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11 March 2024

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**SUBJECT:** Final Ash Landfill Annual Report and Year 17 Review for the Former Seneca Army Depot  
in Romulus, NY; EPA Site ID# NY0213820830 and NY Site ID# 8-50-006

Dear Ms. Treinen, Ms. Sweet, and Mr. Sergott:

On behalf of the Army, please find attached for your records the Final Ash Landfill Annual Report and Year 17 Review for the Former Seneca Army Depot, located in Romulus, New York.

If you have any questions about the attached document, please call me at 917-575-1819.

Sincerely,

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**ASH LANDFILL ANNUAL REPORT AND YEAR  
17 REVIEW  
FINAL**

**Long-Term Monitoring/Land Use Control  
Management  
Former Seneca Army Depot  
Romulus, New York**

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*PREPARED FOR:*

**U.S. ARMY CORPS OF ENGINEERS,  
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Huntsville, Alabama 35805**



**CONTRACT NO. W912DY22D0131  
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March 2024



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**Ash Landfill Annual Report and Year 17 Review  
Long-Term Monitoring/Land Use Control  
Management  
Former Seneca Army Depot  
Romulus, New York**

Contract No. W912DY22D0131  
Task Order No. W912DY22F0374

*Prepared for*

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March 2024

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## LIST OF ACRONYMS AND ABBREVIATIONS

µg/L	Microgram(s) per liter
bgs	Below ground surface
COC	Contaminant of concern
CVOC	Chlorinated volatile organic compound
cy	Cubic yard(s)
DCE	Dichloroethene
DO	Dissolved oxygen
EA	EA Engineering, Science, and Technology, Inc., PBC
EPA	U.S. Environmental Protection Agency
ICWP	Incinerator Cooling Water Pond
LTM	Long-term monitoring
LUC	Land use control
mg/L	Milligram(s) per liter
mV	Millivolt(s)
NCFL	Non-combustible fill landfill
NTCRA	Non-Time Critical Removal Action
NYS	New York State
OPS	Operating properly and successfully
ORP	Oxidation-reduction potential
OU	Operable unit
PAH	Polycyclic aromatic hydrocarbon
Parsons	Parsons Engineering Science, Inc.
RA	Remedial action
RDR	Remedial Design Report
RI	Remedial investigation
ROD	Record of Decision
SWMU	Solid waste management unit
TAGM	Technical and Administrative Guidance Memorandum
TCE	Trichloroethene
TOC	Total organic carbon



USACE	U.S. Army Corps of Engineers
VC	Vinyl chloride
VOC	Volatile organic compound
ZVI	Zero valent iron

## 1. INTRODUCTION

### 1.1 SITE-SPECIFIC LONG-TERM MONITORING BACKGROUND

This Annual Report is for the Ash Landfill Operable Unit (OU), Former Seneca Army Depot (SEAD), located in Romulus, New York (**Figure 1**). This report provides a review of the Year 17<sup>1</sup> (Round 33) long-term monitoring (LTM) of the chlorinated volatile organic compounds (CVOCs) groundwater plume at the Ash Landfill and a remedy performance assessment of the biowall system that was installed in 2006. This report is based on an annual review of the effectiveness of the remedy and includes the following:

- A review of the latest LTM results (Section 3.1)
- A comparison of the groundwater data to the LTM objectives (Section 3.3)
- An assessment of the remedy's compliance with U.S. Environmental Protection Agency's (EPA's) *Guidance for Evaluation of Federal Agency Demonstrations that Remedial Actions are Operating Properly and Successfully* (Section 12(h)(s)) (Section 3.7) (EPA 1996).

A remedial action (RA) was completed in October and November 2006 in accordance with the Record of Decision (ROD) for the Ash Landfill OU (Parsons 2004), the Remedial Design Work Plan (Parsons 2006a), and the Remedial Design Report (RDR) (Parsons 2006b). The RA involved the following:

- Installation of three dual biowall systems, A1/A2, B1/B2, and C1/C2 (**Figure 2**) to address CVOCs in groundwater that exceed New York State (NYS) Class GA groundwater standards. The biowalls were subsequently recharged in 2017 following the installation of recirculation wells to facilitate extraction of the aquifer groundwater and injection of remedial substrate (emulsified vegetable oil)
- Construction and establishment of a 12-inch thick vegetative cover over the Ash Landfill and the Non-Combustible Fill Landfill (NCFL) to prevent ecological receptors from coming into direct contact with the underlying soils that are impacted with metals and polycyclic aromatic hydrocarbons (PAHs)
- Excavation and disposal of Debris Piles A, B, and C
- Re-grading of the Incinerator Cooling Water Pond (ICWP) to promote positive drainage by sloping the surface towards existing drainage swales.

As part of the RA at the Ash Landfill OU, post-closure operations include LTM. Groundwater monitoring is required per the remedial design, which was formulated to comply with the ROD and is currently conducted annually.

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<sup>1</sup> The last sampling was conducted in 2021 (Year 15) and was reported in the annual report dated September 2022 (Parsons 2022). Due to gaps in contracting, no sampling was conducted in 2022 (Year 16).

**Table 1** presents the sampling dates and annual report titles since the initiation of LTM at the Ash Landfill OU. The results of the most recent sampling event (Round 33), which took place in June 2023, are provided within this Annual Report in Sections 3.1 and 3.2.

## 1.2 LONG-TERM GROUNDWATER MONITORING OBJECTIVES

Three types of long-term groundwater monitoring are being performed: 1) plume monitoring, 2) biowall remedy performance monitoring, and 3) off-site compliance monitoring (Parsons 2006b). On-site monitoring is being conducted to measure groundwater contaminant concentrations over time and to evaluate the effectiveness of the biowall remedy for the Ash Landfill OU. Off-site monitoring is being conducted to ensure there are no exceedances of contaminants migrating off the property. The objectives of the LTM are as follows:

- Confirm that there are no exceedances of groundwater standards for contaminants of concern (COCs) at the off-site compliance monitoring well MW-56R
- Document the effectiveness of the biowalls to remediate and attenuate the chlorinated ethene plume
- Confirm that groundwater concentrations throughout the plume are decreasing such that NYS Class GA groundwater standards will eventually be met.

Biowall performance monitoring is being conducted at two locations to determine if, and when, any biowall maintenance activities should be performed. The first location is within Biowalls B1/B2 (MWT- 27 and MWT-28) in the segment that runs along the pilot-scale biowalls that were installed in July 2005 (**Figure 2**). The second location is within Biowall C2 (MWT-23), the furthest downgradient biowall. The objectives of biowall performance monitoring for operations and maintenance activities are as follows:

- Monitor the long-term performance and sustainability of the biowalls
- Monitor substrate depletion and geochemical conditions under which the effectiveness of the biowalls may decline
- Determine if, and when, the biowalls need maintenance (i.e., need to be recharged with additional organic substrate).

## 2. SITE BACKGROUND

### 2.1 SITE DESCRIPTION

SEAD is a 10,634-acre former military facility located in Seneca County near Romulus, New York, that was owned by the United States Government and operated by the Department of the Army from 1941 until 2000. SEAD is located between Seneca Lake and Cayuga Lake and is bordered by New York State Highway 96 to the east, New York State Highway 96A to the west, and sparsely populated farmland to the north and south.

The Ash Landfill OU is composed of five historic solid waste management units (SWMUs). The five SWMUs that comprise the Ash Landfill OU are the Incinerator Cooling Water Pond (SEAD-3), the Ash Landfill (SEAD-6), the NCFL (SEAD-8), the former Debris Piles (SEAD- 14), and the former Abandoned Solid Waste Incinerator Building (SEAD-15) (**Figure 2**).

From 1941 (the date SEAD was constructed) to 1974, uncontaminated trash was burned in a series of burn pits located near the former abandoned incinerator building (Building 2207). According to the U.S. Army Environmental Hygiene Agency Interim Final Report, Groundwater Contamination Survey No. 38-26-0868-88 (July 1987), the ash from the refuse burning pits was buried in the Ash Landfill (SEAD-6) from date of inception until the late 1950s or early 1960s.

The incinerator was built in 1974, and between 1974 and 1979, materials intended for disposal were transported to the incinerator. Each week SEAD generated approximately 18 tons of refuse, the majority of which was incinerated. The source for the refuse was domestic waste from SEAD activities and family housing. Large items that could not be burned were disposed of at the NCFL (SEAD-8). The NCFL encompasses approximately 3 acres located southeast of the former incinerator building, immediately south of a SEAD railroad line. The NCFL was used as a disposal site for non-combustible materials, including construction debris, from 1969 until 1977.

Ash and other residue from the former incinerator were temporarily disposed of in an unlined cooling pond immediately north of the incinerator building. The cooling pond consisted of an unlined depression approximately 50 feet in diameter and approximately 6 to 8 feet deep. When the pond filled, the ash and residue were removed, transported, and buried in the adjacent ash landfill east of the cooling pond. The ash and incinerator residue were dumped in piles and occasionally spread and compacted. No daily or final cover was applied during operation. According to an undated aerial photograph of the incinerator during operation, the active area of the Ash Landfill extended at least 500 feet north of the incinerator building, near a bend in a dirt road. A fire destroyed the incinerator on 8 May 1979, and the landfill was subsequently closed. Post-closure, the landfill was apparently covered with native soil of various thicknesses, but was not closed with an engineered cover or cap. Other areas at the site were used as a grease pit for disposal of cooking grease and for burning household trash and depot refuse (SEAD-14).

### 2.2 SITE GEOLOGY/HYDROGEOLOGY

The Ash Landfill site is underlain by a broad north-to-south trending series of rock terraces covered by a mantle of glacial till. As part of the Appalachian Plateau, the local bedrock consists of shale, sandstone, conglomerate, limestone and dolostone. At the Ash Landfill site, the bedrock (the

Ludlowville Formation) is characterized by gray, calcareous shale and mudstone and thin limestone beds with numerous zones of abundant invertebrate fossils. Locally, the shale is soft, gray, and fissile. The shale, which has a thin weathered zone at the top, is overlain by 4 to 15 feet of Pleistocene-age<sup>2</sup> till deposits. The till matrix varies locally, but generally consists of unsorted silt, clay, sand, and gravel (Brett et al., 1995).

The thickness of the overburden till at the Ash Landfill OU generally ranges from 4 to 15 feet. At the location of the biowalls, the thickness of the till and weathered shale is approximately 10 to 15 feet. Groundwater is present in both the shallow till/weathered shale layer and in the deeper competent shale bedrock. In both water-bearing units, the predominant direction of groundwater flow is to the west, toward Seneca Lake. Based on the historical data, the wells at the Ash Landfill site exhibit seasonal fluctuations in the water table and the saturated thickness. Historic data indicate that the saturated interval is thin (generally between 1 and 3 feet thick) in the month of September and is thickest (generally between 6 and 8.5 feet thick) between December and March (Parsons 1994).

The average linear velocity of the groundwater in the till/weathered shale layer was calculated during the remedial investigation (RI) in 1994 as 0.166 feet per day or 60.7 feet per year at 15 percent effective porosity and 0.125 feet per day or 45.5 feet per year at 20 percent effective porosity (Parsons 1994). The actual velocity of on-site groundwater may be locally influenced by zones of higher or lower than average permeability; these zones are possibly associated with variations in the porosity of the till/weathered shale. In general, groundwater movement across the Ash Landfill site is slow.

