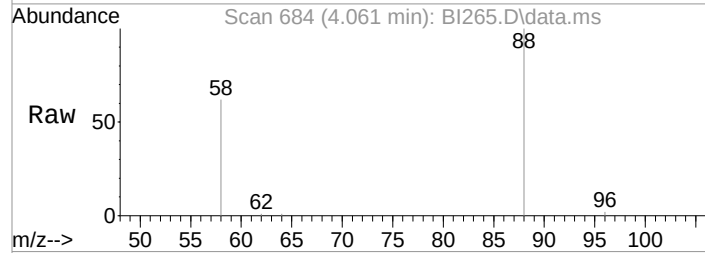
Inst : 5975 E

Quant Time: Aug 10 16:05:48 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

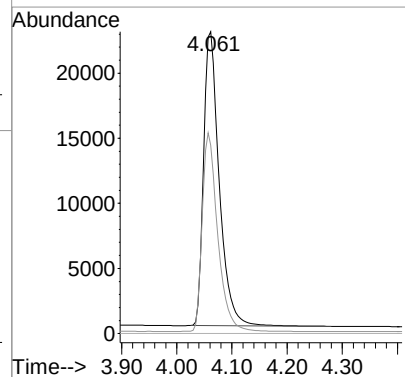
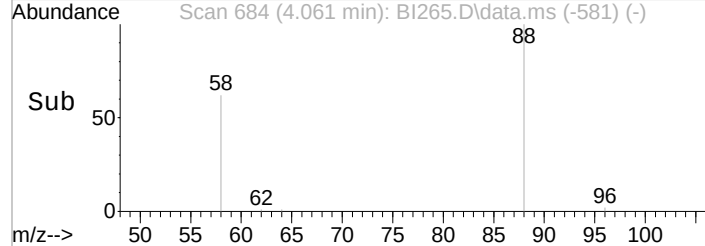




#2  
 1,4-Dioxane  
 Concen: 459.43 PPB  
 RT: 4.061 min Scan# 684  
 Delta R.T. -0.017 min  
 Lab File: BI265.D  
 Acq: 10 Aug 2022 3:43 pm



Tgt Ion: 88 Resp: 44301  
 Ion Ratio Lower Upper  
 88 100  
 58 63.2 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI266.D  
Acq On : 10 Aug 2022 4:01 pm  
Operator : MMCMAHON  
Sample : RQ2209067-06  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 16:38:43 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

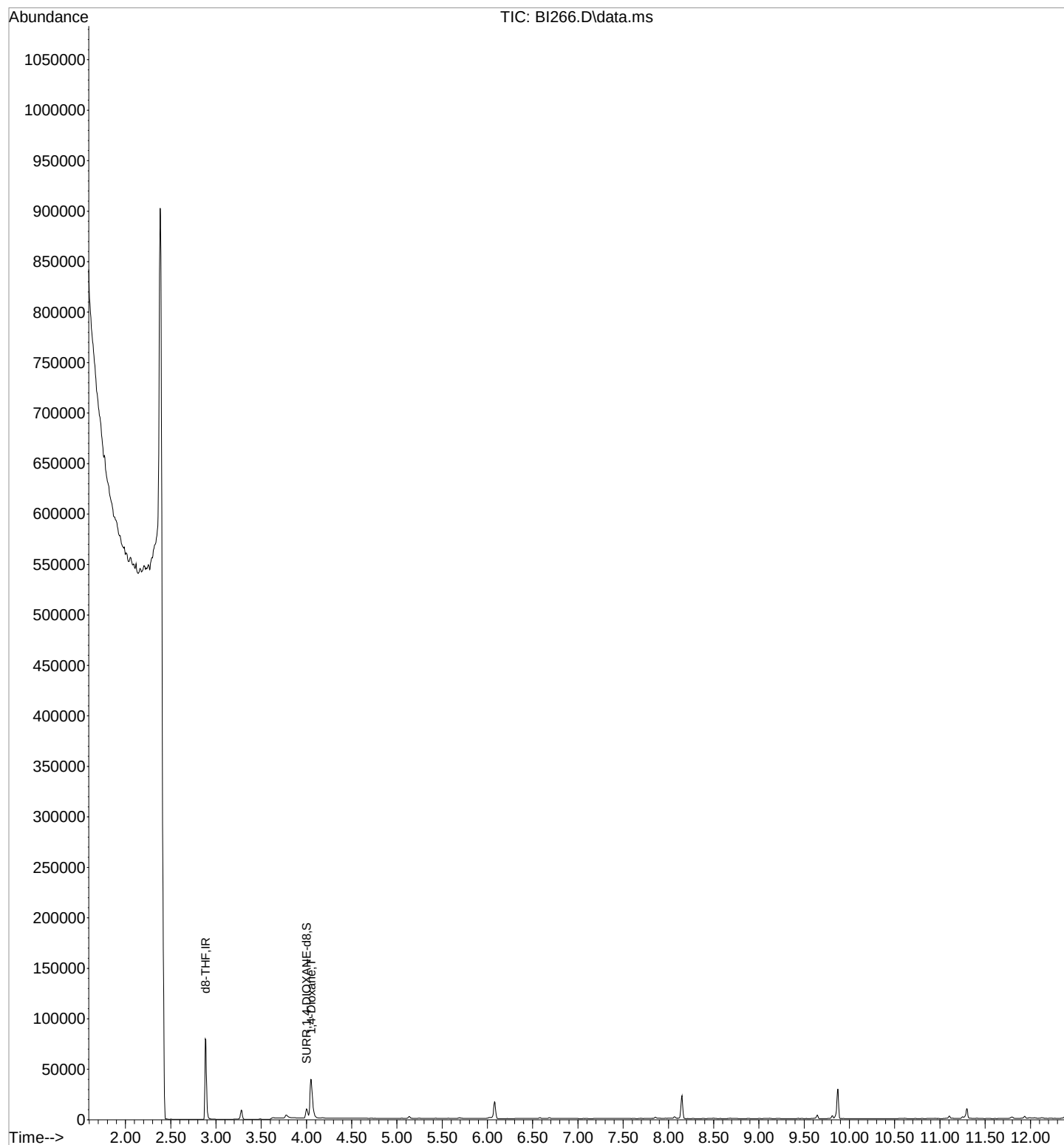
| Compound                    | R.T.    | QIon  | Response | Conc     | Units | Dev(Min)     |
|-----------------------------|---------|-------|----------|----------|-------|--------------|
| -----                       |         |       |          |          |       |              |
| Internal Standards          |         |       |          |          |       |              |
| 1) d8-THF                   | 2.883   | 46    | 42000    | 500.00   | PPB   | -0.03        |
| System Monitoring Compounds |         |       |          |          |       |              |
| 3) SURR,1,4-DIOXANE-d8      | 4.002   | 96    | 8086     | 89.76    | PPB   | -0.02        |
| Spiked Amount               | 100.000 | Range | 70 - 130 | Recovery | =     | 89.76%       |
| Target Compounds            |         |       |          |          |       |              |
| 2) 1,4-Dioxane              | 4.052   | 88    | 45659    | 488.98   | PPB   | Qvalue<br>87 |
| -----                       |         |       |          |          |       |              |

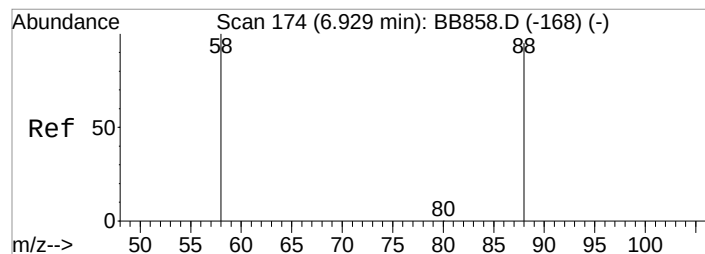
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI266.D  
Acq On : 10 Aug 2022 4:01 pm  
Operator : MMCMAHON  
Sample : RQ2209067-06  
Misc :  
ALS Vial : 13 Sample Multiplier: 1

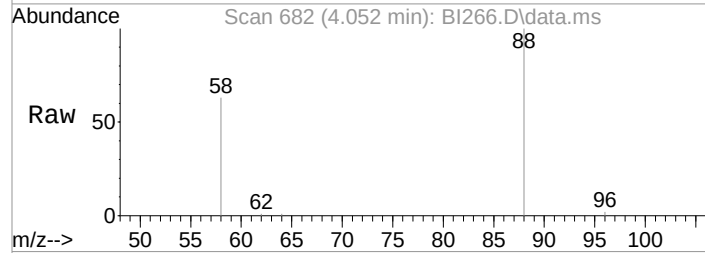
Inst : 5975 E

Quant Time: Aug 10 16:38:43 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

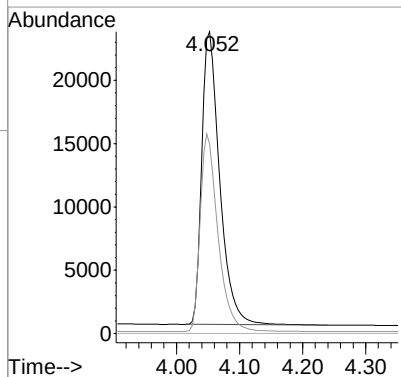
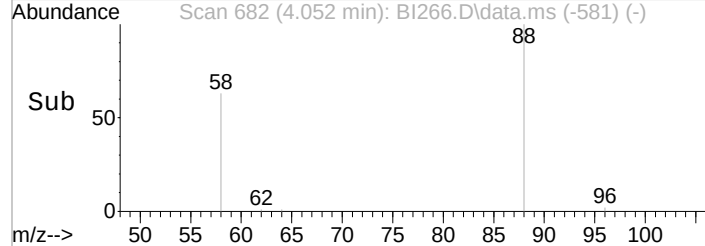




#2  
 1,4-Dioxane  
 Concen: 488.98 PPB  
 RT: 4.052 min Scan# 682  
 Delta R.T. -0.026 min  
 Lab File: BI266.D  
 Acq: 10 Aug 2022 4:01 pm



Tgt Ion: 88 Resp: 45659  
 Ion Ratio Lower Upper  
 88 100  
 58 64.0 34.3 74.3  
 28 0.0 0.0 20.0



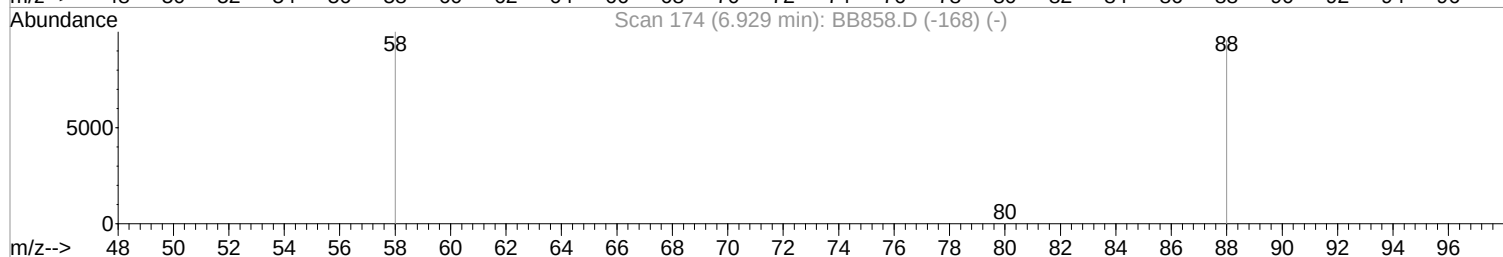
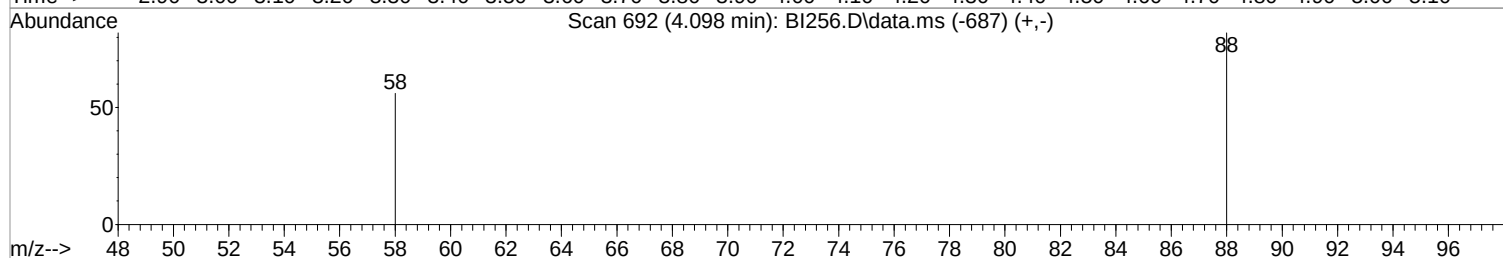
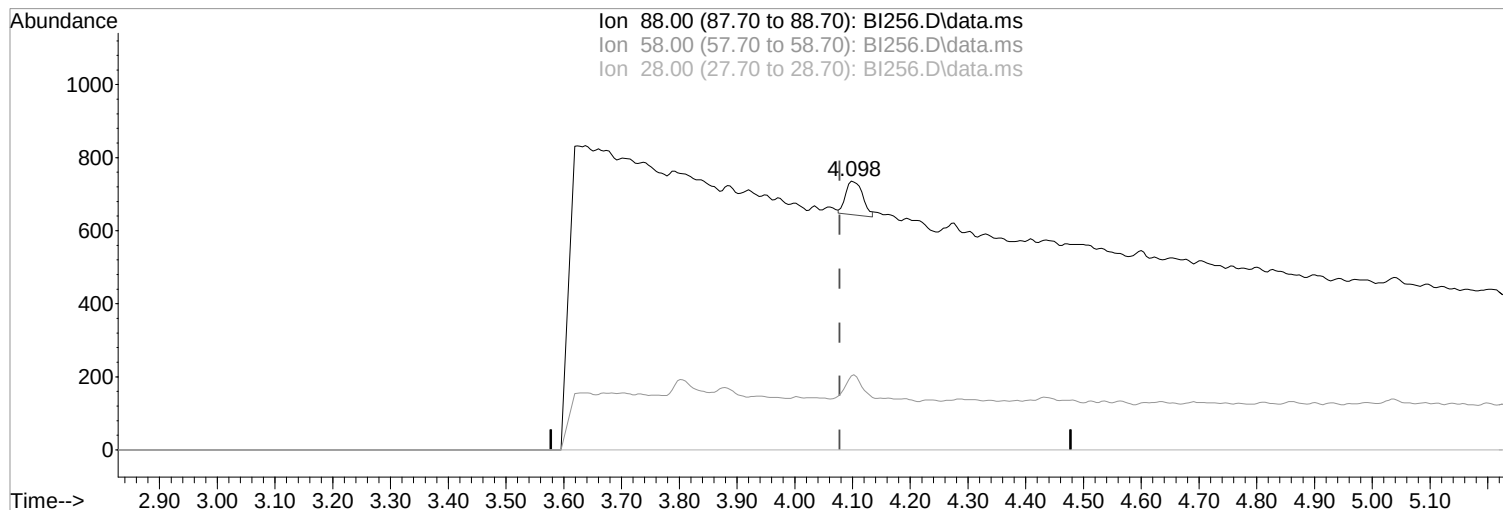
# Quantitation Report (Qedit)

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI256.D  
Acq On : 10 Aug 2022 1:04 pm  
Operator : MMCMAHON  
Sample : ccv 0.002  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 13:50:47 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI256.D\data.ms

## (2) 1,4-Dioxane (T)

4.098min (+ 0.020) 1.79 PPB m

response 189

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 54.30  | 27.45# |
| 28.00 | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

## Manual Integration:

After

Peak not found.

08/10/22



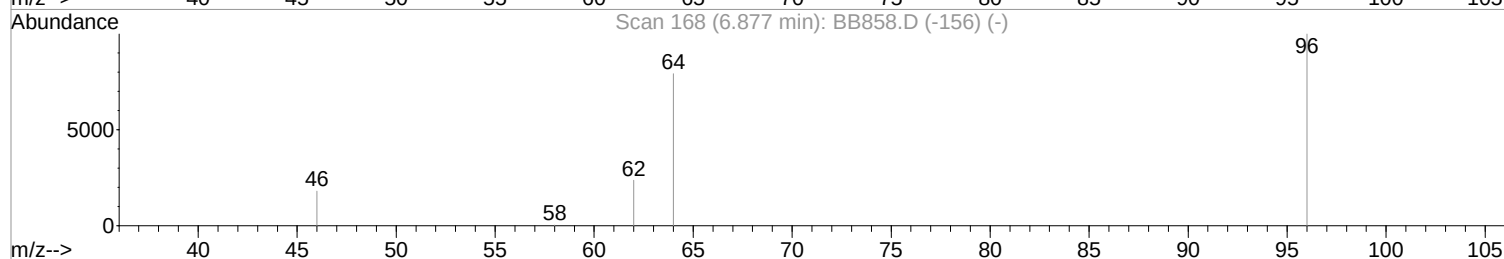
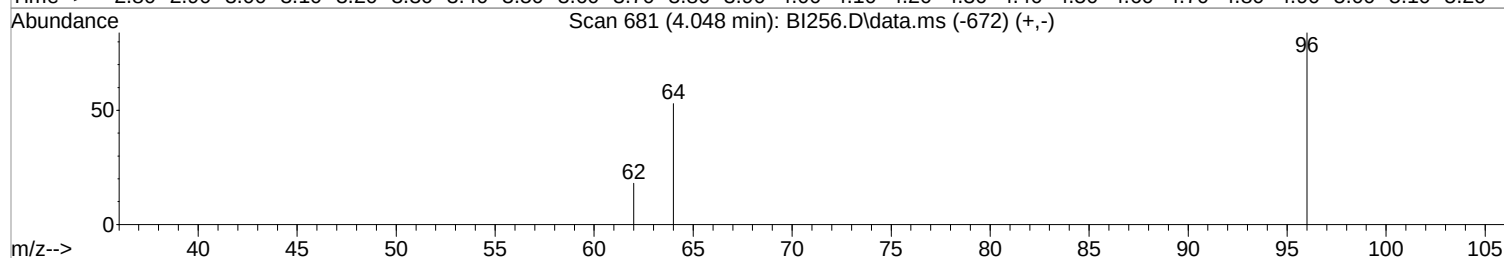
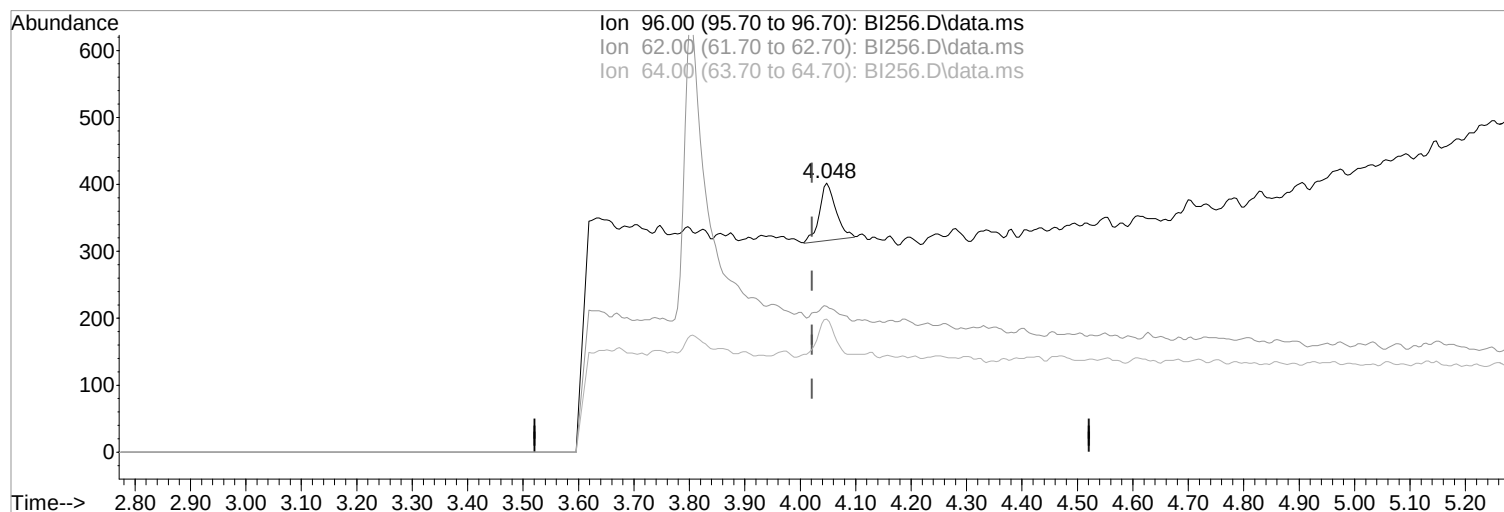
# Quantitation Report (Qedit)

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI256.D  
Acq On : 10 Aug 2022 1:04 pm  
Operator : MMCMAHON  
Sample : ccv 0.002  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 13:49:59 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI256.D\data.ms

(3) SURR,1,4-DIOXANE-d8 (S)

4.048min (+ 0.027) 2.13 PPB m

response 180

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 96.00 | 100.00 | 100.00 |
| 62.00 | 16.30  | 54.23# |
| 64.00 | 54.70  | 49.50  |
| 0.00  | 0.00   | 0.00   |

Manual Integration:

After

Peak not found.

08/10/22

# Evaluate Continuing Calibration Report

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI256.D  
Acq On : 10 Aug 2022 1:04 pm  
Operator : MMCMAHON  
Sample : ccv 0.002 Inst : 5975 E  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 10 13:51:25 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound            | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|------|---------------------|---------|---------|------|-------|----------|
| 1 IR | d8-THF              | 500.000 | 500.000 | 0.0  | 94    | 0.00     |
| 2 T  | 1,4-Dioxane         | 2.000   | 1.793   | 10.4 | 81    | 0.02     |
| 3 S  | SURR,1,4-DIOXANE-d8 | 2.000   | 2.135   | -6.7 | 95    | 0.03     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

522DIOX081022.M Wed Aug 10 13:51:36 2022

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI256.D  
Acq On : 10 Aug 2022 1:04 pm  
Operator : MMCMAHON  
Sample : ccv 0.002  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 13:51:25 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

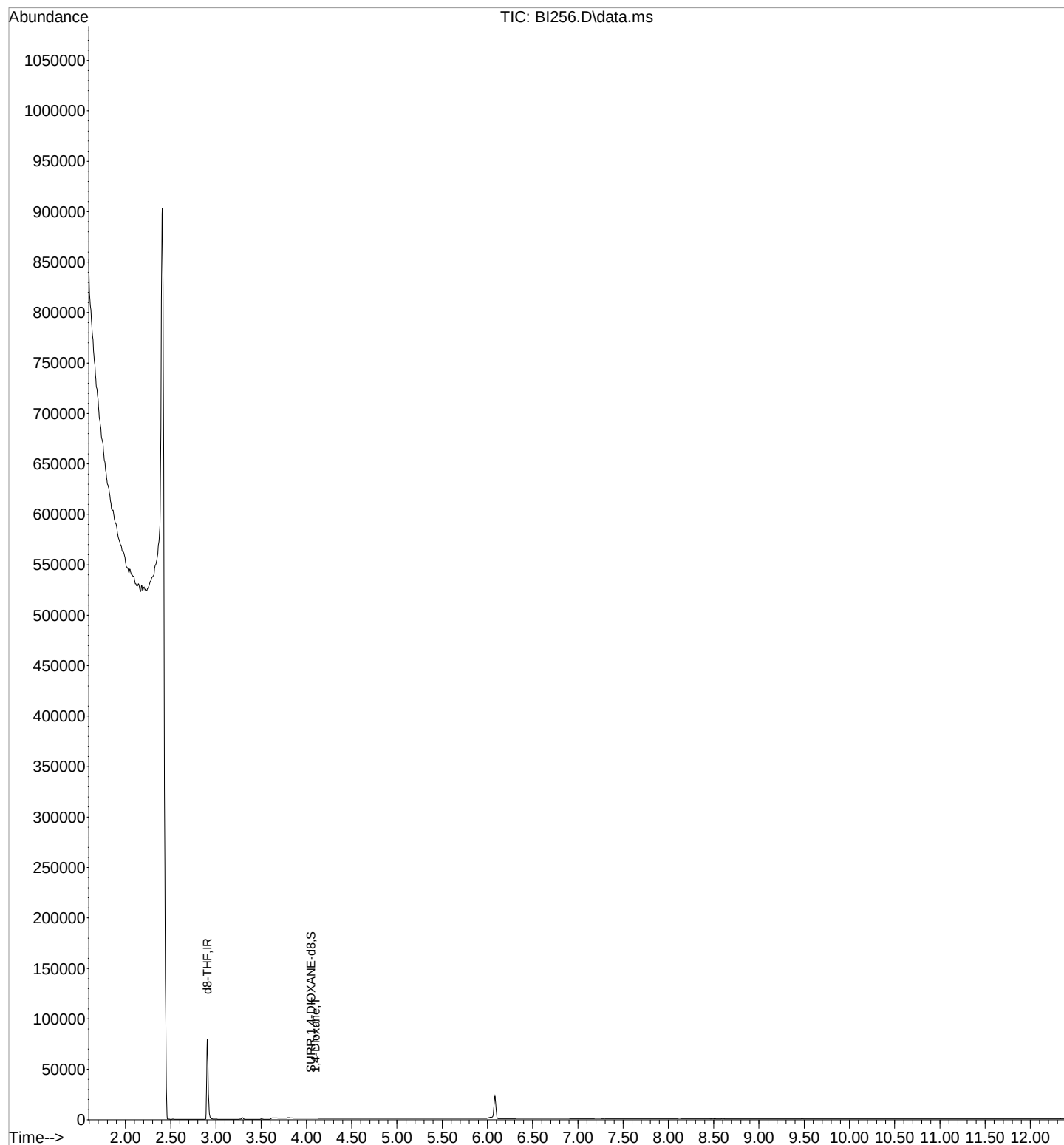
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|--------|----------|
| -----                       |                |      |          |        |        |          |
| Internal Standards          |                |      |          |        |        |          |
| 1) d8-THF                   | 2.904          | 46   | 40672    | 500.00 | PPB    | 0.00     |
|                             |                |      |          |        |        |          |
| System Monitoring Compounds |                |      |          |        |        |          |
| 3) SURR, 1,4-DIOXANE-d8     | 4.048          | 96   | 180m     | 2.13   | PPB    | 0.03     |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 2.13%# |          |
|                             |                |      |          |        |        |          |
| Target Compounds            |                |      |          |        |        | Qvalue   |
| 2) 1,4-Dioxane              | 4.098          | 88   | 189m     | 1.79   | PPB    |          |
| -----                       |                |      |          |        |        |          |

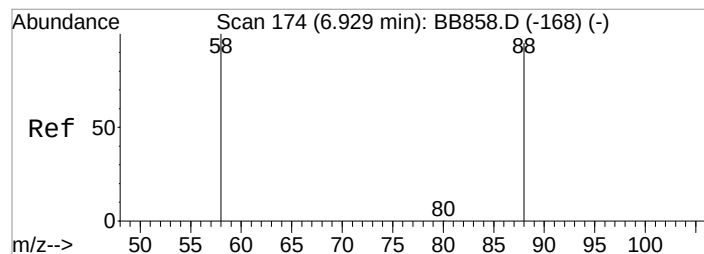
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI256.D  
Acq On : 10 Aug 2022 1:04 pm  
Operator : MMCMAHON  
Sample : ccv 0.002  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

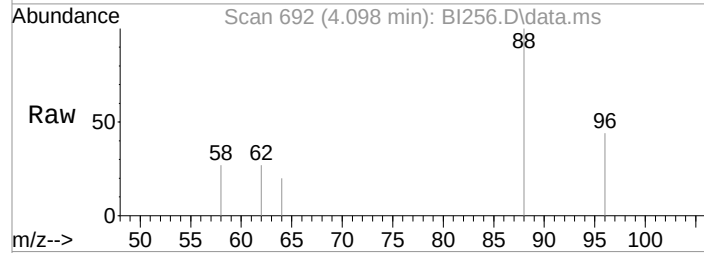
Inst : 5975 E

Quant Time: Aug 10 13:51:25 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

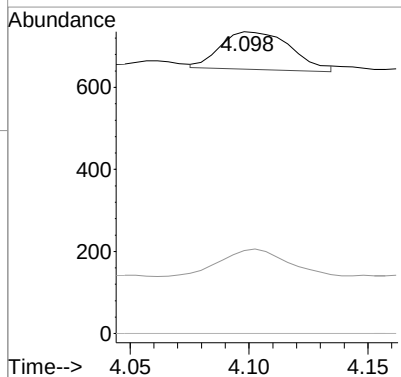
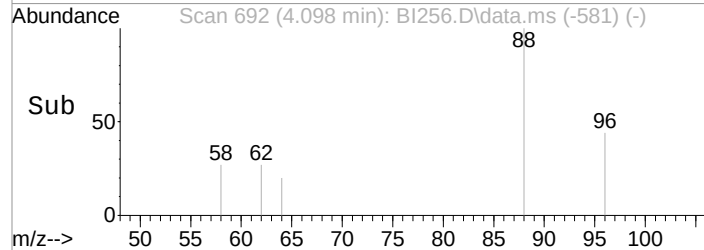




#2  
 1,4-Dioxane  
 Concen: 1.79 PPB m  
 RT: 4.098 min Scan# 692  
 Delta R.T. 0.020 min  
 Lab File: BI256.D  
 Acq: 10 Aug 2022 1:04 pm



Tgt Ion: 88 Resp: 189  
 Ion Ratio Lower Upper  
 88 100  
 58 27.4 34.3 74.3#  
 28 0.0 0.0 20.0



# Evaluate Continuing Calibration Report

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI267.D  
Acq On : 10 Aug 2022 4:18 pm  
Operator : MMCMAHON  
Sample : CCV 0.5 Inst : 5975 E  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 10 16:39:18 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound            | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|------|---------------------|---------|---------|------|-------|----------|
| 1 IR | d8-THF              | 500.000 | 500.000 | 0.0  | 92    | -0.04    |
| 2 T  | 1,4-Dioxane         | 500.000 | 521.103 | -4.2 | 94    | -0.05    |
| 3 S  | SURR,1,4-DIOXANE-d8 | 500.000 | 518.223 | -3.6 | 94    | -0.05    |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

522DIOX081022.M Wed Aug 10 16:39:26 2022

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI267.D  
Acq On : 10 Aug 2022 4:18 pm  
Operator : MMCMAHON  
Sample : CCV 0.5  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 16:39:18 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

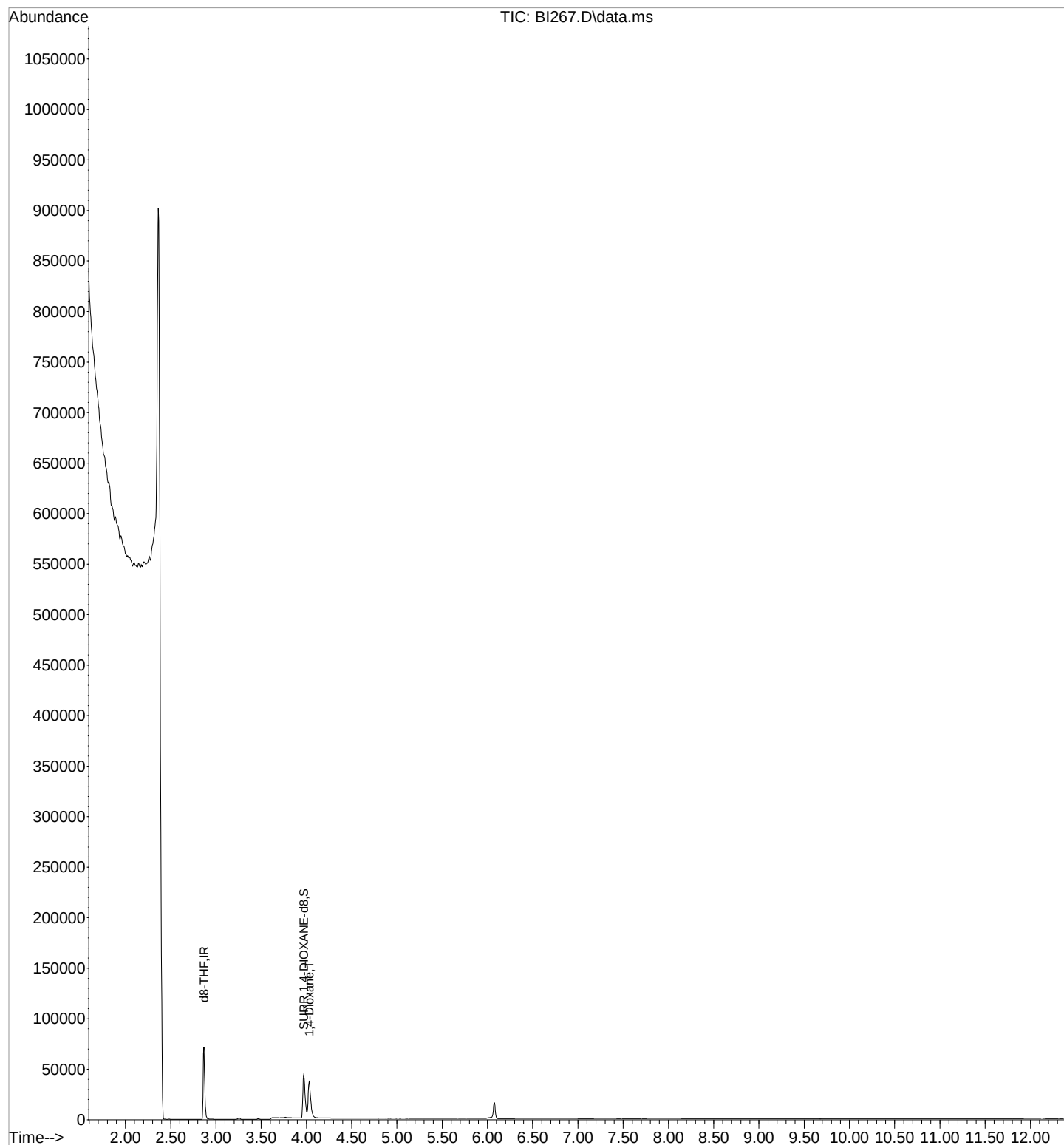
| Compound                    | R.T.           | QIon | Response | Conc       | Units | Dev(Min) |
|-----------------------------|----------------|------|----------|------------|-------|----------|
| -----                       |                |      |          |            |       |          |
| Internal Standards          |                |      |          |            |       |          |
| 1) d8-THF                   | 2.866          | 46   | 36908    | 500.00     | PPB   | -0.04    |
|                             |                |      |          |            |       |          |
| System Monitoring Compounds |                |      |          |            |       |          |
| 3) SURR,1,4-DIOXANE-d8      | 3.970          | 96   | 40959    | 518.22     | PPB   | -0.05    |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | = 518.22%# |       |          |
|                             |                |      |          |            |       |          |
| Target Compounds            |                |      |          |            |       | Qvalue   |
| 2) 1,4-Dioxane              | 4.029          | 88   | 42750    | 521.10     | PPB   | 82       |
| -----                       |                |      |          |            |       |          |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

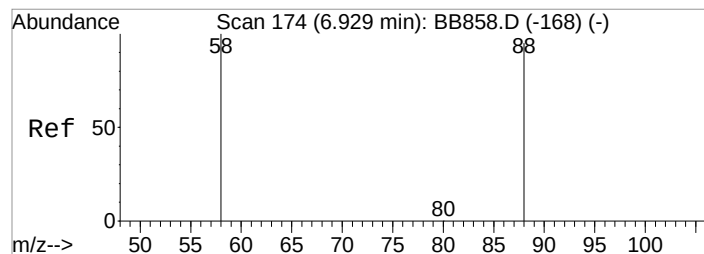
Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI267.D  
Acq On : 10 Aug 2022 4:18 pm  
Operator : MMCMAHON  
Sample : CCV 0.5  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Inst : 5975 E

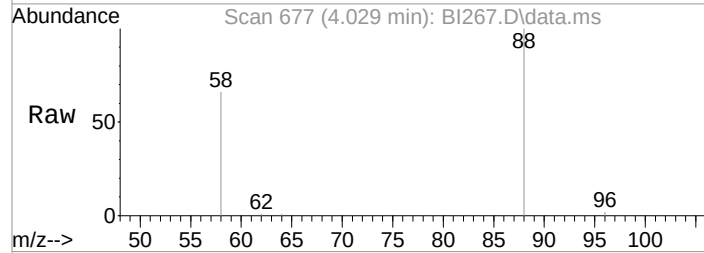
Quant Time: Aug 10 16:39:18 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



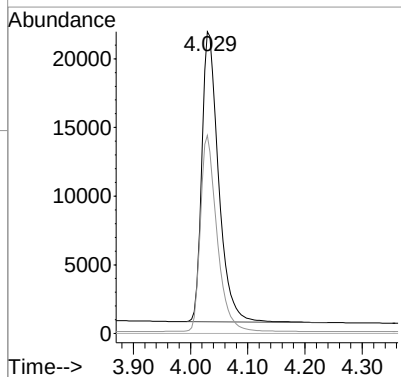
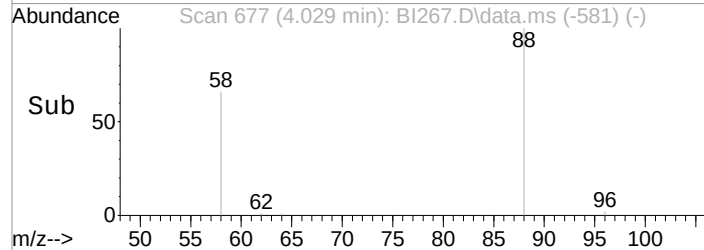




#2  
 1,4-Dioxane  
 Concen: 521.10 PPB  
 RT: 4.029 min Scan# 677  
 Delta R.T. -0.049 min  
 Lab File: BI267.D  
 Acq: 10 Aug 2022 4:18 pm



Tgt Ion: 88 Resp: 42750  
 Ion Ratio Lower Upper  
 88 100  
 58 67.4 34.3 74.3  
 28 0.0 0.0 20.0



# Evaluate Continuing Calibration Report

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI278.D  
Acq On : 10 Aug 2022 7:34 pm  
Operator : MMCMAHON  
Sample : CCV 1.0 Inst : 5975 E  
Misc :  
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Aug 11 08:18:58 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound            | Amount   | Calc.    | %Dev | Area% | Dev(min) |
|------|---------------------|----------|----------|------|-------|----------|
| 1 IR | d8-THF              | 500.000  | 500.000  | 0.0  | 105   | 0.01     |
| 2 T  | 1,4-Dioxane         | 1000.000 | 1022.346 | -2.2 | 106   | 0.00     |
| 3 S  | SURR,1,4-DIOXANE-d8 | 1000.000 | 1025.990 | -2.6 | 106   | 0.00     |

(#) = Out of Range SPCC's out = 0 CCC's out = 0

522DIOX081022.M Thu Aug 11 08:19:19 2022

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI278.D  
Acq On : 10 Aug 2022 7:34 pm  
Operator : MMCMAHON  
Sample : CCV 1.0  
Misc :  
ALS Vial : 25 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 11 08:18:58 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