## 2.3 SOIL AND GROUNDWATER IMPACTS

During the RI, it was determined that surface water and sediment were not media of concern and did not require remediation (Parsons 1994). A groundwater plume that emanated from the northern end of the Ash Landfill was delineated during the RI. The primary COCs in groundwater at the Ash Landfill are volatile organic compounds (VOCs); the primary COCs in soil at the Ash Landfill are chlorinated and aromatic VOCs, semivolatile organic compounds, PAHs, and, to a lesser degree, metals. Release of the COCs is believed to have occurred during the former activities at the Ash Landfill OU (described in Section 2.1).

### 2.3.1 Soil

VOCs, specifically trichloroethene (TCE), were detected in the soil near well MW-44A and the northwest corner of the Ash Landfill (**Figure 2**) and this area is believed to be the source of the groundwater plume. Between 1994 and 1995, the Army conducted a Non-Time Critical Removal Action (NTCRA), also known as an Interim Removal Measure, to address VOC and PAH contamination in soil. Since the NTCRA, concentrations of VOCs in groundwater near the original source area have decreased by two orders of magnitude. Soil was not a medium of concern in the approved Final ROD (Parsons 2004) based on the risk reduction from the NTCRA which did not include soil-to-groundwater pathway assessments.

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<sup>2</sup> The Pleistocene Age occurred 11,7000 to 2.6 million years before present.

The other COCs detected in the soil were PAHs and metals. PAHs were detected at concentrations above New York State Department of Environmental Conservation's Technical and Administrative Guidance Memorandum (TAGM #4046) values in the NCFL and the Debris Piles present around the former Ash Landfill. In general, the highest PAH concentrations were detected in the NCFL and small Debris Pile surface soils. The metals that were detected at elevated concentrations above the TAGM values in soils were copper, lead, mercury, and zinc. These elevated concentrations were found in the Ash Landfill, the NCFL, and the Debris Piles, with the highest concentrations of metals detected at the surface of the Debris Piles. These piles were small, localized, surface features that were visibly discernible and did not extend into the subsurface. The former debris piles were excavated and disposed off-site during the RA in 2006.

### 2.3.2 Groundwater

The primary potential impact to human health and the environment is a groundwater contaminant plume containing dissolved chlorinated solvents, primarily TCE, isomers of dichloroethene (DCE), and vinyl chloride (VC). The plume originates near the northwestern edge of the Ash Landfill and is approximately 1,100 feet long by 625 feet wide. The nearest exposure points for groundwater are 1) a pond and one residential well approximately 150 feet downgradient from the leading edge of the plume and 160 feet south of the plume and 2) one farmhouse well located approximately 1,250 feet from the leading edge of the plume (**Figure 3**). The residential well is an open borehole 90 feet deep and draws water from the bedrock. The bedrock in this location is 10 feet below ground surface (bgs) and the well is cased to a depth of approximately 20 feet bgs. The farmhouse well is an open borehole down to 125 feet bgs and draws water from the deeper bedrock aquifer. As discussed in Section 4.4 of the RI (Parsons 1994), plume profiles were constructed for geologic cross sections at the Ash Landfill; based on these profiles it was determined that the plume is vertically restricted to the upper till/weathered shale aquifer and is not present in the deeper competent shale aquifer accessed by the residential and farmhouse well.

A zero valent iron (ZVI) wall was installed along the SEAD boundary in 1998 during a *in-situ* groundwater remediation technology study (**Figure 2**). The wall was constructed by excavating a linear trench to competent bedrock and backfilling the trench with a ZVI and sand mixture.

The ZVI wall was constructed perpendicular to groundwater flow, is approximately 650 feet long, 14 inches wide, and has an average depth of 8.8 feet.

The design life of the ZVI wall is affected by porosity loss and iron consumption; the former affects groundwater flow through the wall and the latter affects the ability of the wall to chemically treat the chlorinated organics dissolved in groundwater. The design life of the ZVI wall was calculated to be 18 years (Parsons 2000).

## 2.4 SUMMARY OF THE REMEDIAL ACTION

### 2.4.1 Biowalls

Three biowall pairs were installed as part of the remedial action to address groundwater contamination on-site and installation activities are documented in the Construction Completion

Report (Parsons 2007). The biowalls were constructed by excavating linear trenches to competent bedrock then backfilling each trench to the ground surface with a mixture of bark and tree mulch, soybean oil and sand. The biowall installation was completed in October 2006.

Biowalls A1/A2, B1/B2, and C1/C2 were constructed perpendicular to groundwater flow and the longitudinal direction of the chlorinated solvent plume at the locations prescribed in the RDR, shown on **Figure 2**. The entire length of Biowalls A1/A2 and the northern portion of B1/B2 were combined into a single double-width trench (minimum of 6 feet in width) due to unstable soil conditions that caused sidewall collapse and trench widening. Approximately 2,840 linear feet of biowalls were constructed in the areas downgradient of the Ash Landfill at depths ranging from 7 to 18.5 feet bgs.

A 12-inch soil cover was placed over the entire length of the biowalls to impede surface water from preferentially infiltrating into the biowalls. Trench spoils were used as the cover material and were compacted with a backhoe.

#### **2.4.2 Incinerator Cooling Water Pond**

As specified in the RDR, the ICWP was re-graded to meet the surrounding grade to prevent the accumulation of water in this inactive pond area. Prior to re-grading, the vegetation on the berms surrounding the ICWP was removed with an excavator. The soil berm was then regraded with a bulldozer to match the surrounding grade. The ICWP was seeded with a standard meadow mix to promote revegetation and to prevent erosion.

#### **2.4.3 Ash Landfill and NCFL Vegetative Cover**

A soil cover comprised of mulch, biowall trench spoils that met the site cleanup criteria, and off-site topsoil was placed over the 2.2 acres of the Ash Landfill. The Ash Landfill was covered with 4,380 cubic yards (cy) of fill to achieve a minimum cover thickness of 12 inches. Biowall trench spoils that met the site cleanup criteria and off-site topsoil were also placed over the 3.4-acre NCFL. The NCFL was covered with 6,015 cy of fill to achieve a minimum cover thickness of 12 inches. The purpose of the covers is to prevent terrestrial wildlife from directly contacting or incidentally ingesting impacted soils.

#### **2.4.4 Debris Pile Removal**

During the RA, approximately 200 cy of debris was removed from Debris Piles B and C. Approximately 1,000 cy of debris was removed from within and beyond the staked limits of Debris Pile A. The total volume of debris removed was approximately 1,200 cy (1,548 tons).

### **2.5 DESCRIPTION OF TECHNOLOGY USED IN BIOWALLS**

Biologically mediated reductive dechlorination is the most important process for natural or enhanced biodegradation of highly chlorinated solvents (EPA 1998) (**Figure 4**). The biowalls installed at the site were constructed to enhance biodegradation. Complete dechlorination of TCE and other chlorinated solvents to the non-regulated end product ethene/ethane is the goal of anaerobic biodegradation.

Biodegradation causes measurable changes in groundwater geochemistry that can be used to evaluate the effectiveness of substrate addition in stimulating biodegradation. For anaerobic reductive dechlorination to be an effective process, groundwater geochemical conditions must be anoxic and ideally in the sulfate-reducing or methanogenic geochemical range. Thus, groundwater in which anaerobic reductive dechlorination is occurring should have the following geochemical signature:

- Depleted concentrations of dissolved oxygen (DO), nitrate, and sulfate
- Elevated concentrations of manganese, ferrous iron, methane, carbon dioxide, chloride, and alkalinity
- Reduced oxidation-reduction potential (ORP).

Based on LTM data, the biowall system was recharged in 2017 and is described in Biowall Recharge Completion Report (Parsons 2018).



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### 3. LONG-TERM MONITORING

#### 3.1 DATA ANALYSIS

##### 3.1.1 Sample Collection

**Table 1** presents the sample collection dates for the 17 years of LTM. The first year of sampling was quarterly, and at that time, the sampling rounds were identified as xQyyyy, where “x” is the round number, and “yyyy” is the 4-digit year. After the first year, the sample frequency was modified to semi-annual, and an “R” was used to replace the “Q” to denote the sampling round. The sampling round number has been used sequentially since the first quarterly sampling round.

During each groundwater sampling round, fourteen monitoring wells were sampled and classified into three groups (**Table 2**): 11 on-site plume performance monitoring wells, 1 off-site compliance monitoring well, and 5 biowall process monitoring wells. The off-site performance monitoring well, MW-56R, is a replacement well for MW-56 which was sampled semi-annually from 2007 through 2021. MW-56R was installed approximately 200 feet to the east, upgradient of MW-56, closer to the SEAD boundary. The well locations are shown on **Figure 2**. Three of the plume performance wells are also biowall process monitoring wells (MWT-23, MWT-27, and MWT-28). The five biowall process monitoring wells are either within or immediately upgradient or downgradient of the biowalls and are used to assess if, and when, the biowalls may require additional substrate.

All of the groundwater samples were submitted to SGS Orlando in Orlando, Florida and were analyzed for VOCs by EPA Method SW846 8260D. SGS Orlando is certified by the Department of Defense Environmental Laboratory Accreditation Program and the National Environmental Laboratory Accreditation Conference, National Environmental Laboratory Accreditation Program for the above analyses/analytical methods for both potable and non-potable water. As indicated in **Table 2**, samples from the wells in the biowall process monitoring group (MWT-23, MWT-26, MWT-27, MWT-28, and MWT-29) and from three wells from the on-site plume performance group (PT-17, PT-24, and MWT-7) were also submitted to SGS Orlando for analysis of the following:

- Nitrate, sulfate, and chloride by EPA SW846 Method 9056A
- Total organic carbon (TOC) by EPA SW846 Method 9060A
- Dissolved gases (methane, ethane, and ethene) by Method RSK 175.

During field sampling, the following geochemical parameters were recorded for the duration of low-flow sampling for each groundwater sample:

- pH, ORP, DO, temperature, conductivity, and turbidity were measured with a multi-parameter instrument (Horibia U-52)

In addition, a HACH<sup>®</sup> DR/890 Colorimeter was used in the field to measure manganese and ferrous iron at PT-17, PT-24, MWT-7, MWT-23, MWT-26, MWT-27, MWT-28, and MWT-29. Manganese and ferrous iron were measured by EPA Method 8034 and EPA Method 8146, respectively. A summary of the analyses performed at each well location is presented in **Table 2**.

Groundwater samples were collected using low flow sampling techniques. Sampling procedures, sample handling and custody, holding times, and collection of field parameters were conducted in accordance with the Uniform Federal Policy – Quality Assurance Project Plan (EA Engineering, Science, and Technology, Inc., PBC [EA] 2023). Field forms for this sampling event are included in **Appendix A**.

Groundwater data from Year 17 were validated per the measurement performance criteria outlined in the Final Uniform Federal Policy – Quality Assurance Project Plan (EA 2023). No data quality concerns and no data were rejected from the data validation performed by Environmental Data Services, LTD. Data validation sheets are provided in **Appendix D**.

### 3.1.2 Groundwater Elevations

Synoptic groundwater elevation data were recorded on 26 June 2023. Groundwater elevation measurements are presented in **Table 3**. The groundwater elevations at all monitoring wells were within historically observed ranges (**Figure 5**). Shallow aquifer groundwater contours and groundwater flow direction based gauging measurements are depicted on **Figure 6**.

### 3.1.3 Geochemical Data

Measurable changes in groundwater geochemistry were used to evaluate the effectiveness of substrate addition in inducing anoxic and reducing conditions that are favorable to anaerobic reductive dechlorination of chlorinated solvents. Groundwater conditions that are sulfate-reducing or methanogenic are particularly conducive to complete anaerobic reductive dechlorination.

Geochemical parameter results, organized with the most upgradient well listed first and the most downgradient well listed last, are presented in **Table 4**. A comparison of the geochemical parameters for wells MWT-26 (upgradient of Biowall B1) to MWT-28 (in Biowall B2) for Year 17, summarized below, demonstrates changes in geochemistry across the B1/B2 Biowalls.

#### Dissolved Oxygen

DO is the most favored electron acceptor (i.e., yields the most energy) used by microbes during biodegradation of organic carbon, and its presence will inhibit the anaerobic degradation of chlorinated ethenes. DO <0.5 milligrams per liter (mg/L) is generally ideal for anaerobic dechlorination to occur (EPA 1998). In the wells sampled within Biowalls B1/B2 and Biowall C2, DO levels are depleted (less than 1.0 mg/L) (**Table 4**) in comparison to upgradient levels of DO.

#### Sulfate

Sulfate is an alternate electron acceptor utilized during sulfate reduction for microbial respiration in the absence of oxygen, nitrate, and ferric iron. Sulfate levels lower than 20 mg/L are ideal to prevent inhibition of reductive dechlorination of chlorinated ethenes (EPA 1998). Reduced sulfate concentrations within or immediately downgradient from treatment areas are indicative of active sulfate reduction. Sulfate concentrations were less than 20 mg/L in Biowall B1 (MWT-27), Biowall B2 (MWT-28), and Biowall C2 (MWT-23) (**Table 4**). Elevated sulfate concentrations

have occasionally been recorded in the biowalls in past rounds (e.g., Round 12, Round 18, and Round 30). These concentrations are outliers and have been followed by a return to concentrations below the sulfate benchmark of 20 mg/L. Compared to the well upgradient of Biowalls B1 and B2, sulfate concentrations within the B1/B2 biowalls are two orders of magnitude lower than at the upgradient well (405 mg/L at MWT-26) indicating that sulfate reduction is occurring and that the environment within the biowalls is anoxic/reducing and conducive to anaerobic biodegradation. Downgradient of the biowalls, sulfate concentrations are lower by approximately an order of magnitude (e.g., 86.1 mg/L at MWT-29). Sulfate levels across the biowalls will continue to be monitored.

## **Methane**

The presence of methane in groundwater is indicative of strongly reducing methanogenic conditions which are conducive to rapid and complete reductive dechlorination of chlorinated solvents. Methanogenesis generally occurs after oxygen, nitrate, iron, and sulfate have been depleted in the treatment zone though all of these reduction processes can occur at the same time. Concentrations of methane greater than 1,000 micrograms per liter ( $\mu\text{g/L}$ ) are indicative of ongoing methanogenesis and conditions for dechlorination to occur most efficiently (ESTCP 2004). An increase in the concentrations of methane indicates that reducing conditions optimal for anaerobic reductive dechlorination are present. Methane was detected in the well upgradient of Biowall B1/B2 (MWT-26) at a concentration of 1,880  $\mu\text{g/L}$ . Compared to these concentrations, at the process wells located within Biowalls B1, B2, and C2, methane concentrations were orders of magnitude greater and ranged from 9,120  $\mu\text{g/L}$  to 13,700  $\mu\text{g/L}$  (**Table 4**). These data demonstrate that there is an increase in the level of methanogenic activity within the biowalls compared to upgradient locations.

## **Oxidation-Reduction Potential**

ORP indicates the level of electron activity in groundwater and the tendency of groundwater to accept or transfer electrons. Low ORP, considered to be less than -100 millivolts (mV), indicates reducing conditions are present and the environment is conducive for anaerobic reductive dechlorination to occur; however, reductive pathways are still possible at ORP levels up to +50 mV (EPA 1998).

The ORP values within Biowalls B1/B2 ranged from -81.0 mV to -78.0 mV (**Table 4**). Within Biowall C2 measured ORP (-57.0 mV) is expected to support dechlorination and below the typical positive ORP values at the upgradient well (PT-22) (**Table 4**).

Typically, the historical trend for ORP in the LTM data is positive ORP values upgradient of the biowalls and negative ORP values within the biowalls. The consistent negative ORP values observed within the biowalls indicate that a reducing environment has been present within the biowalls throughout the LTM program. ORP values remain lower than the upgradient values indicating a change in conditions within the biowalls compared to the upgradient conditions.

## **Total Organic Carbon**

The presence of organic substrate is necessary to stimulate and sustain anaerobic degradation processes. In biowalls, organic carbon acts as an energy source for anaerobic bacteria and drives reductive dechlorination. Based on the guidance for monitored natural attenuation, concentrations of TOC greater than 20 mg/L are desirable for naturally occurring anoxic conditions and reductive dechlorination to occur and are considered to be sufficient in natural sources to maintain sulfate reducing and methanogenic conditions (EPA 1998). The biowall system is an engineered system specifically designed for anaerobic dechlorination. TOC concentrations in the biowalls remain greater than the concentrations upgradient and downgradient of the walls (**Table 4**). The TOC concentration observed at MWT-26, which is upgradient of the biowalls, was 4.8 mg/L. For comparison, the TOC concentrations in the B1/B2 biowalls ranged from 21.5 J mg/L to 25.5 mg/L which is adequate to sustain anaerobic treatment.

A decrease in the concentration of TOC occurs as readily degraded organics (i.e., vegetable oil and cellulose) in the mulch mixture are consumed. TOC concentrations on-site have remained sufficiently high historically to serve as an energy source for anaerobic bacteria in the biowalls; however, the TOC concentrations from MWT-23 in Biowall C2 have decreased below suggested benchmark values (2.7 µg/L). TOC concentrations in this well have historically been below the benchmark of 20 µg/L. Although TOC has remained low, sampling results from PT-22 located upgradient and MWT-24 located downgradient indicate that reductive dechlorination processes are occurring.

### **Ferrous Iron and Manganese**

Iron III (ferric iron) is an electron acceptor used by iron-reducing bacteria under anaerobic conditions to produce Iron II (ferrous iron). Iron III is relatively insoluble in groundwater relative to Iron II. Therefore, an increase in concentrations of Iron II in groundwater is a clear indication that anaerobic iron reduction is occurring. Similarly, manganese (IV) is an electron acceptor used by manganese-reducing bacteria under anaerobic environments; to produce soluble manganese (II). Under anaerobic conditions like those at the Ash Landfill, the presence of manganese (II) and ferrous iron in the biowalls at concentrations above those found at upgradient locations, or locations unaffected by the biowalls, demonstrates that manganese and iron reduction are occurring at the site.

Ferrous iron and manganese concentrations within the biowalls ranged as high as 1.17 mg/L and greater than 47.5 mg/L, respectively. Ferrous iron concentrations measured in the biowalls were higher than upgradient concentrations, indicating that conditions within the biowalls are anaerobic and conducive to the degradation of chlorinated ethenes. Manganese concentrations were similar within the biowalls and upgradient locations. The high concentration of manganese within the biowalls is still a strong indicator that reductive conditions are present.

## **3.2 DATA SUMMARY (YEAR 17)**

Monitoring data for wells within the biowalls during the Year 17 LTM indicate the following:

- DO remains below 1.0 mg/L at Biowalls B1/B2 and Biowall C2 (range of 0.40 mg/L to 0.87 mg/L), indicating favorable conditions for reductive dechlorination in the biowalls. DO at

MWT-28 was greater than 1.0 mg/L during the sample collection due to the well purging dry and grab sample collected after recharge.

- Concentrations of TOC remain elevated in Biowalls B1/B2 (21.5 J mg/L to 25.5 mg/L) compared to the upgradient well (4.8 mg/L), indicating that the energy source that promotes anaerobic bacteria growth in the biowalls is sufficiently high but may need to be refreshed in the next year or two following additional monitoring. TOC concentrations within Biowall C2 are consistent with previous sampling rounds (2.7 mg/L).
- ORP values at Biowalls B1/B2 ranged from -81.0 mV to -78.0 mV, which are lower than the upgradient well (63.0 mV at MWT-26), indicating that conditions continue to be suitable for reductive dechlorination. ORP at Biowall C2 (-57.0 mV) was also within the range indicative of suitable conditions.
- Sulfate concentrations are an order of magnitude lower within the biowalls than in the upgradient well indicating that sulfate reduction is occurring within the biowalls and sulfate is not present at concentrations that might inhibit anaerobic reductive dechlorination within the biowalls.
- Methane concentrations within the biowalls ranged from 9,120 J  $\mu\text{g/L}$  to 13,700  $\mu\text{g/L}$ , indicating strongly reducing methanogenic conditions are present.
- Ferrous iron concentrations are elevated (Fe: 0.50 mg/L to 1.17 mg/L) in the biowalls in comparison to upgradient wells, indicating iron reduction processes are occurring within the biowalls. Manganese concentrations were similar within the biowalls and upgradient locations. The high concentration of manganese within the biowalls is still a strong indicator that reductive conditions are present.

The bulleted observations indicate that the environment within the biowalls is conducive to the degradation of chlorinated ethenes. The geochemical parameters outlined above suggest that biodegradation continues to occur within the biowalls, and the 2017 refresh had a positive effect on the geochemical environment with the biowalls. While concentrations of site COCs remain above standards upgradient and downgradient of the walls, COC concentrations within the biowalls were non-detect for the Year 17 sampling event. Biowall concentrations post-refresh are shown in **Appendix E**.

### 3.3 GROUNDWATER REMEDY EVALUATION

The concentrations of chlorinated ethenes detected in groundwater during each round of LTM are presented in **Table 5**. The discussion below focuses on data collected during Year 17 (Round 33) of the LTM program and addresses how the remedial action objectives are being achieved.

#### 3.3.1 Achievement of First Performance Monitoring Objective

- Confirm that there are no exceedances of groundwater standards for COCs at the off-site monitoring well MW-56R.

Concentrations of chlorinated ethenes at former off-site well MW-56 were historically low or non-detect with concentrations of TCE, *cis*-DCE, and VC below regulatory standards. In February 2022, MW-56 was abandoned due to impacts from a newly dug adjacent drainage ditch. MW-56R was installed as a replacement well, 150 feet of upgradient of the former MW-56 well toward the SEAD boundary (**Figure 2**). The 2023 sampling event was the first sample collected from MW-56R. *Cis*-DCE exceeded the NYS Class GA standard of 5 µg/L with a concentration of 8.2 µg/L (**Figure 7**). Based on the 2023 sampling data, CVOCs are present off-depot at concentrations exceeding groundwater standards.

### 3.3.2 Achievement of Second Performance Monitoring Objective

- Document the effectiveness of biowalls to remediate and attenuate the chlorinated ethene plume.

Within the biowall wells MWT-27 (in Biowall B1), MWT-28 (in Biowall B2), and MWT-23 (in Biowall C2), concentrations of TCE and *cis*-DCE remain below NYS Class GA standards (**Table 5**). TCE was reported below NYS Class GA standards in the biowalls in all rounds and *cis*-DCE has been below NYS Class GA standards in every round since Quarter 2 in 2007. VC was not detected within Biowall B2 during Round 33. Low concentrations were detected in Biowalls B1 and C1 with concentrations of 1.4 µg/L and 0.72 µg/L, respectively.

The absence of TCE and presence of low levels of *cis*-DCE, VC, and the production of methane, is evidence that the reductive dechlorination path is progressing towards complete mineralization. The reduction in concentrations of TCE and *cis*-DCE measured within the biowall wells compared to upgradient concentrations suggests that dehalogenation and the dechlorination of chlorinated ethenes is active. Therefore, the biowalls are operating as expected.