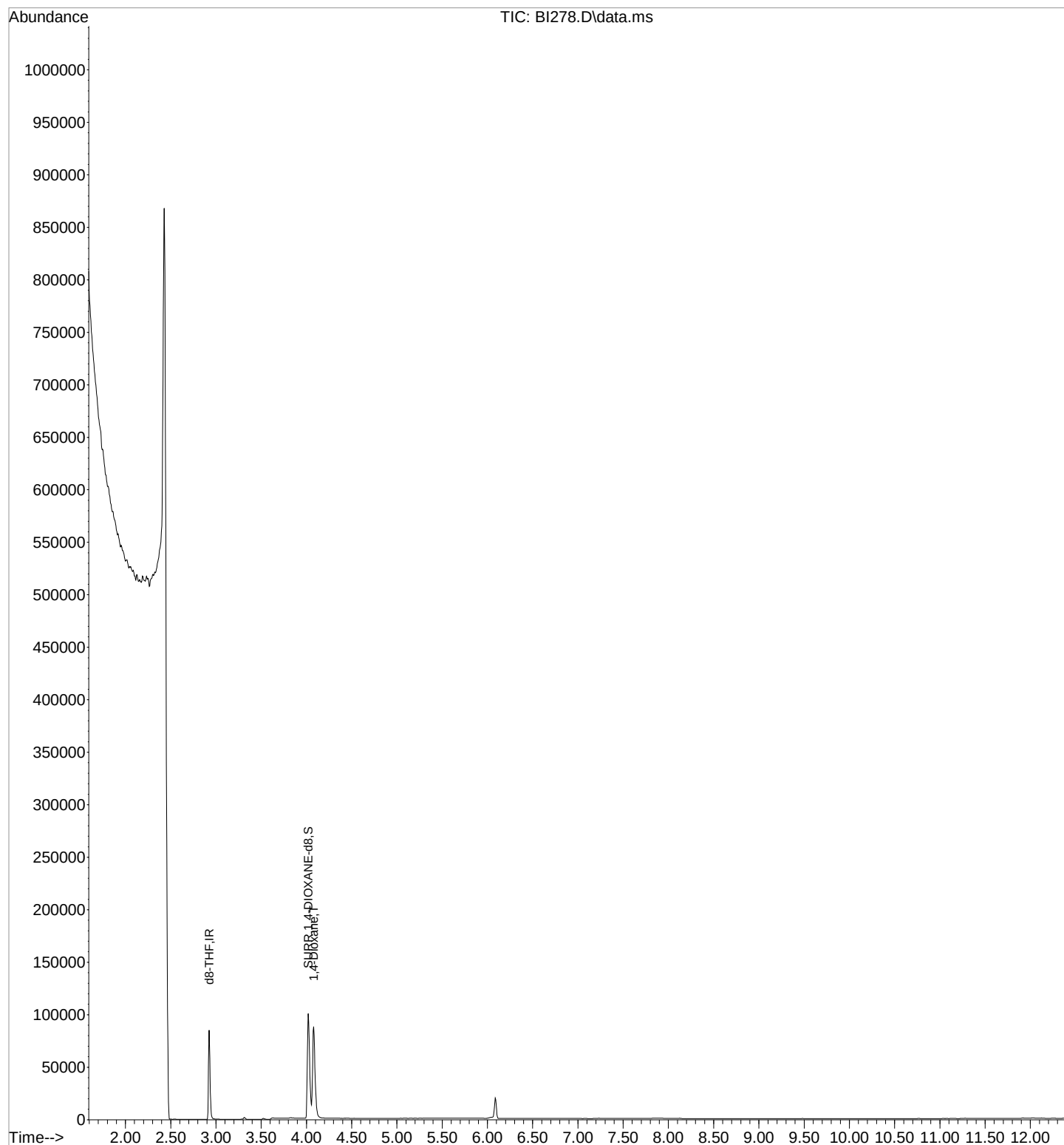
| Compound                    | R.T.           | QIon | Response | Conc       | Units | Dev(Min)     |
|-----------------------------|----------------|------|----------|------------|-------|--------------|
| -----                       |                |      |          |            |       |              |
| Internal Standards          |                |      |          |            |       |              |
| 1) d8-THF                   | 2.925          | 46   | 43566    | 500.00     | PPB   | 0.01         |
| System Monitoring Compounds |                |      |          |            |       |              |
| 3) SURR, 1,4-DIOXANE-d8     | 4.020          | 96   | 95470    | 1025.99    | PPB   | 0.00         |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | = 1025.99% | #     |              |
| Target Compounds            |                |      |          |            |       |              |
| 2) 1,4-Dioxane              | 4.080          | 88   | 98693    | 1022.35    | PPB   | Qvalue<br>84 |
| -----                       |                |      |          |            |       |              |

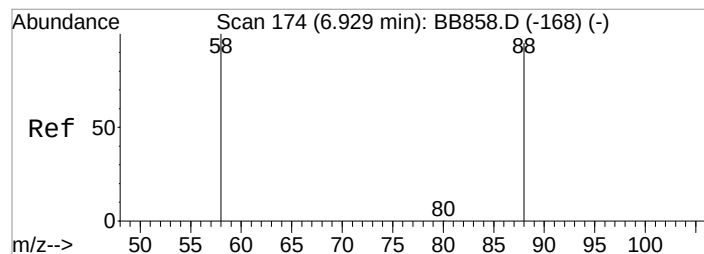
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI278.D  
Acq On : 10 Aug 2022 7:34 pm  
Operator : MMCMAHON  
Sample : CCV 1.0  
Misc :  
ALS Vial : 25 Sample Multiplier: 1

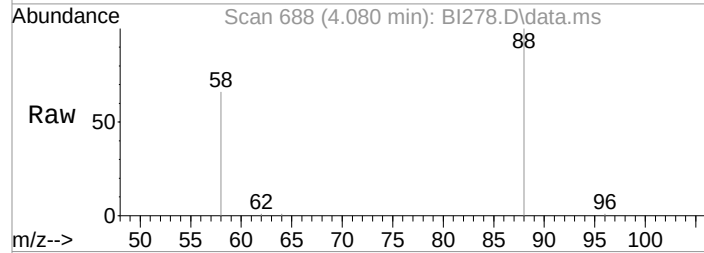
Inst : 5975 E

Quant Time: Aug 11 08:18:58 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

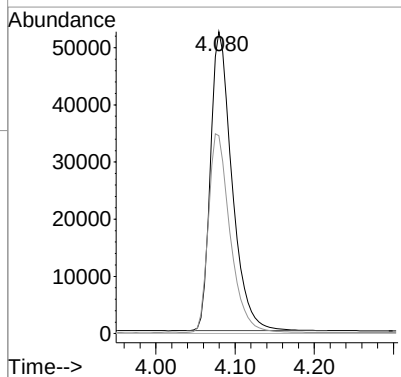
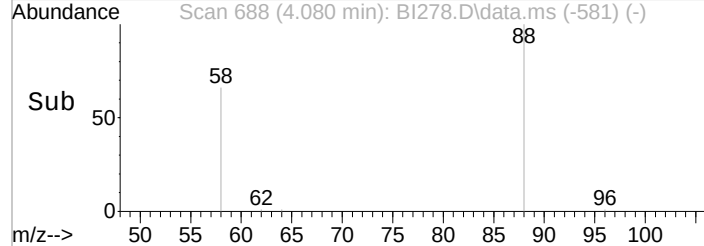




#2  
 1,4-Dioxane  
 Concen: 1022.35 PPB  
 RT: 4.080 min Scan# 688  
 Delta R.T. 0.002 min  
 Lab File: BI278.D  
 Acq: 10 Aug 2022 7:34 pm



Tgt Ion: 88 Resp: 98693  
 Ion Ratio Lower Upper  
 88 100  
 58 65.8 34.3 74.3  
 28 0.0 0.0 20.0



# Evaluate Continuing Calibration Report

1st *MEM* 08/11/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI281.D  
Acq On : 10 Aug 2022 8:26 pm  
Operator : MMCMAHON  
Sample : CCV 0.5 Inst : 5975 E  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 11 08:20:10 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound            | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|------|---------------------|---------|---------|------|-------|----------|
| 1 IR | d8-THF              | 500.000 | 500.000 | 0.0  | 103   | 0.00     |
| 2 T  | 1,4-Dioxane         | 500.000 | 507.147 | -1.4 | 103   | 0.00     |
| 3 S  | SURR,1,4-DIOXANE-d8 | 500.000 | 504.502 | -0.9 | 102   | 0.00     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

522DIOX081022.M Thu Aug 11 08:20:24 2022

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI281.D  
Acq On : 10 Aug 2022 8:26 pm  
Operator : MMCMAHON  
Sample : CCV 0.5  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 11 08:20:10 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

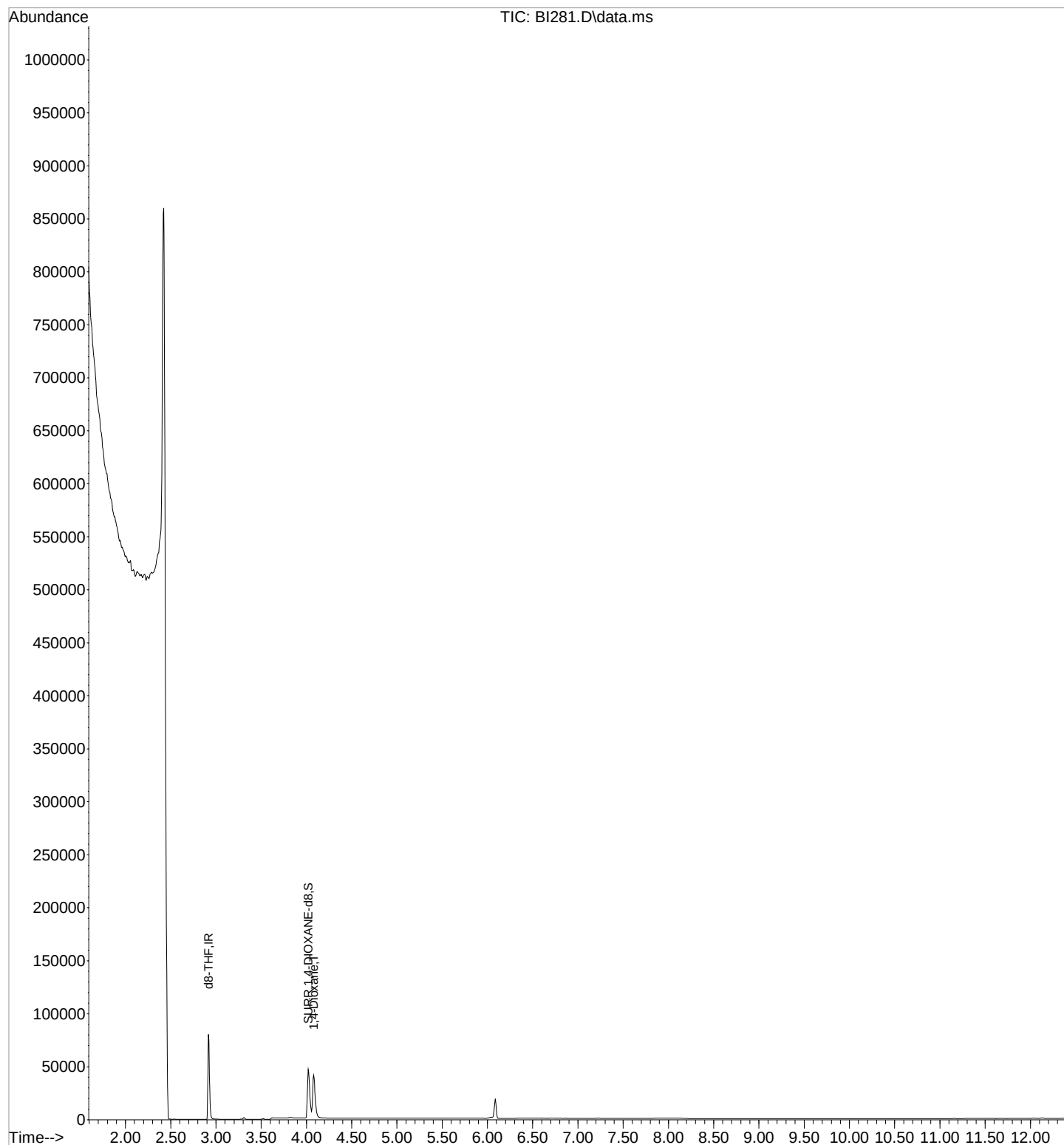
| Compound                    | R.T.           | QIon | Response | Conc       | Units | Dev(Min)  |
|-----------------------------|----------------|------|----------|------------|-------|-----------|
| -----                       |                |      |          |            |       |           |
| Internal Standards          |                |      |          |            |       |           |
| 1) d8-THF                   | 2.918          | 46   | 41367    | 500.00     | PPB   | 0.00      |
| System Monitoring Compounds |                |      |          |            |       |           |
| 3) SURR, 1,4-DIOXANE-d8     | 4.020          | 96   | 44695    | 504.50     | PPB   | 0.00      |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | = 504.50%# |       |           |
| Target Compounds            |                |      |          |            |       |           |
| 2) 1,4-Dioxane              | 4.080          | 88   | 46636    | 507.15     | PPB   | Qvalue 82 |
| -----                       |                |      |          |            |       |           |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

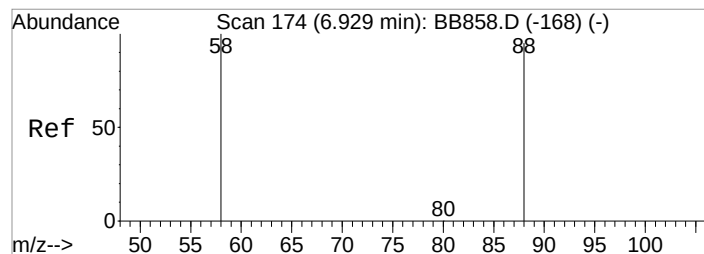
Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI281.D  
Acq On : 10 Aug 2022 8:26 pm  
Operator : MMCMAHON  
Sample : CCV 0.5  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Inst : 5975 E

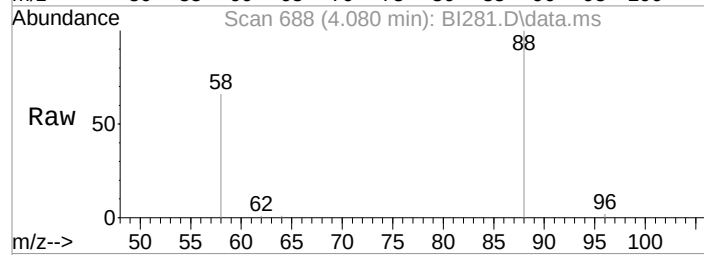
Quant Time: Aug 11 08:20:10 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



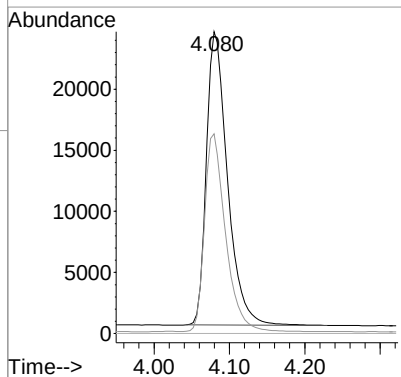
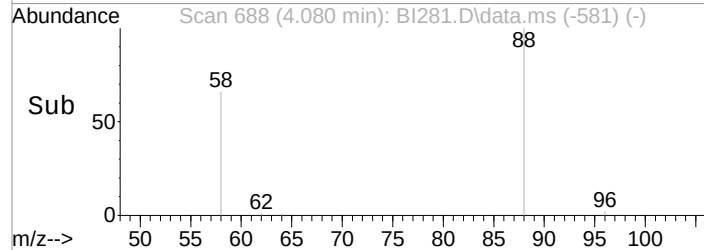




#2  
 1,4-Dioxane  
 Concen: 507.15 PPB  
 RT: 4.080 min Scan# 688  
 Delta R.T. 0.002 min  
 Lab File: BI281.D  
 Acq: 10 Aug 2022 8:26 pm



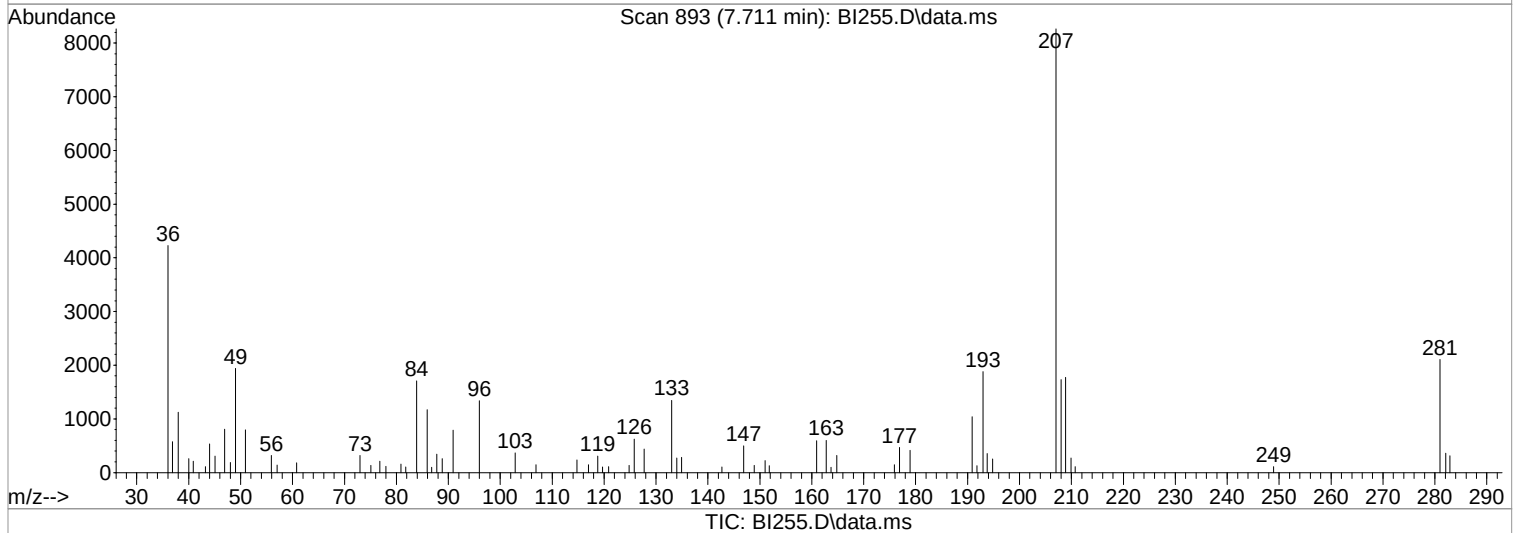
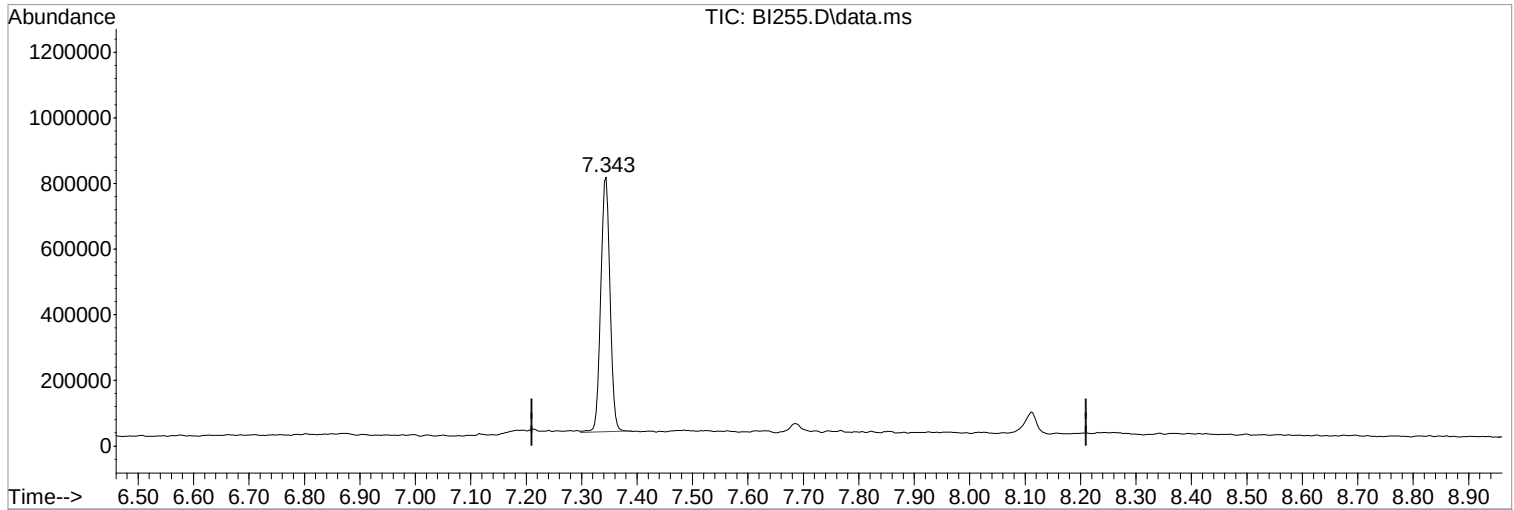
Tgt Ion: 88 Resp: 46636  
 Ion Ratio Lower Upper  
 88 100  
 58 67.4 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI255.D  
Acq On : 10 Aug 2022 12:42 pm  
Operator : MMCMAHON  
Sample : bfbtune  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 13:49:32 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\bfbtune.M  
Quant Title :  
QLast Update : Wed Mar 28 08:41:26 2012  
Response via : Initial Calibration



## (1) BFB

7.343min (-0.367) 0.00 m

response 8937696

| Signal | Exp% | Act% |
|--------|------|------|
|--------|------|------|

|     |        |        |
|-----|--------|--------|
| TIC | 100.00 | 100.00 |
|-----|--------|--------|

|      |      |      |
|------|------|------|
| 0.00 | 0.00 | 0.00 |
|------|------|------|

|      |      |      |
|------|------|------|
| 0.00 | 0.00 | 0.00 |
|------|------|------|

|      |      |      |
|------|------|------|
| 0.00 | 0.00 | 0.00 |
|------|------|------|

## Manual Integration:

After

Peak not found.

08/10/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
 Data File : BI255.D  
 Acq On : 10 Aug 2022 12:42 pm  
 Operator : MMCMAHON  
 Sample : bfbtune Inst : 5975 E  
 Misc :  
 ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : I:\ACQUDATA\5975E\METHODS\bfbtune.M  
 Title :  
 Last Update : Wed Mar 28 08:41:26 2012

AutoFind: Scans 767, 768, 769; Background Corrected with Scan 755

| Target<br>Mass | Rel. to<br>Mass | Lower<br>Limit% | Upper<br>Limit% | Rel.<br>Abn% | Raw<br>Abn | Result<br>Pass/Fail |
|----------------|-----------------|-----------------|-----------------|--------------|------------|---------------------|
| 50             | 95              | 15              | 40              | 20.6         | 30191      | PASS                |
| 75             | 95              | 30              | 60              | 51.2         | 75110      | PASS                |
| 95             | 95              | 100             | 100             | 100.0        | 146688     | PASS                |
| 96             | 95              | 5               | 9               | 6.7          | 9761       | PASS                |
| 173            | 174             | 0.00            | 2               | 0.0          | 0          | PASS                |
| 174            | 95              | 50              | 100             | 85.9         | 126051     | PASS                |
| 175            | 174             | 5               | 9               | 8.0          | 10032      | PASS                |
| 176            | 174             | 95              | 101             | 98.0         | 123539     | PASS                |
| 177            | 176             | 5               | 9               | 6.2          | 7624       | PASS                |

bfbtune.M Wed Aug 10 13:49:46 2022

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI254.D  
Acq On : 10 Aug 2022 12:13 pm  
Operator : MMCMAHON  
Sample : ICV  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 12:27:32 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

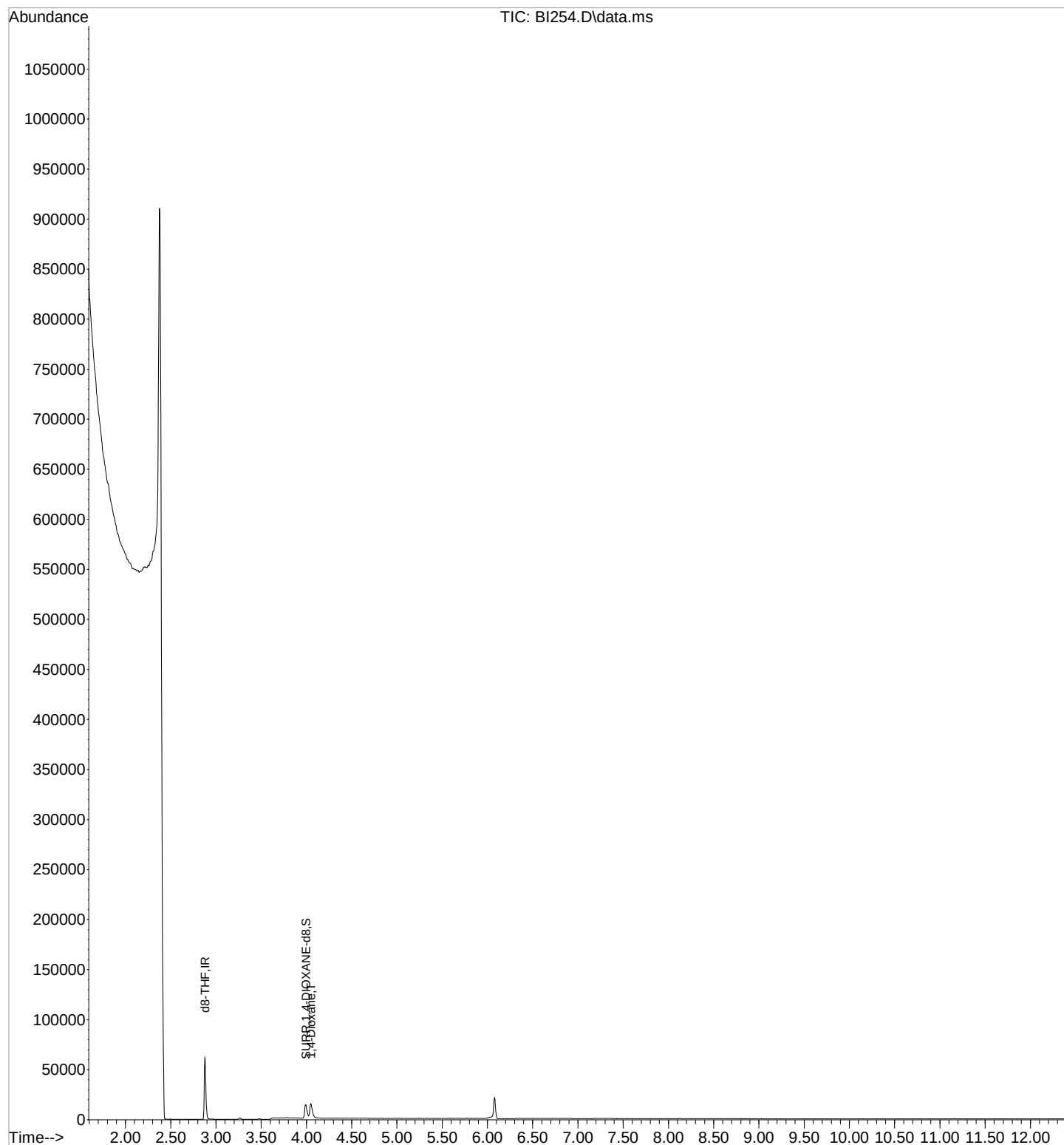
| Compound                    | R.T.           | QIon | Response | Conc   | Units    | Dev(Min)  |
|-----------------------------|----------------|------|----------|--------|----------|-----------|
| -----                       |                |      |          |        |          |           |
| Internal Standards          |                |      |          |        |          |           |
| 1) d8-THF                   | 2.877          | 46   | 32254    | 500.00 | PPB      | -0.03     |
| System Monitoring Compounds |                |      |          |        |          |           |
| 3) SURR, 1,4-DIOXANE-d8     | 3.993          | 96   | 13539    | 195.73 | PPB      | -0.03     |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 195.73%# |           |
| Target Compounds            |                |      |          |        |          |           |
| 2) 1,4-Dioxane              | 4.048          | 88   | 17080    | 237.70 | PPB      | Qvalue 81 |
| -----                       |                |      |          |        |          |           |

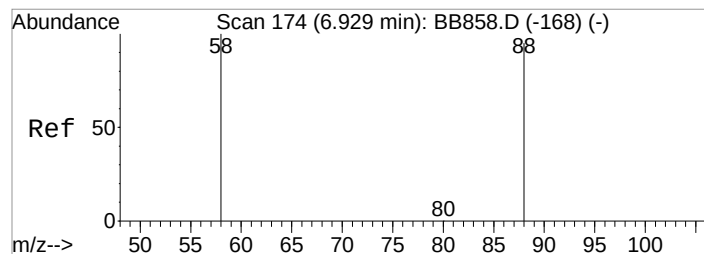
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI254.D  
Acq On : 10 Aug 2022 12:13 pm  
Operator : MMCMAHON  
Sample : ICV  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

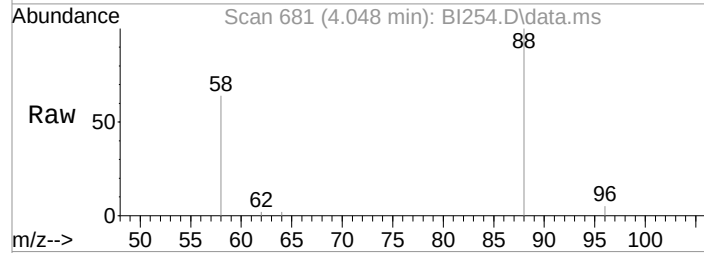
Inst : 5975 E

Quant Time: Aug 10 12:27:32 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

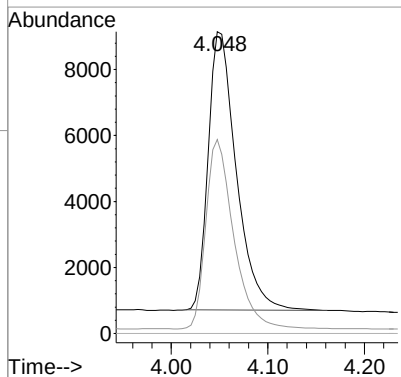
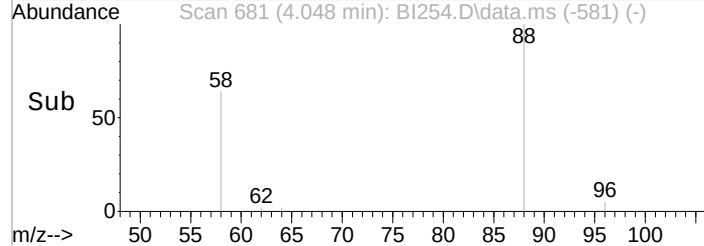




#2  
 1,4-Dioxane  
 Concen: 237.70 PPB  
 RT: 4.048 min Scan# 681  
 Delta R.T. -0.030 min  
 Lab File: BI254.D  
 Acq: 10 Aug 2022 12:13 pm



Tgt Ion: 88 Resp: 17080  
 Ion Ratio Lower Upper  
 88 100  
 58 67.7 34.3 74.3  
 28 0.0 0.0 20.0



# Evaluate Continuing Calibration Report

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI254.D  
Acq On : 10 Aug 2022 12:13 pm  
Operator : MMCMAHON  
Sample : ICV Inst : 5975 E  
Misc :  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 10 12:27:32 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound            | Amount  | Calc.   | %Dev  | Area% | Dev(min) |
|------|---------------------|---------|---------|-------|-------|----------|
| 1 IR | d8-THF              | 500.000 | 500.000 | 0.0   | 78    | -0.03    |
| 2 T  | 1,4-Dioxane         | 200.000 | 237.699 | -18.8 | 89    | -0.03    |
| 3 S  | SURR,1,4-DIOXANE-d8 | 200.000 | 195.728 | 2.1   | 74    | -0.03    |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

522DIOX081022.M Wed Aug 10 12:27:40 2022

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI251.D  
Acq On : 10 Aug 2022 10:50 am  
Operator : MMCMAHON  
Sample : STD 9  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:02:59 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 10:59:38 2022  
Response via : Initial Calibration

| Compound                    | R.T.           | QIon | Response | Conc       | Units | Dev(Min) |
|-----------------------------|----------------|------|----------|------------|-------|----------|
| -----                       |                |      |          |            |       |          |
| Internal Standards          |                |      |          |            |       |          |
| 1) d8-THF                   | 2.904          | 46   | 40070    | 500.00     | PPB   | 0.00     |
|                             |                |      |          |            |       |          |
| System Monitoring Compounds |                |      |          |            |       |          |
| 3) SURR, 1,4-DIOXANE-d8     | 3.988          | 96   | 415584   | 4509.16    | PPB   | -0.03    |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | = 4509.16% |       |          |
|                             |                |      |          |            |       |          |
| Target Compounds            |                |      |          |            |       | Qvalue   |
| 2) 1,4-Dioxane              | 4.048          | 88   | 430514   | 4132.80    | PPB   | 83       |
| -----                       |                |      |          |            |       |          |

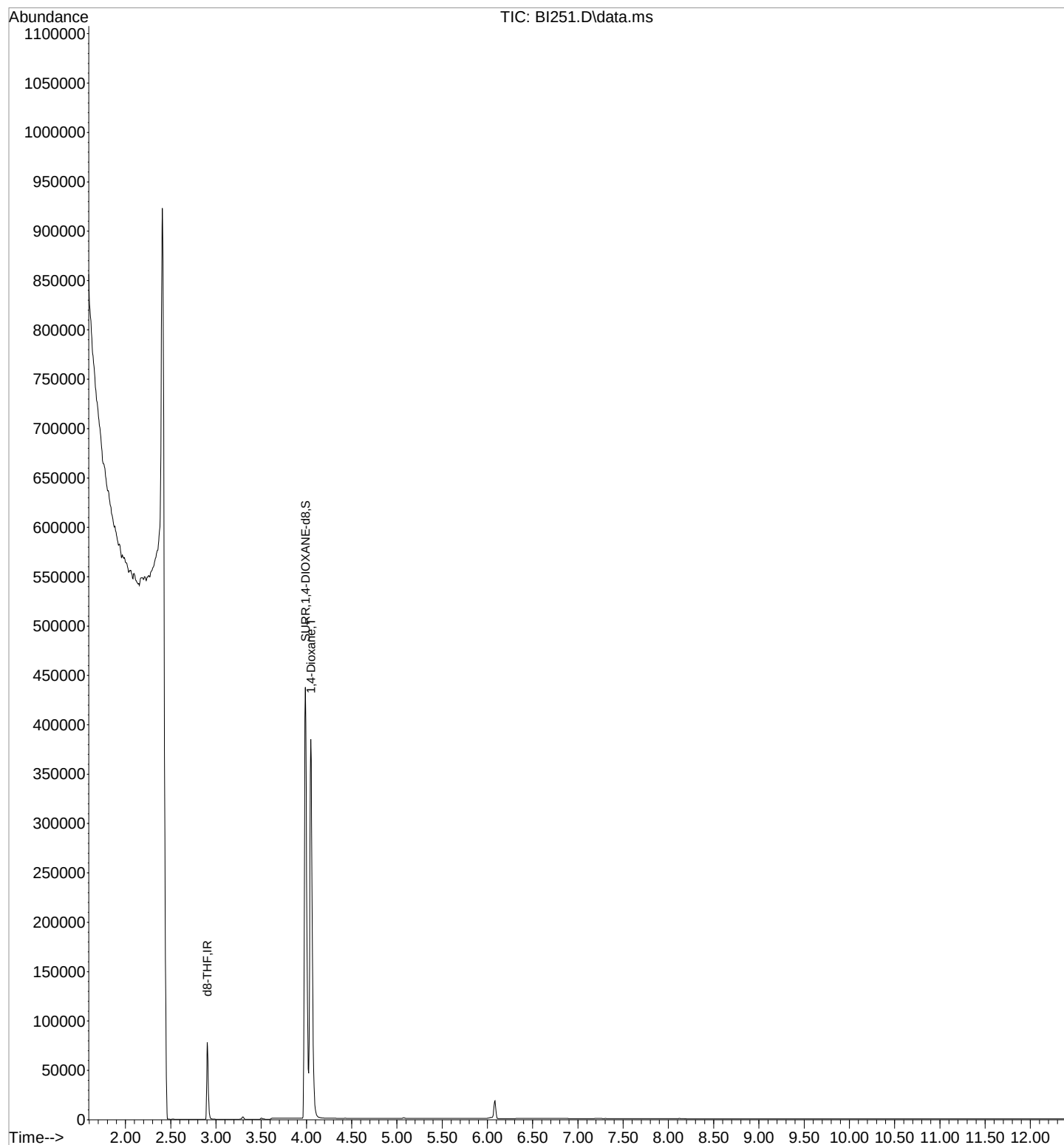
(#) = qualifier out of range (m) = manual integration (+) = signals summed

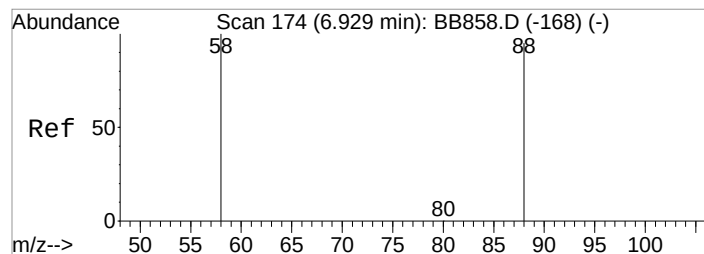


Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI251.D  
Acq On : 10 Aug 2022 10:50 am  
Operator : MMCMAHON  
Sample : STD 9  
Misc :  
ALS Vial : 11 Sample Multiplier: 1

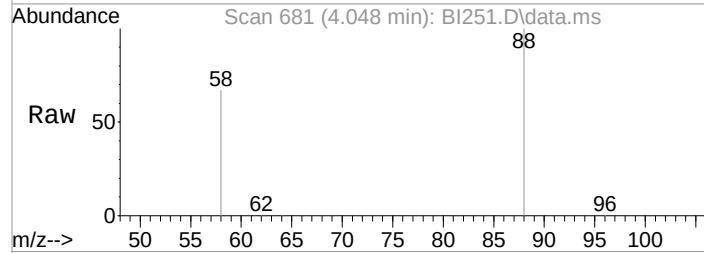
Inst : 5975 E

Quant Time: Aug 10 11:02:59 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 10:59:38 2022  
Response via : Initial Calibration

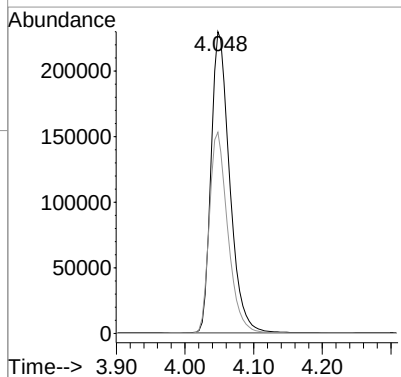
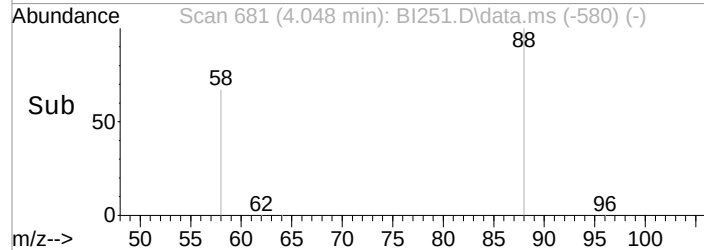




#2  
 1,4-Dioxane  
 Concen: 4132.80 PPB  
 RT: 4.048 min Scan# 681  
 Delta R.T. -0.026 min  
 Lab File: BI251.D  
 Acq: 10 Aug 2022 10:50 am



Tgt Ion: 88 Resp: 430514  
 Ion Ratio Lower Upper  
 88 100  
 58 66.7 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI250.D  
Acq On : 10 Aug 2022 10:33 am  
Operator : MMCMAHON  
Sample : STD 8  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 10:59:27 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 10:39:54 2022  
Response via : Initial Calibration