### 3.3.3 Achievement of Third Performance Monitoring Objective

- Confirm that groundwater concentrations throughout the plume are decreasing to eventually meet GA standards.

Overall concentrations of TCE, *cis*-DCE, and VC have decreased over the 33 sampling events (**Appendix B, Figures B-1 through B-13**).

The highest reductions in contaminant concentrations are found within the biowalls themselves relative to downgradient locations. The spikes in contaminant concentration downgradient of the biowall are interpreted as likely desorption of contaminant mass from the native formation and back-diffusion of contaminants from low-permeability soils. Although the downgradient locations should be used to monitor the overall performance of the biowalls, samples from downgradient locations may not accurately reflect the rate and extent of degradation that is occurring within the treatment zone (Interstate Technology & Regulatory Council 2011). The overall decline in contaminant concentrations at downgradient wells over time is likely a combination of degradation occurring within the biowalls combined with natural attenuation mechanisms and slowed by back-diffusion of additional contaminant mass into the mobile groundwater system.

Upgradient of Biowalls A1/A2 and B1/B2, in the historical source in the area of monitoring well PT-18A, TCE concentrations fluctuate but remains above groundwater standards (last sampling event 943 µg/L). Since LTM began in 2007, TCE concentrations at PT-18A have fluctuated from below the detection limit to 3,800 µg/L (**Table 5**). Concentrations of TCE at well MWT-25 (upgradient of Biowall A1/A2) have decreased from 50 µg/L in Round 1 to below the NYS Class GA groundwater standard; however, TCE has recently increased above the NYS Class GA groundwater standard in well MWT-25 in recent sampling events subsequent to the biowall recharge.

The overall trend in the concentration of TCE at well MWT-26 (between Biowalls A1/A2 and Biowalls B1/B2) is decreasing over time (**Appendix B, Figure B-3**). Since Round 9, TCE concentrations in well MWT-26 were below its NYS Class GA standard (**Table 5**). During the same time period, *cis*-DCE and VC have ranged in concentrations generally increasing and decreasing with corresponding changes in TCE concentrations; however, after Round 24, both *cis*-DCE and VC were detected at elevated concentrations in the summer sampling rounds followed by a decrease in concentration in the winter sampling events. This increase in concentrations of *cis*-DCE and VC may correspond to an increase in the breakdown of TCE related to the recent biowall refresh (between Round 23 and Round 24) followed by a period of reduced activity.

Increases in COC concentrations are observed at MWT-25 (TCE, *cis*-DCE, and VC) and MWT-26 (*cis*-DCE and VC) (**Appendix B, Figure B-2 and B3**). The increase in concentration of daughter compounds may be related to the breakdown of TCE and is expected. Elevated concentrations of the three COCs are subsequently reduced in the B1/B2 and C1/C2 biowalls (**Figures 8 through 10**). Several wells exhibit seasonal variation of the main COC concentrations, with higher concentrations observed in the summer sampling rounds and lower concentrations in the winter sampling rounds (e.g., MWT-25, MWT-26, and MWT-29; **Appendix B, Figures B-2, B-3, and B-6**, respectively).

Downgradient of the biowalls, TCE concentrations at PT-17 and MWT-7 remain in exceedance of the NYS Class GA standard (5 µg/L). TCE concentrations at MWT-7 appear to be oscillating about a mean since the biowall recharge while PT-17 shows an increasing trend (**Appendix B, Figures B-12 and B-10**, respectively). TCE concentrations at MWT-24 and PT-24 remain below the NYS Class GA standard (5 µg/L) while *cis*-DCE and VC show decreasing trends at both well locations (**Appendix B, Figure B-11 and B-13**, respectfully).

### 3.3.4 Other Compounds

During Round 33, *trans*-1,2-DCE was detected in exceedance of the NYS Class GA standard (5 µg/L) at PT-17 with a concentration of 8.3 µg/L. *Trans*-1,2-DCE is the other form of 1,2-DCE and, along with *cis*-DCE, is an expected degradation product of the breakdown of TCE (**Figure 4**). At well PT-22, 1,2-dichloroethane was detected in exceedance of the NYS Class GA standard (0.6 µg/L) with a concentration of 1.8 µg/L. No other chlorinated compounds were detected above the NYS Class GA standard during Year 17. Future rounds of groundwater sampling will continue to monitor other analytes including additional daughter products of TCE in the reductive dechlorination process. The results of all analytes detected in the groundwater at the Ash Landfill from the 2023 sampling event are presented in **Table 6** and **Appendix C**.



### 3.4 SOIL REMEDY EVALUATION

Part of the RA was installing a 12-inch vegetative cover over the Ash Landfill and the NCFL. The covers were inspected and field observations from Year 17 note that the landfills are vegetated with native grasses. At the NCFL, visual observations noted the presence of deer trails; however, there were no signs of erosion into the cover. Soil has not been exposed to the environment and corrective action is not required in any of the inspection areas.

### 3.5 LAND USE CONTROLS

The remedy for the Ash Landfill OU requires the implementation and maintenance of land use controls (LUCs). The LUC requirements are detailed in the *Land Use Control Remedial Design for SEAD-27, 66, and 64A, Addendum 3* (Parsons 2008a). The selected LUCs for the Ash Landfill OU are as follows:

- Prevent access to or use of the groundwater until cleanup levels are met
- Maintain the integrity of any current or future remedial or monitoring system, such as monitoring wells and permeable reactive barriers
- Prohibit excavation of the soil or construction of inhabitable structures (temporary or permanent) above the area of the existing groundwater plume
- Maintain the vegetative soil layer over the ash fill areas and the NCFL to limit ecological contact to impacted soils.

As part of the LTM program, U.S. Army Corps of Engineers (USACE) annually inspects the site to determine if the LUCs are being maintained. While performing the groundwater sampling, it was confirmed that no prohibited facilities have been constructed and no access to or use of groundwater was evident other than that needed for monitoring. The vegetative covers continue to limit/prevent ecological contact with the underlying soil.

### 3.6 MONITORING WELL INSPECTIONS

Groundwater monitoring wells were inspected by field personnel. During the inspections, 16 monitoring wells were identified for repairs and maintenance. Observations made during well inspections are as follows:

- Eight monitoring wells show evidence of heaving beyond the surface casing (PT-17, PT-18A, MW-48, MWT-25, MWT-26, MWT-27, MWT-28, and MWT-29).
- Seven monitoring wells were missing locks (PT-20, PT-22, PT-24, MW-29, MW-39, MWT-7, and MWT-10). New locks were added during LTM field activities.
- Four monitoring wells have damaged or missing surface casings (PT-17, PT-20, MW-39, and MWT-22).

- Three monitoring wells were missing internal well seals (PT-20, MW-39 and MWT-27). New well seals were added during LTM field activities.

Monitoring wells not required as part of the LTM were decommissioned between September 2010 and January 2011 (Parsons 2013).

### **3.7 OPERATING PROPERLY AND SUCCESSFULLY**

The implemented design has met the requirements in previous years LTM activities for operating properly and successfully (OPS) as outlined in Section 12(h)(s) of the EPA Guidance for Evaluation of Federal Agency Demonstrations (EPA 1996). Parsons submitted a letter on behalf of USACE to EPA, dated 6 June 2008, declaring that the USACE had determined that the remedy met the OPS requirements. USACE submitted a letter under separate cover on 26 February 2009 further certifying that the “information, data and analysis provided in the Parsons 6 June 2008 letter was true and accurate.” On 11 March 2009, the EPA transmitted a letter to USACE approving the OPS demonstration.

#### **3.7.1 The Remedial Action is Operating “Properly”**

The EPA guidance describes that “a remedial action is operating ‘properly’ if it is operating as designed.”(EPA 1996). The Construction Completion Report (Parsons 2007) details that the vegetative covers were installed as designed, meeting or exceeding the 12-inch soil cover requirement. Section 3.4 describes that the covers are intact and effectively prevent ecological contact with the underlying soil; therefore, the vegetative covers are operating properly.

The Construction Completion Report (Parsons 2007) also details the construction of the biowalls. Deviation from the intended design resulted in wider-than-intended biowalls that required the emplacement of additional mulch; since this is an enhancement of the design, it can be concluded that the biowalls were constructed in excess of design and the remedy component that was installed is more robust and conservative than designed. The geochemical data presented and discussed in Section 3.1 indicate that conditions that are favorable to anaerobic reductive dechlorination were established and continue to persist within and near the biowalls, which was the expectation of the design of the biowall system.

#### **3.7.2 The Remedial Action is Operating “Successfully”**

An RA may receive EPA’s designation of “operating successfully” if (1) “a system will achieve the cleanup levels or performance goals delineated in the decision document,” and (2) “the remedy is protective of human health and the environment” (EPA 1996). The data presented in Section 3.3 demonstrate that the biowalls are working effectively to reduce VOC concentrations in close proximity to the biowalls. Concentrations of COCs upgradient and downgradient of the biowalls indicate residual contamination is still present. The concentration versus time plots presented in **Appendix B, Figures B-1 through B-13** illustrate that TCE contaminant mass was reduced substantially through the use of enhanced bioremediation and that fluctuations in the concentrations of daughter products were a result of the breakdown of any remaining TCE mass.

Recent inspection of the vegetative covers at the Ash Landfill and the NCFL continue to indicate that the covers are preventing ecological receptors from contacting the underlying soil; therefore, there is no risk to the environment. The LUCs have been maintained and no one is accessing the groundwater; therefore, there is no risk to human health. Based on a review of the site data, an inspection of the condition of the vegetative covers, and confirmation that the LUCs are being maintained, the remedial action is operating successfully.

While the implemented remedy may be considered to be operating successfully, elevated concentrations of CVOCs remain in the former source area and downgradient of the biowalls. Additionally, the reported exceedance of *cis*-DCE within the new well location, MW-56R, located off-depot, suggest remedial optimizations are required to bring the site back into compliance.

## 4. CONCLUSIONS AND RECOMMENDATIONS

### 4.1 CONCLUSIONS

Based on the results of LTM at the Ash Landfill since the installation of the full-scale biowalls, the USACE has made the following conclusions:

- TCE within the biowalls remains non-detect
- TCE, *cis*-DCE, and VC are present in groundwater at the site at concentrations above respective NYS Class GA groundwater standards
- Chemical results indicate that the concentrations of chlorinated ethenes are decreasing as they pass through the biowall systems
- Geochemical parameters indicate that groundwater redox conditions continue to support anaerobic reductive dechlorination within the biowalls
- The geochemical conditions have improved within the biowalls after refresh
- Concentrations of TCE and VC at off-site well MW-56R are below groundwater standards for TCE and VC but are in exceedance of the standard for *cis*-DCE.
- Vegetative covers are intact and preventing ecological receptors from contacting the underlying soil
- The remedial action meets the requirements of the EPA's OPS designation.

### 4.2 RECOMMENDATIONS

Based on the conclusions of Year 17 monitoring, the recommendation for LTM at the Ash Landfill, is for conducting a remedial system optimization of the site to evaluate potential additional actions warranted to address the remaining CVOC source area and off-depot migration of CVOCs. Details on the additional remedial system optimization activities will be provided under separate cover prior to implementation.

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## **Tables**



**Table 1. LTM Event Summary**

LTM Year	Round Number	Sample Date	Report Title
Year 1	1Q2007	3-4 January 2007	FINAL Annual Report and One-Year Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2008a)
	2Q2007	15-17 March 2007	
	3Q2007	5-7 June 2007	
	4Q2007	13-15 November 2007	
Year 2	5R2008	24-26 June 2008	FINAL Annual Report and Year Two Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2009)
	6R2008	11-15 December 2008	
Year 3	7R2009	1-4 June 2009	FINAL Annual Report and Year Three Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2010)
	8R2009	14-18 December 2009	
Year 4	9R2010	28 June - 2 July 2010	FINAL Annual Report and Year 4 Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2011)
	10R2010	14-19 December 2010	
Year 5	11R2011	18-22 July 2011	DRAFT Annual Report and Year 5 Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2012)
	12R2011	12-15 December 2011	
Year 6	13R2012	18-22 June 2012	FINAL Annual Report and Year 6 Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2014a)
	14R2012	10-14 December 2012	
Year 7	15R2013	8-11 July 2013	DRAFT Annual Report and Year 7 Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2014b)
	16R2013	9-14 December 2013	
Year 8	17R2014	17-22 June 2014	DRAFT Annual Report and Year 8 Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2015)
	18R2014	15-19 December 2014	
Year 9	19R2015	2-6 June 2015	FINAL Annual Report and Year 9 Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2017c)
	20R2015	15-19 December 2015	
Year 10	21R2016	14-17 June 2016	DRAFT Annual Report and Year 10 Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2017b)
	22R2016	5-10 December 2016	
Year 11	23R2017	27-19 June 2017	Annual Report and Year 11 Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons 2019c)
	24R2018	23-25 January 2018	
Year 12	25R2018	1-3 June 2018	Annual Report and Year 12 Review Ash Landfill Operable Unit Seneca Army Depot Activity – (Parsons, 2019b)
	26R2018	19-21 December 2018	
Year 13	27R2019	24-27 June 2019	Annual Report and Year 13 Review Ash Landfill Operable Unit Seneca Army Depot Activity - (Parsons 2021)
	28R2019	11-13 December 2019	
Year 14	29R2020	21-29 May 2020	Annual Report and Year 14 Review Ash Landfill Operable Unit Seneca Army Depot Activity - (Parsons 2022)
	30R2021	17-23 March 2021	
Year 15	31R2021	8-10 June 2021	Annual Report and Year 15 Review Ash Landfill Operable Unit Seneca Army Depot Activity - (Parsons 2022)
	32R2021	7-14 December 2021	
Year 17	33R2023	26-29 June 2023	Ash Landfill Annual Report and Year 17 Review Former Seneca Army Depot - (This Report)

Notes:

LTM = Long-term monitoring

**Table 2. Groundwater Sample Collection**

Monitoring Wells	Monitoring Well Group			Laboratory Analysis				Field Test	
	On-Site Plume Performance Monitoring	Biowall Process Monitoring	Off-Site Performance Monitoring	VOC 8260C	TOC 9060A	MEE RSK-175	Sulfate, Nitrate, and Chloride EPA 300.1	Ferrous Iron (mg/L) Method 8146	Manganese (mg/L) Method 8034
PT-18A	X			X					
MWT-25	X			X					
MWT-26		X		X	X	X	X	X	X
MWT-27		X		X	X	X	X	X	X
MWT-28	X	X		X	X	X	X	X	X
MWT-29	X	X		X	X	X	X	X	X
MWT-22	X			X					
PT-22	X			X					
MWT-23	X	X		X	X	X	X	X	X
MWT-24	X			X					
PT-17	X			X	X	X	X	X	X
MWT-7	X			X	X	X	X	X	X
PT-24	X			X	X	X	X	X	X
MW-56R			X	X					

Notes:

1. All samples were analyzed for field parameters including pH, ORP, dissolved oxygen, conductivity, temperature and turbidity.
2. All samples were collected during Round 33 between June 26-29, 2023.

MEE = Methane, ethene, ethane

mg/L = Milligram(s) per liter

TOC = Total organic carbon

VOC = Volatile organic compound

**Table 3. Groundwater Elevation Data**

Monitoring Well	Top of Riser Elevation (ft)	Well Depth (rel. TOC) (ft)	LTM Round 33 - June 2023				Historical Data		
			Date Measured	Saturated Thickness (ft)	Depth to Groundwater (ft)	Water Level Elevation	Groundwater Elevation (ft)		
							Maximum	Minimum	Range
PT-18A	659.05	12.74	6/26/2023	3.80	8.94	650.11	653.25	645.84	7.41
MWT-25	654.51	13.18	6/26/2023	5.97	7.21	647.30	650.65	645.60	5.05
MWT-26	652.19	13.15	6/26/2023	6.62	6.53	645.66	648.92	644.55	4.37
MWT-27	652.99	12.44	6/26/2023	5.41	7.03	645.96	648.60	644.07	4.53
MWT-28	652.69	12.83	6/26/2023	4.80	8.03	644.66	648.31	642.46	5.84
MWT-29	651.82	13.09	6/26/2023	4.61	8.48	643.34	648.09	641.76	6.32
MWT-22	650.66	14.85	6/26/2023	6.56	8.29	642.37	648.13	642.24	5.90
PT-22	648.61	11.90	6/26/2023	2.42	9.48	639.13	644.30	637.03	7.27
MWT-23	646.77	13.63	6/26/2023	4.12	9.51	637.26	640.71	634.50	6.21
MWT-24	641.56	12.74	6/26/2023	3.92	8.82	632.74	635.84	629.40	6.44
PT-17	640.14	7.50	6/26/2023	0.56	6.94	633.20	637.50	630.31	7.19
MWT-7	638.34	13.65	6/26/2023	6.02	7.63	630.71	633.58	626.58	7.00
PT-24	636.40	11.80	6/26/2023	5.75	6.05	630.35	632.76	627.65	5.11
MW-56R	NS	14.98	6/26/2023	7.42	7.56	NS	NS	NS	NS
PT-16	637.51	11.15	6/26/2023	6.15	5.00	632.51	634.85	629.36	5.49
PT-19	645.26	11.65	6/26/2023	5.20	6.45	638.81	643.61	635.01	8.60
PT-20	647.28	11.90	6/26/2023	2.42	9.48	637.80	642.80	636.83	5.97
MW-27	639.32	10.36	6/26/2023	3.01	7.35	631.97	634.88	630.09	4.79
MW-29	637.31	10.48	6/26/2023	2.87	7.61	629.70	632.54	626.60	5.94
MW-32	641.68	10.20	6/26/2023	1.39	8.81	632.87	637.84	631.96	5.88
MW-39	659.54	11.89	6/26/2023	7.68	4.21	655.33	657.84	650.47	7.37
MW-40	659.3	14.66	6/26/2023	7.93	6.73	652.57	655.87	649.42	6.45
MW-44A	653.85	12.41	6/26/2023	6.25	6.16	647.69	651.08	642.42	8.66
MW-46	650.41	11.43	6/26/2023	3.58	7.85	642.56	648.03	639.73	8.30
MW-48	648.32	11.55	6/26/2023	5.22	6.33	641.99	645.57	639.24	6.33
MW-60	659.92	10.01	6/26/2023	5.46	4.55	655.37	658.20	652.00	6.20
MWT-10	636.07	9.00	6/26/2023	4.50	4.50	631.57	633.73	628.52	5.21

Notes:

ft = Foot (feet)