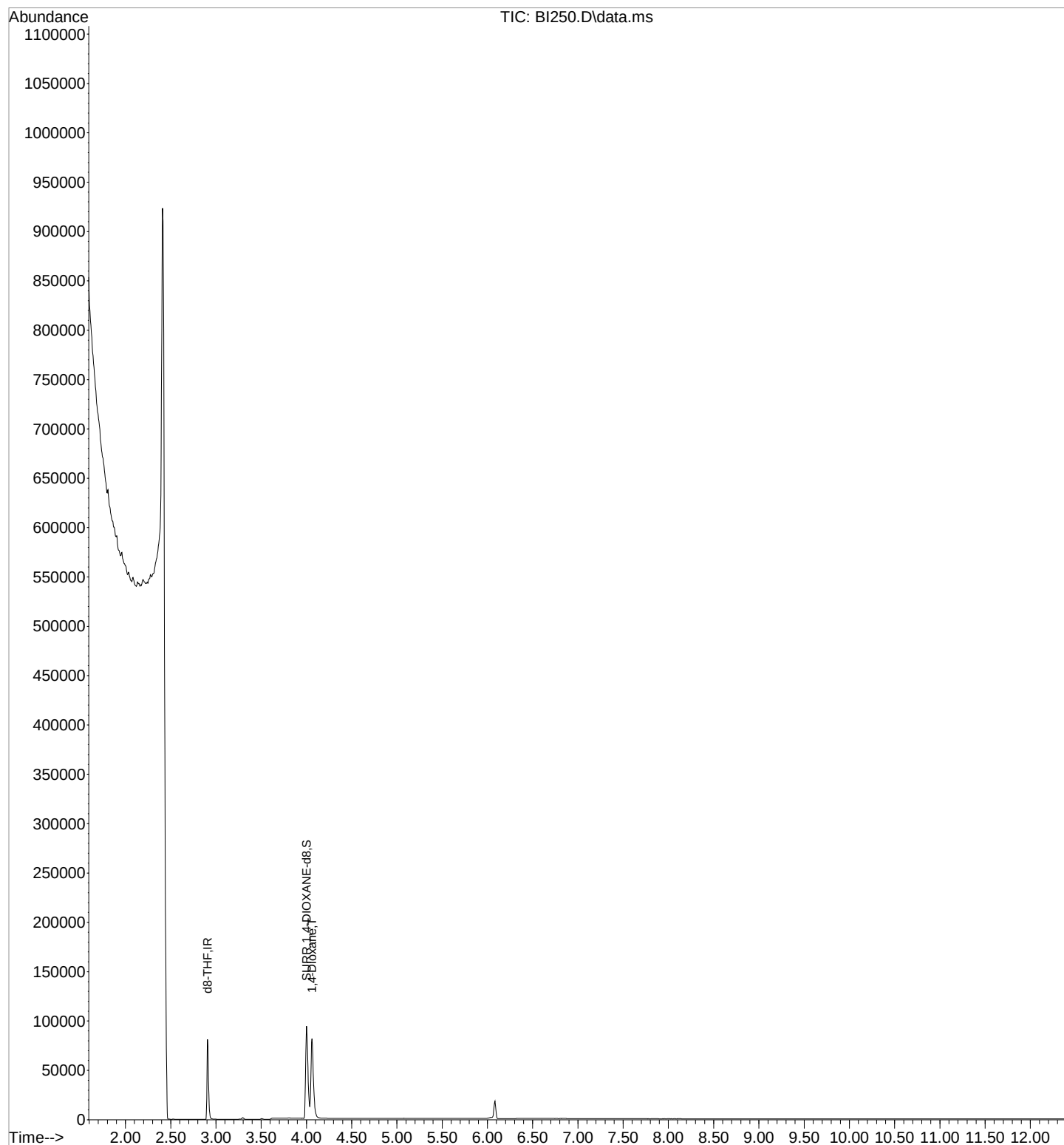
| Compound                    | R.T.           | QIon | Response | Conc   | Units    | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|----------|----------|
| -----                       |                |      |          |        |          |          |
| Internal Standards          |                |      |          |        |          |          |
| 1) d8-THF                   | 2.907          | 46   | 41354    | 500.00 | PPB      | 0.00     |
|                             |                |      |          |        |          |          |
| System Monitoring Compounds |                |      |          |        |          |          |
| 3) SURR, 1,4-DIOXANE-d8     | 4.002          | 96   | 90231    | 971.72 | PPB      | -0.02    |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 971.72%# |          |
|                             |                |      |          |        |          |          |
| Target Compounds            |                |      |          |        |          | Qvalue   |
| 2) 1,4-Dioxane              | 4.061          | 88   | 93158    | 918.63 | PPB      | 85       |
| -----                       |                |      |          |        |          |          |

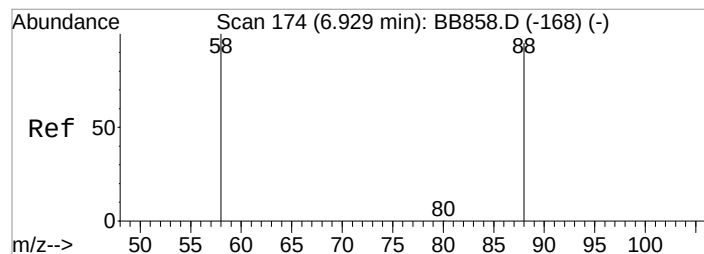
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI250.D  
Acq On : 10 Aug 2022 10:33 am  
Operator : MMCMAHON  
Sample : STD 8  
Misc :  
ALS Vial : 10 Sample Multiplier: 1

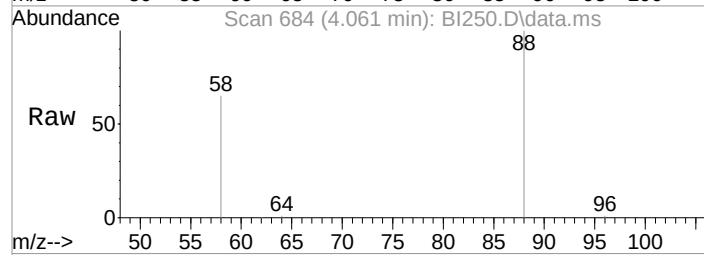
Inst : 5975 E

Quant Time: Aug 10 10:59:27 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 10:39:54 2022  
Response via : Initial Calibration

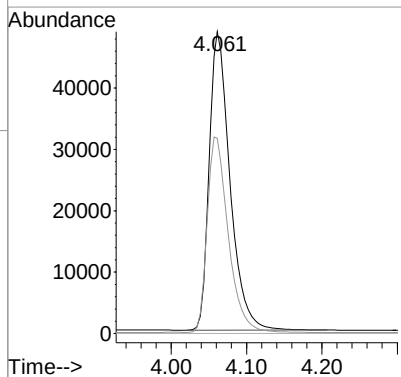
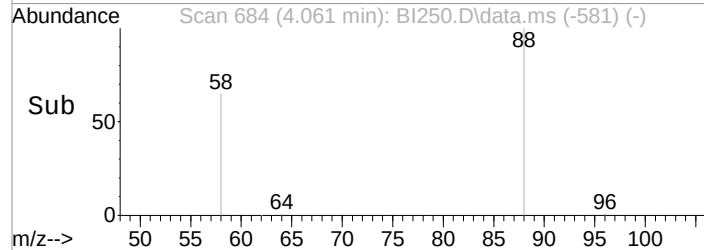




#2  
 1,4-Dioxane  
 Concen: 918.63 PPB  
 RT: 4.061 min Scan# 684  
 Delta R.T. -0.017 min  
 Lab File: BI250.D  
 Acq: 10 Aug 2022 10:33 am



Tgt Ion: 88 Resp: 93158  
 Ion Ratio Lower Upper  
 88 100  
 58 65.0 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI249.D  
Acq On : 10 Aug 2022 10:15 am  
Operator : MMCMAHON  
Sample : STD 7  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 10:39:41 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 10:11:31 2022  
Response via : Initial Calibration

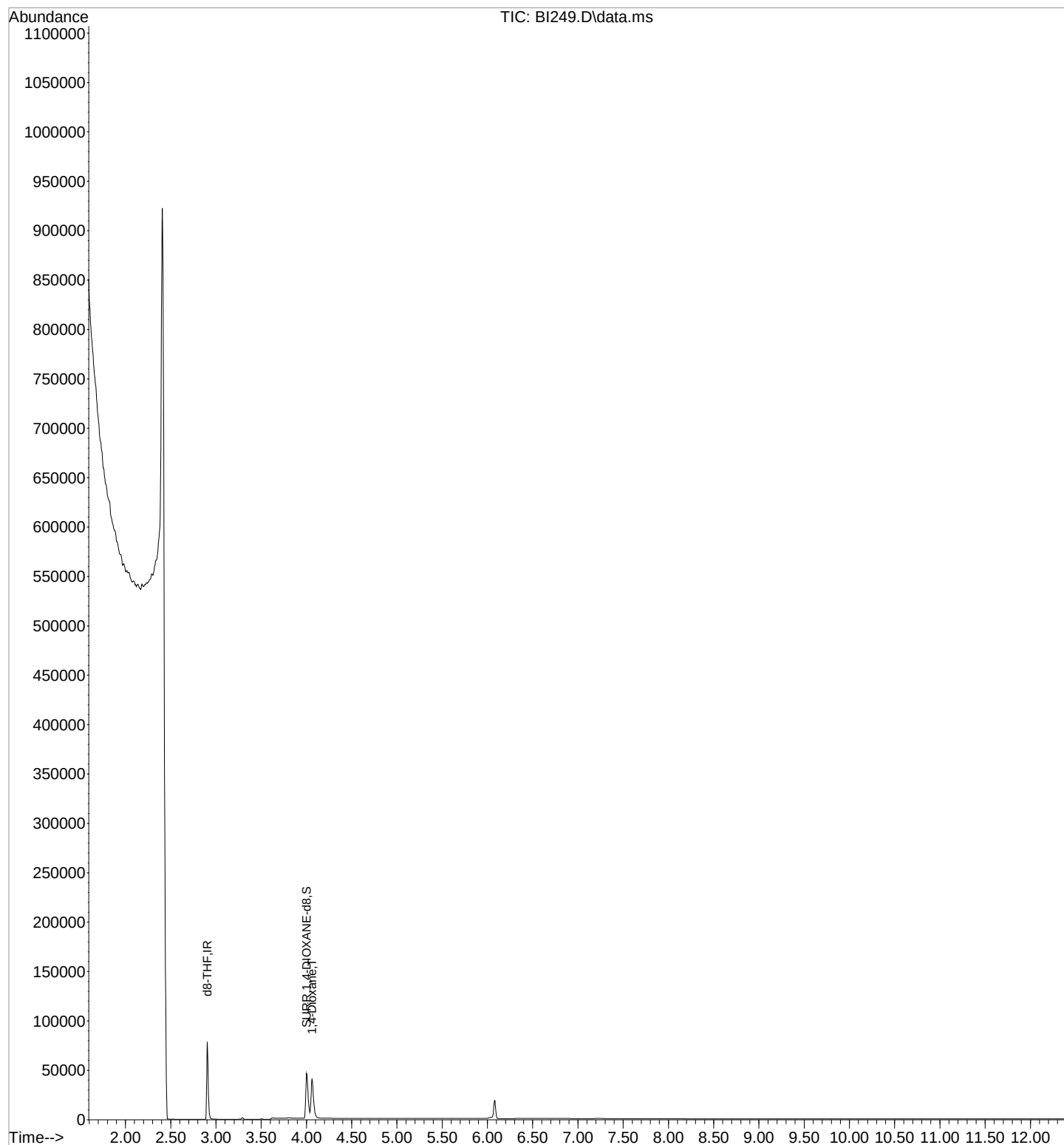
| Compound                    | R.T.           | QIon | Response | Conc   | Units    | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|----------|----------|
| -----                       |                |      |          |        |          |          |
| Internal Standards          |                |      |          |        |          |          |
| 1) d8-THF                   | 2.904          | 46   | 39985    | 500.00 | PPB      | 0.00     |
|                             |                |      |          |        |          |          |
| System Monitoring Compounds |                |      |          |        |          |          |
| 3) SURR, 1,4-DIOXANE-d8     | 4.002          | 96   | 43692    | 471.30 | PPB      | -0.03    |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 471.30%# |          |
|                             |                |      |          |        |          |          |
| Target Compounds            |                |      |          |        |          | Qvalue   |
| 2) 1,4-Dioxane              | 4.061          | 88   | 45436    | 431.25 | PPB      | 83       |
| -----                       |                |      |          |        |          |          |

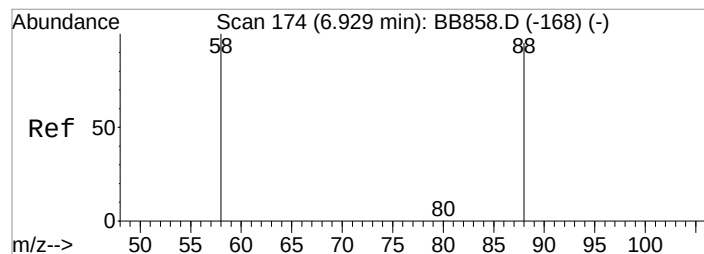
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI249.D  
Acq On : 10 Aug 2022 10:15 am  
Operator : MMCMAHON  
Sample : STD 7  
Misc :  
ALS Vial : 9 Sample Multiplier: 1

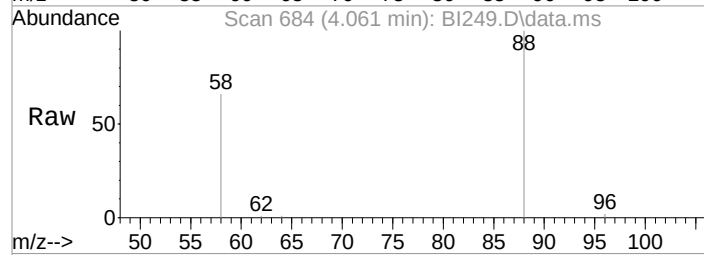
Inst : 5975 E

Quant Time: Aug 10 10:39:41 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 10:11:31 2022  
Response via : Initial Calibration

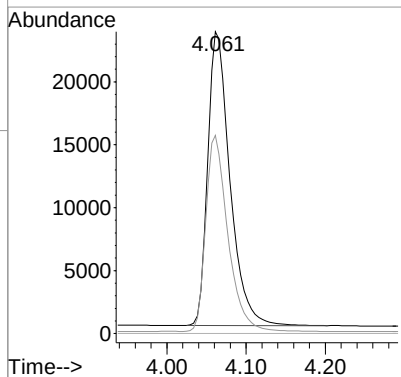
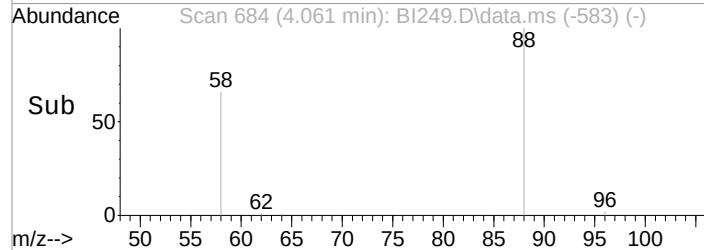




#2  
 1,4-Dioxane  
 Concen: 431.25 PPB  
 RT: 4.061 min Scan# 684  
 Delta R.T. -0.023 min  
 Lab File: BI249.D  
 Acq: 10 Aug 2022 10:15 am



Tgt Ion: 88 Resp: 45436  
 Ion Ratio Lower Upper  
 88 100  
 58 66.7 34.3 74.3  
 28 0.0 0.0 20.0





Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI248.D  
Acq On : 10 Aug 2022 9:58 am  
Operator : MMCMAHON  
Sample : STD 6  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 10:11:07 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 09:54:45 2022  
Response via : Initial Calibration

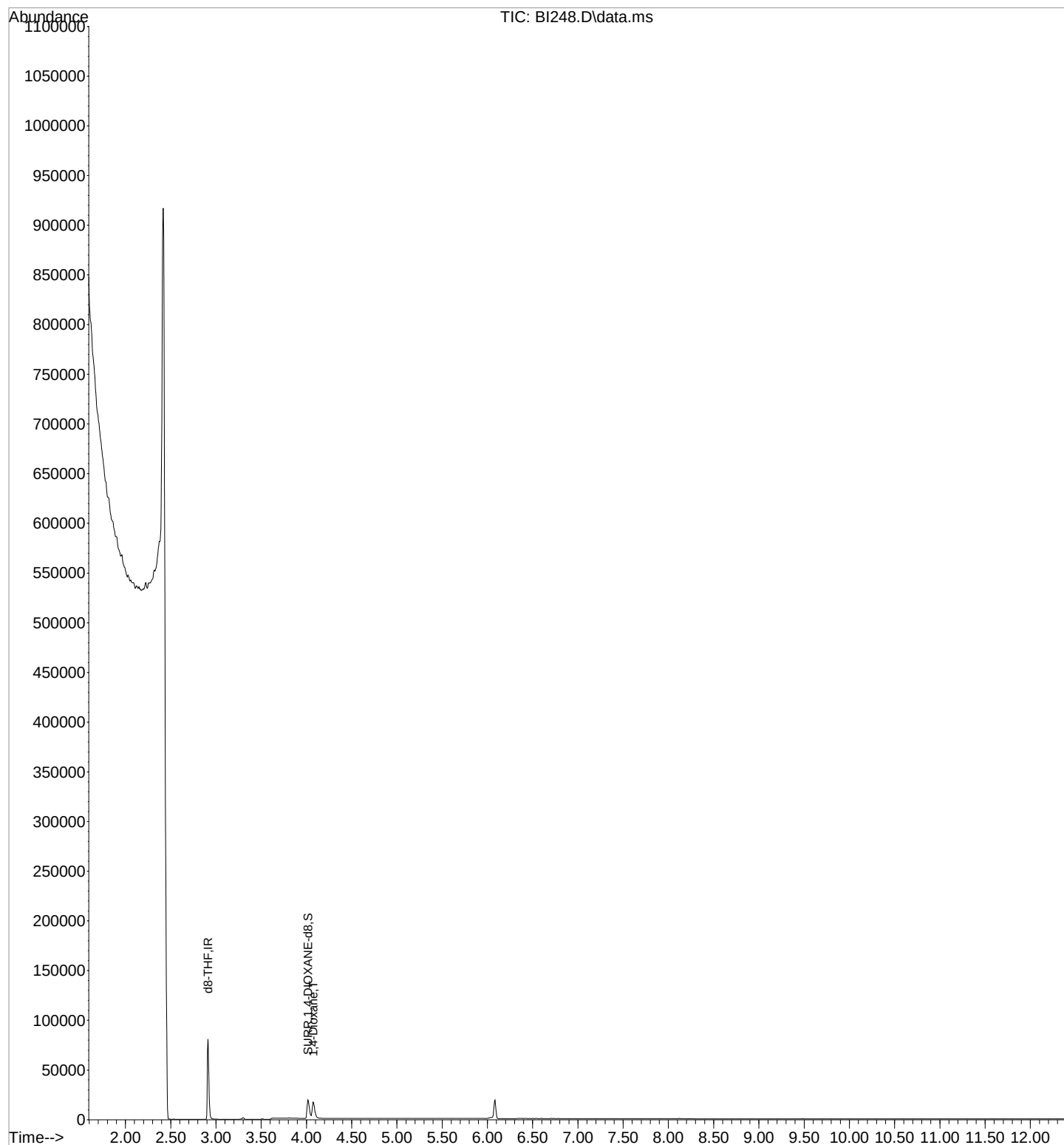
| Compound                    | R.T.           | QIon | Response | Conc   | Units    | Dev(Min)     |
|-----------------------------|----------------|------|----------|--------|----------|--------------|
| -----                       |                |      |          |        |          |              |
| Internal Standards          |                |      |          |        |          |              |
| 1) d8-THF                   | 2.911          | 46   | 41572    | 500.00 | PPB      | 0.00         |
| System Monitoring Compounds |                |      |          |        |          |              |
| 3) SURR, 1,4-DIOXANE-d8     | 4.016          | 96   | 18292    | 179.99 | PPB      | -0.02        |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 179.99%# |              |
| Target Compounds            |                |      |          |        |          |              |
| 2) 1,4-Dioxane              | 4.075          | 88   | 19094    | 177.84 | PPB      | Qvalue<br>83 |
| -----                       |                |      |          |        |          |              |

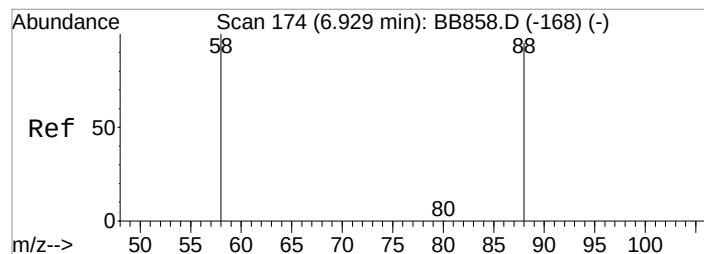
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI248.D  
Acq On : 10 Aug 2022 9:58 am  
Operator : MMCMAHON  
Sample : STD 6  
Misc :  
ALS Vial : 8 Sample Multiplier: 1

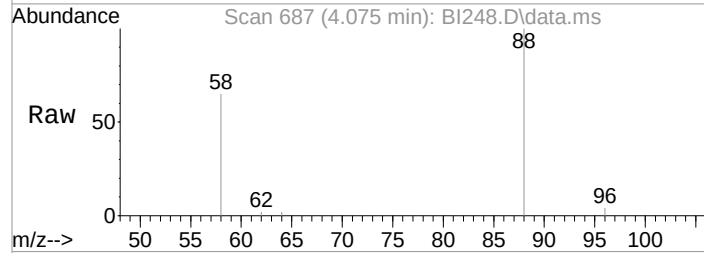
Inst : 5975 E

Quant Time: Aug 10 10:11:07 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 09:54:45 2022  
Response via : Initial Calibration

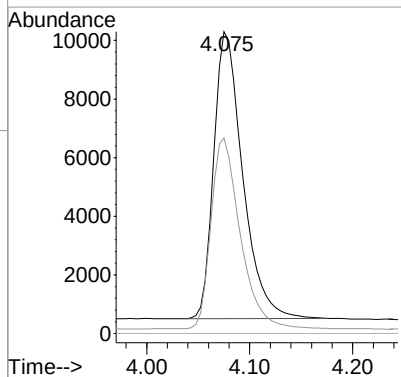
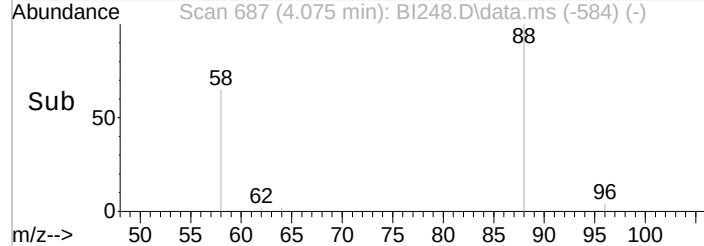




#2  
 1,4-Dioxane  
 Concen: 177.84 PPB  
 RT: 4.075 min Scan# 687  
 Delta R.T. -0.012 min  
 Lab File: BI248.D  
 Acq: 10 Aug 2022 9:58 am



Tgt Ion: 88 Resp: 19094  
 Ion Ratio Lower Upper  
 88 100  
 58 66.4 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI247.D  
Acq On : 10 Aug 2022 9:41 am  
Operator : MMCMAHON  
Sample : STD 5  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 09:54:17 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 09:38:28 2022  
Response via : Initial Calibration

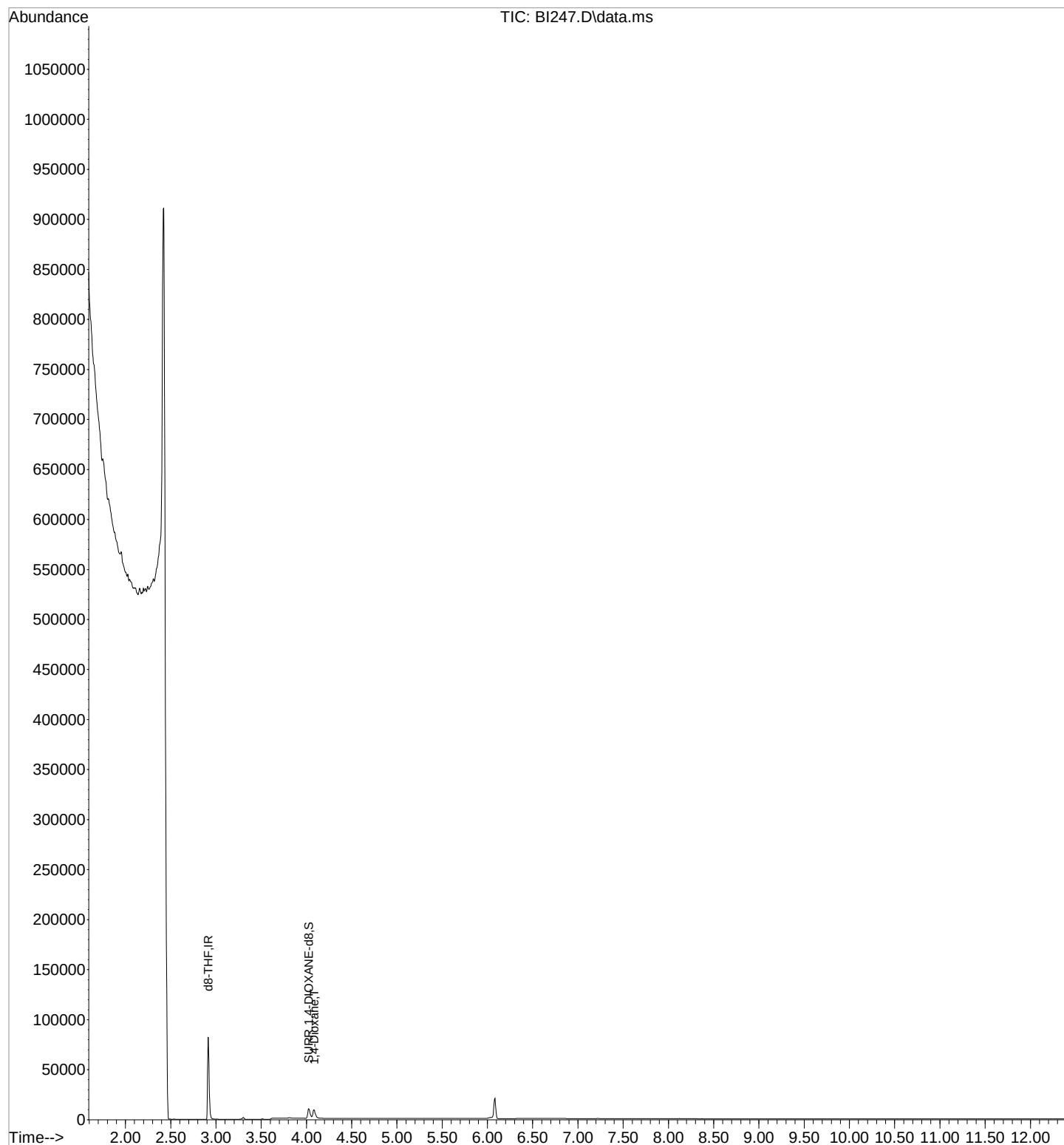
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min)  |
|-----------------------------|----------------|------|----------|--------|--------|-----------|
| -----                       |                |      |          |        |        |           |
| Internal Standards          |                |      |          |        |        |           |
| 1) d8-THF                   | 2.914          | 46   | 42041    | 500.00 | PPB    | 0.01      |
| System Monitoring Compounds |                |      |          |        |        |           |
| 3) SURR, 1,4-DIOXANE-d8     | 4.025          | 96   | 9379     | 94.66  | PPB    | 0.00      |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 94.66% |           |
| Target Compounds            |                |      |          |        |        |           |
| 2) 1,4-Dioxane              | 4.084          | 88   | 9898     | 115.01 | PPB    | Qvalue 85 |
| -----                       |                |      |          |        |        |           |

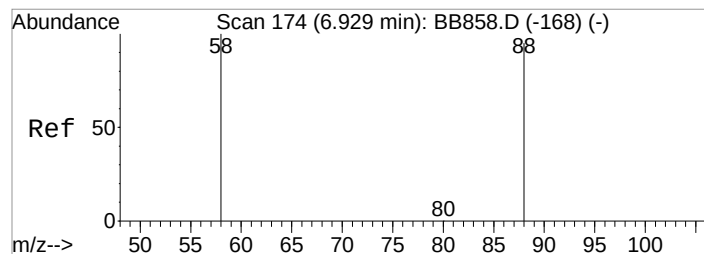
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI247.D  
Acq On : 10 Aug 2022 9:41 am  
Operator : MMCMAHON  
Sample : STD 5  
Misc :  
ALS Vial : 7 Sample Multiplier: 1

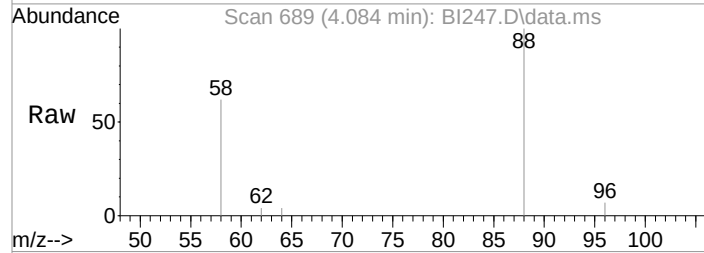
Inst : 5975 E

Quant Time: Aug 10 09:54:17 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 09:38:28 2022  
Response via : Initial Calibration

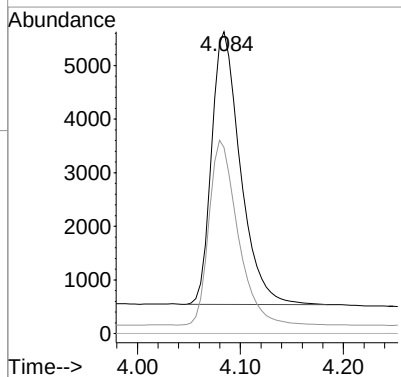
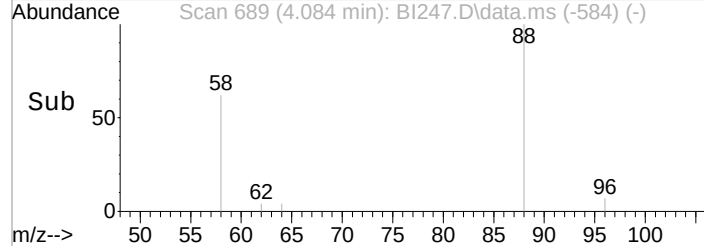




#2  
 1,4-Dioxane  
 Concen: 115.01 PPB  
 RT: 4.084 min Scan# 689  
 Delta R.T. -0.003 min  
 Lab File: BI247.D  
 Acq: 10 Aug 2022 9:41 am



Tgt Ion: 88 Resp: 9898  
 Ion Ratio Lower Upper  
 88 100  
 58 64.8 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI246.D  
Acq On : 10 Aug 2022 9:23 am  
Operator : MMCMAHON  
Sample : STD 4  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 09:38:11 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 09:37:57 2022  
Response via : Initial Calibration

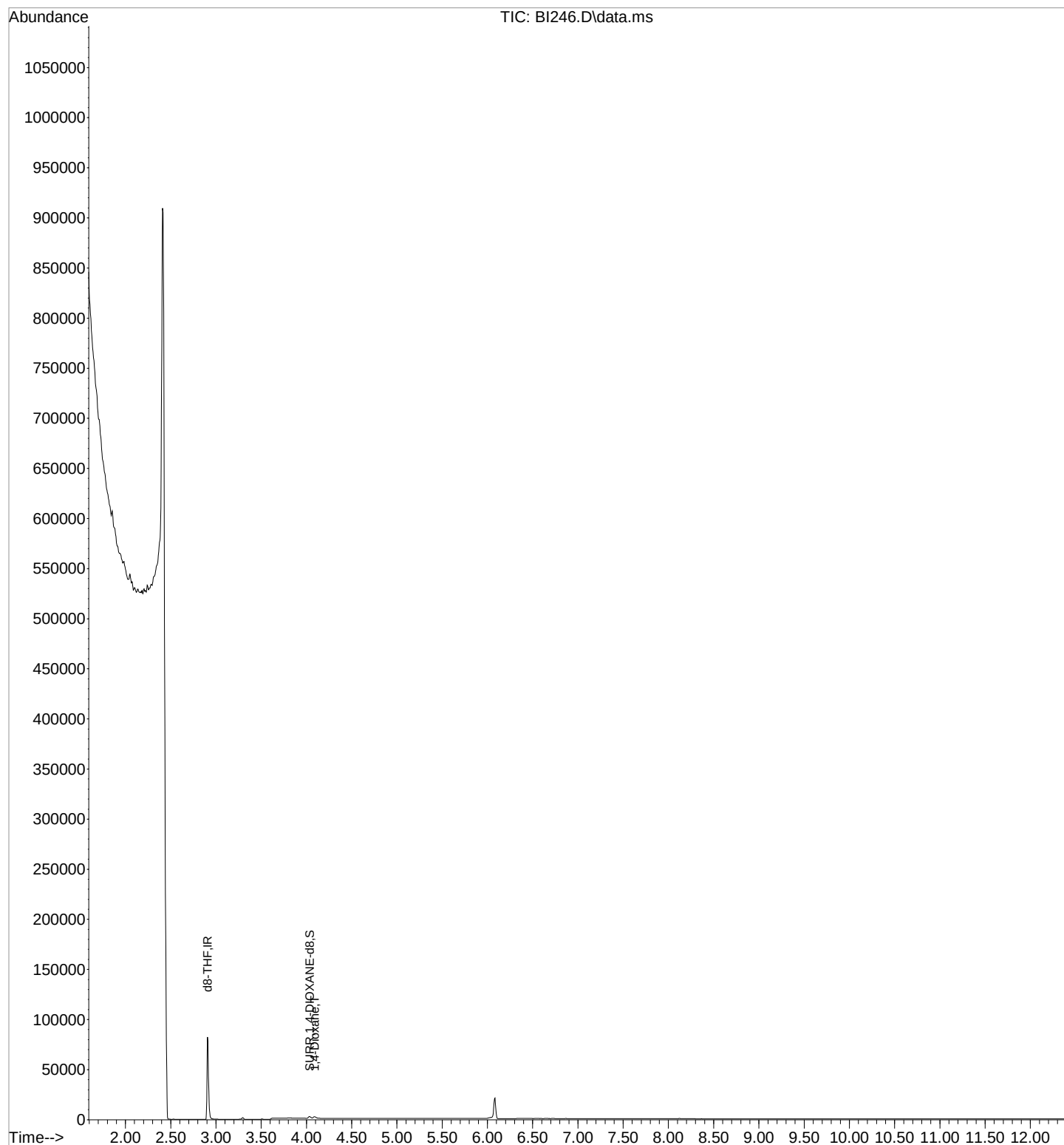
| Compound                    | R.T.    | QIon  | Response | Conc     | Units | Dev(Min)     |
|-----------------------------|---------|-------|----------|----------|-------|--------------|
| -----                       |         |       |          |          |       |              |
| Internal Standards          |         |       |          |          |       |              |
| 1) d8-THF                   | 2.908   | 46    | 42238    | 500.00   | PPB   | 0.00         |
| System Monitoring Compounds |         |       |          |          |       |              |
| 3) SURR, 1,4-DIOXANE-d8     | 4.034   | 96    | 1738     | 20.19    | PPB   | 0.00         |
| Spiked Amount               | 100.000 | Range | 70 - 130 | Recovery | =     | 20.19%#      |
| Target Compounds            |         |       |          |          |       |              |
| 2) 1,4-Dioxane              | 4.089   | 88    | 1844     | 20.58    | PPB   | Qvalue<br>84 |
| -----                       |         |       |          |          |       |              |

(#) = qualifier out of range (m) = manual integration (+) = signals summed

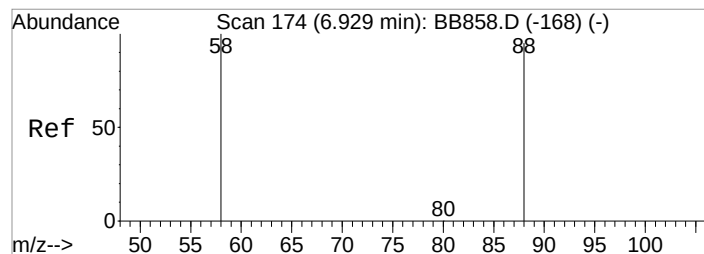
Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI246.D  
Acq On : 10 Aug 2022 9:23 am  
Operator : MMCMAHON  
Sample : STD 4  
Misc :  
ALS Vial : 6 Sample Multiplier: 1

Inst : 5975 E

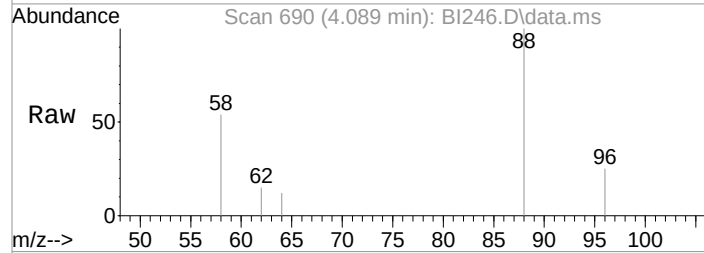
Quant Time: Aug 10 09:38:11 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 09:37:57 2022  
Response via : Initial Calibration



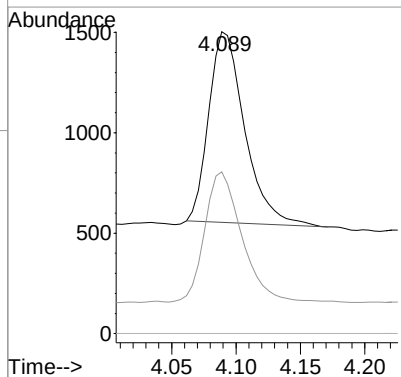
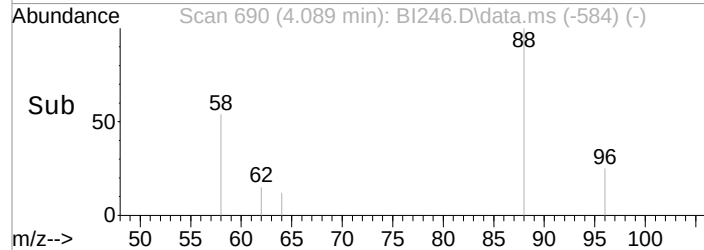




#2  
 1,4-Dioxane  
 Concen: 20.58 PPB  
 RT: 4.089 min Scan# 690  
 Delta R.T. 0.002 min  
 Lab File: BI246.D  
 Acq: 10 Aug 2022 9:23 am



Tgt Ion: 88 Resp: 1844  
 Ion Ratio Lower Upper  
 88 100  
 58 65.8 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI245.D  
Acq On : 10 Aug 2022 9:06 am  
Operator : MMCMAHON  
Sample : STD 3  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 09:25:49 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 09:03:39 2022  
Response via : Initial Calibration

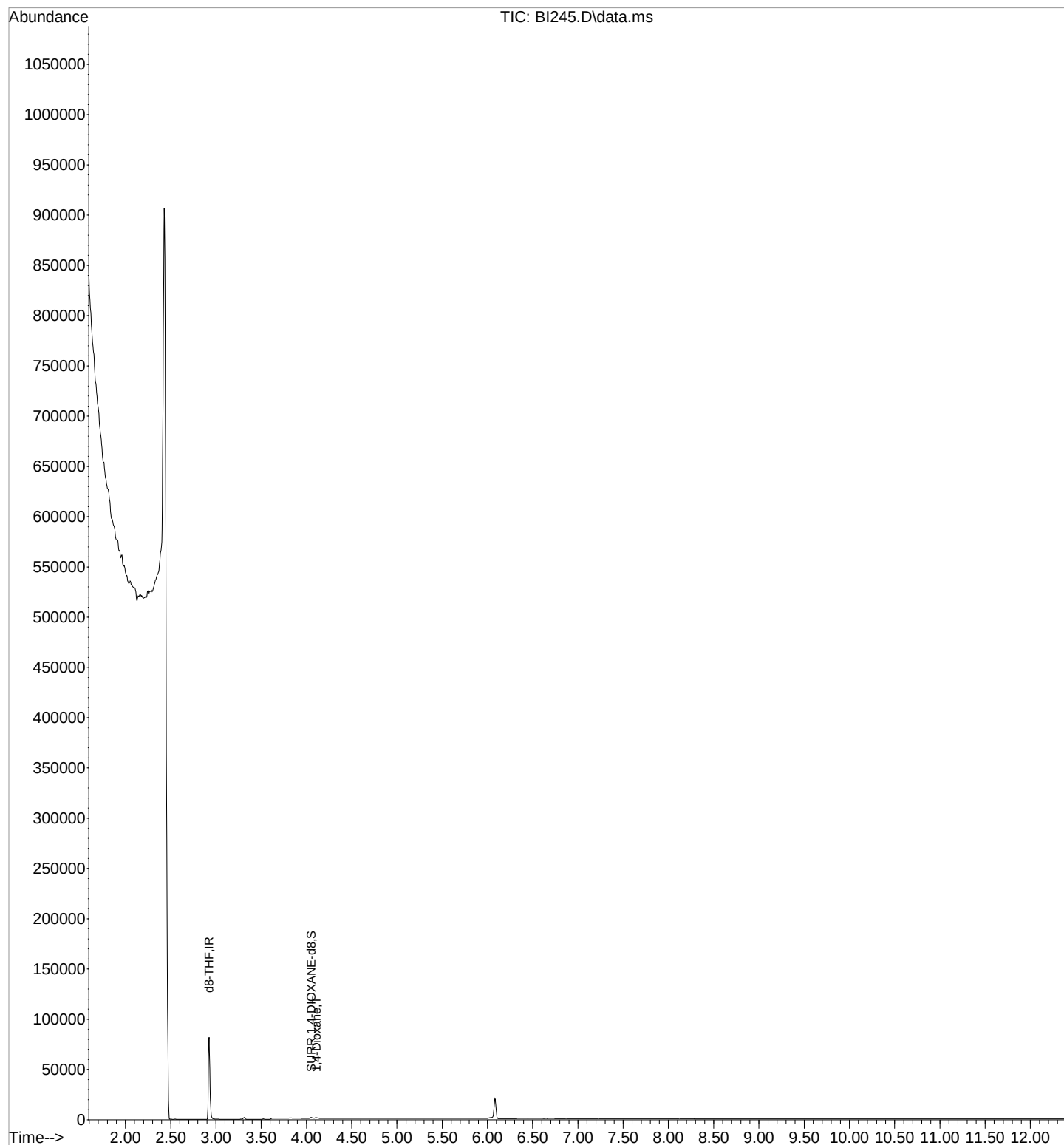
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|--------|----------|
| -----                       |                |      |          |        |        |          |
| Internal Standards          |                |      |          |        |        |          |
| 1) d8-THF                   | 2.921          | 46   | 42820    | 500.00 | PPB    | 0.08     |
|                             |                |      |          |        |        |          |
| System Monitoring Compounds |                |      |          |        |        |          |
| 3) SURR,1,4-DIOXANE-d8      | 4.052          | 96   | 821      | 9.93   | PPB    | 0.09     |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 9.93%# |          |
|                             |                |      |          |        |        |          |
| Target Compounds            |                |      |          |        |        | Qvalue   |
| 2) 1,4-Dioxane              | 4.107          | 88   | 868      | 8.99   | PPB    | 83       |
| -----                       |                |      |          |        |        |          |

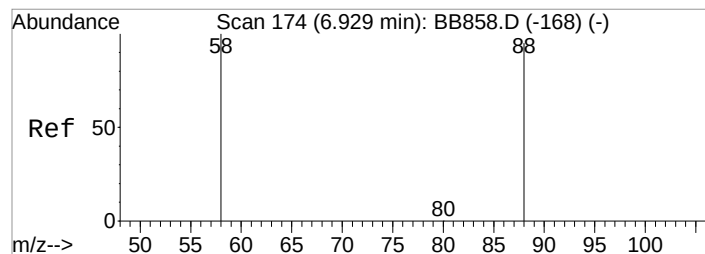
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI245.D  
Acq On : 10 Aug 2022 9:06 am  
Operator : MMCMAHON  
Sample : STD 3  
Misc :  
ALS Vial : 5 Sample Multiplier: 1

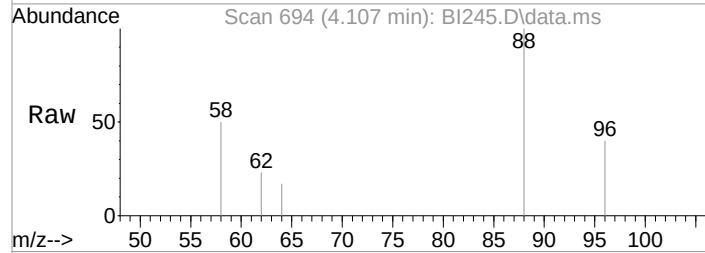
Inst : 5975 E

Quant Time: Aug 10 09:25:49 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 09:03:39 2022  
Response via : Initial Calibration

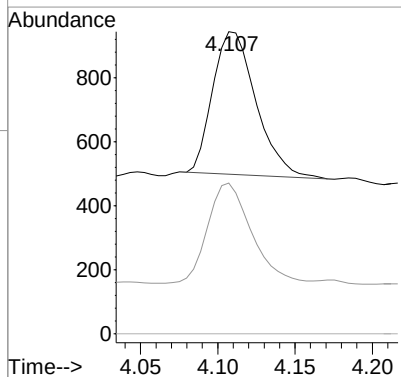
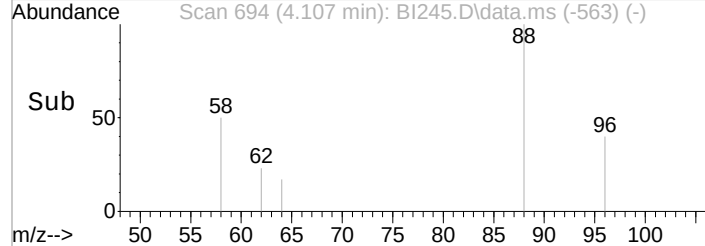




#2  
 1,4-Dioxane  
 Concen: 8.99 PPB  
 RT: 4.107 min Scan# 694  
 Delta R.T. 0.091 min  
 Lab File: BI245.D  
 Acq: 10 Aug 2022 9:06 am



Tgt Ion: 88 Resp: 868  
 Ion Ratio Lower Upper  
 88 100  
 58 66.7 34.3 74.3  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI244.D  
Acq On : 10 Aug 2022 8:49 am  
Operator : MMCMAHON  
Sample : STD 2  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:26:21 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration

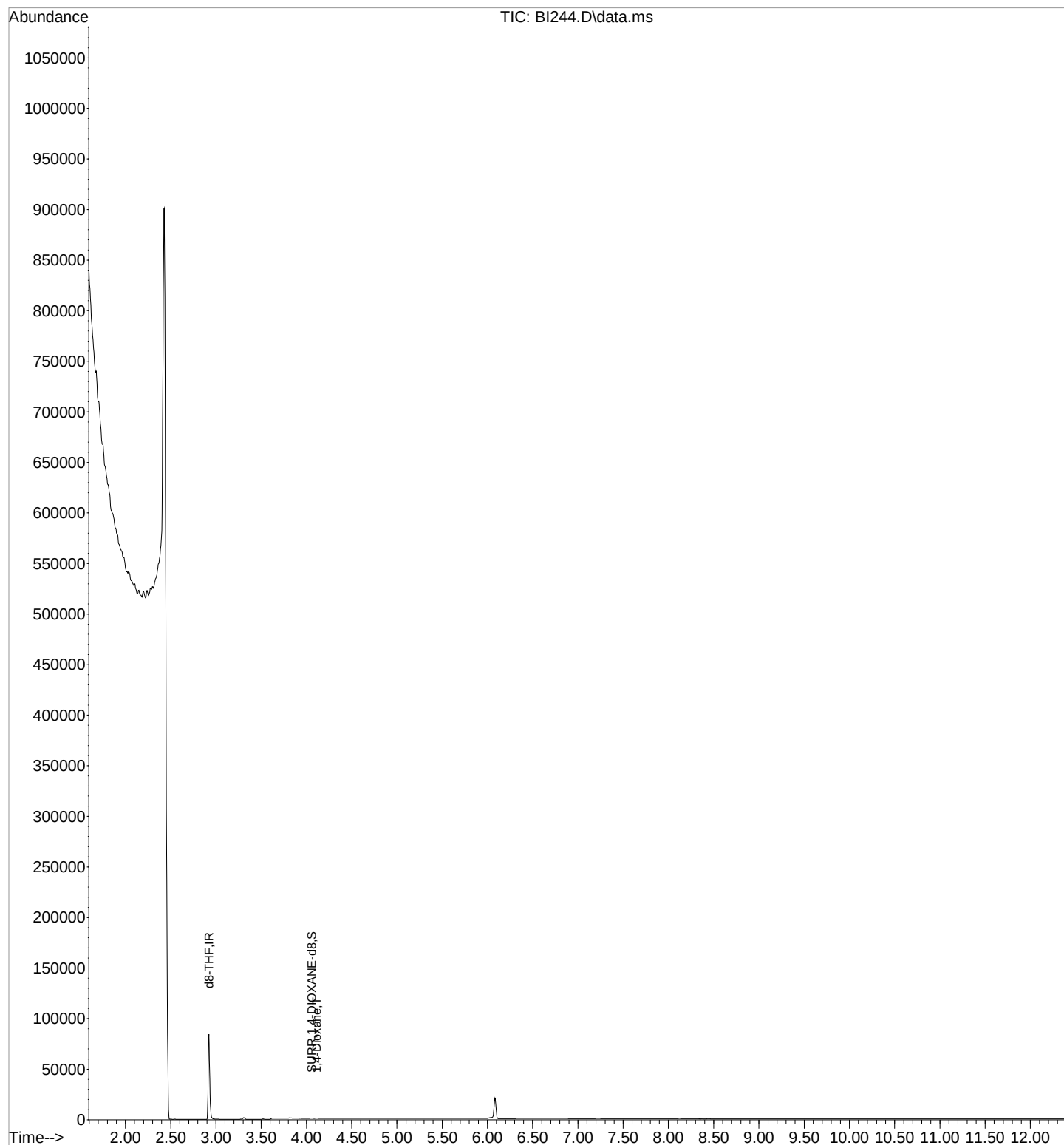
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|--------|----------|
| -----                       |                |      |          |        |        |          |
| Internal Standards          |                |      |          |        |        |          |
| 1) d8-THF                   | 2.921          | 46   | 43498    | 500.00 | PPB    | 0.02     |
| System Monitoring Compounds |                |      |          |        |        |          |
| 3) SURR, 1,4-DIOXANE-d8     | 4.057          | 96   | 190m     | 2.04   | PPB    | 0.05     |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 2.04%# |          |
| Target Compounds            |                |      |          |        |        |          |
| 2) 1,4-Dioxane              | 4.112          | 88   | 232m     | 2.11   | PPB    | Qvalue   |
| -----                       |                |      |          |        |        |          |

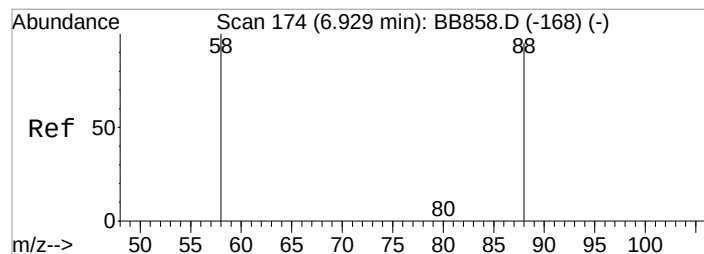
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI244.D  
Acq On : 10 Aug 2022 8:49 am  
Operator : MMCMAHON  
Sample : STD 2  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

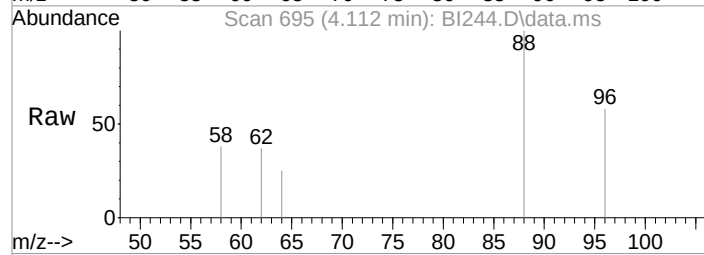
Inst : 5975 E

Quant Time: Aug 10 11:26:21 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration

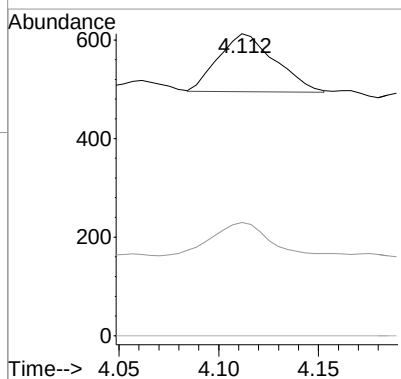
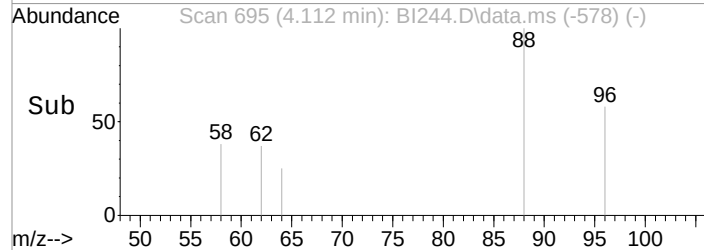




#2  
 1,4-Dioxane  
 Concen: 2.11 PPB m  
 RT: 4.112 min Scan# 695  
 Delta R.T. 0.045 min  
 Lab File: BI244.D  
 Acq: 10 Aug 2022 8:49 am



Tgt Ion: 88 Resp: 232  
 Ion Ratio Lower Upper  
 88 100  
 58 37.5 34.3 74.3  
 28 0.0 0.0 20.0



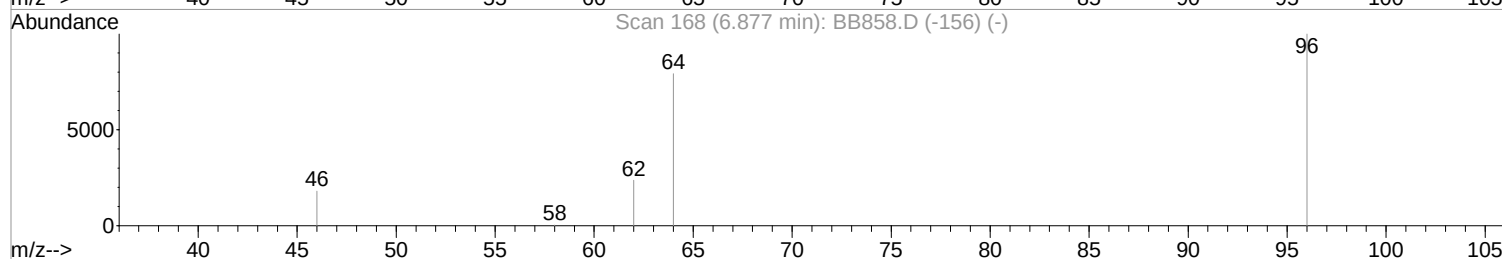
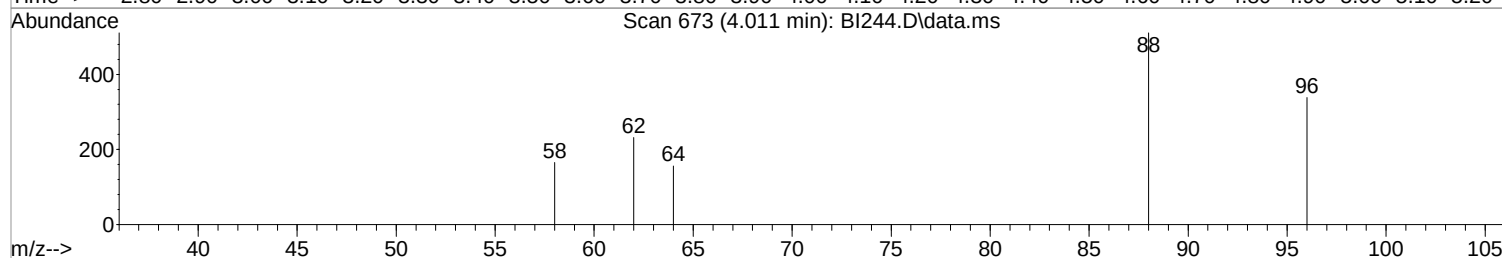
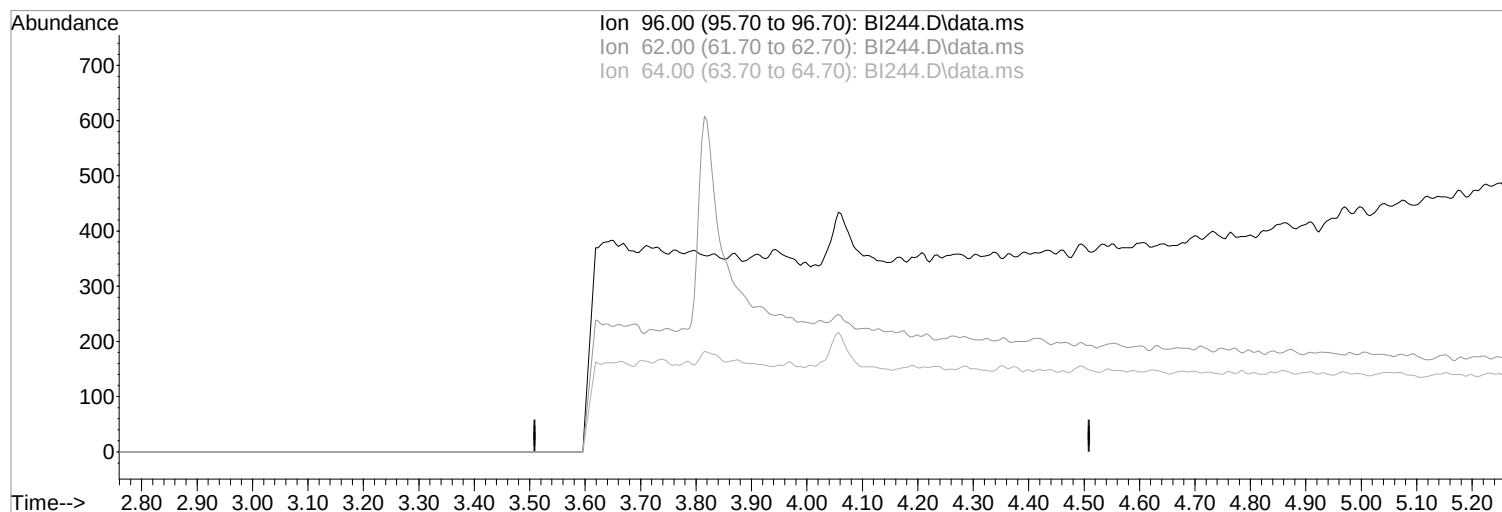
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI244.D  
Acq On : 10 Aug 2022 8:49 am  
Operator : MMCMAHON  
Sample : STD 2  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:25:53 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration



TIC: BI244.D\data.ms

(3) SURR,1,4-DIOXANE-d8 (S)

4.009min (-4.009) 0.00 PPB

response 0

Manual Integration:

Before

08/10/22

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 96.00 | 100.00 | 0.00  |
| 62.00 | 16.30  | 0.00  |
| 64.00 | 54.70  | 0.00# |
| 0.00  | 0.00   | 0.00  |



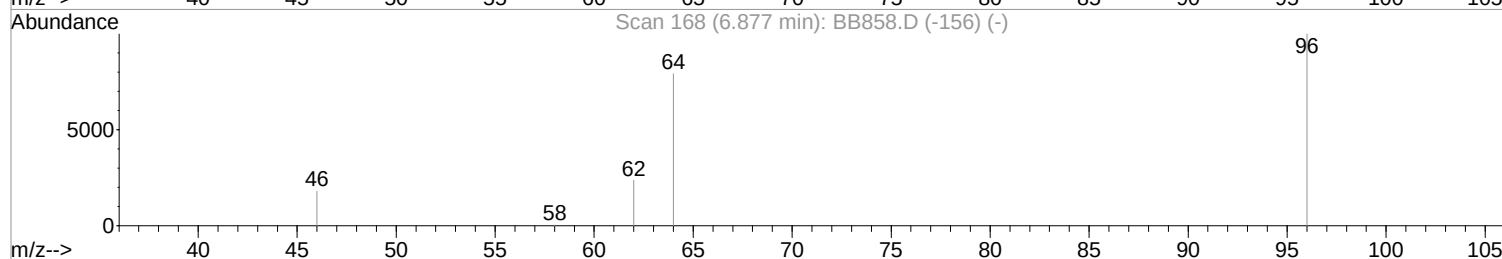
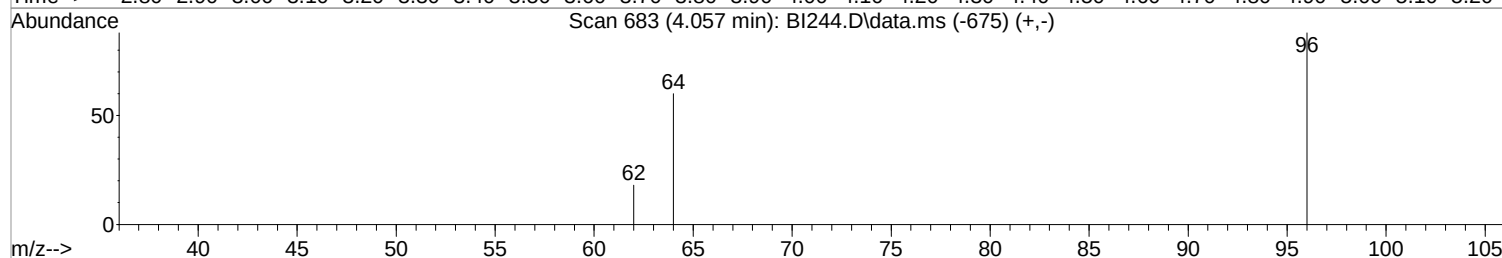
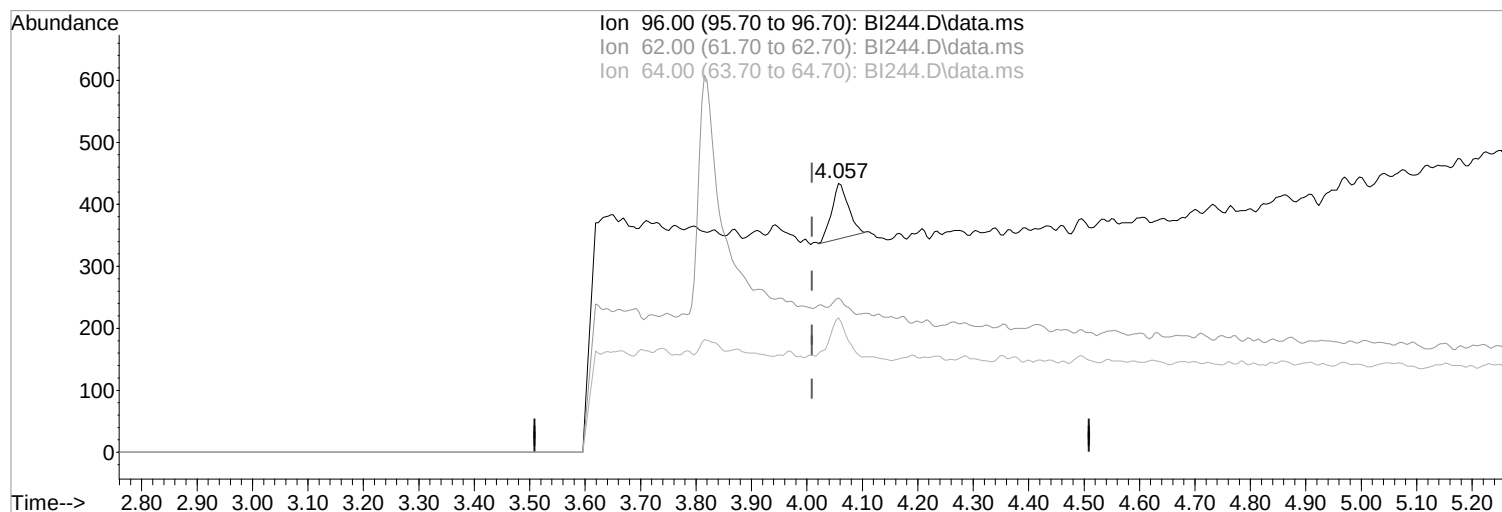
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI244.D  
Acq On : 10 Aug 2022 8:49 am  
Operator : MMCMAHON  
Sample : STD 2  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:25:53 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration



TIC: BI244.D\data.ms

## (3) SURR,1,4-DIOXANE-d8 (S)

4.057min (+ 0.048) 2.04 PPB m

response 190

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 96.00 | 100.00 | 100.00 |
| 62.00 | 16.30  | 57.37# |
| 64.00 | 54.70  | 50.00  |
| 0.00  | 0.00   | 0.00   |

## Manual Integration:

After

Peak not found.

08/10/22

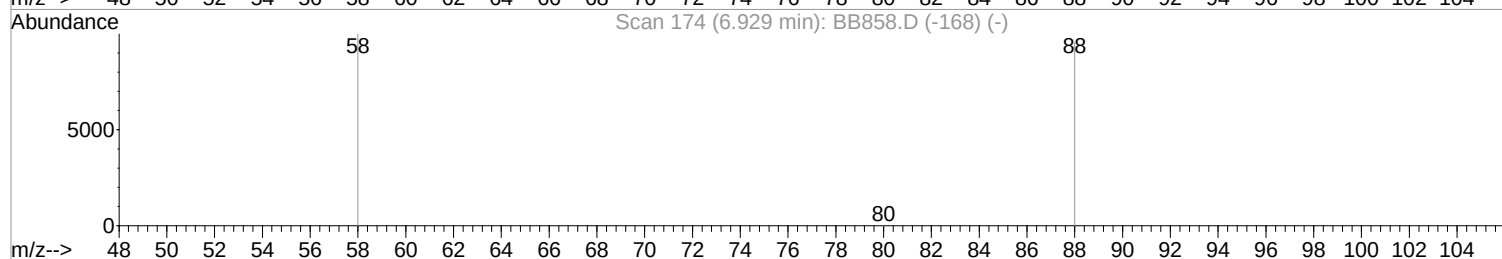
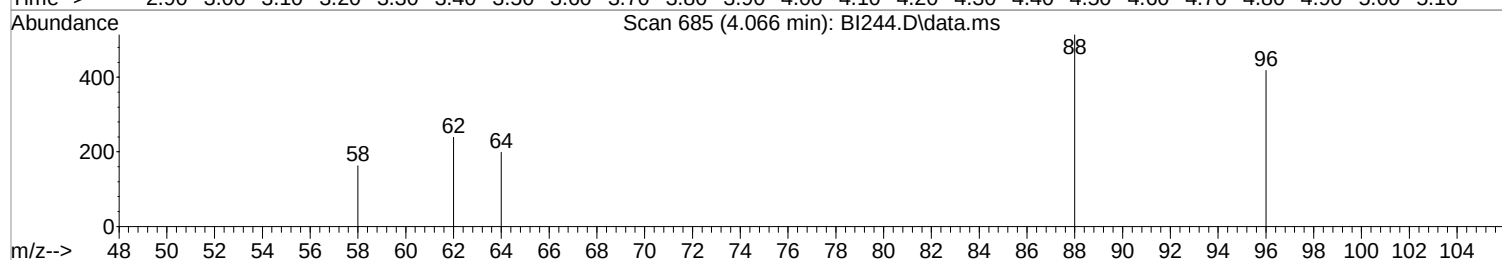
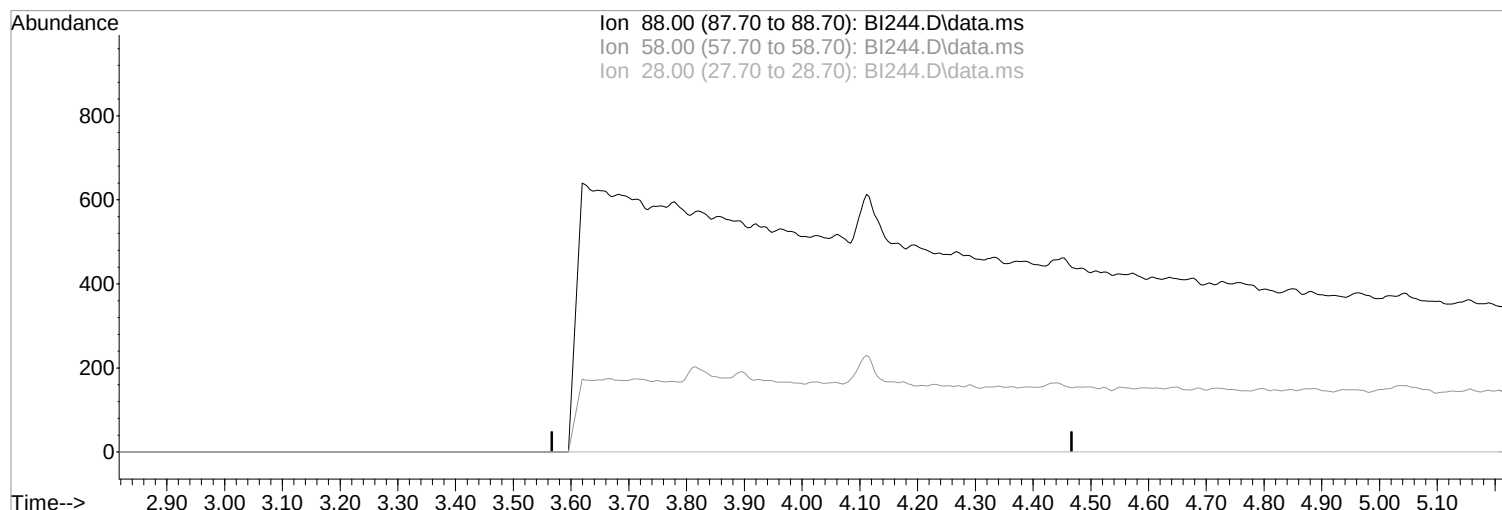
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI244.D  
Acq On : 10 Aug 2022 8:49 am  
Operator : MMCMAHON  
Sample : STD 2  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:25:53 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration



TIC: BI244.D\data.ms

## (2) 1,4-Dioxane (T)

4.067min (-4.067) 0.00 PPB

response 0

Manual Integration:

Before

08/10/22

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 88.00 | 100.00 | 0.00  |
| 58.00 | 54.30  | 0.00# |
| 28.00 | 0.00   | 0.00  |
| 0.00  | 0.00   | 0.00  |

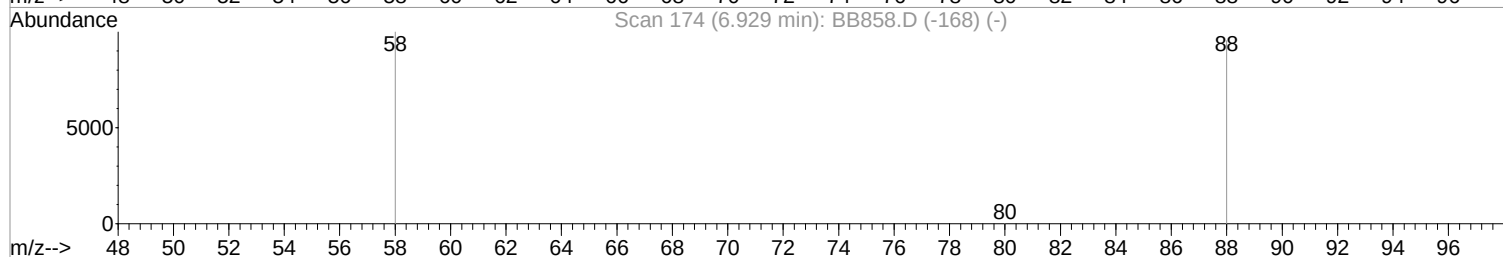
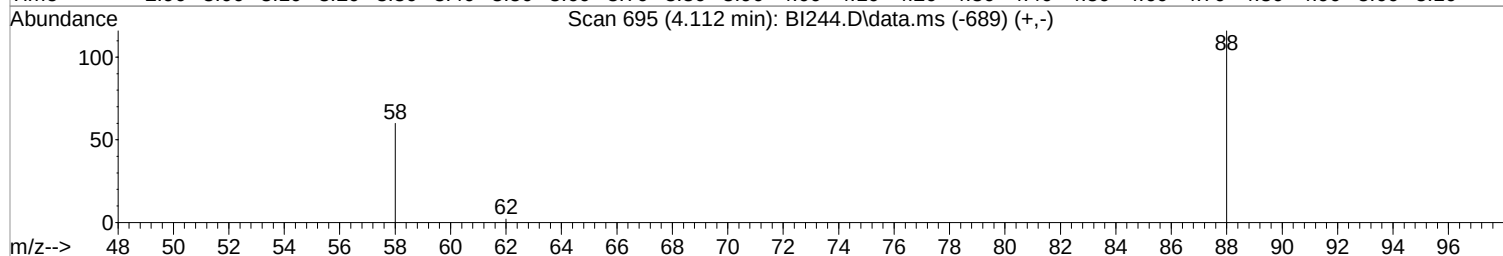
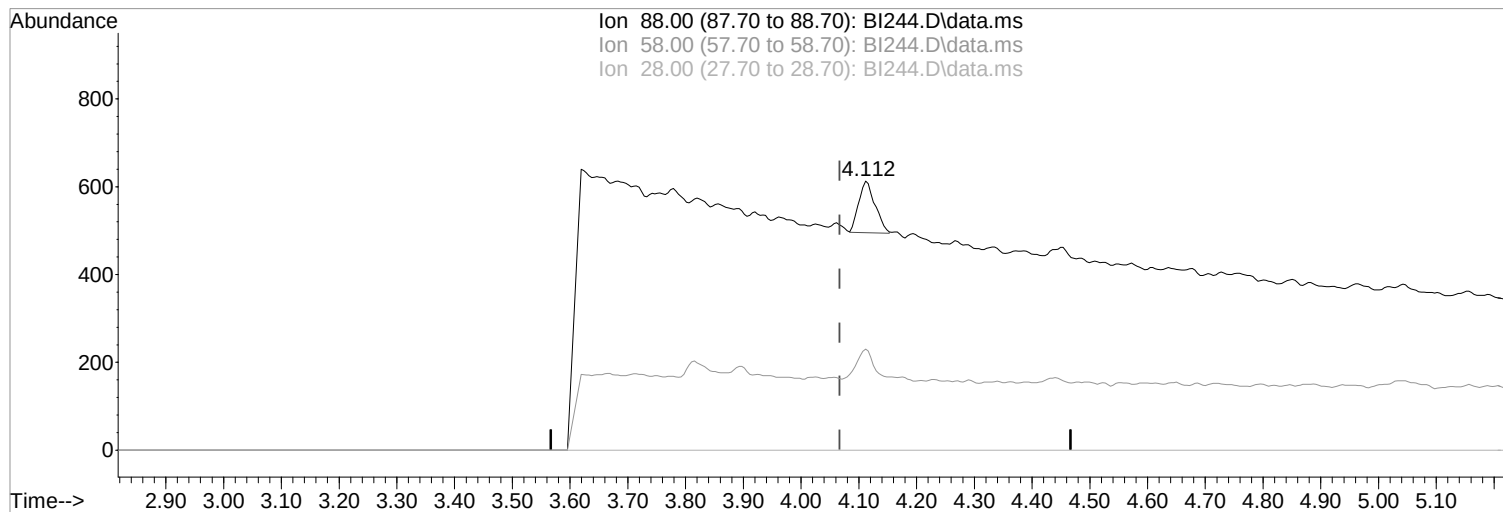
## Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI244.D  
Acq On : 10 Aug 2022 8:49 am  
Operator : MMCMAHON  
Sample : STD 2  
Misc :  
ALS Vial : 4 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:25:53 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration



TIC: BI244.D\data.ms

## (2) 1,4-Dioxane (T)

4.112min (+ 0.045) 2.11 PPB m

response 232

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 54.30  | 37.52  |
| 28.00 | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

## Manual Integration:

After

Poor integration.

08/10/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243copy.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:27:44 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

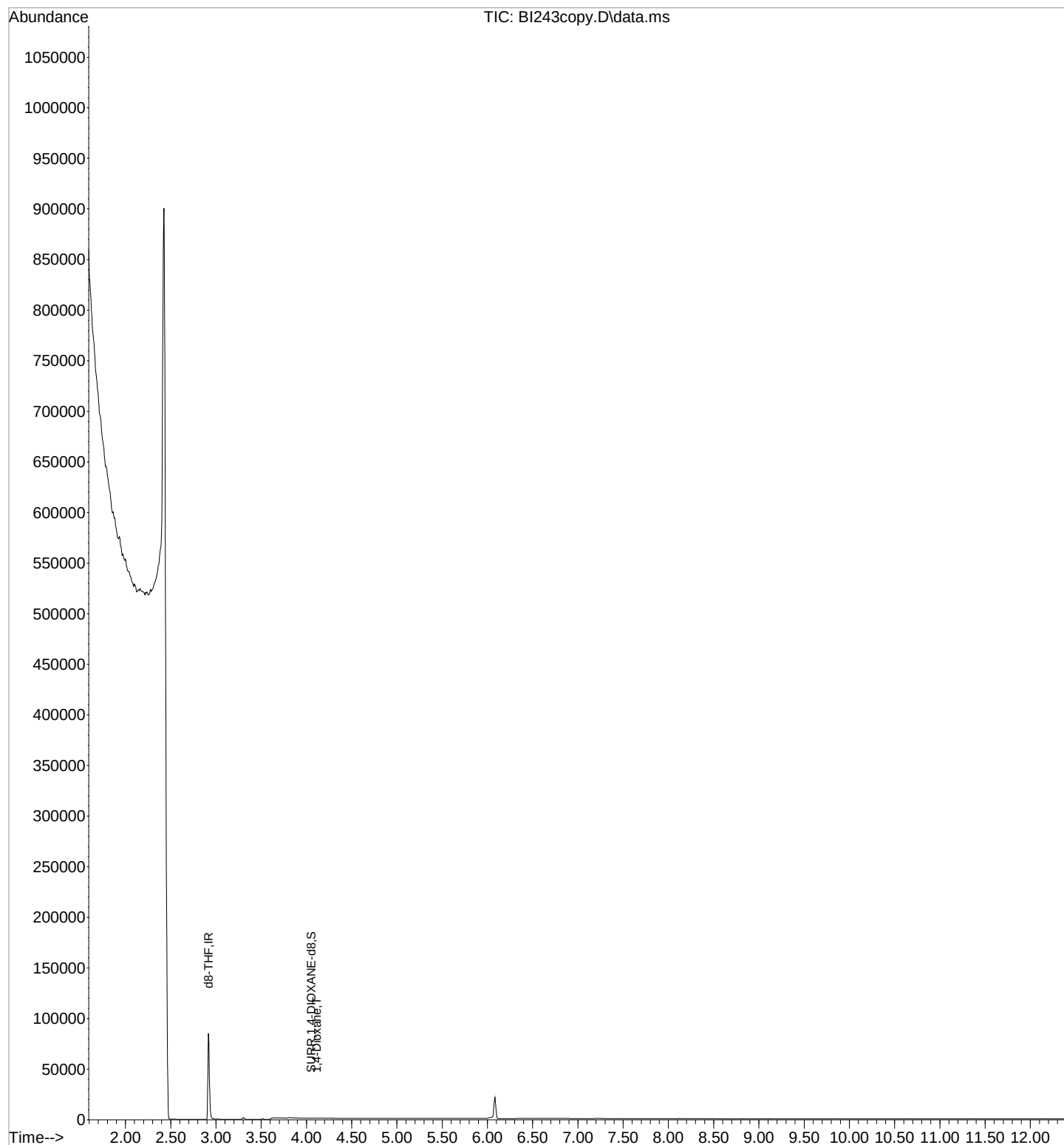
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|--------|----------|
| -----                       |                |      |          |        |        |          |
| Internal Standards          |                |      |          |        |        |          |
| 1) d8-THF                   | 2.918          | 46   | 43473    | 500.00 | PPB    | 0.00     |
|                             |                |      |          |        |        |          |
| System Monitoring Compounds |                |      |          |        |        |          |
| 3) SURR,1,4-DIOXANE-d8      | 4.052          | 96   | 85m      | 0.98   | PPB    | 0.03     |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 0.98%# |          |
|                             |                |      |          |        |        |          |
| Target Compounds            |                |      |          |        |        | Qvalue   |
| 2) 1,4-Dioxane              | 4.112          | 88   | 118m     | 0.93   | PPB    |          |
| -----                       |                |      |          |        |        |          |

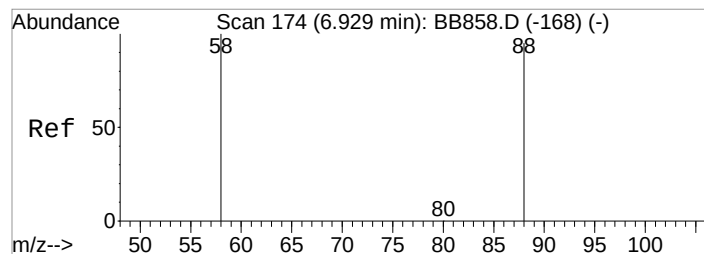
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243copy.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

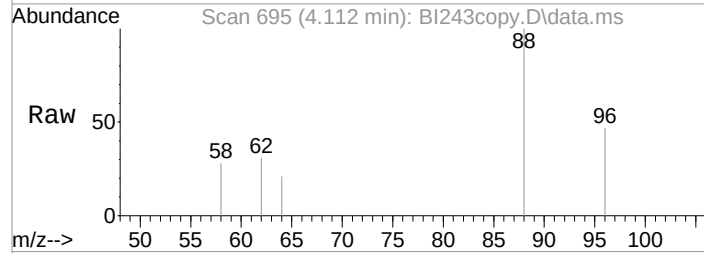
Inst : 5975 E

Quant Time: Aug 10 11:27:44 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

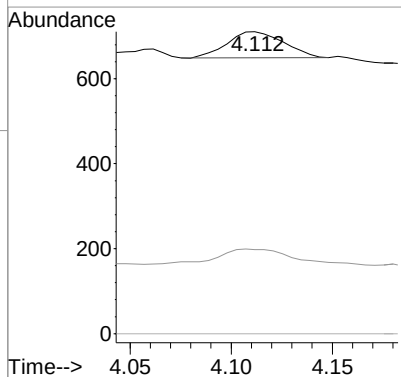
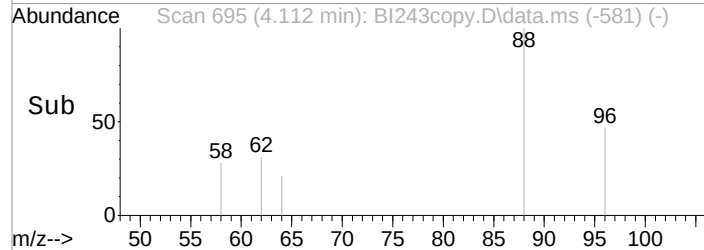




#2  
 1,4-Dioxane  
 Concen: 0.93 PPB m  
 RT: 4.112 min Scan# 695  
 Delta R.T. 0.034 min  
 Lab File: BI243copy.D  
 Acq: 10 Aug 2022 8:32 am