LTM = Long-term monitoring

NS = Not surveyed

TOC = Top of casing

Table 4. Groundwater Geochemical Data

Well ID	Location Description	Sample ID	Sample Round	pH	Turbidity (NTU)	Specific		DO (mg/L)	ORP (mV)	TOC (mg/L)	Sulfate (mg/L)	Ethane (µg/L)	Ethene (µg/L)	Methane (µg/L)	Manganese (mg/L)	Ferrous Iron (mg/L)		
						Conductance (mS/cm)												
PT-18A	Post-Refresh	ALBW20059	1O2007	6.63	141.00	1.690	1.33	93.0										
		ALBW20117	5R2008	6.36	1.90	1.750	0.22	-10.0								8.2	> 3.3	
		ALBW02177	9R2010	6.70	1.00	2.050	0.10	62.0								1.5	0.15	
		ALBW20237	13R2012	6.80	4.25	1.060	0.12	78.0										
		ALBW20296	17R2014	6.95	0.77	1.200	0.15	76.0										
		ALBW20376	22R2016	6.50	0.81	1.800	1.57	152.0										
		ALBW20392	23R2017	7.00	2.38	1.320	0.17	90.0										
		ALBW20408	24R2018	7.10	3.25	0.959	4.73	248.0										
		ALBW20424	25R2018	7.53	3.77	1.034	9.77	-23.5										
		ALBW20439	26R2018	6.78	4.11	1.083	0.14	50.1										
		ALBW20455	27R2019	6.81	0.93	1.173	0.28	48.6										
		ALBW20471	28R2019	6.80	10.00	1.170	3.42	160.8										
		ALBW20487	29R2020	6.88	2.04	1.240	0.43	44.1										
		ALBW20503	30R2021	6.78	1.72	0.850	1.90	104.7										
		ALBW20519	31R2021	6.84	2.05	1.160	0.99	64.7										
ALBW20535	32R2021	6.74	0.87	1.230	0.63	17.5												
		SEAD-AL-PT-18A-	33R2023	6.79	12.21	1.140	0.83	-22.0										
MWT-25	Ungradient of Biowall A	ALBW20064	1O2007	8.00	9.60	2.290	2.83	63.0										
		ALBW20123	5R2008	6.91	0.52	1.470	0.15	-41.0								1.4	0.75	
		ALBW20183	9R2010	7.06	0.70	1.480	0.20	-116.0										
		ALBW20243	13R2012	7.13	1.71	0.934	0.01	18.0										
		ALBW20302	17R2014	7.36	0.92	1.460	0.09	-19.0										
		ALBW20382	22R2016	6.90	0.47	1.850	1.63	153.0										
		ALBW20398	23R2017	7.30	1.83	1.400	0.15	-79.0										
		ALBW20414	24R2018	7.18	0.94	1.000	0.16	-64.0										
		ALBW20430	25R2018	7.43	2.88	0.917	0.68	-88.9										
		ALBW20440	26R2018	7.30	9.15	1.770	1.38	29.1										
		ALBW20456	27R2019	7.05	0.80	1.665	0.19	-24.9									21.2	0
		ALBW20472	28R2019	6.96	5.44	2.327	0.41	22.0										
		ALBW20488	29R2020	7.09	2.22	1.820	0.42	76.3									16.1	0.36
		ALBW20504	30R2021	7.10	1.97	0.930	2.80	40.1										
		ALBW20520	31R2021	6.96	2.53	1.470	1.05	-66.0										
ALBW20536	32R2021	6.96	4.19	1.830	0.90	-33.4												
		SEAD-AL-MWT-25-	33R2023	6.79	0.20	1.480	0.82	-89.0										
MWT-26	Ungradient of Biowalls B1/B2	ALBW20066	1O2007	6.89	10.00	2.010	1.84	-3.0	3.9 J	958	ND	ND	ND					
		ALBW20126	5R2008	7.05	0.67	1.880	0.31	-71.0	5.6	600	0.82	2.9	210			1.3	0.81	
		ALBW20186	9R2010	6.99	1.40	2.040	0.14	-81.0	4.6	680	2.2	0.71	740			1.7	2.67	
		ALBW20246	13R2012	7.26	8.72	1.020	0.48	2.0	4.4	640	1	0.5	230			0.6	0.09	
		ALBW20306	17R2014	6.80	17.50	1.720	0.36	61.0	4.7	680	0.92	0.15 J	240			1.2	0.04	
		ALBW20385	22R2016	6.96	1.62	1.720	0.47	-61.0	5.8	610	0.013 J	0.01 J	0.5 J			1.7	0.35	
		ALBW20401	23R2017	7.16	1.47	1.330	0.14	-4.0	4.4	510	ND	ND	12			0.8	0.00	
		ALBW20418	24R2018	7.29	5.55	0.921	0.20	-81.0	4.7	300	ND	ND	25			4.6	0.76	
		ALBW20433	25R2018	6.58	2.77	1.476	0.20	-8.3	4.8	380	4.1 J	ND	340			12.3	0.37	
		ALBW20441	26R2018	7.04	3.83	1.655	0.91	33.7	5.4	610	ND	ND	50			6.8	1.39	
		ALBW20457	27R2019	6.66	3.10	1.541	0.34	-16.5	4.4	960	4.6 J	ND	190			4.6	0.03	
		ALBW20473	28R2019	7.17	2.04	1.320	1.50	109.5	5.5	NR	ND	ND	ND			2	0.07	
		ALBW20489	29R2020	6.93	1.49	1.810	0.61	99.6	4.4	630	2.6 J	ND	160			2	0.20	
		ALBW20505	30R2021	6.97	3.94	1.140	2.73	217.9	5.5	540	ND	ND	16			0.4	0.01	
		ALBW20521	31R2021	6.88	2.04	1.670	1.14	46.9	6.0	520	3.6 J	ND	380			47.5	0.42	
ALBW20537	32R2021	7.20	3.47	1.700	1.00	104.6	5.2 J	510	ND	ND	19			0.02	0.00			
		SEAD-AL-MWT-26-	33R2023	6.34	0.00	1.660	0.84	63.0	4.8	405	6.9	4.1	1810		>47.5	0.00		
MWT-27	In Biowall B1	ALBW20067	1O2007	6.34	120.00	5.310	0.25	-158.0	2.050 J	ND	ND	ND						
		ALBW20127	5R2008	6.49	40.00	3.070	0.18	-133.0	88.9	ND	2.3	0.049	13,000			> 22	3.23	
		ALBW20187	9R2010	6.52	1.40	2.550	0.05	-121.0	61	0.95 J	3.8	0.12	13,000			> 22	2.54	
		ALBW20247	13R2012	6.68	15.30	1.810	0.03	-82.0	28	1.4	8.4	0.68	14,000			22	1.80	
		ALBW20307	17R2014	6.53	18.50	2.090	0.52	-77.0	39	6.6	5.3	0.79	16,000			>22	>3.3	
		ALBW20386/387	22R2016	6.57	9.20	1.920	0.14	-95.0	36	32	0.8	1.1	15,500			>47.5	>3.3	
		ALBW20402	23R2017	6.50	6.40	1.260	0.22	-57.0	18	6.2	ND	ND	22,000			19.8	2.62	
		ALBW20419	24R2018	6.40	17.80	1.780	0.24	-82.0	54	1.5	ND	ND	21,000			63.4	2.71	
		ALBW20434/435	25R2018	6.40	7.60	2.024	0.93	-42.0	52.5	0.675 J	ND	ND	16,500			22	3.30	
		ALBW20442	26R2018	6.41	12.20	1.838	0.31	-52.2	44	ND	ND	ND	21,000			>47.5	2.89	
		ALBW20458	27R2019	6.15	31.40	1.771	0.45	-47.1	40	0.5 J	ND	ND	18,000			>22	>3.3	
		ALBW20474/475	28R2019	6.43	40.40	1.506	0.60	-6.9	38	NR	ND	ND	16,000 J			>47.5	1.61	
		ALBW20490	29R2020	6.50	4.83	1.000	0.65	-58.8	18	0.7 J	ND	ND	24,000			10.1	3.30	
		ALBW20506	30R2021	6.35	12.50	1.320	0.20	-109.9	37	99	ND	ND	19,000			63.4	2.46	
		ALBW20522	31R2021	6.40	12.40	1.700	0.28	-93.9	32.5	ND	ND	ND	11,500 J			19.9	>3.3	
ALBW20538	32R2021	6.45	5.13	1.310	0.19	-37.8	26 J	1.1	ND	ND	17,000			20	2.62			
		SEAD-AL-MWT-27-	33R2023	6.29	7.50	1.770	0.87	-81.0	25.5	7.2 J	21	ND	13,700		>47.5	0.71		
MWT-28	In Biowall B2	ALBW20068	1O2007	7.50	163.00	0.610	0.16	-150.0	1.775 J	1.7	ND	ND	12,500 J					
		ALBW20128	5R2008	6.31	14.00	2.160	0.15	-91.0	49.2	ND	0.65	0.044	12,000			> 22	> 3.3	
		ALBW20188/89	9R2010	6.36	5.50	1.620	0.06	-104.0	21	ND	1.55	0.059	13,500			18.6	0.57	
		ALBW20248/49	13R2012	6.46	7.41	1.160	0.06	-76.0	18	0.58	3.1	0.069	14,000			16.4	1.65	
		ALBW20308	17R2014	6.28	11.50	1.220	0.71	-87.0	19	1.3 U	2.8	0.0068 J	15,000			17.5	>3.3	
		ALBW20388	22R2016	6.54	24.80	1.590	2.86	-43.0	28	1.9	0.18 J	ND	7,800			>47.5	22	
		ALBW20403/04	23R2017	6.62	3.90	1.440	0.50	-50.0	20	0.73 J	ND	ND	19,000			22	2.65	
		ALBW20420	24R2018	6.17	8.47	1.090	0.24	-84.0	89	29	ND	ND	22,000			39.1	1.84	
		ALBW20436	25R2018	5.70	8.88	1.066	0.35	-46.7	66	1.1	ND	ND	16,000			14.6	>3.30	
		ALBW20443	26R2018	6.41	4.97	0.888	0.09	-75.8	22	44	ND	ND	26,000			14.4	2.46	
		ALBW20459	27R2019	6.48	4.68	0.910	0.10	-89.9	20	6.1	ND	ND	22,000			2.1	2.16	
		ALBW20476	28R2019	6.32	9.90	1.512	0.2											

Table 4. Groundwater Geochemical Data

Well ID	Location Description	Sample ID	Sample Round	pH	Turbidity (NTU)	Specific		DO (mg/L)	ORP (mV)	TOC (mg/L)	Sulfate (mg/L)	Ethane (µg/L)	Ethene (µg/L)	Methane (µg/L)	Manganese (mg/L)	Ferrous Iron (mg/L)	
						Conductance (mS/cm)											
MWT-22	Downgradient of Biowall B2	ALBW20071	1Q2007	7.70	4.50	0.130	0.09	-80.0							18.2	> 3.3	
		ALBW20121	5R2008	6.38	14.00	2.210	0.30	-34.0									
		ALBW20181	9R2010	6.52	16.80	2.200	0.22	-63.0									
	Post-Refresh	ALBW20241	13R2012	6.41	8.78	1.370	0.17	-27.0									
		ALBW20300	17R2014	6.58	8.99	1.350	0.32	-33.0									
		ALBW20380	22R2016	6.47	0.30	1.870	0.11	4.0									
		ALBW20396	23R2017	6.68	6.11	1.370	0.20	-85.0									
		ALBW20412	24R2018	6.84	5.63	1.090	0.10	-42.0									
		ALBW20428	25R2018	6.99	2.53	0.799	0.10	-33.1									
		ALBW20446	26R2018	6.78	11.60	1.094	0.09	-6.0									
		ALBW20461	27R2019	6.61	11.10	1.342	0.12	-72.8									
		ALBW20478	28R2019	6.40	19.00	1.043	12.58	-6.4									
		ALBW20494	29R2020	6.77	9.30	1.550	3.33	-6.8									
		ALBW20509	30R2021	6.89	27.60	1.180	0.28	-32.9									
		ALBW20526	31R2021	6.62	16.90	1.380	0.16	-66.4									
ALBW20542	32R2021	6.58	34.20	1.400	0.21	-6.2											
SEAD-AL-MWT-22-	33R2023	6.70	4.20	1.450	1.13	-82.0											
PT-22	Between B and C	ALBW20060	1Q2007	7.70	4.50	0.130	0.09	-80.0							0.3	1.38	
		ALBW20118	5R2008	6.69	7.40	1.380	0.29	-119.0									
		ALBW20178	9R2010	6.87	3.60	1.390	0.41	-75.0									
	Post-Refresh	ALBW20238	13R2012	6.74	8.40	0.904	2.50	12.0									
		ALBW20297	17R2014	6.74	2.42	1.050	1.48	61.0									
		ALBW20377	22R2016	6.79	0.00	1.090	1.94	124.0									
		ALBW20393	23R2017	6.92	2.01	0.951	0.18	43.0									
		ALBW20409	24R2018	6.78	1.00	0.851	3.72	54.0									
		ALBW20425	25R2018	6.86	1.23	0.586	0.49	-54.5									
		ALBW20447	26R2018	6.75	0.72	0.947	0.45	45.4									
		ALBW20462	27R2019	6.72	2.19	0.989	0.17	16.4									
		ALBW20479	28R2019	6.92	2.11	0.885	4.04	96.4									
		ALBW20495	29R2020	6.73	3.28	1.290	0.71	-80.2									
		ALBW20510	30R2021	7.20	1.91	0.603	9.34	115.0									
		ALBW20527	31R2021	6.83	1.95	0.830	0.21	48.4									
ALBW20543	32R2021	6.70	1.29	0.890	0.68	71.6											
SEAD-AL-PT-22-	33R2023	6.76	0.00	0.942	0.99	14.0											
MWT-23	In Biowall C2	ALBW20065	1Q2007	7.20	5.00	0.200	0.26	-122.0	260 J	ND	ND	ND	12.000		> 22	> 3.3	
		ALBW20125	5R2008	6.27	29.00	1.540	0.15	-129.0	28.4	ND	0.53	0.048	18.000		>22	1.71	
		ALBW20185	9R2010	6.38	9.00	1.570	0.04	-115.0	11	ND	2.4	0.038	18.000		>3.3	3.3	
	Post-Refresh	ALBW20245	13R2012	6.52	6.14	0.915	0.08	-71.0	4.8	1.5	5	0.26	18.000		31.1	3.3	
		ALBW20304/05	17R2014	6.40	3.17	1.250	0.18	-56.0	4.7	1.4 J	11 J	0.13 J	16.500		4.0	>3.3	
		ALBW20384	22R2016	6.38	4.22	1.280	0.23	-40.0	6.3	3.5	2	0.24	16.000		6.3	2.62	
		ALBW20400	23R2017	6.61	3.15	0.830	0.10	-104.0	3.3	2.5	ND	ND	17.000		2.2	3.3	
		ALBW20416/417	24R2018	6.54	21.40	1.210	9.56	-47.0	9.75	0.265 J	ND	ND	10.000		31	1.7	
		ALBW20432	25R2018	6.14	9.32	0.942	0.15	-34.8	6.4	1.0	ND	ND	23.000		3.3	9.8	
		ALBW20448	26R2018	6.94	17.40	0.835	0.11	-32.1	5.9	1.4	ND	ND	22.000		27.3	2.69	
		ALBW20463/464	27R2019	6.44	4.77	0.890	0.19	-45.1	3.8	3.4	3.5 J	ND	18.500		5.4	3.21	
		ALBW20480	28R2019	6.32	8.40	1.001	0.29	-102.1	6.6	NR	ND	ND	18.000		11.7	3.02	
		ALBW20496	29R2020	6.84	9.28	0.820	0.67	-37.7	3.2	14.0	ND	ND	11.000		7.8	1.52	
		ALBW20511	30R2021	6.64	5.05	0.686	0.10	-91.6	6.6	6.4	ND	ND	16.000		24.6	3.3	
		ALBW20528	31R2021	6.60	7.82	0.710	0.12	-77.1	5	ND	ND	ND	10.000 J		7.8	3.3	
ALBW20544	32R2021	6.57	3.67	0.810	0.65	-76.7	3.8 J	5	2.5 J	ND	17000		4.1	3.0			
SEAD-AL-MWT-23-	33R2023	6.42	16.40	0.838	0.40	-57.0	2.7	3.4 J	ND	ND	12.300		>47.5	1.17			
MWT-24	Downgradient of Biowalls C1/C2	ALBW20063	1Q2007	7.02	10.00	0.762	0.27	-160.0							9.1	1.54	
		ALBW20122	5R2008	6.65	45.00	1.210	0.35	-43.0									
		ALBW20182	9R2010	6.63	6.80	1.450	0.06	-21.0									
	Post-Refresh	ALBW20242	13R2012	7.22	10.20	0.747	0.11	3.0									
		ALBW20301	17R2014	7.07	8.88	1.210	0.11	15.0									
		ALBW20381	22R2016	6.72	3.00	1.030	0.08	143.0									
		ALBW20397	23R2017	6.91	3.30	0.875	0.08	42.0									
		ALBW20413	24R2018	6.80	7.46	0.650	1.14	-7.0									
		ALBW20429	25R2018	8.13	2.06	0.669	0.36	-51.7									
		ALBW20449	26R2018	7.01	9.11	0.667	0.15	49.0									
		ALBW20465	27R2019	6.89	1.33	0.853	0.18	-24.9									
		ALBW20481	28R2019	6.72	5.17	0.919	0.34	102.7									
		ALBW20497	29R2020	7.07	8.90	0.850	0.49	237.1									
		ALBW20513	30R2021	7.11	4.88	0.556	0.70	70.0									
		ALBW20529	31R2021	6.72	0.97	0.830	0.24	30.7									
ALBW20545	32R2021	6.97	0.67	0.810	0.38	24.1											
SEAD-AL-MWT-24-	33R2023	6.98	3.20	0.827	1.29	61.0											
PT-17	Downgradient of biowalls	ALBW20058	1Q2007	8.00	3.80	92.000	0.23	-111.0									
		ALBW20116	5R2008	7.00	70.00		0.24		6	15.2	98	66	5700				
		ALBW20176	9R2010	6.73	0.90	0.816	0.11	-13.0	2.4	36	16	20	4,300		5.8	0.29	
	Post-Refresh	ALBW20236	13R2012	7.09	2.80	0.688	0.17	28.0	2.8	25	10	12	8,200		4.6	0.0	
		ALBW20295	17R2014	6.18	0.55	0.908	0.07	35.0	2.9	20	4.5	6.5	5,700		4.5	0.14	
		ALBW20375	22R2016	6.69	1.01	0.928	0.35	-12.0	2.7	22	1.2	1.4	870		3.2	0.03	
		ALBW20391	23R2017	6.76	0.39	0.801	0.21	49.0	2.4	17	ND	ND	3,800		1.9	0.02	
		ALBW20407	24R2018	7.25	1.13	0.463	7.19	129.0	1.6	14	ND	ND	ND		2	0.25	
		ALBW20423	25R2018	6.84	2.01	0.673	0.14	84.5	2.6	27	ND	ND	290		1.3	0.00	
		ALBW20450	26R2018	6.84	2.50	0.628	0.23	144.0	1.7	27	ND	ND	160		2.1	0.31	
		ALBW20466	27R2019	6.80	0.59	0.729	0.53	71.9	2	16	ND	ND	800		0.7	0.20	
		ALBW20482	28R2019	6.96	3.99	0.628	3.21	225.0	2.3	NR	ND	ND	57		0.2	0.00	
		ALBW20498	29R2020	7.00	1.00	0.680	0.67	171.6	1.5	20	ND	ND	250		1.1	0.10	
		ALBW20514	30R2021	6.67	1.65	0.515	2.58	166.5	1.7	36	ND	ND	4		0.0	0.02	
		ALBW20530	31R2021	7.03	1.36	0.521	0.35	34.0	2.6	21	ND	ND	27		3.4	0.16	
ALBW20546	32R2021	6.94	3.45	0.667	0.29	87.3	3.2 J	26	ND	ND	22		0.4	0.00			
SEAD-AL-PT-17-	33R2023	6.66	0.00	0.708	0.74	80.0	1.9 J	30.4	0.43 J	ND	209.0		>47.5	0.00			
MWT-7	Immediately upgradient of ZV wall	ALBW20062	1Q2007	6.80	19.60	0.581	0.01	62.0								0.09	
		AL															

**Table 4. Groundwater Geochemical Data**

Well ID	Location Description	Sample ID	Sample Round	pH	Turbidity (NTU)	Specific Conductance		DO (mg/L)	ORP (mV)	TOC (mg/L)	Sulfate (mg/L)	Ethane (µg/L)	Ethene (µg/L)	Methane (µg/L)	Manganese (mg/L)	Ferrous Iron (mg/L)	
						(mS/cm)	(mS/cm)										
PT-24	Downgradient of ZVI wall	ALBW20061	1Q2007	8.10	10.00	70.000	0.37	-59.0									
		ALBW20119	5R2008	6.99	4.30	0.900	0.16	-104.0									
		ALBW20179	9R2010	7.07	8.30	0.780	0.19	-37.0									
		ALBW20239	13R2012	7.47	8.90	0.554	0.14	-55.0								0.5	0.55
	Post-Refresh	ALBW20298	17R2014	6.93	1.12	0.935	0.05	18.0									
		ALBW20378	22R2016	6.83	0.00	0.706	0.94	189.0									
		ALBW20394	23R2017	6.91	0.43	0.565	0.08	14.0									
		ALBW20410	24R2018	7.29	0.81	0.425	5.63	168.0									
		ALBW20426	25R2018	7.93	2.92	0.633	0.41	-24.5									
		ALBW20452	26R2018	7.03	5.01	0.589	0.11	138.1									
		ALBW20468	27R2019	6.89	4.32	0.662	0.47	37.2									
		ALBW20484	28R2019	6.86	2.15	0.415	1.81	134.8									
		ALBW20500	29R2020	7.09	2.00	0.647	0.23	272.9									
		ALBW20516	30R2021	6.97	8.58	0.368	2.77	102.4									
		ALBW20532	31R2021	6.84	1.41	0.537	0.27	60.9									
		ALBW20548	32R2021	6.87	0.61	0.544	0.63	111.3									
	SEAD-AL-PT-24-	33R2023	6.09	0	0.603	1	98										
MW-56	Off-site well	ALBW20072	1Q2007	6.85	3.30	0.462	0.37	-102.0									
		ALBW20124	5R2008	6.73	2.00	0.763	0.18	-132.0									
		ALBW20184	9R2010	6.85	3.19	0.403	0.16	-131.0								0.4	1.18
		ALBW20244	13R2012	7.00	1.20	0.520	0.23	-283.0									
	Post-Refresh	ALBW20303	17R2014	7.00	1.33	0.696	0.44	-99.0									
		ALBW20383	22R2016	6.71	5.11	0.850	1.11	46.0									
		ALBW20399	23R2017	6.85	0.98	0.598	0.23	-82.0									
		ALBW20415	24R2018	NS	NS	NS	NS	NS									
		ALBW20431	25R2018	7.11	11.00	0.576	3.25	83.1									
		ALBW20453	26R2018	7.60	9.16	0.454	11.41	-25.3									
		ALBW20469	27R2019	6.77	NS	0.375	5.98	-46.5									
		ALBW20485	28R2019			NR											
		ALBW20501	29R2020			NR											
		ALBW20517	30R2021			NR											
		ALBW20533	31R2021			NR											
		ALBW20549	32R2021			NR											
MW-56R	Replacement off-site	SEAD-AL-MW-56R-20230627	33R2023	6.96	14.1	0.641	1.26	39									

Notes:

> = The concentration exceeded the range of the Hach DR/850 Colorimeter  
 µg/L = Microgram(s) per liter

DO = Dissolved oxygen

J = the reported value is an estimated concentration.

mg/L = Milligram(s) per liter

mS/cm = MilliSiemen(s) per centimeter

mV = Millivolt(s)

ND = Non-detect.

NR = Not recorded.

NS = Not sampled; water level was below the DO indicator probe or not

NTU = Nephelometric turbidity unit

ORP = Oxidation-reduction potential

TOC = Total organic carbon

1Q2007 - First round of LTM (January 2007)	13R2012 - Thirteenth Round of LTM (June 2012)	25R2018 - Twenty-fifth Round of LTM (June 2018)
2Q2007 - Second round of LTM (March 2007)	14R2012 - Fourteenth Round of LTM (December 2012)	26R2018 - Twenty-sixth Round of LTM (December 2018)
3Q2007 - Third round of LTM (June 2007)	15R2013 - Fifteenth Round of LTM (July 2013)	27R2019 - Twenty-seventh Round of LTM (June 2019)
4Q2007 - Fourth round of LTM (November 2007)	16R2013 - Sixteenth Round of LTM (December 2013)	28R2019 - Twenty-eighth Round of LTM (December 2019)
5R2008 - Fifth Round of LTM (June 2008)	17R2014 - Seventeenth Round of LTM (June 2014)	29R2020 - Twenty-ninth Round of LTM (May 2020)
6R2008 - Sixth Round of LTM (December 2008)	18R2014 - Eighteenth Round of LTM (December 2014)	30R2021 - Thirtieth Round of LTM (March 2021)
7R2009 - Seventh Round of LTM (June 2009)	19R2015 - Nineteenth Round of LTM (June 2015)	31R2021 - Thirty-first Round of LTM (June 2021)
8R2009 - Eighth Round of LTM (December 2009)	20R2015 - Twentieth Round of LTM (December 2015)	32R2021 - Thirty-second Round of LTM (December 2021)
9R2010 - Ninth Round of LTM (June 2010)	21R2016 - Twenty-first Round of LTM (June 2016)	33R2023 - Thirty-third Round of LTM (June 2023)
10R2010 - Tenth Round of LTM (December 2010)	22R2016 - Twenty-second Round of LTM (December 2016)	
11R2011 - Eleventh Round of LTM (July 2011)	23R2017 - Twenty-third Round of LTM (June 2017)	
12R2011 - Twelfth Round of LTM (December 2011)	24R2018 - Twenty-fourth Round of LTM (January 2018)	

Sampling rounds highlighted gray above were not included in table to reduce overall table size.

Empty cells indicate that the specified analysis was not completed for that well. The bolded wells are the five wells included in the biowall process monitoring group.

Analysis of TOC, sulfate, methane, ethane, and ethene were completed for the biowall process wells only.

1. Water levels were extremely low and water quality readings were not collected in 5R2008 at PT-17 and in 28R2019, 29R2020 and 30R2021 at MW-56
2. During the 11R2011 event, data was collected at MW-56 in October 2011.
3. Biowall refresh conducted between 25 August 2017 and 18 October 2017 prior to Round 24 of LTM.
4. During the 28R2019 event, sulfate was not analyzed due to a problem with the lab containers.
5. Low water levels and insufficient groundwater recharge prevented collection of water parameters from well MW-56.