Tgt Ion: 88 Resp: 118  
 Ion Ratio Lower Upper  
 88 100  
 58 27.8 34.3 74.3#  
 28 0.0 0.0 20.0



## Evaluate Continuing Calibration Report

1st MEM 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243copy.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1 Inst : 5975 E  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Aug 10 11:27:44 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound            | Amount  | Calc.   | %Dev | Area% | Dev(min) |
|------|---------------------|---------|---------|------|-------|----------|
| 1 IR | d8-THF              | 500.000 | 500.000 | 0.0  | 100   | 0.00     |
| 2 T  | 1,4-Dioxane         | 1.000   | 0.926   | 7.4  | 95    | 0.03     |
| 3 S  | SURR,1,4-DIOXANE-d8 | 1.000   | 0.984   | 1.6  | 100   | 0.03     |

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

522DIOX081022.M Wed Aug 10 11:28:51 2022

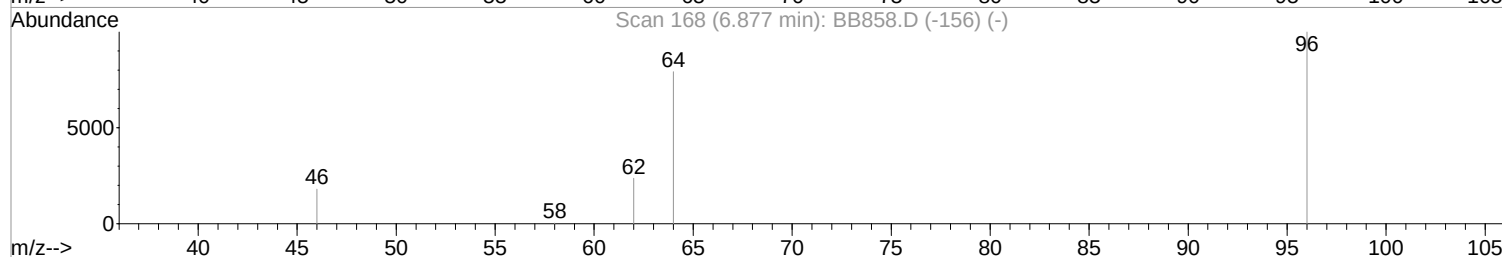
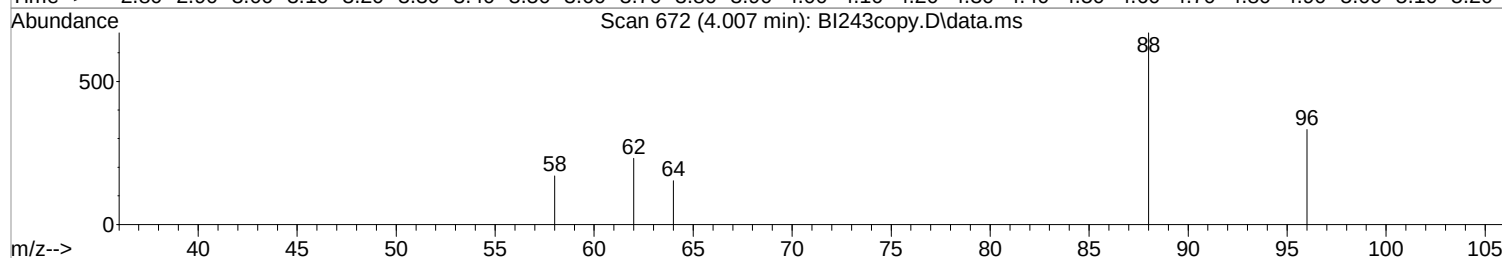
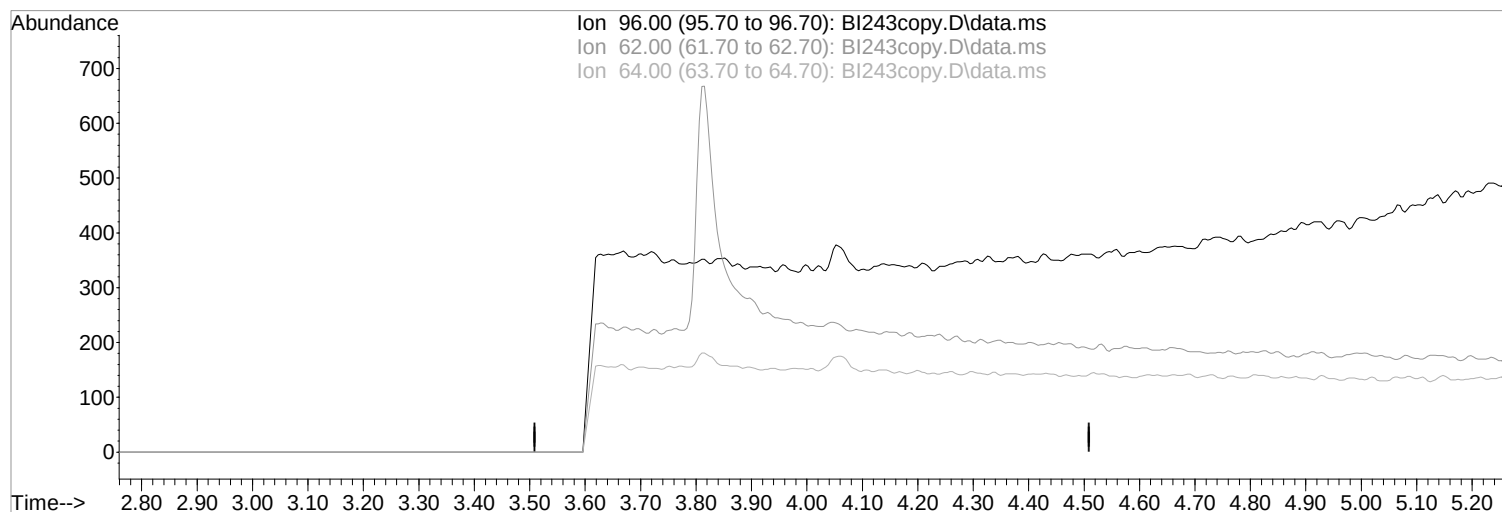
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243copy.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:04:35 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration



TIC: BI243copy.D\data.ms

(3) SURR,1,4-DIOXANE-d8 (S)

Manual Integration:

4.009min (-4.009) 0.00 PPB

Before

response 0

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 96.00 | 100.00 | 0.00  |
| 62.00 | 16.30  | 0.00  |
| 64.00 | 54.70  | 0.00# |
| 0.00  | 0.00   | 0.00  |

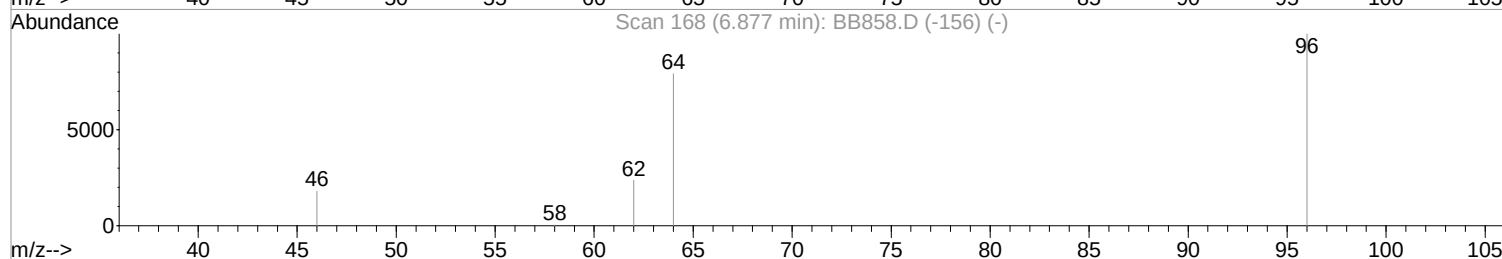
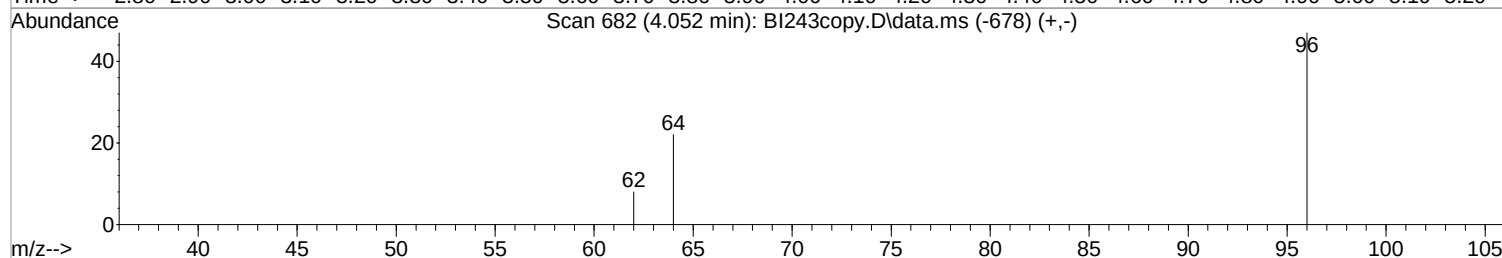
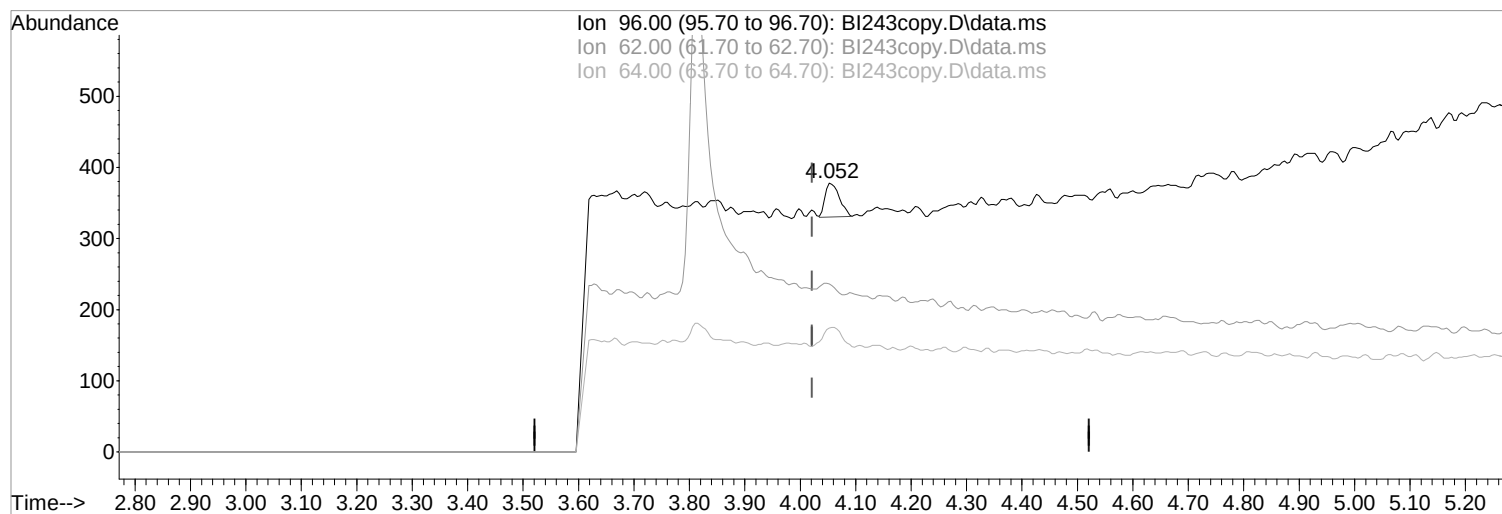
08/10/22



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243copy.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:27:44 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI243copy.D\data.ms

## (3) SURR,1,4-DIOXANE-d8 (S)

4.052min (+ 0.031) 0.98 PPB m

response 85

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 96.00 | 100.00 | 100.00 |
| 62.00 | 16.30  | 62.43# |
| 64.00 | 54.70  | 46.03  |
| 0.00  | 0.00   | 0.00   |

## Manual Integration:

After

Peak not found.

08/10/22

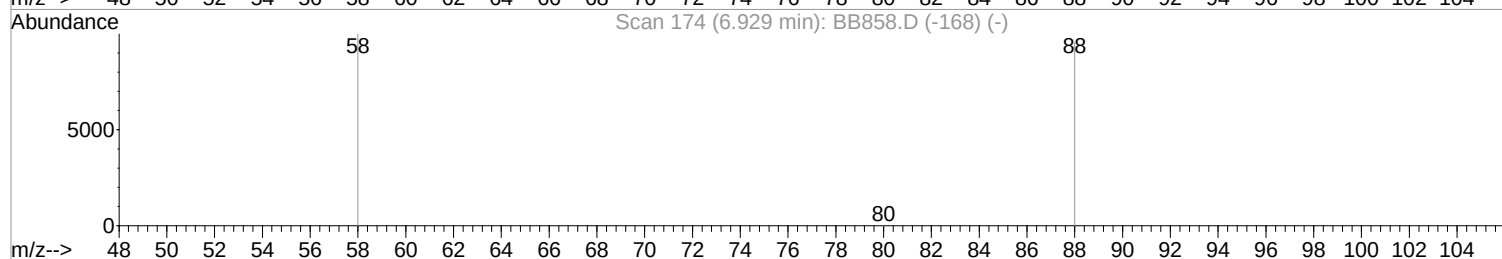
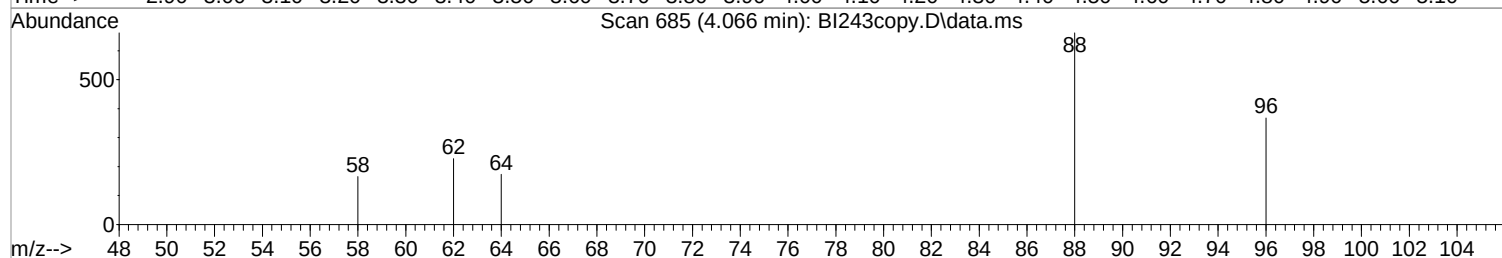
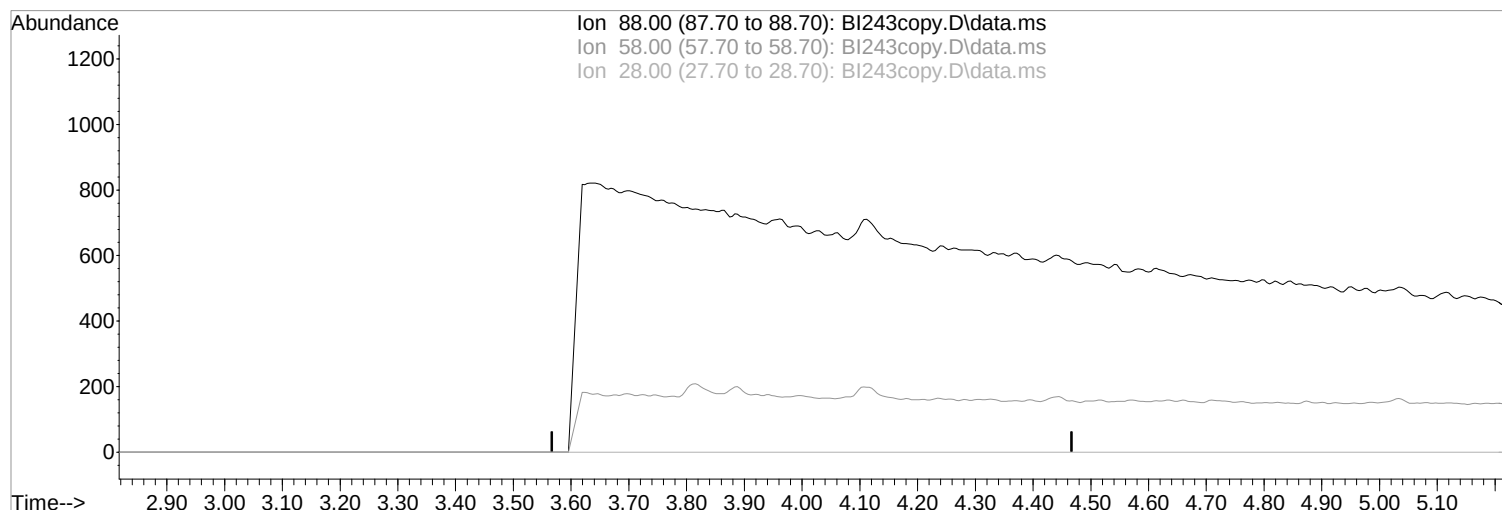
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243copy.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:04:35 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration



TIC: BI243copy.D\data.ms

## (2) 1,4-Dioxane (T)

4.067min (-4.067) 0.00 PPB

response 0

Manual Integration:

Before

08/10/22

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 88.00 | 100.00 | 0.00  |
| 58.00 | 54.30  | 0.00# |
| 28.00 | 0.00   | 0.00  |
| 0.00  | 0.00   | 0.00  |

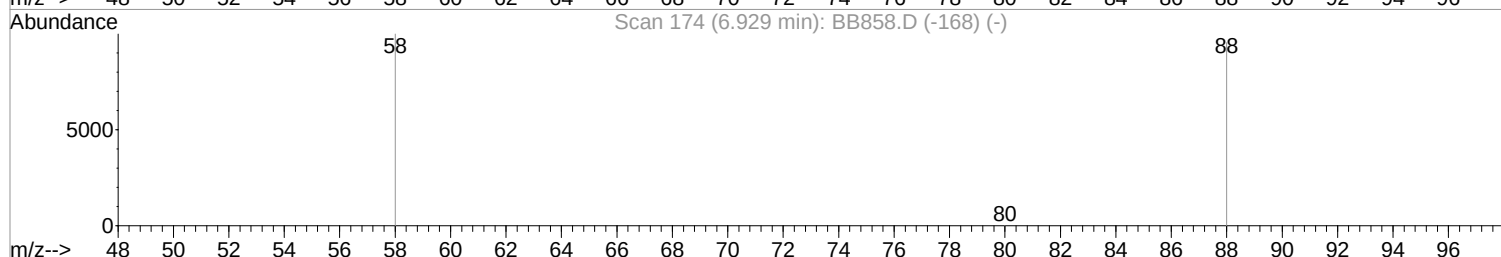
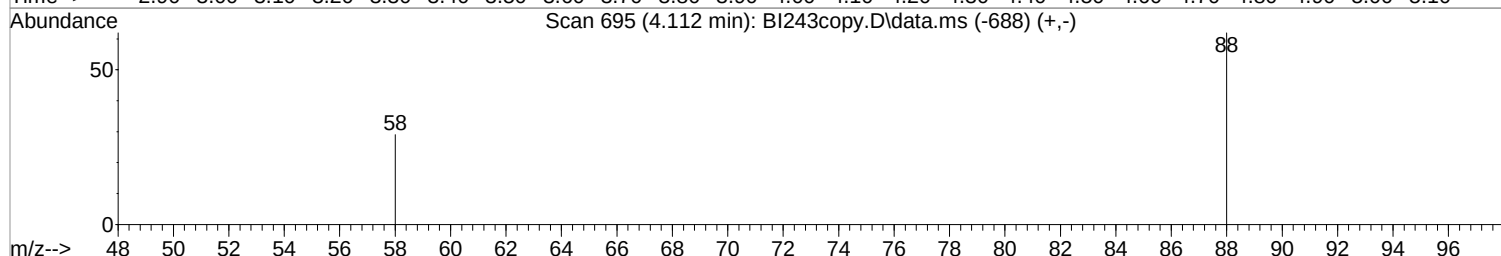
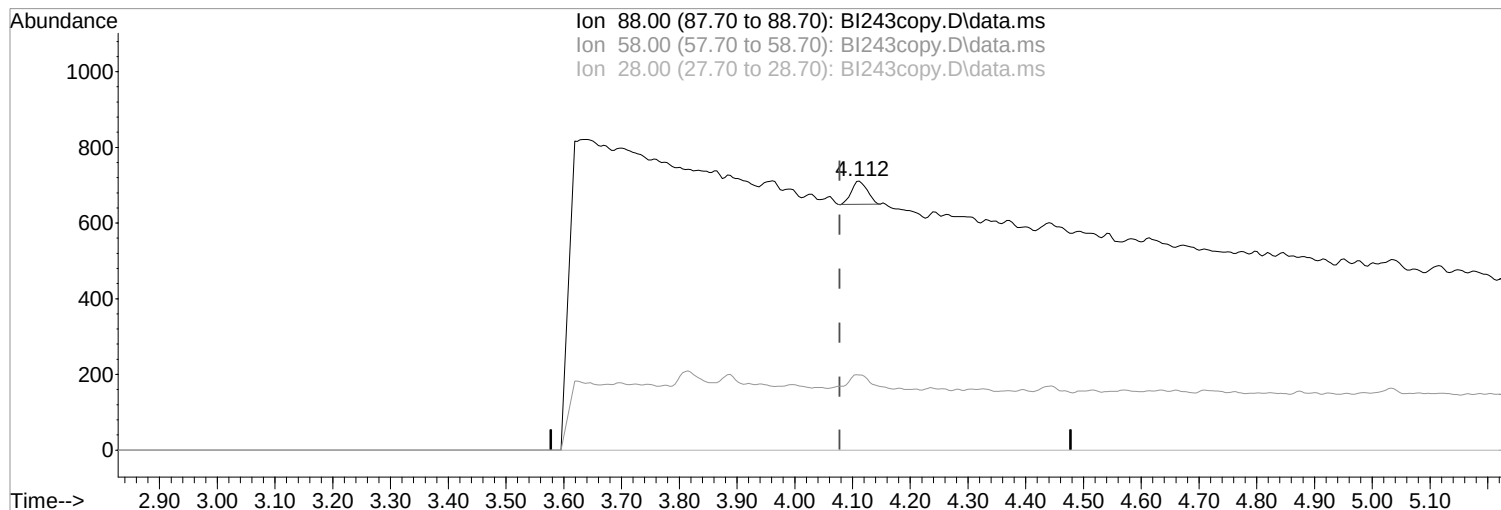
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243copy.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:27:44 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:27:13 2022  
Response via : Initial Calibration



TIC: BI243copy.D\data.ms

## (2) 1,4-Dioxane (T)

4.112min (+ 0.034) 0.93 PPB m

response 118

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 54.30  | 27.85# |
| 28.00 | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

## Manual Integration:

After

Peak not found.

08/10/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI241.D  
Acq On : 10 Aug 2022 7:53 am  
Operator : MMCMAHON  
Sample : BFB TUNE Inst : 5975 E  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Integration File: events.e

Method : I:\ACQUDATA\5975E\METHODS\bfbtune.M  
Title :  
Last Update : Wed Mar 28 08:41:26 2012

AutoFind: Scans 766, 767, 768; Background Corrected with Scan 755

| Target | Rel. to | Lower  | Upper  | Rel.  | Raw    | Result    |
|--------|---------|--------|--------|-------|--------|-----------|
| Mass   | Mass    | Limit% | Limit% | Abn%  | Abn    | Pass/Fail |
| 50     | 95      | 15     | 40     | 20.7  | 28441  | PASS      |
| 75     | 95      | 30     | 60     | 51.9  | 71101  | PASS      |
| 95     | 95      | 100    | 100    | 100.0 | 137112 | PASS      |
| 96     | 95      | 5      | 9      | 6.5   | 8848   | PASS      |
| 173    | 174     | 0.00   | 2      | 0.0   | 0      | PASS      |
| 174    | 95      | 50     | 100    | 83.0  | 113835 | PASS      |
| 175    | 174     | 5      | 9      | 7.9   | 9026   | PASS      |
| 176    | 174     | 95     | 101    | 96.4  | 109693 | PASS      |
| 177    | 176     | 5      | 9      | 6.9   | 7592   | PASS      |

bfbtune.M Wed Aug 10 08:10:16 2022

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI242.D  
Acq On : 10 Aug 2022 8:14 am  
Operator : MMCMAHON  
Sample : INSTRUMENT BLANK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:05:29 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration

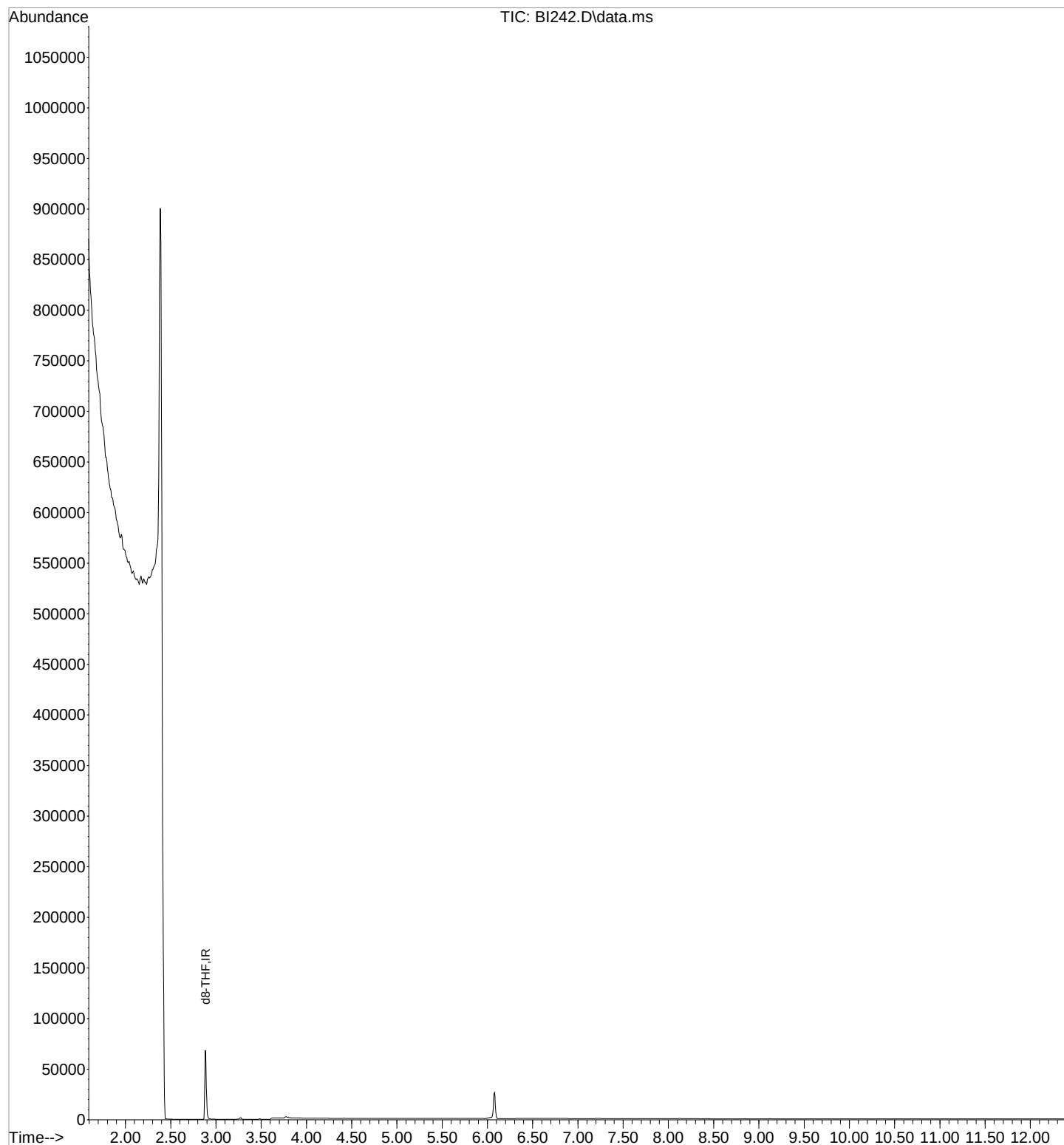
| Compound                    | R.T.    | QIon  | Response | Conc     | Units | Dev(Min) |
|-----------------------------|---------|-------|----------|----------|-------|----------|
| -----                       |         |       |          |          |       |          |
| Internal Standards          |         |       |          |          |       |          |
| 1) d8-THF                   | 2.883   | 46    | 35267    | 500.00   | PPB   | -0.02    |
| System Monitoring Compounds |         |       |          |          |       |          |
| 3) SURR,1,4-DIOXANE-d8      | 0.000   | 96    | 0        | 0.00     | PPB   |          |
| Spiked Amount               | 100.000 | Range | 70 - 130 | Recovery | =     | 0.00%#   |
| Target Compounds            |         |       |          |          |       |          |
| 2) 1,4-Dioxane              | 0.000   |       | 0        | N.D.     |       | Qvalue   |
| -----                       |         |       |          |          |       |          |

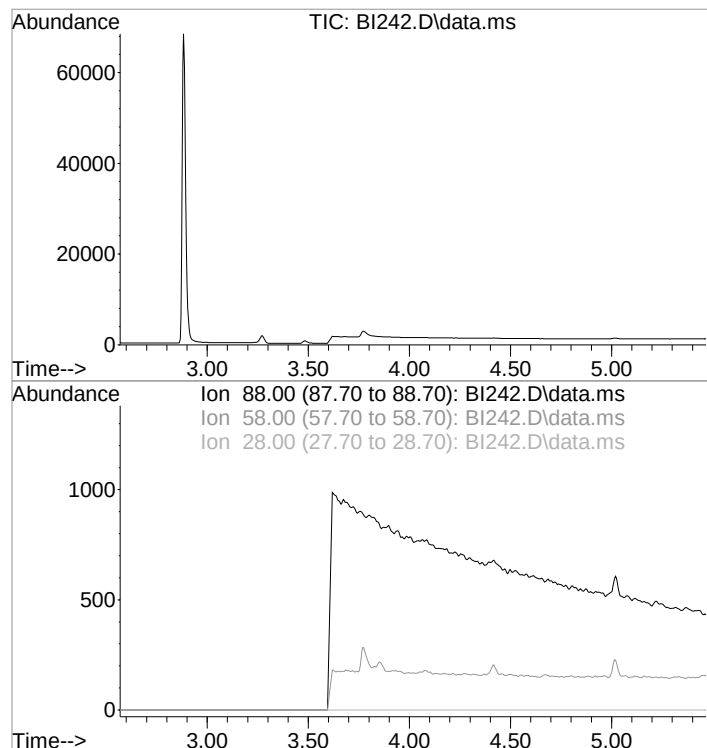
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI242.D  
Acq On : 10 Aug 2022 8:14 am  
Operator : MMCMAHON  
Sample : INSTRUMENT BLANK  
Misc :  
ALS Vial : 2 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 11:05:29 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Wed Aug 10 11:03:26 2022  
Response via : Initial Calibration





#2  
 1,4-Dioxane  
 Concen: N.D.  
 Expected RT: 4.07 min

Lab File: BI242.D  
 Acq: 10 Aug 2022 8:14 am

| Tgt Ion | 88        |
|---------|-----------|
| Sig     | Exp Ratio |
| 88      | 100       |
| 58      | 54.3      |
| 28      | 0.0       |

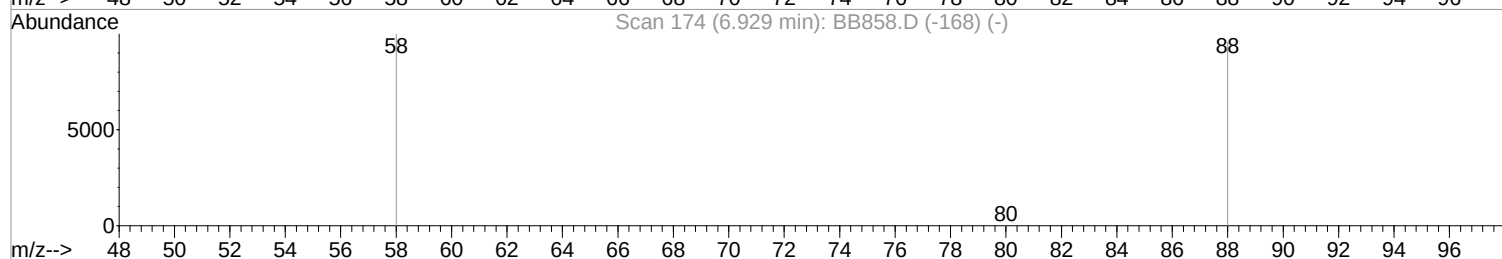
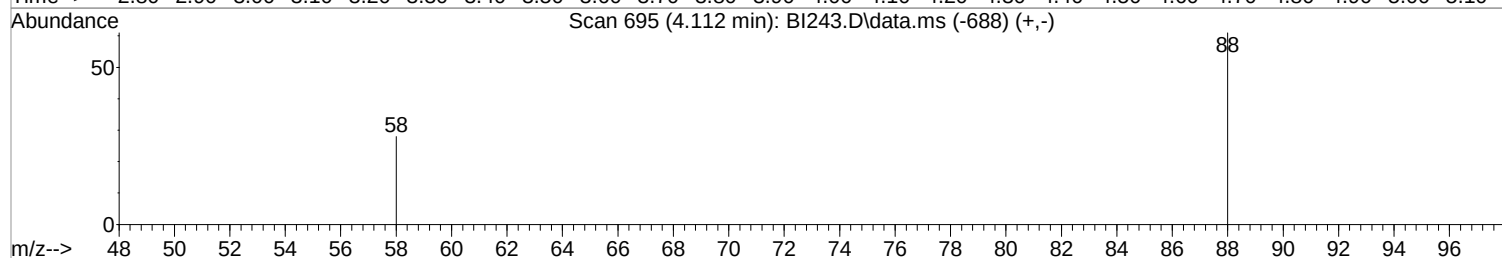
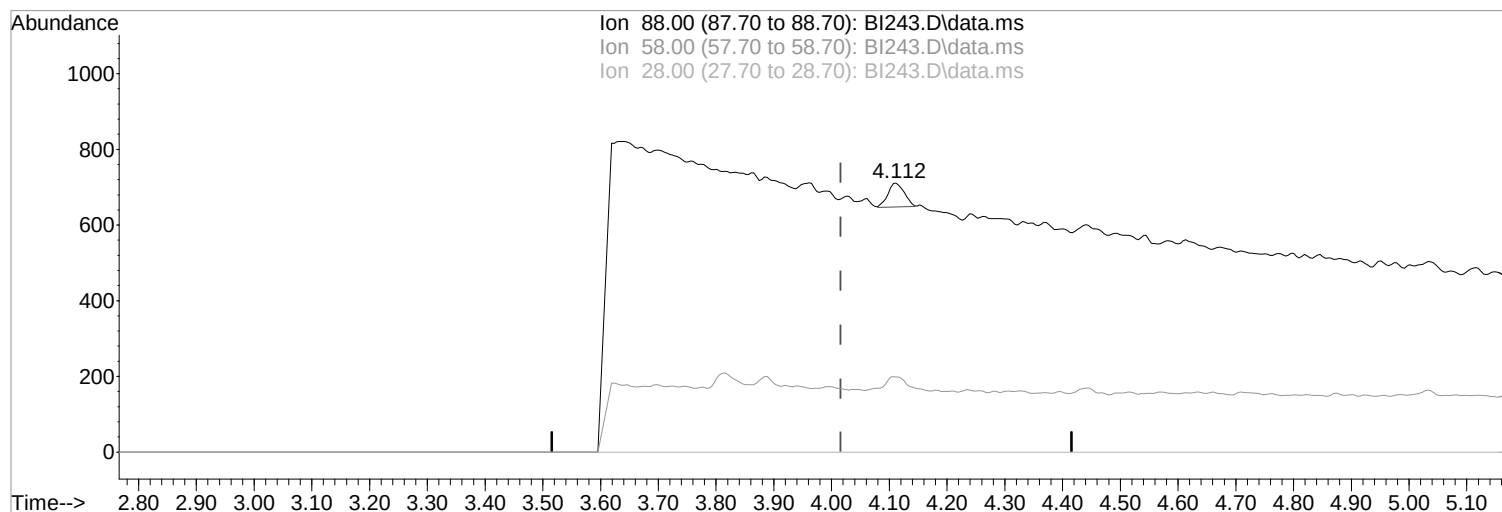
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 08:51:41 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Tue Aug 09 15:26:32 2022  
Response via : Initial Calibration



TIC: BI243.D\data.ms

## (2) 1,4-Dioxane (T)

4.112min (+ 0.096) 0.69 PPB m

response 124

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 88.00 | 100.00 | 100.00 |
| 58.00 | 54.30  | 27.85# |
| 28.00 | 0.00   | 0.00   |
| 0.00  | 0.00   | 0.00   |

## Manual Integration:

After

Peak not found.

08/10/22



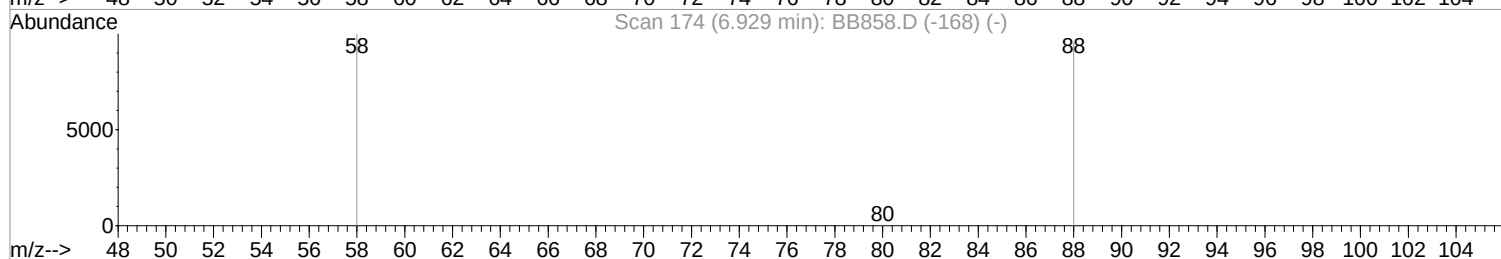
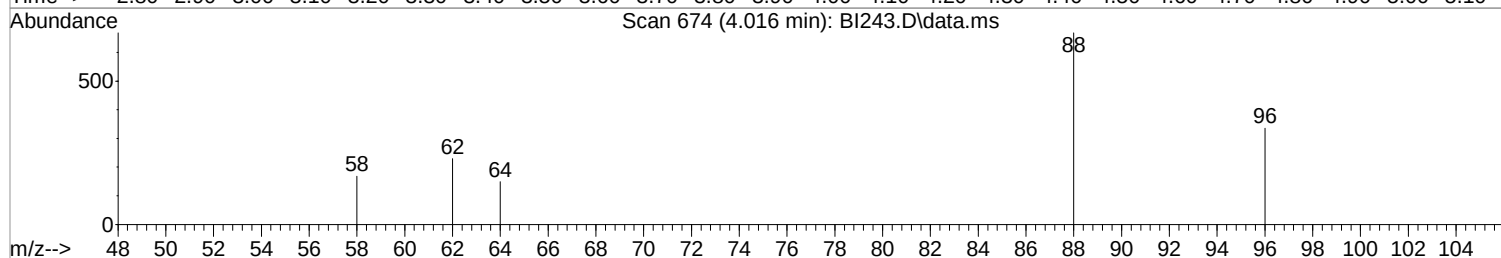
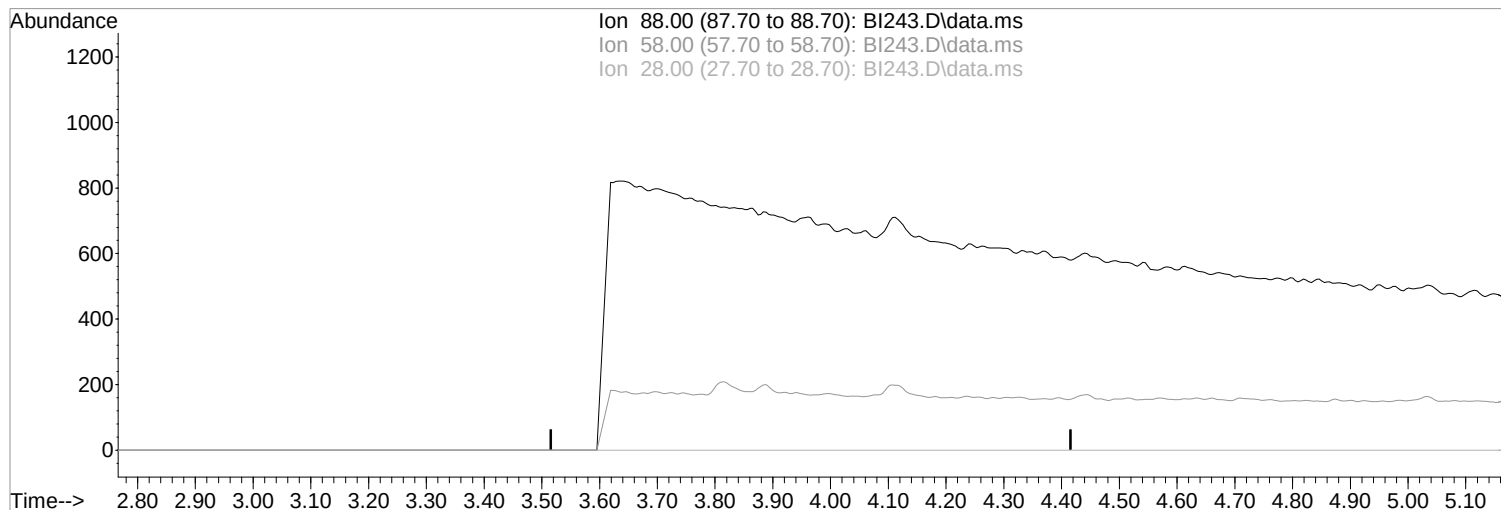
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 08:51:41 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Tue Aug 09 15:26:32 2022  
Response via : Initial Calibration



TIC: BI243.D\data.ms

(2) 1,4-Dioxane (T)

Manual Integration:

4.016min (-4.016) 0.00 PPB

Before

response 0

08/10/22

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 88.00 | 100.00 | 0.00  |
| 58.00 | 54.30  | 0.00# |
| 28.00 | 0.00   | 0.00  |
| 0.00  | 0.00   | 0.00  |

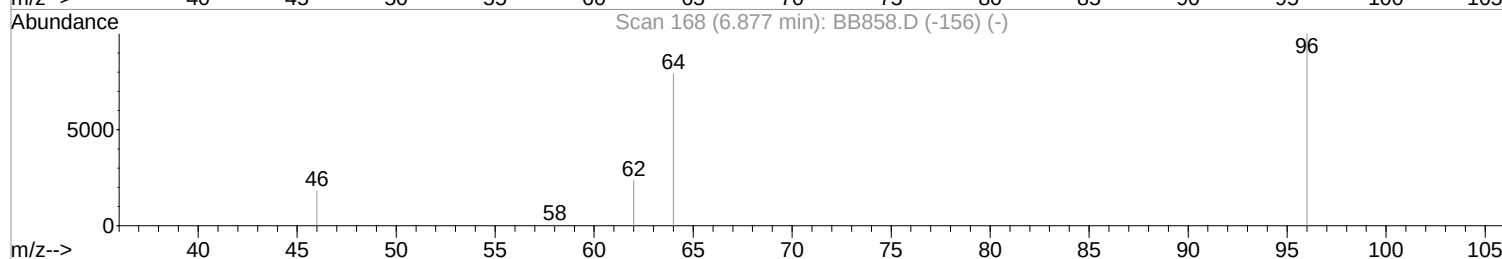
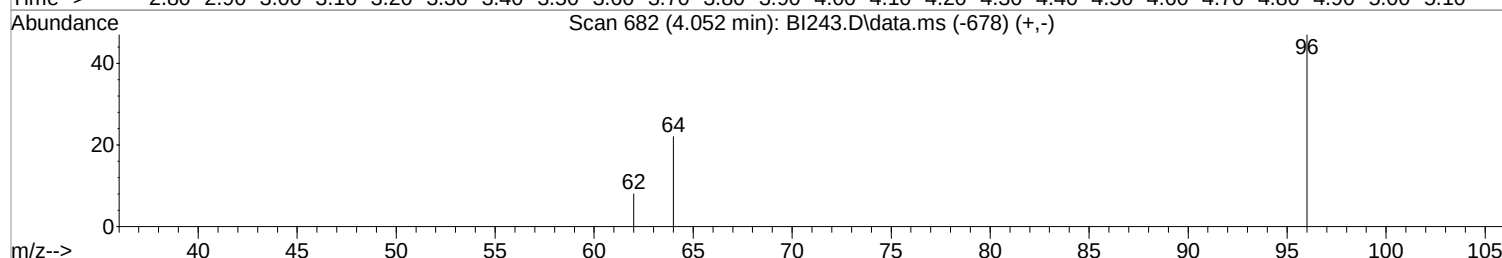
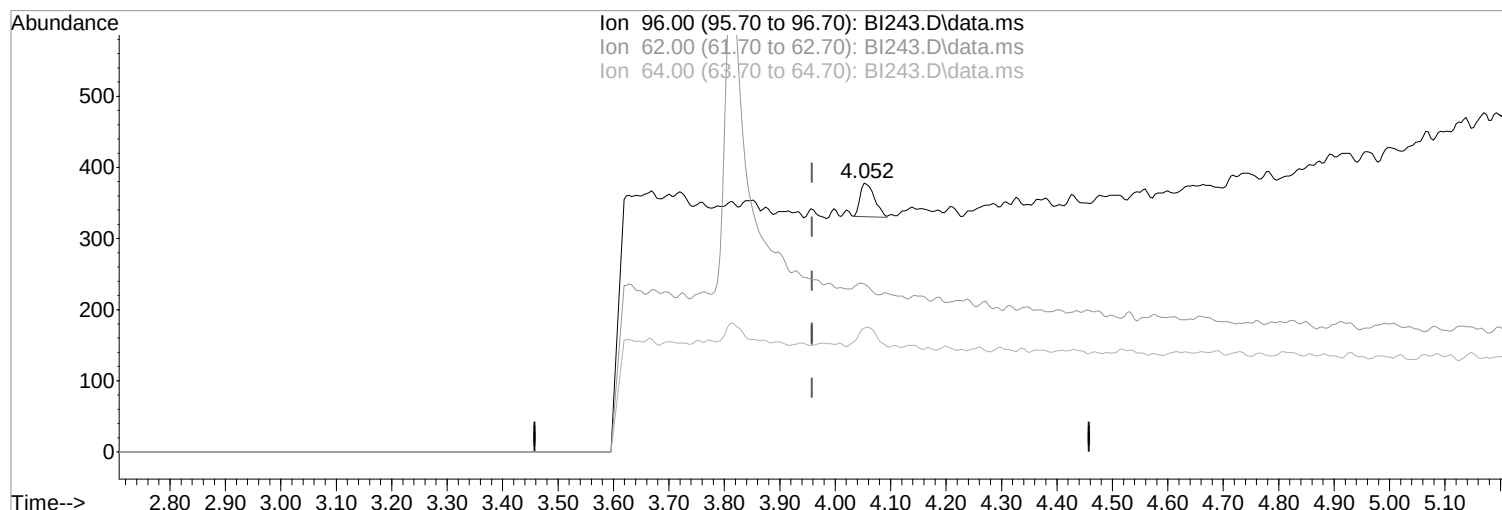
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 08:51:41 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Tue Aug 09 15:26:32 2022  
Response via : Initial Calibration



TIC: BI243.D\data.ms

## (3) SURR,1,4-DIOXANE-d8 (S)

4.052min (+ 0.094) 1.27 PPB m

response 85

| Ion   | Exp%   | Act%   |
|-------|--------|--------|
| 96.00 | 100.00 | 100.00 |
| 62.00 | 16.30  | 62.43# |
| 64.00 | 54.70  | 46.03  |
| 0.00  | 0.00   | 0.00   |

## Manual Integration:

After

Peak not found.

08/10/22

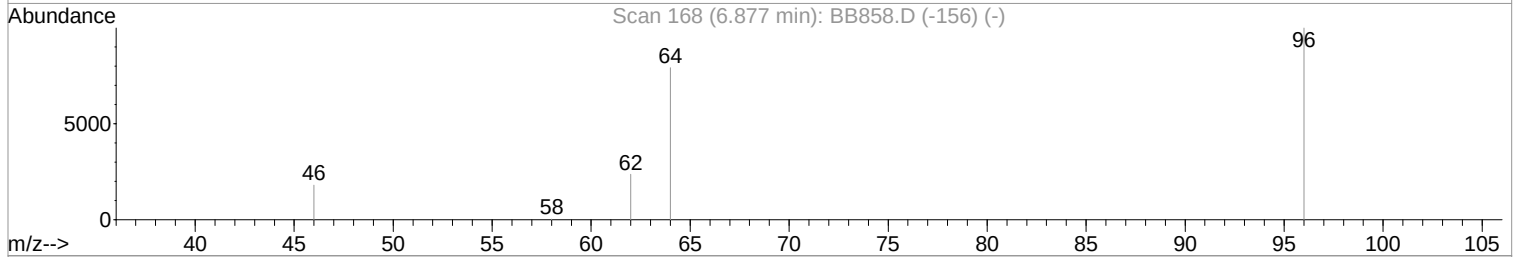
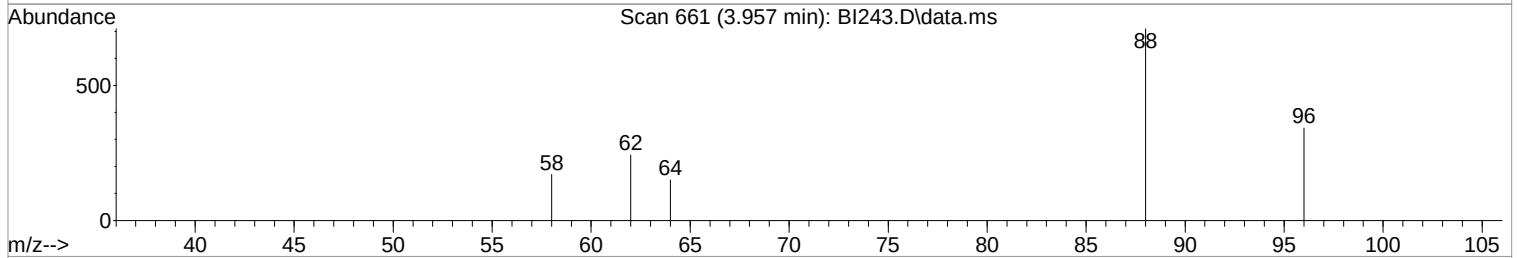
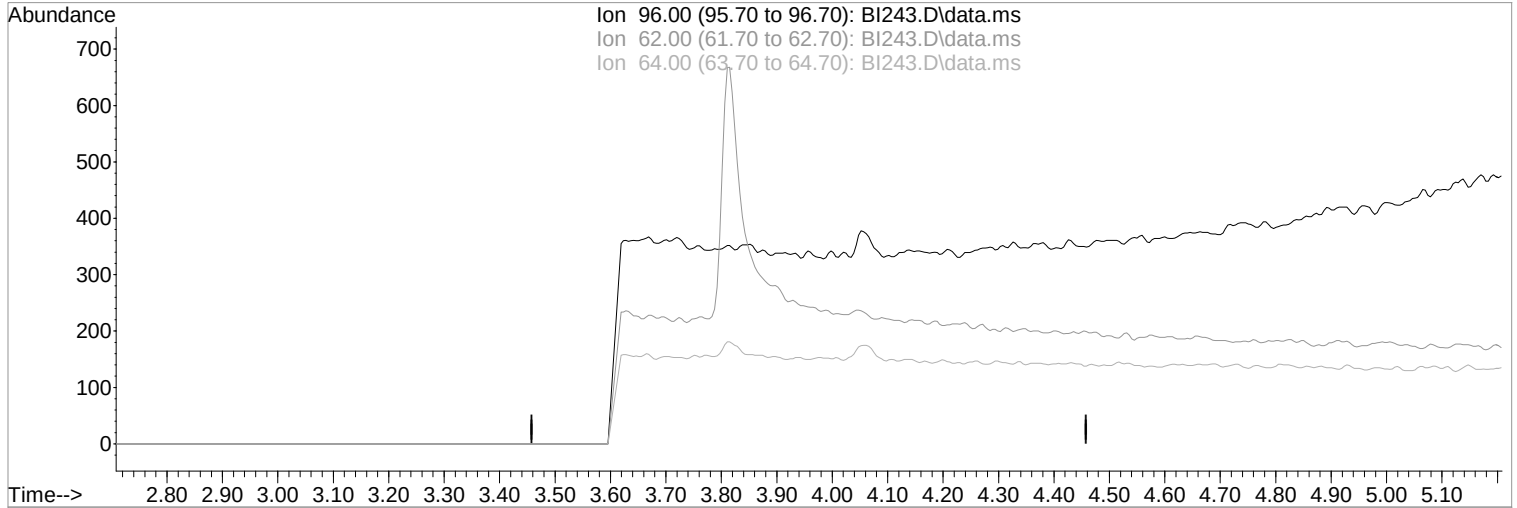
# Quantitation Report (Qedit)

1st *MEM* 08/10/22  
2nd *ref* 08/11/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 08:51:41 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Tue Aug 09 15:26:32 2022  
Response via : Initial Calibration



TIC: BI243.D\data.ms

(3) SURR,1,4-DIOXANE-d8 (S)

3.958min (-3.958) 0.00 PPB

response 0

Manual Integration:

Before

08/10/22

| Ion   | Exp%   | Act%  |
|-------|--------|-------|
| 96.00 | 100.00 | 0.00  |
| 62.00 | 16.30  | 0.00  |
| 64.00 | 54.70  | 0.00# |
| 0.00  | 0.00   | 0.00  |

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 08:52:01 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Tue Aug 09 15:26:32 2022  
Response via : Initial Calibration

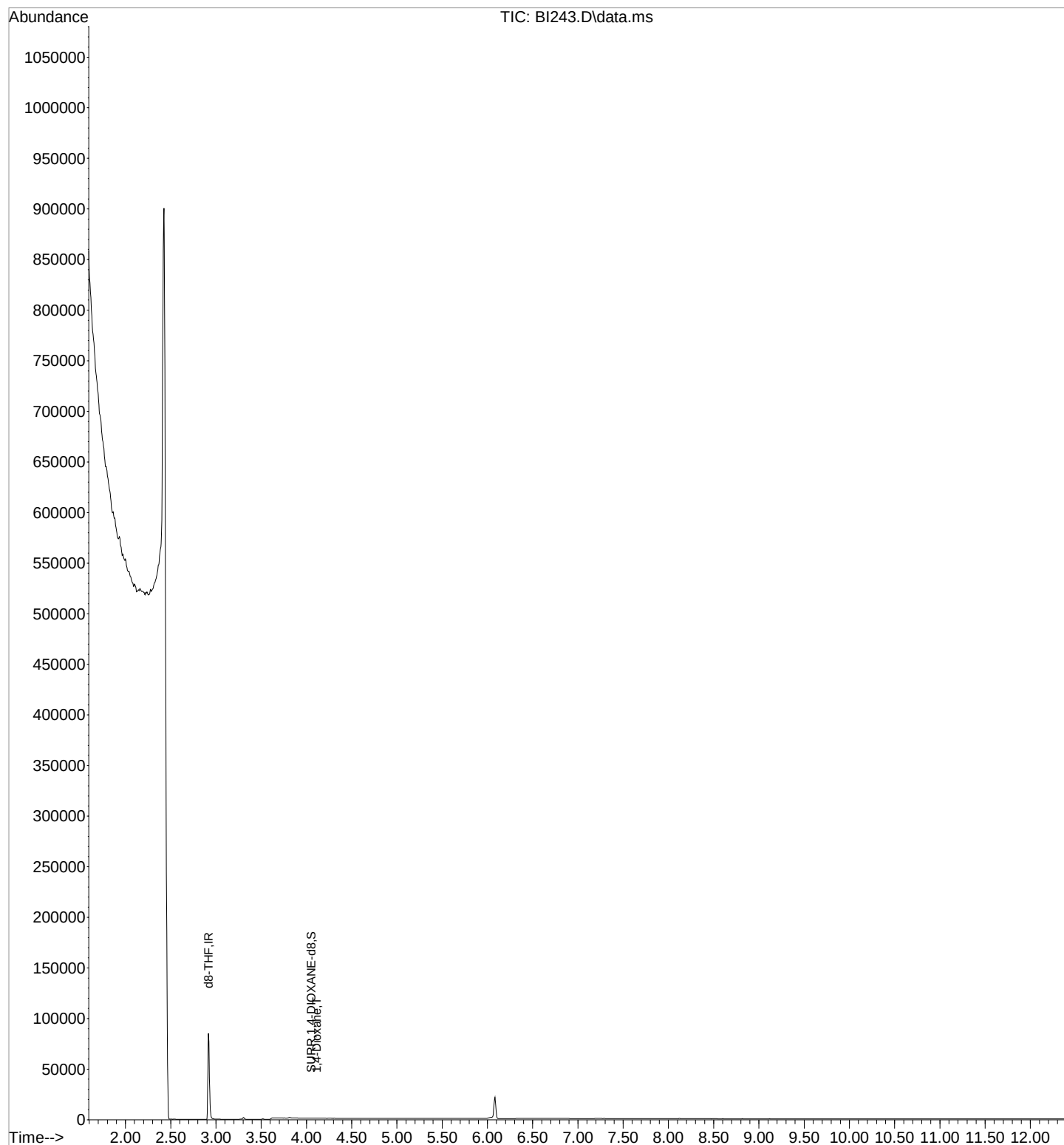
| Compound                    | R.T.           | QIon | Response | Conc   | Units  | Dev(Min) |
|-----------------------------|----------------|------|----------|--------|--------|----------|
| -----                       |                |      |          |        |        |          |
| Internal Standards          |                |      |          |        |        |          |
| 1) d8-THF                   | 2.918          | 46   | 43476    | 500.00 | PPB    | 0.07     |
|                             |                |      |          |        |        |          |
| System Monitoring Compounds |                |      |          |        |        |          |
| 3) SURR, 1,4-DIOXANE-d8     | 4.052          | 96   | 85m      | 1.27   | PPB    | 0.09     |
| Spiked Amount 100.000       | Range 70 - 130 |      | Recovery | =      | 1.27%# |          |
|                             |                |      |          |        |        |          |
| Target Compounds            |                |      |          |        |        | Qvalue   |
| 2) 1,4-Dioxane              | 4.112          | 88   | 124m     | 0.69   | PPB    |          |
| -----                       |                |      |          |        |        |          |

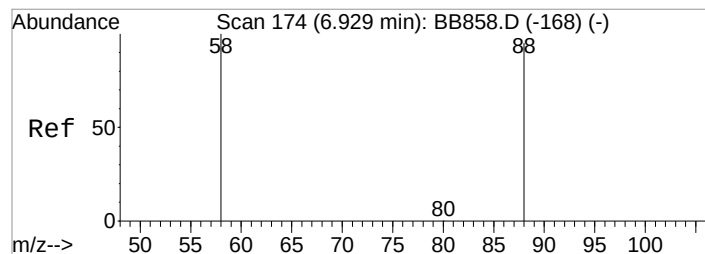
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI243.D  
Acq On : 10 Aug 2022 8:32 am  
Operator : MMCMAHON  
Sample : STD 1  
Misc :  
ALS Vial : 3 Sample Multiplier: 1

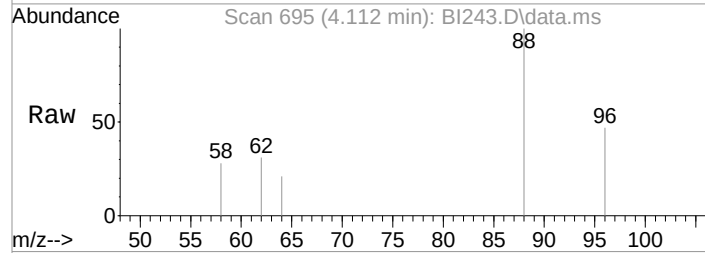
Inst : 5975 E

Quant Time: Aug 10 08:52:01 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Quant Title : 8270 BNA ANALYSIS  
QLast Update : Tue Aug 09 15:26:32 2022  
Response via : Initial Calibration

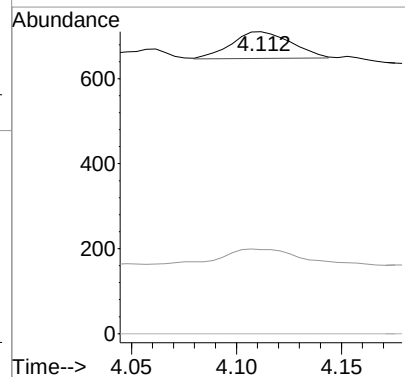
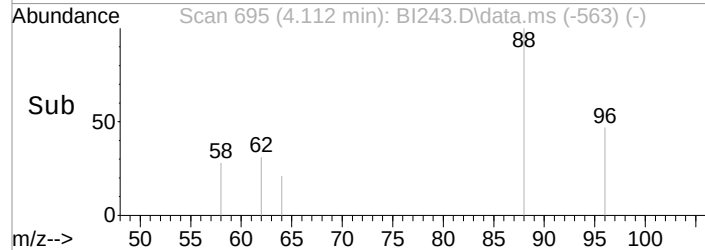




#2  
 1,4-Dioxane  
 Concen: 0.69 PPB m  
 RT: 4.112 min Scan# 695  
 Delta R.T. 0.096 min  
 Lab File: BI243.D  
 Acq: 10 Aug 2022 8:32 am



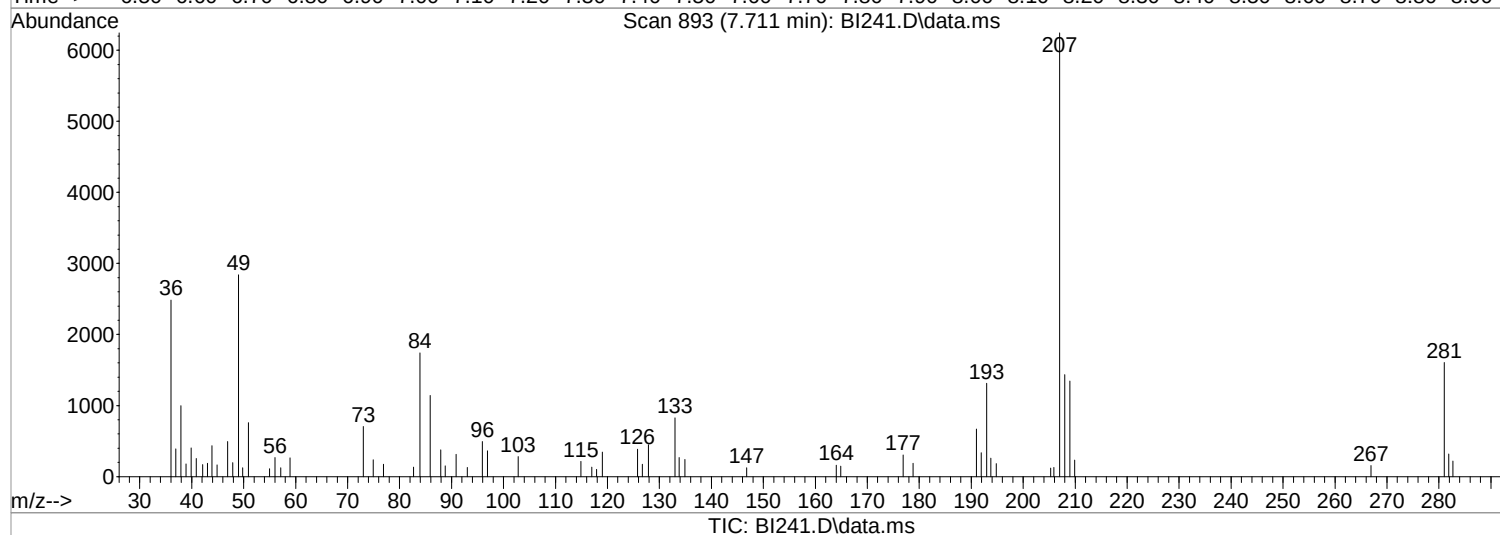
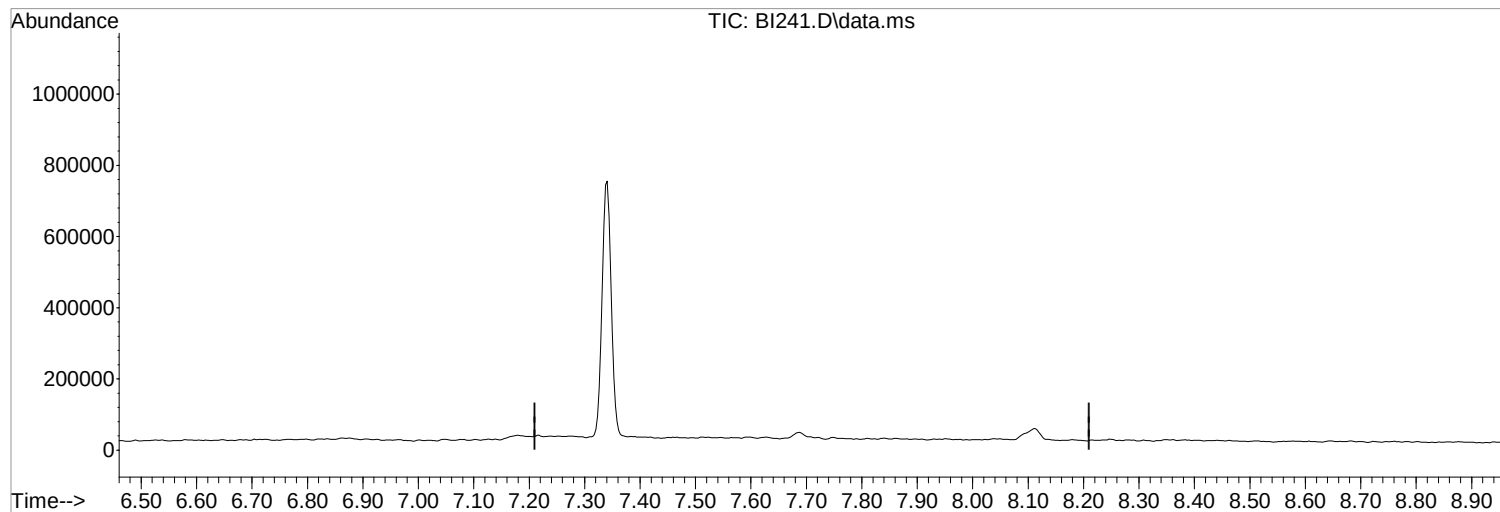
Tgt Ion: 88 Resp: 124  
 Ion Ratio Lower Upper  
 88 100  
 58 27.8 34.3 74.3#  
 28 0.0 0.0 20.0



Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI241.D  
Acq On : 10 Aug 2022 7:53 am  
Operator : MMCMAHON  
Sample : BFB TUNE  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 08:09:53 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\bfbtune.M  
Quant Title :  
QLast Update : Wed Mar 28 08:41:26 2012  
Response via : Initial Calibration



(1) BFB

Manual Integration:

7.710min (-7.710) 0.00

Before

response 0

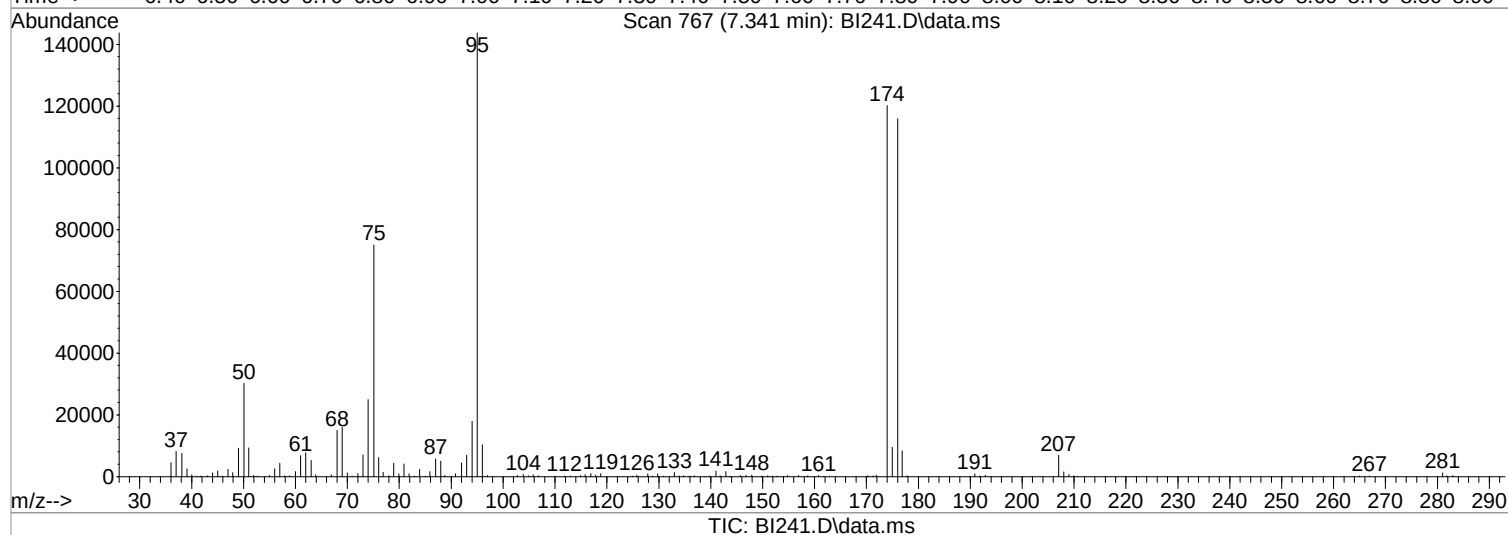
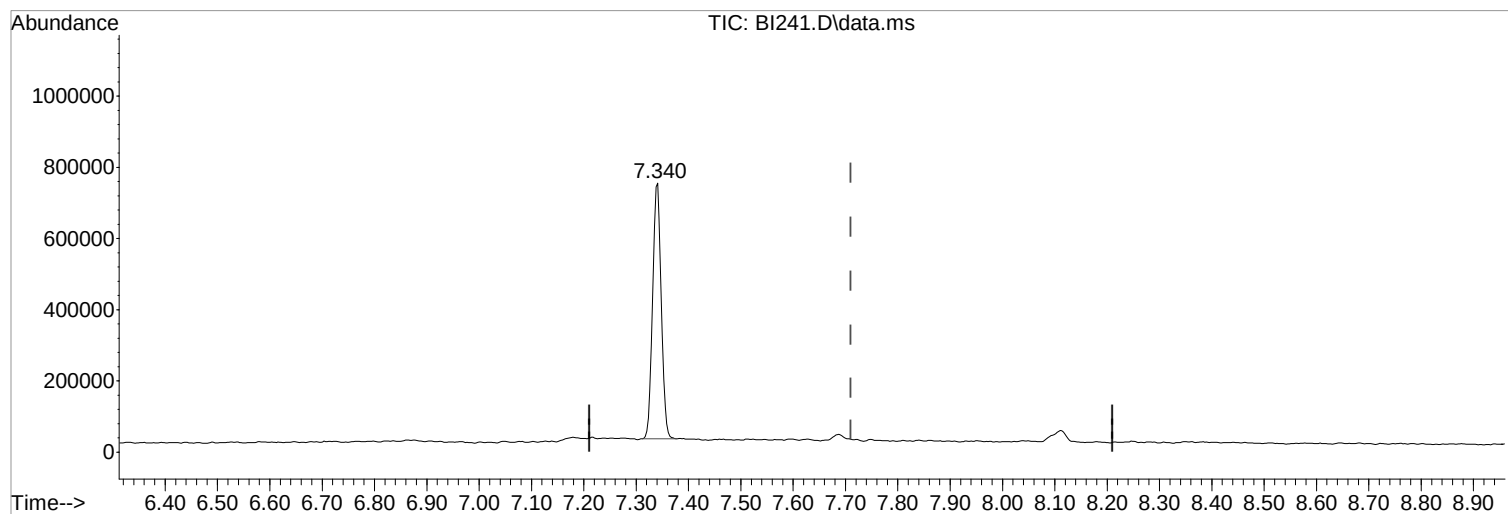
| Signal | Exp%   | Act% |
|--------|--------|------|
| TIC    | 100.00 | 0.00 |
| 0.00   | 0.00   | 0.00 |
| 0.00   | 0.00   | 0.00 |
| 0.00   | 0.00   | 0.00 |

08/10/22

Data Path : I:\ACQUDATA\5975E\data\081022\  
Data File : BI241.D  
Acq On : 10 Aug 2022 7:53 am  
Operator : MMCMAHON  
Sample : BFB TUNE  
Misc :  
ALS Vial : 1 Sample Multiplier: 1

Inst : 5975 E

Quant Time: Aug 10 08:09:53 2022  
Quant Method : I:\ACQUDATA\5975E\METHODS\bfbtune.M  
Quant Title :  
QLast Update : Wed Mar 28 08:41:26 2012  
Response via : Initial Calibration

**(1) BFB**

7.340min (-0.370) 0.00 m

response 8177259

| Signal | Exp% | Act% |
|--------|------|------|
|--------|------|------|

|     |        |        |
|-----|--------|--------|
| TIC | 100.00 | 100.00 |
|-----|--------|--------|

|      |      |      |
|------|------|------|
| 0.00 | 0.00 | 0.00 |
|------|------|------|

|      |      |      |
|------|------|------|
| 0.00 | 0.00 | 0.00 |
|------|------|------|

|      |      |      |
|------|------|------|
| 0.00 | 0.00 | 0.00 |
|------|------|------|

**Manual Integration:**

After

Peak not found.

08/10/22



2C 22 00081

Analysis: S22 1,4 diox

ICAL Date: 8/10/22

Instrument S975-E

# SOCs by GC/MS Initial Calibration Checklist

- ☐ 1. Is the required documentation in the ICAL file?
  - ☒ Sequence report
  - ☒ DFTPP <sup>REF MEM</sup> Tune analysis Report 8/10/22
  - ☒ Blank analysis Quantitation Report
  - ☒ Calibration Status Report (aka Calibration History) - Initial
  - ☒ Response Factor Report
  - ☒ Data Analysis Parameters Report (aka Data Base report)
  - ☒ Print of the calibration curve for any compound that uses a curve (instead of an average RF)
  - ☒ Quantitation Report for each calibration standard (including manual integration documentation)
  - ☒ ICV Quantitation Report and Evaluate Continuing Calibration Report (aka Percent Diff. report)
- ☒ 2. Was the ICAL performed continuously (i.e., not interrupted for maintenance or for sample analysis)?
- ☒ 3. For any reanalyzed points, was reanalysis within 8 hours of the final standard and within tune window?
- ☒ 4. Does the ~~DFTPP~~ <sup>REF MEM</sup> tune check standard analysis at the start meet the tune criteria? 8/10/22
- ☒ 5. Are all the analytes in the blank analysis < MRL?
- ☒ 6. For each analyte, does the ICAL include, consecutively, the minimum number of concentration levels (5 for RSD/linear, 6 for quadratic, 7 for third order equations)?
- ☒ 7. For any interior dropped points, is the reason documented with assignable cause? Are all analytes dropped from that point?
- ☒ 8. For each analyte, are there no levels skipped?
- ☒ 9. For each analyte, is there only one value used for each calibration level?
- ☒ 10. For each analyte, is the lowest standard's concentration at or below the analyte's MRL?
- ☒ 11. For each analyte, are required minimum average RFs met?
- ☒ 12. For analytes calibrated using average RF, is the limit for the RSD met ( $\leq 35\%$  for 625,  $\leq 20\%$  for 8270 and 680,  $\leq 15\%$  for DOD)?
- ☒ 13. For analytes calibrated using linear regression (or another model) does the correlation coefficient meet limits ( $\geq 0.990$ )? Does a requant of the low point of the curve meet 70-130% (required for 8000 methods – recommended for others)?
- ☒ 14. For the ICV analysis, is the percent recovery for each analyte 70 - 130% (80-120% for DOD)?
- ☒ 15. Are all peak integrations acceptable?
- ☒ 16. Have the RTs of new ICAL been checked against the old ICAL to verify identity?

## COMMENTS

Analyst: Holly Wellman

Date: 8/10/22

Secondary Reviewer: midgran

Date: 8/11/22



Method Path : I:\ACQUDATA\5975E\METHODS\  
 Method File : 522DIOX081022.M  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Aug 10 11:27:13 2022  
 Response Via : Initial Calibration

| # | ID   | Conc | ISTD<br>Conc | Path\File                             |
|---|------|------|--------------|---------------------------------------|
| 1 | 2    | 2    | 500          | I:\ACQUDATA\5975E\data\081022\BI244.D |
| 2 | 10   | 10   | 500          | I:\ACQUDATA\5975E\data\081022\BI245.D |
| 3 | 20   | 20   | 500          | I:\ACQUDATA\5975E\data\081022\BI246.D |
| 4 | 100  | 100  | 500          | I:\ACQUDATA\5975E\data\081022\BI247.D |
| 5 | 200  | 200  | 500          | I:\ACQUDATA\5975E\data\081022\BI248.D |
| 6 | 500  | 500  | 500          | I:\ACQUDATA\5975E\data\081022\BI249.D |
| 7 | 1000 | 1000 | 500          | I:\ACQUDATA\5975E\data\081022\BI250.D |
| 8 | 5000 | 5000 | 500          | I:\ACQUDATA\5975E\data\081022\BI251.D |
| 9 | 1    | 1    | 500          | I:\ACQUDATA\5975E\data\081022\BI243.D |

| # | ID   | Update Time       | Quant Time        | Acquisition Time     |
|---|------|-------------------|-------------------|----------------------|
| 1 | 2    | Aug 10 11:26 2022 | Aug 10 11:26 2022 | 10 Aug 2022 8:49 am  |
| 2 | 10   | Aug 10 09:27 2022 | Aug 10 09:25 2022 | 10 Aug 2022 9:06 am  |
| 3 | 20   | Aug 10 09:38 2022 | Aug 10 09:38 2022 | 10 Aug 2022 9:23 am  |
| 4 | 100  | Aug 10 09:54 2022 | Aug 10 09:54 2022 | 10 Aug 2022 9:41 am  |
| 5 | 200  | Aug 10 10:11 2022 | Aug 10 10:11 2022 | 10 Aug 2022 9:58 am  |
| 6 | 500  | Aug 10 10:39 2022 | Aug 10 10:39 2022 | 10 Aug 2022 10:15 am |
| 7 | 1000 | Aug 10 10:59 2022 | Aug 10 10:59 2022 | 10 Aug 2022 10:33 am |
| 8 | 5000 | Aug 10 11:03 2022 | Aug 10 11:02 2022 | 10 Aug 2022 10:50 am |
| 9 | 1    | Aug 10 09:26 2022 | Aug 10 08:52 2022 | 10 Aug 2022 8:32 am  |

522DIOX081022.M Wed Aug 10 12:24:57 2022

```
[header]
method=DFTPP
base_mass=198
other_base=-1
print_tab=0
num_comparisons=13
[criteria]
1= 51.00, 198.00, 30.00, 60.00, 0
2= 68.00, 69.00, 0.00, 2.00, 0
3= 69.00, 198.00, 0.00, 100.00, 0
4= 70.00, 69.00, 0.00, 2.00, 0
5=127.00, 198.00, 40.00, 60.00, 0
6=197.00, 198.00, 0.00, 1.00, 0
7=198.00, 198.00, 100.00, 100.00, 0
8=199.00, 198.00, 5.00, 9.00, 0
9=275.00, 198.00, 10.00, 30.00, 0
10=365.00, 198.00, 1.00, 100.00, 0
11=441.00, 443.00, 0.01, 100.00, 0
12=442.00, 198.00, 40.00, 100.00, 0
13=443.00, 442.00, 17.00, 23.00, 0
```

```
[header]
method=CLPBFB
base_mass=95
other_base=-1
print_tab=0
num_comparisons=9
[criteria]
1= 50.00, 95.00, 15.00, 40.00, 0
2= 75.00, 95.00, 30.00, 80.00, 0
3= 95.00, 95.00, 100.00, 100.00, 0
4= 96.00, 95.00, 5.00, 9.00, 0
5=173.00, 174.00, 0.00, 2.00, 0
6=174.00, 95.00, 50.00, 100.00, 0
7=175.00, 174.00, 5.00, 9.00, 0
8=176.00, 174.00, 95.00, 101.00, 0
9=177.00, 176.00, 5.00, 9.00, 0
```

```

! Detailed Report Print options
! Set the options for the desired output
Name TEMP
p_founds = 0      ! 0=print all spectra and/or EICP, 1 = print spectra for
                  ! compounds considered as founds
p_istd  = 0      ! 1=Print spectra for ISTD's
p_surr  = 0      ! 1=Print spectra for Surrogates (compound type = S)
p_md1   = 0.00   ! Minimum Reporting Limit. Compounds with concentrations
                  ! less than this value will be considered not found
p_qual  = 1      ! report compounds whose qualifiers are out of range as
                  ! hits. 0 = do not report out of range as hit.
                  ! 1 = report out of range as hit
p_scan  = 0      ! include scan# or quant ion in summary report
                  ! 0 = quant ion
                  ! 1 = scan number
p_sumsec = 0      ! Include secondary hits in the summary report
                  ! 0 = Do not include
                  ! 1 = Include
p_detail = 0      ! 0 = scan detailed report
                  ! 1 = sim detailed report
p_express = 0     ! 1 = express thumbnail sim detailed report
tic_pages = 1     ! x = number of pages for printing of Total Ion
                  ! chromatogram. 0 = Do Not Print TIC
p_scaletime = 2   ! Use largest peak after scaletime for y scale
p_scaletime2 = 5  ! Use largest peak after scaletime for y scale GC sig1
p_scaletime3 = 5  ! Use largest peak after scaletime for y scale GC sig2
istd_dil = 0      ! Apply multiplier to Internal Standards
surr_dil = 1      ! Apply multiplier to Surrogates
targ_dil = 1      ! Apply multiplier to Target compounds
p_ionratio = 0    ! Include detailed spectral evaluation report
p_format = 0      ! Print the chromatograms in Portrait(0),Landscape(1) Mode
p_labels = 1      ! Print labels
p_md1_compound = 1 ! Global (0) or Compound Specific (1) mdl evaluation
rem Temp

```

! This file contains a list of items  
! to be included in the continuing calibration report  
! This file can be edited using notepad to  
! uncomment items to be included in the report

```
name cc_options
  cc_per_low= 50.00  !Specifies the lower and upper area limits
  cc_per_hi = 200.0  !Specifies the lower and upper area limits
  cc_per_max = 20.00  !Specifies the maximum deviation in RF's
  cc_relresp_min = 0.050 ! Specifies the minimum relative response factor
  cc_level$ = "200"  !Level identifier of initial level with same
                      !concentration as continuing level
  cc_time = 0.50     !Retention time deviation limit (min).
  cc_retime = 1      !Update Quant Database Retention Times when updating
                      ! continuing calibration level 0=no, 1=yes
  cc_refspect = 1    !Update Quant Database Reference Spectra when updating
                      ! continuing calibration level 0=no, 1=yes
  cc_report = 1      !report by rrf (0) or calc conc drift (1)
  cc_qatime = 12.00  !allowed time period for QACHK
  cc_qamin = 30.00   !minimum area %
  cc_qamax = 130.00  !maximum area %
remove cc_options
```

name ticintparm

! Enter the values for the following parameters for  
! use in generating TIC's

! Integration Parameter File Name

LSC\_intp\$="TEBINT.P"

!% of closest ISTD for reporting

percentistd = 10.00 !cut off for reporting based on area comparison  
! of closest internal standard

LSC\_MAX = 30 !maximum number of LSC's to report

!TIC library to USE

tic\_lib\$="J:\ACQUDATA\DATABASE\NIST98.L"

! Response for External Standard Comparisons per unit amount

LSC\_estd=0.00

lsc\_alkanes = 0 !for exclusion of user-named alkanes (DEL) ALKANE from lscnames.ini

lsc\_pkpur = 0 !use Peak Purity or not

lsc\_range = 0 !Entire chrom (0) or specified range (1)

lsc\_start = 0.00 !start range if lsc\_range = 1

lsc\_end = 0.00 !end range if lsc\_range = 1

remove ticintparm



DATA ANALYSIS PARAMETERS

Method Name: I:\ACQUDATA\5975E\METHODS\522DIOX081022.M

Percent Report Settings

Sort By: Signal

Output Destination

Screen: Yes

Printer: No

File: No

Integration Events: Meth Default

Generate Report During Run Method: No

Signal Correlation Window: 0.020

Qualitative Report Settings

Peak Location of Unknown: Apex

Library to Search Minimum Quality  
C:\Database\NIST08.L 0

Integration Events: Meth Default

Report Type: Summary

Output Destination

Screen: Yes

Printer: No

File: No

Generate Report During Run Method: No

Quantitative Report Settings

Report Type: Summary

Output Destination

Screen: No

Printer: No

File:

Generate Report During Run Method: Yes

8270 BNA ANALYSIS

Calibration Last Updated: Wed Aug 10 11:27:13 2022

522DIOX081022.M Wed Aug 10 11:30:27 2022

Page: 0

Reference Window: 0.50 Minutes  
Non-Reference Window: 0.50 Minutes  
Correlation Window: 0.05 minutes  
Default Multiplier: 1.00  
Default Sample Concentration: 0.00

Compound Information

1) d8-THF (ISTD)

Ret. Time 2.910 min., Extract & Integrate from 2.410 to 3.410 min.

| Signal    | Rel Resp. | Pct. Unc.(abs) | Integration          |
|-----------|-----------|----------------|----------------------|
| Tgt 46.00 |           |                | *** METH DEFAULT *** |
| Q1 78.00  | 86.40     | 40.0           | *** METH DEFAULT *** |
| Q2 80.00  | 96.70     | 40.0           | *** METH DEFAULT *** |

| Lvl ID | Conc (PPB) | Response |
|--------|------------|----------|
| 2      | 500.000    | 43498    |
| 10     | 500.000    | 42820    |
| 20     | 500.000    | 42238    |
| 100    | 500.000    | 42041    |
| 200    | 500.000    | 41572    |
| 500    | 500.000    | 39985    |
| 1000   | 500.000    | 41354    |
| 5000   | 500.000    | 40070    |
| 1      | 500.000    | 43476    |

Qualifier Peak Analysis ON ISTD conc: 500.000 PPB  
Curve Fit: Avg. RF

2) 1,4-Dioxane ( )

Ret. Time 4.078 min., Extract & Integrate from 3.578 to 4.478 min.

| Signal    | Rel Resp. | Pct. Unc.(abs) | Integration          |
|-----------|-----------|----------------|----------------------|
| Tgt 88.00 |           |                | intp2.p              |
| Q1 58.00  | 54.30     | 20.0           | intp2.p              |
| Q2 28.00  | 0.00      | 20.0           | *** METH DEFAULT *** |

| Lvl ID | Conc (PPB) | Response |
|--------|------------|----------|
| 2      | 2.000      | 232      |
| 10     | 10.000     | 868      |
| 20     | 20.000     | 1844     |
| 100    | 100.000    | 9898     |
| 200    | 200.000    | 19094    |
| 500    | 500.000    | 45436    |
| 1000   | 1000.000   | 93158    |
| 5000   | 5000.000   | 430514   |
| 1      | 1.000      | 124      |

Qualifier Peak Analysis ON  
Curve Fit: Quadratic

3) SURR,1,4-DIOXANE-d8 ( )

Ret. Time 4.021 min., Extract & Integrate from 3.521 to 4.521 min.

| Signal    | Rel Resp. | Pct. Unc.(abs) | Integration |
|-----------|-----------|----------------|-------------|
| Tgt 96.00 |           |                | intp3.p     |
| Q1 62.00  | 16.30     | 20.0           | intp3.p     |
| Q2 64.00  | 54.70     | 20.0           | intp3.p     |

| Lvl ID | Conc (PPB) | Response |
|--------|------------|----------|
|--------|------------|----------|

|      |          |        |
|------|----------|--------|
| 2    | 2.000    | 190    |
| 10   | 10.000   | 821    |
| 20   | 20.000   | 1738   |
| 100  | 100.000  | 9379   |
| 200  | 200.000  | 18292  |
| 500  | 500.000  | 43692  |
| 1000 | 1000.000 | 90231  |
| 5000 | 5000.000 | 415584 |
| 1    | 1.000    | 85     |

Qualifier Peak Analysis ON  
Curve Fit: Quadratic

---

END OF DATA ANALYSIS PARAMETERS

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Wed Aug 10 12:25:00 2022

Method Path : I:\ACQUDATA\5975E\METHODS\  
 Method File : 522DIOX081022.M  
 Title : 8270 BNA ANALYSIS  
 Last Update : Wed Aug 10 11:03:26 2022  
 Response Via : Initial Calibration

## Calibration Files

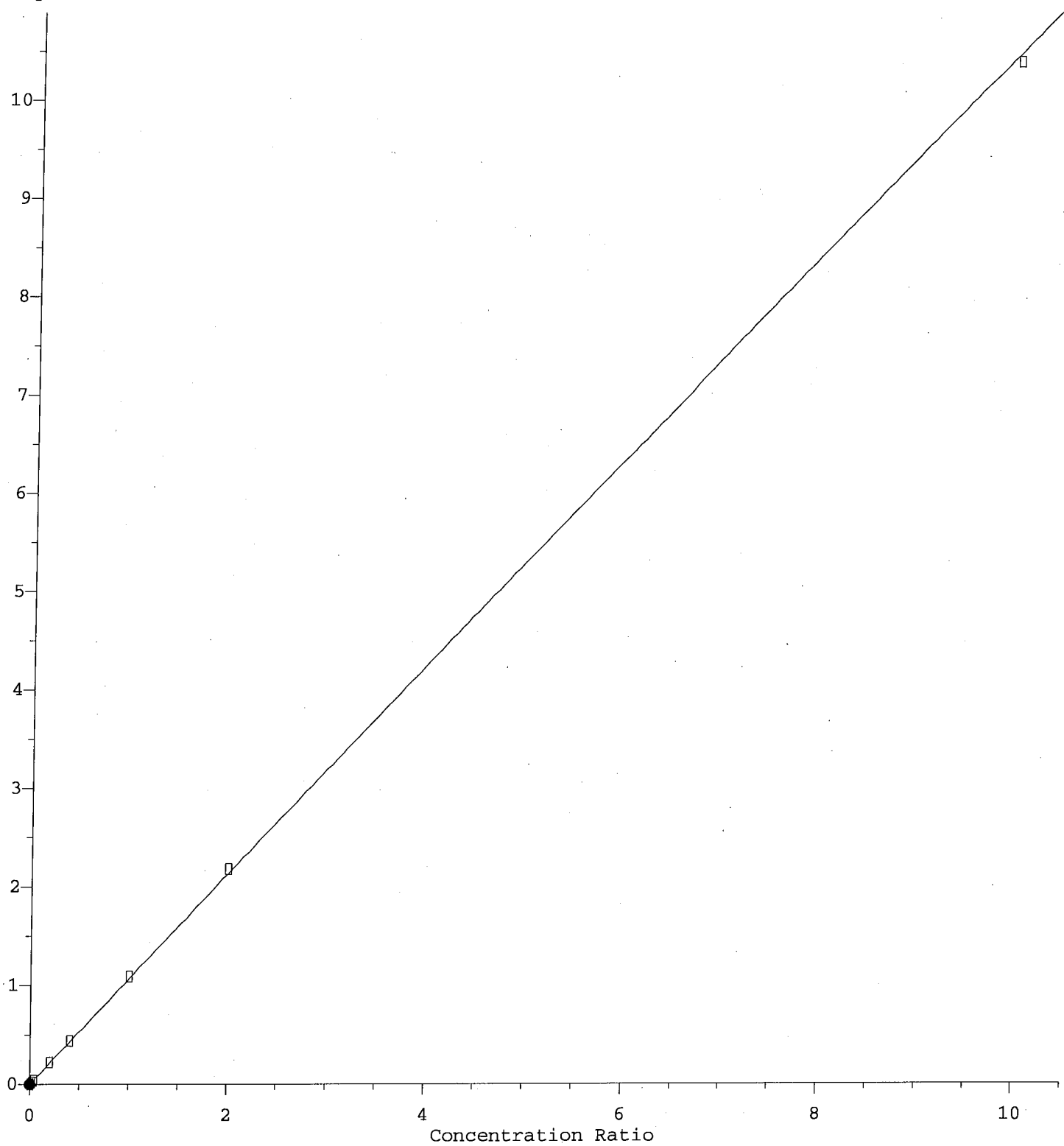
2 =BI244.D 10 =BI245.D 20 =BI246.D 100 =BI247.D 200 =BI248.D 500 =BI249.D 1000=BI2.

| Compound               | 2              | 10    | 20    | 100   | 200   | 500   | 1000  | 5000  | 1     | Avg   | %RSI  |
|------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                  |                |       |       |       |       |       |       |       |       |       |       |
| 1) IR d8-THF           | -----ISTD----- |       |       |       |       |       |       |       |       |       |       |
| 2) T 1,4-Dioxane       | 1.321          | 1.014 | 1.091 | 1.177 | 1.148 | 1.136 | 1.126 | 1.074 | 1.426 | 1.168 | 10.98 |
| 3) S SURR,1,4-DIOXA... | 1.315          | 0.959 | 1.029 | 1.115 | 1.100 | 1.093 | 1.091 | 1.037 | 0.978 | 1.080 | 9.66  |
| -----                  |                |       |       |       |       |       |       |       |       |       |       |

(#) = Out of Range

522DIOX081022.M Wed Aug 10 11:05:57 2022

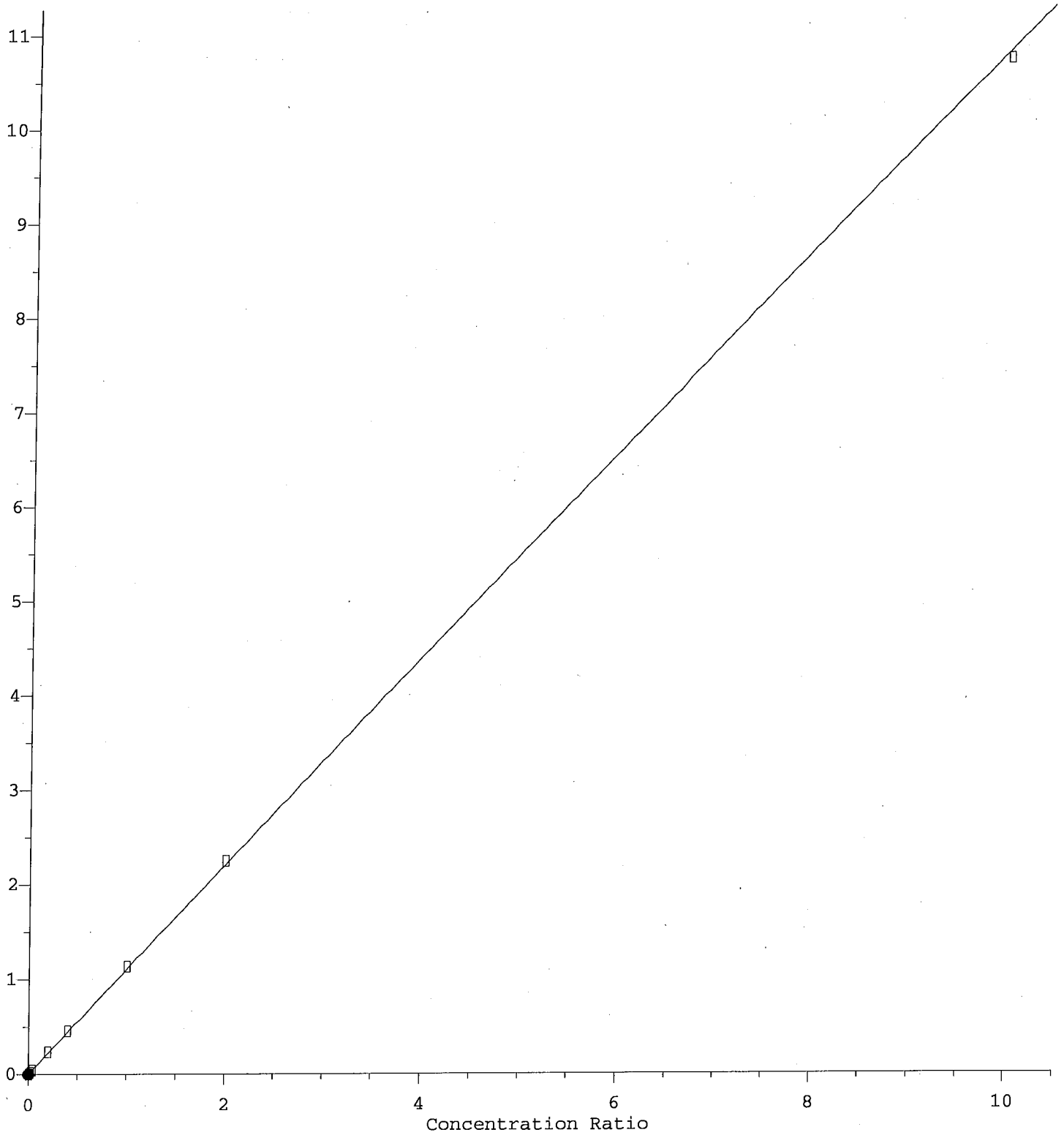
Response Ratio



$R = -2.83e-003 A^2 + 1.07e+000 A - 1.59e-004$   
Coef of Det ( $r^2$ ) = 0.997    Curve Fit: Quadratic w( $1/a^2$ )  
Method Name: I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
Calibration Table Last Updated: Wed Aug 10 11:26:34 2022  
Page 332 of 349

# 1,4-Dioxane

Response Ratio



$R = -3.14e-003 A^2 + 1.11e+000 A + 6.52e-004$   
 Coef of Det ( $r^2$ ) = 0.997    Curve Fit: Quadratic w( $1/a^2$ )  
 Method Name: I:\ACQUDATA\5975E\METHODS\522DIOX081022.M  
 Calibration Table Last Updated: Wed Aug 10 11:26:34 2022  
 Page 333 of 349

## Initial Calibration Verification Summary Report

|                        |                                           |                       |         |
|------------------------|-------------------------------------------|-----------------------|---------|
| <b>Calibration ID:</b> | RC2200081                                 | <b>Instrument ID:</b> | R-MS-56 |
| <b>Datafile ID:</b>    | I:\ACQUDATA\5975E\data\081022<br>\BI254.D | <b>Column Name:</b>   | 1       |

| Analyte        | Lab Code     | Type | Curve Fit | True Value | Calc Conc | Units | Result | Criteria |
|----------------|--------------|------|-----------|------------|-----------|-------|--------|----------|
| 1,4-Dioxane    | RC2200081-11 | T    | Quadratic | 200        | 237.699   | PPB   | 18.8   | <= 20    |
| 1,4-Dioxane-d8 | RC2200081-11 | S    | Quadratic | 200        | 195.728   | PPB   | -2.1   | <= 20    |

# Initial Calibration - Detailed Report

Calibration ID: RC2200081

Instrument ID: R-MS-56

Column Name: 1

| #  | Lab Code     | Sample Name | File Location                         | Aquisition Date  |
|----|--------------|-------------|---------------------------------------|------------------|
| 01 | RC2200081-01 | STD 1       | I:\ACQUDATA\5975E\data\081022\BI243.D | 08/10/2022 08:32 |
| 02 | RC2200081-02 | STD 2       | I:\ACQUDATA\5975E\data\081022\BI244.D | 08/10/2022 08:49 |
| 03 | RC2200081-03 | STD 3       | I:\ACQUDATA\5975E\data\081022\BI245.D | 08/10/2022 09:06 |
| 04 | RC2200081-04 | STD 4       | I:\ACQUDATA\5975E\data\081022\BI246.D | 08/10/2022 09:23 |
| 05 | RC2200081-05 | STD 5       | I:\ACQUDATA\5975E\data\081022\BI247.D | 08/10/2022 09:41 |
| 06 | RC2200081-06 | STD 6       | I:\ACQUDATA\5975E\data\081022\BI248.D | 08/10/2022 09:58 |
| 07 | RC2200081-07 | STD 7       | I:\ACQUDATA\5975E\data\081022\BI249.D | 08/10/2022 10:15 |
| 08 | RC2200081-08 | STD 8       | I:\ACQUDATA\5975E\data\081022\BI250.D | 08/10/2022 10:33 |
| 09 | RC2200081-09 | STD 9       | I:\ACQUDATA\5975E\data\081022\BI251.D | 08/10/2022 10:50 |

## Analyte

### 1,4-Dioxane

| #  | Amount   | RF    |
|----|----------|-------|
| 01 | 1.000    | 1.426 |
| 05 | 100.000  | 1.177 |
| 09 | 5000.000 | 1.074 |

## Curve Fit

### Quadratic

| #  | Amount  | RF    |
|----|---------|-------|
| 02 | 2.000   | 1.333 |
| 06 | 200.000 | 1.148 |

## Weighting

### 1/X2

COD = 0.9999

| #  | Amount  | RF    |
|----|---------|-------|
| 03 | 10.000  | 1.014 |
| 07 | 500.000 | 1.136 |

Y = -0.003139 X<sup>2</sup> + 1.114 X + 6.518E-4

| #  | Amount   | RF    |
|----|----------|-------|
| 04 | 20.000   | 1.091 |
| 08 | 1000.000 | 1.126 |

### 1,4-Dioxane-d8

| #  | Amount   | RF     |
|----|----------|--------|
| 01 | 1.000    | 0.9776 |
| 05 | 100.000  | 1.115  |
| 09 | 5000.000 | 1.037  |

## Curve Fit

### Quadratic

| #  | Amount  | RF    |
|----|---------|-------|
| 02 | 2.000   | 1.092 |
| 06 | 200.000 | 1.1   |

## Weighting

### 1/X2

COD = 0.9999

| #  | Amount  | RF     |
|----|---------|--------|
| 03 | 10.000  | 0.9587 |
| 07 | 500.000 | 1.093  |

Y = -0.002829 X<sup>2</sup> + 1.074 X + -1.589E-4

| #  | Amount   | RF    |
|----|----------|-------|
| 04 | 20.000   | 1.029 |
| 08 | 1000.000 | 1.091 |

## Analyte

### 1,4-Dioxane

| #  | Amount  | Calculated Conc | %D   | #  | Amount   | Calculated Conc | %D  | #  | Amount   | Calculated Conc | %D    |
|----|---------|-----------------|------|----|----------|-----------------|-----|----|----------|-----------------|-------|
| 01 | 1.000   | 0.988           | -1.2 | 02 | 2.000    | 2.10            | 5.1 | 03 | 10.000   | 8.81            | -11.9 |
| 04 | 20.000  | 19.3            | -3.5 | 05 | 100.000  | 105             | 5.4 | 06 | 200.000  | 206             | 3.0   |
| 07 | 500.000 | 511             | 2.2  | 08 | 1000.000 | 1020            | 1.7 | 09 | 5000.000 | 4960            | -0.8  |

### 1,4-Dioxane-d8

| #  | Amount  | Calculated Conc | %D   | #  | Amount   | Calculated Conc | %D  | #  | Amount   | Calculated Conc | %D    |
|----|---------|-----------------|------|----|----------|-----------------|-----|----|----------|-----------------|-------|
| 01 | 1.000   | 0.984           | -1.6 | 02 | 2.000    | 2.11            | 5.4 | 03 | 10.000   | 9.00            | -10.0 |
| 04 | 20.000  | 19.2            | -3.8 | 05 | 100.000  | 104             | 4.0 | 06 | 200.000  | 205             | 2.6   |
| 07 | 500.000 | 510             | 2.0  | 08 | 1000.000 | 1020            | 2.2 | 09 | 5000.000 | 4960            | -0.8  |



## Syringes:

**Analyst:** MFM

**Instr.** 5975E R-MS-56

Run Method: bfbhne/sdioxane 2-12

**Quant Method:** bfb tune/s22diox 081022

**LIMS Run#:**

[illegible]

All samples = \_\_\_\_\_ mL + \_\_\_\_\_ uL Combined IS/Surr.;

Primary : \_\_\_\_\_ exp:

Secondary : \_\_\_\_\_ exp:

Primary: \_\_\_\_\_ exp: \_\_\_\_\_

Secondary : \_\_\_\_\_ exp:

**Reagents:**

Runlog GCEXT r2 4/27/17  
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ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 8/10/2022

**Initial Calibration Summary**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Calibration ID:** RC2200081

**Signal ID:** 1

**Instrument ID:** R-MS-56

| #  | Lab Code     | Sample Name | File Location                         | Acquisition Date |
|----|--------------|-------------|---------------------------------------|------------------|
| 01 | RC2200081-01 | STD 1       | I:\ACQUDATA\5975E\data\081022\BI243.D | 08/10/2022 08:32 |
| 02 | RC2200081-02 | STD 2       | I:\ACQUDATA\5975E\data\081022\BI244.D | 08/10/2022 08:49 |
| 03 | RC2200081-03 | STD 3       | I:\ACQUDATA\5975E\data\081022\BI245.D | 08/10/2022 09:06 |
| 04 | RC2200081-04 | STD 4       | I:\ACQUDATA\5975E\data\081022\BI246.D | 08/10/2022 09:23 |
| 05 | RC2200081-05 | STD 5       | I:\ACQUDATA\5975E\data\081022\BI247.D | 08/10/2022 09:41 |
| 06 | RC2200081-06 | STD 6       | I:\ACQUDATA\5975E\data\081022\BI248.D | 08/10/2022 09:58 |
| 07 | RC2200081-07 | STD 7       | I:\ACQUDATA\5975E\data\081022\BI249.D | 08/10/2022 10:15 |
| 08 | RC2200081-08 | STD 8       | I:\ACQUDATA\5975E\data\081022\BI250.D | 08/10/2022 10:33 |
| 09 | RC2200081-09 | STD 9       | I:\ACQUDATA\5975E\data\081022\BI251.D | 08/10/2022 10:50 |

**Analyte**

**1,4-Dioxane**

| #  | Amount   | RF    | #  | Amount  | RF    | #  | Amount  | RF    | #  | Amount   | RF    |
|----|----------|-------|----|---------|-------|----|---------|-------|----|----------|-------|
| 01 | 1.000    | 1.426 | 02 | 2.000   | 1.333 | 03 | 10.000  | 1.014 | 04 | 20.000   | 1.091 |
| 05 | 100.000  | 1.177 | 06 | 200.000 | 1.148 | 07 | 500.000 | 1.136 | 08 | 1000.000 | 1.126 |
| 09 | 5000.000 | 1.074 |    |         |       |    |         |       |    |          |       |

**1,4-Dioxane-d8**

| #  | Amount   | RF     | #  | Amount  | RF    | #  | Amount  | RF     | #  | Amount   | RF    |
|----|----------|--------|----|---------|-------|----|---------|--------|----|----------|-------|
| 01 | 1.000    | 0.9776 | 02 | 2.000   | 1.092 | 03 | 10.000  | 0.9587 | 04 | 20.000   | 1.029 |
| 05 | 100.000  | 1.115  | 06 | 200.000 | 1.1   | 07 | 500.000 | 1.093  | 08 | 1000.000 | 1.091 |
| 09 | 5000.000 | 1.037  |    |         |       |    |         |        |    |          |       |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 8/10/2022

**Initial Calibration Summary**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Calibration ID:** RC2200081

**Signal ID:** 1

**Instrument ID:** R-MS-56

| Analyte Name   | Compound Type | Calibration Evaluation |      |             |                  | Calibration Evaluation |             |
|----------------|---------------|------------------------|------|-------------|------------------|------------------------|-------------|
|                |               | Fit Type               | Eval | Eval Result | Control Criteria | Average RRF            | Minimum RRF |
| 1,4-Dioxane    | TRG           | Quadratic              | COD  | 0.9999      | ≥0.99            | 1.17                   |             |
| 1,4-Dioxane-d8 | SURR          | Quadratic              | COD  | 0.9999      | ≥0.99            | 1.055                  |             |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59

**Service Request:** R2206605  
**Calibration Date:** 8/10/2022

**Initial Calibration Verification Summary**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Calibration ID:** RC2200081

**Signal ID:** 1

**Instrument ID:** R-MS-56

| #  | Lab Code     | Sample Name | File Location                         | Acquisition Date |
|----|--------------|-------------|---------------------------------------|------------------|
| 10 | RC2200081-10 | ICV         | I:\ACQUDATA\5975E\data\081022\BI252.D | 08/10/2022 11:08 |
| 11 | RC2200081-11 | ICV         | I:\ACQUDATA\5975E\data\081022\BI254.D | 08/10/2022 12:13 |

| Analyte Name | Expected | Result | Average RF | SSV<br>RF | % D   | Criteria | Curve Fit |
|--------------|----------|--------|------------|-----------|-------|----------|-----------|
| 1,4-Dioxane  | 200      | 238    | 1.17E0     | 1.324E0   | 18.85 | ±20      | Quadratic |

| Analyte Name   | Expected | Result | Average RF | SSV<br>RF | % D    | Criteria | Curve Fit |
|----------------|----------|--------|------------|-----------|--------|----------|-----------|
| 1,4-Dioxane-d8 | 200      | 196    | 1.055E0    | 1.049E0   | -2.136 | ±20      | Quadratic |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 13:04

**Continuing Calibration Verification (CCV) Summary**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**File ID:** I:\ACQUDATA\5975E\data\081022\BI256.D\  
**Signal ID:** 1

**Calibration Date:** 8/10/2022  
**Calibration ID:** RC2200081  
**Analysis Lot:** 773577  
**Units:** ppb

| Analyte Name | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|--------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane  | 2.00     | 1.79   | 1.1697     | 1.1548 | 89.5 | -10.5   | ±30      | Quadratic |

| Analyte Name   | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|----------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane-d8 | 2.00     | 2.13   | 1.0548     | 1.0998 | 107  | 6.5     | ±30      | Quadratic |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 16:18

**Continuing Calibration Verification (CCV) Summary**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**File ID:** I:\ACQUDATA\5975E\data\081022\BI267.D\  
**Signal ID:** 1

**Calibration Date:** 8/10/2022  
**Calibration ID:** RC2200081  
**Analysis Lot:** 773577  
**Units:** ppb

| Analyte Name | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|--------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane  | 500      | 521    | 1.1697     | 1.1513 | 104  | 4.2     | ±30      | Quadratic |

| Analyte Name   | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|----------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane-d8 | 500      | 518    | 1.0548     | 1.1031 | 104  | 3.6     | ±30      | Quadratic |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 19:34

**Continuing Calibration Verification (CCV) Summary**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**File ID:** I:\ACQUDATA\5975E\data\081022\BI278.D\  
**Signal ID:** 1

**Calibration Date:** 8/10/2022  
**Calibration ID:** RC2200081  
**Analysis Lot:** 773577  
**Units:** ppb

| Analyte Name | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|--------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane  | 1000     | 1020   | 1.1697     | 1.1259 | 102  | 2.2     | ±30      | Quadratic |

| Analyte Name   | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|----------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane-d8 | 1000     | 1030   | 1.0548     | 1.0891 | 103  | 2.6     | ±30      | Quadratic |

ALS Group USA, Corp.  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605  
**Date Analyzed:** 08/10/22 20:26

**Continuing Calibration Verification (CCV) Summary**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:** 522  
**File ID:** I:\ACQUDATA\5975E\data\081022\BI281.D\  
**Signal ID:** 1

**Calibration Date:** 8/10/2022  
**Calibration ID:** RC2200081  
**Analysis Lot:** 773577  
**Units:** ppb

| Analyte Name | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|--------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane  | 500      | 507    | 1.1697     | 1.1206 | 101  | 1.4     | ±30      | Quadratic |

| Analyte Name   | Expected | Result | Average RF | CCV RF | Rec. | % Drift | Criteria | Curve Fit |
|----------------|----------|--------|------------|--------|------|---------|----------|-----------|
| 1,4-Dioxane-d8 | 500      | 505    | 1.0548     | 1.074  | 101  | 0.9     | ±30      | Quadratic |



**ALS Group USA, Corp.**  
dba ALS Environmental

QA/QC Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601

**Service Request:** R2206605

**Analysis Run Log**  
**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Analysis Method:**

**Analysis Lot:** 773577  
**Instrument ID:** R-MS-56

| Raw Data File                          | Sample Name                         | Lab Code     | Date Analyzed | Time Analyzed | Q |
|----------------------------------------|-------------------------------------|--------------|---------------|---------------|---|
| I:\ACQUDATA\5975E\data\081022\BI255.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 12:42:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI256.D\ | Continuing Calibration Verification | RQ2209481-02 | 8/10/2022     | 13:04:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI257.D\ | Method Blank                        | RQ2209067-01 | 8/10/2022     | 13:21:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI258.D\ | Lab Control Sample                  | RQ2209067-04 | 8/10/2022     | 13:39:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI259.D\ | Lab Control Sample                  | RQ2209067-02 | 8/10/2022     | 13:57:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI260.D\ | Duplicate Lab Control Sample        | RQ2209067-03 | 8/10/2022     | 14:14:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI261.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 14:32:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI262.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 14:49:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI263.D\ | JC-3-07192022                       | R2206605-001 | 8/10/2022     | 15:07:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI264.D\ | Post Treatment-07192022             | R2206605-002 | 8/10/2022     | 15:25:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI265.D\ | Matrix Spike MS                     | RQ2209067-05 | 8/10/2022     | 15:43:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI266.D\ | Duplicate Matrix Spike DMS          | RQ2209067-06 | 8/10/2022     | 16:01:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI267.D\ | Continuing Calibration Verification | RQ2209481-03 | 8/10/2022     | 16:18:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI268.D\ | JC-2-07192022                       | R2206605-003 | 8/10/2022     | 16:36:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI269.D\ | DUP-02-07192022                     | R2206605-004 | 8/10/2022     | 16:54:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI270.D\ | TB-02-07192022                      | R2206605-005 | 8/10/2022     | 17:12:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI271.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 17:30:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI272.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 17:47:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI273.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 18:05:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI274.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 18:23:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI275.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 18:41:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI276.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 18:58:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI277.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 19:16:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI278.D\ | Continuing Calibration Verification | RQ2209481-04 | 8/10/2022     | 19:34:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI279.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 19:51:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI280.D\ | ZZZZZZZ                             | ZZZZZZZ      | 8/10/2022     | 20:09:00      |   |
| I:\ACQUDATA\5975E\data\081022\BI281.D\ | Continuing Calibration Verification | RQ2209481-05 | 8/10/2022     | 20:26:00      |   |

Run Method: b6tune/sdioxane 2-P  
Quant Method: b6tune/sdioxane 08/022  
Run#: 773577

773877

All samples =            mL +            uL Combined IS/Surr.;

Runlog GCEXT r2 4/27/17  
O-1089 Page 17 of 150

ALS Group USA, Corp.  
dba ALS Environmental

Prep Summary Report

**Client:** EA Engineering, Science, and Technology (EAEST)  
**Project:** AFP - 59/6337601  
**Sample Matrix:** Water

**Service Request:** R2206605

**1,4-Dioxane by Solid Phase Extraction and GC/MS With Selected Ion Monitoring**

**Prep Method:** Method  
**Analytical Method:** 522

**Extraction Lot:** 403885  
**Extraction Date:** 08/03/22 09:25

| Sample Name                  | Lab Code         | Date Collected | Date Received | Sample Amount | Final Amount | Percent Solids |
|------------------------------|------------------|----------------|---------------|---------------|--------------|----------------|
| JC-3-07192022                | R2206605-001     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| Post Treatment-07192022      | R2206605-002     | 7/19/22        | 7/20/22       | 75.0000 mL    | 2 mL         |                |
| JC-2-07192022                | R2206605-003     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| DUP-02-07192022              | R2206605-004     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| TB-02-07192022               | R2206605-005     | 7/19/22        | 7/20/22       | 100 mL        | 2 mL         |                |
| Method Blank                 | RQ2209067-01MB   | NA             | NA            | 100 mL        | 2 mL         |                |
| Lab Control Sample           | RQ2209067-02LCS  | NA             | NA            | 100 mL        | 2 mL         |                |
| Duplicate Lab Control Sample | RQ2209067-03DLCS | NA             | NA            | 100 mL        | 2 mL         |                |
| Lab Control Sample           | RQ2209067-04LCS  | NA             | NA            | 100 mL        | 2 mL         |                |
| Matrix Spike                 | RQ2209067-05MS   | 7/19/22        | 7/20/22       | 75.0000 mL    | 2 mL         |                |
| Duplicate Matrix Spike       | RQ2209067-06DMS  | 7/19/22        | 7/20/22       | 75.0000 mL    | 2 mL         |                |

# Preparation Information Benchsheet

Prep Run#: 403885  
Team: Semivoa GCMS/MMCMAHON

Prep Workflow: OrgExt SPE Ag28  
Prep Method: Method

Status: Prepped  
Prep Date/Time: 8/3/22 09:25

| #  | Lab Code       | Client ID                       | B#  | Amt. Ext | Method /Test       | pH | AE | BN | Final Vol | Sample Desc. (Initial/Final) | SpikeAmt/Inv. ID                                                                       | Comments |
|----|----------------|---------------------------------|-----|----------|--------------------|----|----|----|-----------|------------------------------|----------------------------------------------------------------------------------------|----------|
| 1  | RQ2209067-01   | MB                              |     | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009                                               |          |
| 2  | RQ2209067-02   | LCS                             |     | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 200.0000 uL/224327;<br>10.0000 uL/223433;<br>200.0000 uL/224009                        |          |
| 3  | RQ2209067-03   | DLCS                            |     | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 200.0000 uL/224009;<br>200.0000 uL/224327;<br>200.0000 uL/224009;<br>10.0000 uL/223433 |          |
| 4  | RQ2209067-04   | LCS                             |     | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 1.0000 mL/224328;<br>10.0000 uL/223433;<br>200.0000 uL/224009                          |          |
| 5  | R2206540-001RE | Well #2 East                    | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223433                                               |          |
| 6  | R2206542-001RE | Well #3 North                   | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223433                                               |          |
| 7  | R2206605-001RE | IC-3-07192022                   | .05 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223433                                               |          |
| 8  | R2206605-002RE | Post Treatment-07192022         | .07 | 75mL     | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223433                                               |          |
| 9  | RQ2209067-05   | R2206605-002 MS                 | .07 | 75mL     | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>10.0000 uL/223433;<br>200.0000 uL/224009;<br>200.0000 uL/224327  |          |
| 10 | RQ2209067-06   | R2206605-002 DMS                | .07 | 75mL     | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009;<br>200.0000 uL/224327                        |          |
| 11 | R2206605-003RE | IC-2-07192022                   | .05 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009                                               |          |
| 12 | R2206605-004RE | DUP-02-07192022                 | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009                                               |          |
| 13 | R2206605-005RE | TR-02-07192022                  | .05 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223433                                               |          |
| 14 | R2206723-001RE | PW1622Broadway/R19W-072022      | .04 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009                                               |          |
| 15 | R2206723-002RE | PW45WestShoreCr-072022          | .03 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009                                               |          |
| 16 | R2206771-001RE | PW611ParkSettlementRa-072222    | .04 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009                                               |          |
| 17 | R2206771-002RE | PW892ParkSettlementRa-072222-01 | .04 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009                                               |          |
| 18 | R2206794-001RE | Peagshole MHP                   | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223433                                               |          |
| 19 | R2206795-001RE | Hillside MHP                    | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009                                               |          |
| 20 | R2206796-001RE | Bristol MHP                     | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 10.0000 uL/223433;<br>200.0000 uL/224009                                               |          |
| 21 | R2206797-001RE | Country Side MHP                | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    | 2.00mL    |                              | 200.0000 uL/224009;<br>10.0000 uL/223433                                               |          |

# Preparation Information Benchsheet

Prep Run#: 403885

Team: Semivca GCMS/MMCMAHON

Prep Workflow: OrgExt SPE Aq28

Prep Method: Method

Status: Prepped

Prep Date/Time: 8/3/22 09:25

## Spiking Solutions

|       |                                   |              |        |              |           |             |            |
|-------|-----------------------------------|--------------|--------|--------------|-----------|-------------|------------|
| Name: | SVOA Tetrahydrofuran-D8 100ppm    | Inventory ID | 223433 | Logbook Ref: | dcn - 522 | Expires On: | 12/04/2022 |
| Name: | 1,4-Dioxane-d8 1ppm IDMS Internal | Inventory ID | 224009 | Logbook Ref: |           | Expires On: | 01/10/2023 |
| Name: | EPA 522 LCS Spike 5ppm            | Inventory ID | 224327 | Logbook Ref: |           | Expires On: | 01/30/2023 |
| Name: | EPA 522 MDL Spike 4ppb            | Inventory ID | 224328 | Logbook Ref: |           | Expires On: | 01/30/2023 |

## Preparation Materials

|                                   |                     |                                               |                  |                                                  |          |
|-----------------------------------|---------------------|-----------------------------------------------|------------------|--------------------------------------------------|----------|
| Method 522 400mg charcoal filters | (223679)            | Eppendorf Pipette Repeater                    | EXT #21 (211894) | Dichloromethane (Methylene Chloride) 99.9% MeCl2 | (223983) |
| Methanol Purge & Trap MeOH        | 223545 (223545)     | Sodium Bisulfate Monohydrate                  | (222083)         | pH Paper 0-14                                    | (223480) |
| Prepared Sodium Sulfate Na2SO4    | 2022022326 (224276) | Sodium Sulfite Anhydrous Reagent Grade Na2SO3 | (220844)         |                                                  |          |

## Preparation Steps

Step: Extraction  
 Started: 8/3/22 09:25  
 Finished: 8/3/22 17:18  
 By: MMCMAHON  
 Comments

## Comments:

Reviewed By:

Date:

Spike Witness: EDEGRAY

Date:

Chain of Custody

Relinquished By:

Date:

Received By:

Date:

Extracts Examined

Yes No

Prep Run#: 403885  
Team: Semivva GCMS/MMCMAHON

Prep Workflow: OrgExt SPE Aq28  
Prep Method: Method

Status: Draft  
Prep Date/Time: 8/3/22 09:25

## Preparation Information Benchsheet

| #  | Lab Code       | Client ID                       | B#  | Amt. Ext | Method / Test      | pH | AE | BN | Final Vol | Sample Desc. (Initial/Final) | Spike Amt./Inv. ID | Comments |
|----|----------------|---------------------------------|-----|----------|--------------------|----|----|----|-----------|------------------------------|--------------------|----------|
| 1  | RQ2209067-01   | MB                              |     | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 2  | RQ2209067-02   | LCS                             |     | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 3  | RQ2209067-03   | DICS                            |     | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 4  | RQ2209067-04   | LCS                             |     | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 5  | R2206540-001RE | Well #2 East                    | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 6  | R2206542-001RE | Well #3 North                   | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 7  | R2206605-001RE | JC-3-07192022                   | .05 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 8  | R2206605-002RE | Post Treatment-07192022         | .07 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 9  | RQ2209067-05   | R2206605-002 MS                 | .07 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 10 | RQ2209067-06   | R2206605-002 DMS                | .07 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 11 | R2206605-003RE | JC-2-07192022                   | .05 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 12 | R2206605-004RE | IDP-02-07192022                 | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 13 | R2206605-005RE | TB-02-07192022                  | .05 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 14 | R2206723-001RE | PW1622BroadwayR19W-072022       | .04 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 15 | R2206723-002RE | PW45WestShoreCt-072022          | .03 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 16 | R2206771-001RE | PW611ParkSettlementRd-072222    | .04 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 17 | R2206771-002RE | PW892ParkSettlementRd-072222-01 | .04 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 18 | R2206794-001RE | Pogshole MHP                    | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 19 | R2206795-001RE | Hillside MHP                    | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 20 | R2206796-001RE | Bristol MHP                     | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 21 | R2206797-001RE | Country Side MHP                | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |
| 22 | R2206798-001RE | Ritz MHP                        | .01 | 100mL    | 522/1,4-Dioxane FP |    |    |    |           |                              |                    |          |

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### Preparation Steps

Step: *Sulfate 22385T 224276*  
Start: *MECH 223545*  
Finished: *DCA 223983*  
By: *Sodium bisulf. 222083*  
Comments: *22084*

*200 mL 1,4 diox d8 224009*  
*200 mL EPA 522 Spm 224327*  
*10 mL EPA 522 4pb 224328*  
*10 mL TNF-d8 223433*

Comments:

*SW: ED 8/3/22*

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## **Appendix C**

### **Validated Laboratory Data**



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## **DATA VALIDATION REPORT**

**Air Force Plant 59**

**August 2022**

**Volatile Organic Compounds and 1,4- Dioxane**

**ALS Environmental SDG: R2206604, R2206605**

Prepared by

**ENVIRONMENTAL DATA SERVICES, LTD.**

Prepared for

**EA Engineering, P.C.**

**Released: 9/23/2022**

### EXECUTIVE NARRATIVE

**Sample Delivery Group:** R2206604

**Laboratory:** ALS Environmental

**Site:** Air Force Plant 59

**Sampling dates:** 07/19/22

**Number of Samples:** 10

**Test Method:** SW 846 8270

**Analysis:** 1,4-Dioxane

**Validation Level:** 4

**Quality Assurance Project Plan:** *Final Quality Assurance Project Plan Vapor Intrusion Investigation, Groundwater Monitoring Activities, and Well Abandonment at Air Force Plant 59 Johnson City, New York, August 2009*

**Validation Guidelines:** United States Department of Defense, Quality Systems Manual, Rev. 5. July 2016, United States Environmental Protection Agency (USEPA) Contract Laboratory National Functional Guidelines for Superfund Organic Methods Data Review, (USEPA 2017).

| Client Sample ID | Laboratory Sample ID |
|------------------|----------------------|
| URS-2S-07192022  | R2206604-001         |
| URS-2D-07192022  | R2206604-002         |
| SW-4RE-07192022  | R2206604-003         |
| SW-7RE-07192022  | R2206604-004         |
| SW-9-07192022    | R2206604-005         |
| DW-9-07192022    | R2206604-006         |
| DW-3-07192022    | R2206604-007         |
| URS-3D-07192022  | R2206604-008         |
| DUP-01-07192022  | R2206604-009         |
| EB-07192022      | R2206604-010         |

Table 1 provides a summary of the major and minor data quality issues applied to this data set. All data are acceptable except those results which have been qualified with "R", rejected. Data validation qualifiers along with associated descriptions are provided in Table 2. All data qualification related to this group of samples is detailed on the attached sheets.

All data users should note two facts. First, an "R" flag means that the associated value is unusable due to significant quality control (QC) problems, the data is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on any data tables even as a last resort. Second, no analyte concentration, even if it passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

## DATA ASSESSMENT

### 1. NARRATIVE AND COMPLETENESS REVIEW:

*The case narrative was reviewed, and the data package was checked for completeness. No discrepancies were noted.*

### 2. SAMPLE DELIVERY AND CONDITION:

*The samples arrived at the laboratory in acceptable condition. Proper custody was documented. No qualification was required.*

### 3. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detect results will be flagged as not detected at an estimated quantitation limit, "UJ", unless the holding time is grossly exceeded (by more than two times the holding time specified), in which case non-detect results are flagged "R", rejected. Qualifications were applied to the samples and analytes as shown below.

*All samples were within the validation guidance.*

### 4. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for semi-volatile organics is decafluorotriphenylphosphine. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

## 5. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

### A) Response Factor:

The response factor measures the instrument's response to specific chemical compounds. All analytes for initial and continuing calibration should meet the minimum relative response factor (RRF) criteria as listed in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review. If the RRF is less than minimum RRF specified, use professional judgment and all detects in the sample will be qualified as "J" or "R". All non-detects for that compound will be rejected "R". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

### B) Percent Relative Standard Deviation and Percent Difference:

Percent relative standard deviation (%RSD) is calculated for the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent difference (%D) compares the response factor of the continuing calibration check to the mean RRF from the initial calibration.

Percent RSD must be less than maximum %RSD listed in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review for all target analytes. In cases where linear and non-linear regressions are used, correlation coefficients must be greater than 0.9900. For the opening or closing continuing calibration verification (CCV) the %D must be within the inclusive opening or closing maximum %D limits for all target compounds. A value outside of these limits indicates potential detection and quantitation errors. If the %RSD exceeds quality control criteria, detects may be qualified as "J" and professional judgment is used to qualify non-detects. If the %D exceeds quality control criteria, the positive results are flagged as estimated, "J" and non-detects are flagged "UJ". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**6. BLANK CONTAMINATION:**

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. Qualifications were applied to the samples and analytes as shown below.

**A) Method blank contamination:**

*No problems were found for this criterion.*

**B) Field /Equipment blank contamination:**

*Sample EB-07192022 was submitted as a field/equipment blank in association with all samples in this sample delivery group (SDG). 1,4-dioxane was positively detected. Positive results reported for 1,4-dioxane have been evaluated and no qualification was necessary on this basis.*

**7. SURROGATES:**

All samples are spiked with system monitoring compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate recovery limits were outside quality control limits in the quality assurance plan, qualifications were applied to all the samples and analytes as shown below.

*No problems were found for this criterion.*

**8. MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY:**

Matrix spike/matrix spike duplicate (MS/MSD) data is generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other quality control criteria for additional qualification of data.

*Sample URS-3D-07192022 was evaluated as an MS/MSD pair in association with this SDG. Upon evaluation all precision and accuracy indicators were acceptable.*

**9. COMPOUND IDENTIFICATION AND QUANTIFICATION:**

**Compound Identification**

The compounds are identified on the GC/MS by using the analytes relative retention time (RRT) and ion spectra. For the results to be a positive hit the sample peak must be within  $\pm 0.06$  RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications. Target compound identifications were reviewed for all samples, which were validated at the Stage 4 level.

*No analytes were qualified for compound identification.*

## **Compound Quantification**

*Target compound result quantitation was reviewed for all samples. No anomalies were noted.*

*Manual integrations were reviewed during validation. No anomalies were identified.*

*Tentatively Identified Compounds (TICs) were not reported and were not required to be reported for this program per the project QAPP.*

### **10. INTERNAL STANDARDS PERFORMANCE:**

**Internal standard performance criteria are meant to ensure that the gas chromatograph/mass spectrometer (GC/MS) sensitivity and response are stable during every experimental run.**

**The internal standard area count must not vary by more than a factor of two from the associated continuing calibration standard. The retention time of the internal standard must not vary by more than  $\pm 30$  seconds from the associated continuing calibration standard. The area count must be within a (50-200%) range of the associated standard. If the area count is greater than 200%, non-detected results are not qualified, and positive results are flagged as estimated "J-". If the area count is less than 50%, positive results are flagged as estimated "J+" and non-detected results are flagged "UJ". If the area count is less than 20%, positive results are flagged as estimated "J+" and non-detected results will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.**

*No problems were found for this criterion.*

### **11. FIELD DUPLICATES:**

**Field duplicates may be taken and analyzed as an indication of overall precision. A control limit of 25% for the Relative Percent Difference (RPD) shall be used for original and duplicate sample values greater than or equal to five times (5x) the Limit of Detection (LOD). A control limit of the LOD shall be used if either the sample or duplicate value is less than 5x the LOD. For field duplicates analysis that does not meet the technical criteria, the action was applied to only the field sample and it's duplicate.**

*Samples SW-4RE-07192022 and DUP-01-07192022 were submitted as a field duplicate pair in association with this sample site. Adequate field precision was demonstrated.*

### **12. LABORATORY CONTROL SAMPLES:**

**The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. Aqueous/water, soil/sediment, wipe, and filter LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control (QA/QC) procedures as employed for the samples. All LCS percent recoveries must fall within the project specific control limits. Qualifications were applied to the samples and analytes as shown below.**

*No problems were found for this criterion.*

**13. OTHER PROBLEMS:**

*None*

**14. DILUTIONS, RE-EXTRACTIONS & REANALYSIS:**

**Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used.**

*No dilution, re-extraction or other reanalysis was performed on any sample submitted in association with this sample site.*



**Table 1**  
**Major and Minor Findings**

|                                                           | Were acceptance criteria met? |              |              |
|-----------------------------------------------------------|-------------------------------|--------------|--------------|
|                                                           | Yes                           | No           |              |
| <b>Semi-volatiles</b>                                     |                               | <b>Major</b> | <b>Minor</b> |
| Holding Time                                              | x                             |              |              |
| Mass Spectrometer Tuning                                  | x                             |              |              |
| Calibration                                               | x                             |              |              |
| Response Factor                                           | x                             |              |              |
| Percent Relative Standard Deviation and Percent Deviation | x                             |              |              |
| Internal Standards                                        | x                             |              |              |
| Method Blank                                              | x                             |              |              |
| Equipment Blank                                           | x                             |              |              |
| Surrogates                                                | x                             |              |              |
| Matrix Spike/Matrix Spike Duplicate                       | x                             |              |              |
| Compound Identification and Quantitation                  | x                             |              |              |
| Field Duplicate                                           | x                             |              |              |
| Laboratory Control Samples                                | x                             |              |              |
| Other Quality Control Data out of Specification           | x                             |              |              |

Major = Major data quality issue identified resulting in rejection of data.

Minor = Minor data quality issue identified resulting in the qualification of data. Data qualification should be used to inform the data users of data limitations.

NA = Not applicable

**Table 2 Data Validation Qualifiers**

| <b>Data Qualifier</b> | <b>Definition</b>                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>U</b>              | The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.                                                    |
| <b>J</b>              | The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.                              |
| <b>J+</b>             | The result is an estimated quantity, but the result may be biased high.                                                                                         |
| <b>J-</b>             | The result is an estimated quantity, but the result may be biased low.                                                                                          |
| <b>UJ</b>             | The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.                           |
| <b>R</b>              | The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample. |

### EXECUTIVE NARRATIVE

**Sample Delivery Group:** R2206604

**Laboratory:** ALS Environmental

**Site:** Air Force Plant 59

**Sampling dates:** 07/19/22

**Number of Samples:** 11

**Test Method:** SW 846 8260C

**Analysis:** Volatile Organic Compounds (VOCs)

**Validation Level:** 4

**Quality Assurance Project Plan:** *Final Quality Assurance Project Plan Vapor Intrusion Investigation, Groundwater Monitoring Activities, and Well Abandonment at Air Force Plant 59 Johnson City, New York, August 2009*

**Validation Guidelines:** United States Department of Defense, Quality Systems Manual, Rev. 5. July 2016, United States Environmental Protection Agency (USEPA) Contract Laboratory National Functional Guidelines for Superfund Organic Methods Data Review, (USEPA 2017).

| Client Sample ID | Laboratory Sample ID |
|------------------|----------------------|
| URS-2S-07192022  | R2206604-001         |
| URS-2D-07192022  | R2206604-002         |
| SW-4RE-07192022  | R2206604-003         |
| SW-7RE-07192022  | R2206604-004         |
| SW-9-07192022    | R2206604-005         |
| DW-9-07192022    | R2206604-006         |
| DW-3-07192022    | R2206604-007         |
| URS-3D-07192022  | R2206604-008         |
| DUP-01-07192022  | R2206604-009         |
| EB-07192022      | R2206604-010         |
| TB-01-07192022   | R2206604-011         |

Table 1 provides a summary of the major and minor data quality issues identified in this data set. All data are acceptable except those results which have been qualified with "R", rejected. Data validation qualifiers along with associated descriptions are provided in Table 2. All data qualification related to this group of samples is detailed on the attached sheets.

All data users should note two facts. First, an "R" flag means that the associated value is unusable due to significant quality control (QC) problems, the data is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on any data tables even as a last resort. Second, no analyte concentration, even if it passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

## DATA ASSESSMENT

### 1. NARRATIVE AND COMPLETENESS REVIEW:

*The case narratives were reviewed, and the data packages were checked for completeness. No discrepancies were noted.*

### 2. SAMPLE DELIVERY AND CONDITION:

*The samples arrived at the laboratory in acceptable condition.*

*Proper custody was documented.*

### 3. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detect results will be flagged as not detected at an estimated quantitation limit, "UJ", unless the holding time is grossly exceeded (by more than two times the holding time specified), in which case non-detect results are flagged "R", rejected. Qualifications were applied to the samples and analytes as shown below.

*All samples were within the validation guidance.*

### 4. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is bromofluorobenzene. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**5. CALIBRATION:**

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor:**

The response factor measures the instrument's response to specific chemical compounds. All analytes for initial and continuing calibration should meet the minimum relative response factor (RRF) criteria. If the RRF is less than minimum RRF specified, professional judgment is used, and all detects in the sample will be qualified as "J+" or "R". All non-detects for that compound will be rejected "R". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**B) Percent Relative Standard Deviation and Percent Difference:**

Percent relative standard deviation (%RSD) is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent difference (%D) compares the response factor of the continuing calibration check to the mean RRF from the initial calibration.

Percent RSD must be less than maximum %RSD listed in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review for all target analytes. In cases where linear and non-linear regressions are used, correlation coefficients must be greater than 0.9900. For the opening or closing continuing calibration verification (CCV), the %D must be within the inclusive opening or closing maximum %D limits for all target compounds. A value outside of these limits indicates potential detection and quantitation errors. If the %RSD exceeds quality control criteria, detects may be qualified as "J", and professional judgment is used to qualify non-detects. If the %D exceeds quality control criteria, the positive results are flagged as estimated, "J", and non-detects are flagged "UJ". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**6. BLANK CONTAMINATION:**

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Qualifications were applied to the samples and analytes as shown below.

**A) Method blank contamination:**

*No problems were found for this criterion.*

**B) Field/Equipment blank contamination:**

*Sample EB-07192022 was submitted as a rinse blank in association with all samples in this SDG. Acetone and chloroform were positively detected. Positive results reported for the impacted analytes were evaluated and qualified per validation guidance on this basis.*

**C) Trip blank contamination:**

*Sample TB-01-07192022 was submitted as a trip blank in association with all samples in this SDG. Chloroform was positively detected. Positive results reported for chloroform were evaluated and no sample result qualification was required on this basis.*

**D) Storage Blank associated with VOA samples only:**

*No storage blank was submitted in association with these SDGs.*

**7. SURROGATES:**

**All samples are spiked with system monitoring compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate recovery limits were outside quality control limits listed in the QAPP, qualifications were applied to all the samples and analytes as shown below.**

*No problems were found for this criterion.*

**8. COMPOUND IDENTIFICATION AND QUANTIFICATION:**

**Compound Identification**

**The compounds are identified on the GC/MS by using the analytes relative retention time (RRT) and ion spectra. For the results to be a positive hit the sample peak must be within  $\pm 0.06$  RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications. Target compound identifications were reviewed for all samples, which were validated at the Stage 4 level.**

*No analytes were qualified for compound identification.*

**Compound Quantification**

*Target compound result quantitation was reviewed for all samples. No anomalies were noted.*

*Manual integrations were reviewed during validation. No anomalies were identified.*

*Tentatively Identified Compounds (TICs) were not reported and were not required to be reported for this program per the project QAPP.*

**9. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE RECOVERY:**

Matrix spike/matrix spike duplicate (MS/MSD) data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other quality control criteria for additional qualification of data.

*Sample URS-3D-07192022 was submitted for MS/MSD evaluation for this SDG. Upon evaluation all precision and accuracy indicators were favorable.*

**10. INTERNAL STANDARDS PERFORMANCE:**

Internal standard performance criteria are meant to ensure that the gas chromatograph/mass spectrometer (GC/MS) sensitivity and response are stable during every experimental run.

The internal standard area count must not vary by more than a factor of two from the associated continuing calibration standard. The retention time of the internal standard must not vary by more than  $\pm 30$  seconds from the associated continuing calibration standard. The area count must be within a (50-200%) range of the associated standard. If the area count is greater than 200%, non-detected results are not qualified and positive results are flagged as estimated with potential negative bias, "J-". If the area count is less than 50%, positive results are flagged as estimated with potential positive bias, "J+", and non-detected results are flagged "UJ". If the area count is less than 20%, positive results are flagged as estimated with potential positive bias, "J+", and non-detected results will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**11. FIELD DUPLICATES:**

Field duplicates may be taken and analyzed as an indication of overall precision. A control limit of 25% for the Relative Percent Difference (RPD) shall be used for original and duplicate sample values greater than or equal to five times (5x) the LOD. A control limit of the LOD shall be used if either the sample or duplicate value is less than 5x the LOD. For field duplicates analysis that does not meet the technical criteria, the action was applied to only the field sample and its duplicate.

*Samples SW-4RE-07192022 and DUP-01-07192022 were submitted as a field duplicate pair in association with this sample site. Adequate field precision was demonstrated.*

**12. LABORATORY CONTROL SAMPLES:**

The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. Aqueous/water, soil/sediment, wipe, and filter LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control (QA/QC) procedures as employed for the samples. All LCS percent recoveries must fall within the project specific control limits. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**13. OTHER PROBLEMS:**

*None*

**14. DILUTIONS, RE-EXTRACTIONS & REANALYSIS:**

**Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used.**

*No dilutions, re-extractions, or re-analyses were performed.*



**Table 1 Major and Minor Findings**

|                                                           | Were acceptance criteria met? |              |              |
|-----------------------------------------------------------|-------------------------------|--------------|--------------|
|                                                           | Yes                           | No           |              |
| <b>Volatiles</b>                                          |                               | <b>Major</b> | <b>Minor</b> |
| Sample Preservation/Condition                             | x                             |              |              |
| Holding Time                                              | x                             |              |              |
| Mass Spectrometer Tuning                                  | x                             |              |              |
| Calibration                                               | x                             |              |              |
| Response Factor                                           | x                             |              |              |
| Percent Relative Standard Deviation and Percent Deviation | x                             |              |              |
| Internal Standards                                        | x                             |              |              |
| Method Blank                                              | x                             |              |              |
| Equipment Blank                                           |                               |              | x            |
| Trip Blank                                                | x                             |              |              |
| Storage Blank                                             | N/A                           |              |              |
| Surrogates                                                | x                             |              |              |
| Compound Identification and Quantitation                  | x                             |              |              |
| Matrix Spike/Matrix Spike Duplicate                       | x                             |              |              |
| Field Duplicate                                           | x                             |              |              |
| Laboratory Control Samples                                | x                             |              |              |
| Other Quality Control Data out of Specification           | x                             |              |              |

Major = Major data quality issue identified resulting in rejection of data.

Minor = Minor data quality issue identified resulting in the qualification of data. Data qualification should be used to inform the data users of data limitations.

NA = Not applicable

**Table 2**  
**Data Validation Qualifiers**

| <b>Data Qualifier</b> | <b>Definition</b>                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>U</b>              | The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.                                                    |
| <b>J</b>              | The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.                              |
| <b>J+</b>             | The result is an estimated quantity, but the result may be biased high.                                                                                         |
| <b>J-</b>             | The result is an estimated quantity, but the result may be biased low.                                                                                          |
| <b>UJ</b>             | The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.                           |
| <b>R</b>              | The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample. |

### EXECUTIVE NARRATIVE

**Sample Delivery Group:** R2206605

**Laboratory:** ALS Environmental

**Site:** Air Force Plant 59

**Sampling dates:** 07/19/22

**Number of Samples:** 5

**Test Method:** USEPA Method 522

**Analysis:** 1,4-Dioxane

**Validation Level:** 4

**Quality Assurance Project Plan:** *Final Quality Assurance Project Plan Vapor Intrusion Investigation, Groundwater Monitoring Activities, and Well Abandonment at Air Force Plant 59 Johnson City, New York, August 2009*

**Validation Guidelines:** United States Department of Defense, Quality Systems Manual, Rev. 5. July 2016, United States Environmental Protection Agency (USEPA) Contract Laboratory National Functional Guidelines for Superfund Organic Methods Data Review, (USEPA 2017).

| Client Sample ID        | Laboratory Sample ID |
|-------------------------|----------------------|
| JC-3-07192022           | R2206605-001         |
| POST TREATMENT-07192022 | R2206605-002         |
| JC-2-07192022           | R2206605-003         |
| DUP-02-07192022         | R2206605-004         |
| TB-02-07192022          | R2206605-005         |

Table 1 provides a summary of the major and minor data quality issues applied to this data set. All data are acceptable except those results which have been qualified with "R", rejected. Data validation qualifiers along with associated descriptions are provided in Table 2. All data qualification related to this group of samples is detailed on the attached sheets.

All data users should note two facts. First, an "R" flag means that the associated value is unusable due to significant quality control (QC) problems, the data is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on any data tables even as a last resort. Second, no analyte concentration, even if it passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

## DATA ASSESSMENT

### 1. NARRATIVE AND COMPLETENESS REVIEW:

*The case narrative was reviewed, and the data package was checked for completeness. No discrepancies were noted.*

### 2. SAMPLE DELIVERY AND CONDITION:

*The samples arrived at the laboratory in acceptable condition. Proper custody was documented. No qualification was required.*

### 3. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detect results will be flagged as not detected at an estimated quantitation limit, "UJ", unless the holding time is grossly exceeded (by more than two times the holding time specified), in which case non-detect results are flagged "R", rejected. Qualifications were applied to the samples and analytes as shown below.

*All samples were within the validation guidance.*

### 4. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for semi-volatile organics is decafluorotriphenylphosphine. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

## 5. CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

### A) Response Factor:

The response factor measures the instrument's response to specific chemical compounds. All analytes for initial and continuing calibration should meet the minimum relative response factor (RRF) criteria as listed in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review. If the RRF is less than minimum RRF specified, use professional judgment and all detects in the sample will be qualified as "J" or "R". All non-detects for that compound will be rejected "R". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

### B) Percent Relative Standard Deviation and Percent Difference:

Percent relative standard deviation (%RSD) is calculated for the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent difference (%D) compares the response factor of the continuing calibration check to the mean RRF from the initial calibration.

Percent RSD must be less than maximum %RSD listed in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review for all target analytes. In cases where linear and non-linear regressions are used, correlation coefficients must be greater than 0.9900. For the opening or closing continuing calibration verification (CCV) the %D must be within the inclusive opening or closing maximum %D limits for all target compounds. A value outside of these limits indicates potential detection and quantitation errors. If the %RSD exceeds quality control criteria, detects may be qualified as "J" and professional judgment is used to qualify non-detects. If the %D exceeds quality control criteria, the positive results are flagged as estimated, "J" and non-detects are flagged "UJ". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**6. BLANK CONTAMINATION:**

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. Qualifications were applied to the samples and analytes as shown below.

**A) Method blank contamination:**

*No problems were found for this criterion.*

**B) Field /Equipment blank contamination:**

*Sample TB-02-07192022 was submitted as a field/equipment blank in association with all samples in this sample delivery group (SDG). 1,4-dioxane was positively detected. Positive results reported for 1,4-dioxane have been evaluated and no qualification was necessary on this basis.*

**7. SURROGATES:**

All samples are spiked with system monitoring compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate recovery limits were outside quality control limits in the quality assurance plan, qualifications were applied to all the samples and analytes as shown below.

*No problems were found for this criterion.*

**8. MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY:**

Matrix spike/matrix spike duplicate (MS/MSD) data is generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other quality control criteria for additional qualification of data.

*Sample POST TREATMENT-07192022 was evaluated as an MS/MSD pair in association with this SDG. Upon evaluation all precision and accuracy indicators were acceptable.*

**9. COMPOUND IDENTIFICATION AND QUANTIFICATION:**

**Compound Identification**

The compounds are identified on the GC/MS by using the analytes relative retention time (RRT) and ion spectra. For the results to be a positive hit the sample peak must be within  $\pm 0.06$  RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications. Target compound identifications were reviewed for all samples, which were validated at the Stage 4 level.

*No analytes were qualified for compound identification.*

## **Compound Quantification**

*Target compound result quantitation was reviewed for all samples. No anomalies were noted.*

*Manual integrations were reviewed during validation. No anomalies were identified.*

*Tentatively Identified Compounds (TICs) were not reported and were not required to be reported for this program per the project QAPP.*

### **10. INTERNAL STANDARDS PERFORMANCE:**

**Internal standard performance criteria are meant to ensure that the gas chromatograph/mass spectrometer (GC/MS) sensitivity and response are stable during every experimental run.**

**The internal standard area count must not vary by more than a factor of two from the associated continuing calibration standard. The retention time of the internal standard must not vary by more than  $\pm 30$  seconds from the associated continuing calibration standard. The area count must be within a (50-200%) range of the associated standard. If the area count is greater than 200%, non-detected results are not qualified, and positive results are flagged as estimated "J-". If the area count is less than 50%, positive results are flagged as estimated "J+" and non-detected results are flagged "UJ". If the area count is less than 20%, positive results are flagged as estimated "J+" and non-detected results will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.**

*No problems were found for this criterion.*

### **11. FIELD DUPLICATES:**

**Field duplicates may be taken and analyzed as an indication of overall precision. A control limit of 25% for the Relative Percent Difference (RPD) shall be used for original and duplicate sample values greater than or equal to five times (5x) the Limit of Detection (LOD). A control limit of the LOD shall be used if either the sample or duplicate value is less than 5x the LOD. For field duplicates analysis that does not meet the technical criteria, the action was applied to only the field sample and it's duplicate.**

*Samples JC-2-07192022 and DUP-02-07192022 were submitted as a field duplicate pair in association with this sample site. Adequate field precision was demonstrated.*

### **12. LABORATORY CONTROL SAMPLES:**

**The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. Aqueous/water, soil/sediment, wipe, and filter LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control (QA/QC) procedures as employed for the samples. All LCS percent recoveries must fall within the project specific control limits. Qualifications were applied to the samples and analytes as shown below.**

*No problems were found for this criterion.*

**13. OTHER PROBLEMS:**

*None*

**14. DILUTIONS, RE-EXTRACTIONS & REANALYSIS:**

**Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used.**

*No dilution, re-extraction or other reanalysis was performed on any sample submitted in association with this sample site.*



**Table 1**  
**Major and Minor Findings**

|                                                           | Were acceptance criteria met? |              |              |
|-----------------------------------------------------------|-------------------------------|--------------|--------------|
|                                                           | Yes                           | No           |              |
| <b>Semi-volatiles</b>                                     |                               | <b>Major</b> | <b>Minor</b> |
| Holding Time                                              | x                             |              |              |
| Mass Spectrometer Tuning                                  | x                             |              |              |
| Calibration                                               | x                             |              |              |
| Response Factor                                           | x                             |              |              |
| Percent Relative Standard Deviation and Percent Deviation | x                             |              |              |
| Internal Standards                                        | x                             |              |              |
| Method Blank                                              | x                             |              |              |
| Trip Blank                                                | x                             |              |              |
| Surrogates                                                | x                             |              |              |
| Matrix Spike/Matrix Spike Duplicate                       | x                             |              |              |
| Compound Identification and Quantitation                  | x                             |              |              |
| Field Duplicate                                           | x                             |              |              |
| Laboratory Control Samples                                | x                             |              |              |
| Other Quality Control Data out of Specification           | x                             |              |              |

Major = Major data quality issue identified resulting in rejection of data.

Minor = Minor data quality issue identified resulting in the qualification of data. Data qualification should be used to inform the data users of data limitations.

NA = Not applicable

**Table 2 Data Validation Qualifiers**

| <b>Data Qualifier</b> | <b>Definition</b>                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>U</b>              | The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.                                                    |
| <b>J</b>              | The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.                              |
| <b>J+</b>             | The result is an estimated quantity, but the result may be biased high.                                                                                         |
| <b>J-</b>             | The result is an estimated quantity, but the result may be biased low.                                                                                          |
| <b>UJ</b>             | The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.                           |
| <b>R</b>              | The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample. |

### EXECUTIVE NARRATIVE

**Sample Delivery Group:** R2206605

**Laboratory:** ALS Environmental

**Site:** Air Force Plant 59

**Sampling dates:** 07/19/22

**Number of Samples:** 5

**Test Method:** USEPA Method 524.2

**Analysis:** Volatile Organic Compounds (VOCs)

**Validation Level:** 4

**Quality Assurance Project Plan:** *Final Quality Assurance Project Plan Vapor Intrusion Investigation, Groundwater Monitoring Activities, and Well Abandonment at Air Force Plant 59 Johnson City, New York, August 2009*

**Validation Guidelines:** United States Department of Defense, Quality Systems Manual, Rev. 5. July 2016, United States Environmental Protection Agency (USEPA) Contract Laboratory National Functional Guidelines for Superfund Organic Methods Data Review, (USEPA 2017).

| Client Sample ID        | Laboratory Sample ID |
|-------------------------|----------------------|
| JC-3-07192022           | R2206605-001         |
| POST TREATMENT-07192022 | R2206605-002         |
| JC-2-07192022           | R2206605-003         |
| DUP-02-07192022         | R2206605-004         |
| TB-02-07192022          | R2206605-005         |

Table 1 provides a summary of the major and minor data quality issues identified in this data set. All data are acceptable except those results which have been qualified with "R", rejected. Data validation qualifiers along with associated descriptions are provided in Table 2. All data qualification related to this group of samples is detailed on the attached sheets.

All data users should note two facts. First, an "R" flag means that the associated value is unusable due to significant quality control (QC) problems, the data is invalid and provides no information as to whether the compound is present or not. "R" values should not appear on any data tables even as a last resort. Second, no analyte concentration, even if it passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data, but any value potentially contains error.

## DATA ASSESSMENT

### 1. NARRATIVE AND COMPLETENESS REVIEW:

*The case narratives were reviewed, and the data packages were checked for completeness. No discrepancies were noted.*

### 2. SAMPLE DELIVERY AND CONDITION:

*The samples arrived at the laboratory in acceptable condition.*

*Proper custody was documented.*

### 3. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimated, "J". The non-detect results will be flagged as not detected at an estimated quantitation limit, "UJ", unless the holding time is grossly exceeded (by more than two times the holding time specified), in which case non-detect results are flagged "R", rejected. Qualifications were applied to the samples and analytes as shown below.

*All samples were within the validation guidance.*

### 4. MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is bromofluorobenzene. If the mass calibration is in error, all associated data will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**5. CALIBRATION:**

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

**A) Response Factor:**

The response factor measures the instrument's response to specific chemical compounds. All analytes for initial and continuing calibration should meet the minimum relative response factor (RRF) criteria. If the RRF is less than minimum RRF specified, professional judgment is used, and all detects in the sample will be qualified as "J+" or "R". All non-detects for that compound will be rejected "R". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**B) Percent Relative Standard Deviation and Percent Difference:**

Percent relative standard deviation (%RSD) is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent difference (%D) compares the response factor of the continuing calibration check to the mean RRF from the initial calibration.

Percent RSD must be less than maximum %RSD listed in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review for all target analytes. In cases where linear and non-linear regressions are used, correlation coefficients must be greater than 0.9900. For the opening or closing continuing calibration verification (CCV), the %D must be within the inclusive opening or closing maximum %D limits for all target compounds. A value outside of these limits indicates potential detection and quantitation errors. If the %RSD exceeds quality control criteria, detects may be qualified as "J", and professional judgment is used to qualify non-detects. If the %D exceeds quality control criteria, the positive results are flagged as estimated, "J", and non-detects are flagged "UJ". Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**6. BLANK CONTAMINATION:**

Quality assurance (QA) blanks, i.e., method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Qualifications were applied to the samples and analytes as shown below.

**A) Method blank contamination:**

*No problems were found for this criterion.*

**B) Field/Equipment blank contamination:**

*No samples submitted as a rinse blank in association samples in this SDG.*

**C) Trip blank contamination:**

*Sample TB-02-07192022 was submitted as a trip blank in association with all samples in this SDG. Methylene chloride was positively detected. Positive results reported for chloroform were evaluated and qualified per validation guidance on this basis.*

**D) Storage Blank associated with VOA samples only:**

*No storage blank was submitted in association with these SDGs.*

**7. SURROGATES:**

**All samples are spiked with system monitoring compounds prior to sample preparation to evaluate overall laboratory performance and efficiency of the analytical technique. If the measured surrogate recovery limits were outside quality control limits listed in the QAPP, qualifications were applied to all the samples and analytes as shown below.**

*No problems were found for this criterion.*

**8. COMPOUND IDENTIFICATION AND QUANTIFICATION:**

**Compound Identification**

**The compounds are identified on the GC/MS by using the analytes relative retention time (RRT) and ion spectra. For the results to be a positive hit the sample peak must be within  $\pm 0.06$  RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound. In the cases where there is not an adequate ion spectrum match, the laboratory may have provided false positive identifications. Target compound identifications were reviewed for all samples, which were validated at the Stage 4 level.**

*No analytes were qualified for compound identification.*

**Compound Quantification**

*Target compound result quantitation was reviewed for all samples. No anomalies were noted.*

*Manual integrations were reviewed during validation. No anomalies were identified.*

*Tentatively Identified Compounds (TICs) were not reported and were not required to be reported for this program per the project QAPP.*

**9. MATRIX SPIKE/ MATRIX SPIKE DUPLICATE RECOVERY:**

**Matrix spike/matrix spike duplicate (MS/MSD) data are generated to determine the long-term precision and accuracy of the analytical method in various matrices. The MS/MSD data may be used in conjunction with other quality control criteria for additional qualification of data.**

*Sample POST TREATMENT-07192022 was submitted for MS/MSD evaluation for this SDG. Upon evaluation all precision and accuracy indicators were favorable with the following exceptions. The observed recoveries for bromomethane, chloroethane, and dichlorodifluoromethane were lower than the lowest acceptance limits. The results reported for the associated analytes in the parent sample have been qualified "UJ" on this basis.*

**10. INTERNAL STANDARDS PERFORMANCE:**

**Internal standard performance criteria are meant to ensure that the gas chromatograph/mass spectrometer (GC/MS) sensitivity and response are stable during every experimental run.**

**The internal standard area count must not vary by more than a factor of two from the associated continuing calibration standard. The retention time of the internal standard must not vary by more than  $\pm 30$  seconds from the associated continuing calibration standard. The area count must be within a (50-200%) range of the associated standard. If the area count is greater than 200%, non-detected results are not qualified and positive results are flagged as estimated with potential negative bias, "J-". If the area count is less than 50%, positive results are flagged as estimated with potential positive bias, "J+", and non-detected results are flagged "UJ". If the area count is less than 20%, positive results are flagged as estimated with potential positive bias, "J+", and non-detected results will be classified as unusable "R". Qualifications were applied to the samples and analytes as shown below.**

*No problems were found for this criterion.*

**11. FIELD DUPLICATES:**

**Field duplicates may be taken and analyzed as an indication of overall precision. A control limit of 25% for the Relative Percent Difference (RPD) shall be used for original and duplicate sample values greater than or equal to five times (5x) the LOD. A control limit of the LOD shall be used if either the sample or duplicate value is less than 5x the LOD. For field duplicates analysis that does not meet the technical criteria, the action was applied to only the field sample and its duplicate.**

*Samples JC-2-07192022 and DUP-02-07192022 were submitted as a field duplicate pair in association with this sample site. Adequate field precision was demonstrated.*

**12. LABORATORY CONTROL SAMPLES:**

The Laboratory Control Sample (LCS) serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. Aqueous/water, soil/sediment, wipe, and filter LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control (QA/QC) procedures as employed for the samples. All LCS percent recoveries must fall within the project specific control limits. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion with the following exceptions. The observed recovery for hexachlorobutadiene was higher than the highest acceptable limit. All associated samples were non-detected; therefore, no qualification was necessary on this basis.*

**13. OTHER PROBLEMS:**

*None*

**14. DILUTIONS, RE-EXTRACTIONS & REANALYSIS:**

Samples may be re-analyzed for dilution, re-extraction and for other QC reasons. In such cases, the best result values are used.

*No dilutions, re-extractions, or re-analyses were performed.*



**Table 1 Major and Minor Findings**

|                                                           | Were acceptance criteria met? |              |              |
|-----------------------------------------------------------|-------------------------------|--------------|--------------|
|                                                           | Yes                           | No           |              |
| <b>Volatiles</b>                                          |                               | <b>Major</b> | <b>Minor</b> |
| Sample Preservation/Condition                             | x                             |              |              |
| Holding Time                                              | x                             |              |              |
| Mass Spectrometer Tuning                                  | x                             |              |              |
| Calibration                                               | x                             |              |              |
| Response Factor                                           | x                             |              |              |
| Percent Relative Standard Deviation and Percent Deviation | x                             |              |              |
| Internal Standards                                        | x                             |              |              |
| Method Blank                                              | x                             |              |              |
| Equipment Blank                                           | N/A                           |              |              |
| Trip Blank                                                |                               |              | x            |
| Storage Blank                                             | N/A                           |              |              |
| Surrogates                                                | x                             |              |              |
| Compound Identification and Quantitation                  | x                             |              |              |
| Matrix Spike/Matrix Spike Duplicate                       |                               |              | x            |
| Field Duplicate                                           | x                             |              |              |
| Laboratory Control Samples                                | x                             |              |              |
| Other Quality Control Data out of Specification           | x                             |              |              |

Major = Major data quality issue identified resulting in rejection of data.

Minor = Minor data quality issue identified resulting in the qualification of data. Data qualification should be used to inform the data users of data limitations.

NA = Not applicable

**Table 2**  
**Data Validation Qualifiers**

| <b>Data Qualifier</b> | <b>Definition</b>                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>U</b>              | The analyte was analyzed for but was not detected above the level of the reported sample quantitation limit.                                                    |
| <b>J</b>              | The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.                              |
| <b>J+</b>             | The result is an estimated quantity, but the result may be biased high.                                                                                         |
| <b>J-</b>             | The result is an estimated quantity, but the result may be biased low.                                                                                          |
| <b>UJ</b>             | The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.                           |
| <b>R</b>              | The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the sample. |

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## **Appendix D**

### **NYSDEC EQuIS Submittal Documentation (To be submitted with the Final Report)**

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October 4, 2022

AFCEC ERPIMS Data Support  
HQ AFCEC/CZRA, Bldg 171  
2261 Hughes Ave, Ste 155  
Lackland AFB, TX 78236-9853

**Reference: Installation coded ID (AFIID): AFP59**  
**Contract No: FA8903-18-C-0024**  
**Delivery Order: 0000**

**Subject: Project Name: Air Force Plant 59 LTM July 2022**  
**ERPIMS Project Task Request: 20221002**

To Whom It May Concern:

This is the ERPIMS submittal for the Site SS005 Air Force Plant, which is in support of the Air Force for Site SS005 Air Force Plant 59, New York. The ERPIMS submission was generated using the ERPTools X software. GROUPS 1, 2, and 3 submission files were delivered to AFCEC electronically by ERPTools X.

| Site Sampling Date Range    | Official Site ID(s) |
|-----------------------------|---------------------|
| 19 July 2022 – 19 July 2022 | 1, 5                |

A copy of the previously submitted ERPIMS Data Submission Schedule is attached.

Contacts for this project and deliverable are listed below:

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Sincerely,

A handwritten signature in cursive script that reads "Erin Sullivan". The signature is written in black ink on a light gray, textured background.

Erin Sullivan  
Data Manager

cc: Tara Lamond, Database Manager, EA  
Chris Schroer, Project Manager, EA  
Jonathan Davis, P.E.

Attachment: ERPIMS Data Submission Schedule