Table 5. Chlorinated Organics in Groundwater

Well ID	Location Description	Sample ID	Sample Round	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	cis-DCE (µg/L)	trans-DCE (µg/L)	VC (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)
<b>Class GA Standard</b>				<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>5</b>	<b>0.6</b>
PT-17	Downgradient of biowalls Post-Refresh	ALBW20058	1Q2007	1 U	6	1 U	62	1 U	21	1 U	1 U
		ALBW20116	5R2008	1 U	8.5	1 U	21	1 U	23	1 U	1 U
		ALBW20176	9R2010	0.15 U	3	0.24 J	81	3.2	53	0.25 U	0.1 U
		ALBW20236	13R2012	0.15 U	6.9	0.37 J	170	18	66	0.25 U	0.1 U
		ALBW20295	17R2014	0.15 U	3.4	0.32 J	130	18	55	0.25 U	0.1 U
		ALBW20375	22R2016	0.74 U	9.9	0.36 U	59	12	22	0.38 U	0.5 U
		ALBW20391	23R2017	0.5 U	10	0.5 U	82	16	36	0.5 U	0.5 U
		ALBW20407	24R2018	0.5 U	7.2	0.5 U	3.4	0.5 U	1	0.5 U	0.5 U
		ALBW20423	25R2018	0.5 U	8.5	0.5 U	23	1.5	9.5	0.5 U	0.5 U
		ALBW20450	26R2018	0.5 U	11	0.5 U	32	4	7.7	0.5 U	0.5 U
		ALBW20466	27R2019	0.5 U	11	0.5 U	21	2.6	6.4	0.5 U	0.5 U
		ALBW20482	28R2019	0.5 U	13	0.5 U	18	1.3	1.4 J	0.5 U	0.5 U
		ALBW20498	29R2020	0.5 U	11	0.5 U	30	4.1	5.8	0.5 U	0.5 U
		ALBW20514	30R2021	0.5 U	16 J+	0.5 U	23 J+	1.9 J+	0.41 J	0.5 U	0.5 U
ALBW20530	31R2021	0.5 U	14	0.5 U	16	1.7	1.4 J	0.5 U	0.5 U		
ALBW20546	32R2021	0.5 U	15	0.5 U	18	1.9	1.4 J	0.5 U	0.5 U		
SEAD-AL-PT-17-20220627	33R2023	0.22 U	17.3	0.32 U	68.6	8.3	7.8	0.31 U	0.34 U		
PT-18A	Upgradient of walls Post-Refresh	ALBW20059	1Q2007	1 U	2000	0.64 J	220	1.6	2.4	1 U	1 U
		ALBW20117	5R2008	1 U	220	1 U	200	0.9 J	1.4	1 U	1 U
		ALBW02177	9R2010	0.15 U	120	0.11 U	28	0.2 U	0.18 U	0.25 U	0.1 U
		ALBW20237	13R2012	13 J	3800	2.6	820	4.7	10	0.25 U	0.1 U
		ALBW20296	17R2014	0.15 U	1200	0.77 J	240	1.2	2.2	0.25 U	0.1 U
		ALBW20376	22R2016	0.74 U	9.7	0.36 U	1.1	0.37 U	0.5 U	0.38 U	0.5 U
		ALBW20392	23R2017	0.5 U	190	0.5 U	71	0.42 J	0.79 J	0.5 U	0.5 U
		ALBW20408	24R2018	0.5 U	7	0.5 U	0.82 J	0.5 U	1 U	0.5 U	0.5 U
		ALBW20424	25R2018	0.5 U	220	0.5 U	76	0.34 J	0.37 J	0.5 U	0.5 U
		ALBW20439	26R2018	0.5 U	2300	0.5 U	780	3.5	4.6	0.5 U	0.5 U
		ALBW20455	27R2019	0.5 U	640	0.89 J	240	1.5 J+	1.4 J	0.5 U	0.5 U
		ALBW20471	28R2019	1 U	920 J+	1.4 J	370 J+	2.2	2.5 J	1 U	1 U
		ALBW20487	29R2020	0.5 U	1400	1.6	470	2.8	4.2	0.5 U	0.5 U
		ALBW20503	30R2021	0.5 U	84 J+	0.5 U	29 J+	0.5 U	1 U	0.5 U	0.5 U
ALBW20519	31R2021	0.5 U	39	0.5 U	12	0.5 U	1 U	0.5 U	0.5 U		
ALBW20535	32R2021	0.5 U	330	0.51 J	12	0.53 J	0.48 J	0.5 U	0.5 U		
SEAD-AL-PT-18A-20220627	33R2023	2.2 U	943	3.2 U	464	3.3 J	4.1 U	3.1 U	3.4 U		
PT-22	Between Biowalls B and C Post-Refresh	ALBW20060	1Q2007	1 U	11	1 U	57	0.86 J	22	1 U	3.3
		ALBW20118	5R2008	1 U	4.1	1 U	26	0.57 J	13	1 U	3.9
		ALBW20178	9R2010	0.15 U	4.6	0.11 U	43	0.75 J	11	0.25 U	3.2
		ALBW20238	13R2012	0.15 U	7.9	0.11 U	31	0.84 J	4	0.25 U	2.1
		ALBW20297	17R2014	0.15 U	23	0.11 U	52	1.3	2.9	0.25 U	3.1
		ALBW20377	22R2016	0.74 U	25	0.36 U	19	0.37 U	0.5 U	0.38 U	1.1
		ALBW20393	23R2017	0.5 U	22	0.5 U	45	1	2.2	0.5 U	3
		ALBW20409	24R2018	0.5 U	21	0.5 U	18	0.5 U	1 U	0.5 U	0.5 U
		ALBW20425	25R2018	0.5 U	15	0.5 U	16	0.5 U	0.4 J	0.5 U	1
		ALBW20447	26R2018	0.5 U	28	0.5 U	26	0.5 U	1 U	0.5 U	0.5 U
		ALBW20462	27R2019	0.5 U	28	0.5 U	35	0.5 U	2.1	0.5 U	0.5 U
		ALBW20479	28R2019	0.5 U	18	0.5 U	17	0.5 U	1 U	0.5 U	0.99 J
		ALBW20495	29R2020	0.5 U	0.86 J	0.5 U	15	1.8	4.2	0.5 U	1.3
		ALBW20510	30R2021	0.5 U	18 J+	0.5 U	15	0.5 U	1 U	0.5 U	0.73 J
ALBW20527	31R2021	0.5 U	23	0.5 U	28	0.32 J	0.51 J	0.5 U	0.5 U		
ALBW20543	32R2021	0.5 U	24	0.5 U	22	0.5 U	1 U	0.5 U	0.5 U		
SEAD-AL-PT-22-20220628	33R2023	0.22 U	7	0.32 U	20.9	1.1	4.1	1.8	0.34 U		
PT-24	Downgradient of ZVI wall Post-Refresh	ALBW20061	1Q2007	1 U	4	0.68 J	54	0.86 J	0.6 J	0.68 J	1 U
		ALBW20119	5R2008	1 U	2.4	0.69 J	48	1.1	1.9	0.69 J	1 U
		ALBW20548	9R2010	0.5 U	0.8 J	0.5 U	12	0.5 U	1 U	0.5 U	0.5 U
		ALBW20179	13R2012	0.15 U	0.39 J	0.54 J	33	1.1	3.8	0.54 J	0.1 U
		ALBW20239	17R2014	0.15 U	0.87 J	0.57 J	30	0.84 J	2.8	0.57 J	0.1 U
		ALBW20298	22R2016	0.15 U	1.3	0.25 U	23	1	1.7	0.25 U	0.1 U
		ALBW20378	23R2017	0.74 U	1.2	0.38 U	12	0.45 J	0.5 U	0.38 U	0.5 U
		ALBW20394	24R2018	0.5 U	1.4	0.5 J	21	0.95 J	1.1 J	0.5 J	0.5 U
		ALBW20410	25R2018	0.5 U	0.74 J	0.5 U	8	0.5 U	1 U	0.5 U	0.5 U
		ALBW20426	26R2018	0.5 U	0.99 J	0.5 U	16	0.41 J	0.48 J	0.5 U	0.5 U
		ALBW20452	27R2019	0.5 U	1.3	0.23 J	18	0.67 J	0.43 J	0.23 J	0.5 U
		ALBW20468	28R2019	0.5 U	1.3	0.42 J	16	0.67 J	0.6 J	0.42 J	0.5 U
		ALBW20484	29R2020	0.5 U	0.87 J	0.28 J	14	0.41 J	1 U	0.28 J	0.5 U
		ALBW20500	30R2021	0.5 U	0.9 J	0.5 U	18	0.76 J	1 U	0.5 U	0.5 U
ALBW20516	31R2021	0.5 U	0.71 J	0.5 U	9.6 J+	0.5 U	1 U	0.5 U	0.5 U		
ALBW20532	32R2021	0.5 U	0.94 J	0.29 J	15	0.34 J	1 U	0.29 J	0.5 U		
SEAD-AL-PT-24-20220628	33R2023	0.22 U	1.1	0.32 U	12.4	0.22 U	0.41 U	0.31 U	0.34 U		

Table 5. Chlorinated Organics in Groundwater

Well ID	Location Description	Sample ID	Sample Round	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	cis-DCE (µg/L)	trans-DCE (µg/L)	VC (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)
Class GA Standard				5	5	5	5	5	2	5	0.6
MW-56R	Off-site well Post-Refresh	ALBW20072	1Q2007	1 U	1 U	1 U	1.2	1 U	1 U	1 U	1 U
		ALBW20124	5R2008	1 U	1 U	1 U	1.3	1 U	1 U	1 U	1 U
		ALBW20549	9R2010	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20184	13R2012	0.15 U	0.13 U	0.11 U	0.61 J	0.2 U	0.18 U	0.25 U	0.1 U
		ALBW20244	17R2014	0.15 U	0.13 U	0.11 U	2.2	0.2 U	0.18 U	0.25 U	0.1 U
		ALBW20303	22R2016	0.15 U	0.13 U	0.11 U	0.98 J	0.2 U	0.18 U	0.25 U	0.1 U
		ALBW20383	23R2017	0.74 U	0.48 U	0.36 U	2.1	0.37 U	0.5 U	0.38 U	0.5 U
		ALBW20399	24R2018	0.5 U	0.5 U	0.5 U	3.2	0.5 U	1 U	0.5 U	0.5 U
		ALBW20415	25R2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20431	26R2018	0.5 U	0.5 U	0.5 U	1.1	0.5 U	1 U	0.5 U	0.5 U
		ALBW20453	27R2019	0.5 U	0.5 U	0.5 U	1.6	0.5 U	1 U	0.5 U	0.5 U
		ALBW20469	28R2019	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20485	29R2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20501	30R2021	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
ALBW20517	31R2021	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U		
ALBW20533	32R2021	0.5 U	0.5 U	0.5 U	0.23 J	0.5 U	1 U	0.5 U	0.5 U		
SEAD-AL-MW-56R-20220627	33R2023	0.22 U	1.8	0.32 U	8.2	0.22 U	0.41 U	0.31 U	0.34 U		
MWT-7	Immediately upgradient of ZVI wall Post-Refresh	ALBW20062	1Q2007	1 U		1 U	35	1 U	0.51 J	1 U	1 U
		ALBW20120	5R2008	1 U		1 U	90	1 U	12	1 U	1 U
		ALBW20180	9R2010	0.15 U		0.78 J	170	0.91 J	15	0.25 U	0.25 U
		ALBW20240	13R2012	0.15 U	280	0.59 J	140	0.64 J	11	0.25 U	0.25 U
		ALBW20299	17R2014	0.15 U	190	0.69 J	110	0.73 J	9.6	0.25 U	0.25 U
		ALBW20379	22R2016	0.74 U	190	0.44 J	81	0.37 U	0.5 U	0.38 U	0.38 U
		ALBW20395	23R2017	0.5 U	220	0.48 J	110	0.53 J	1.6 J	0.5 U	0.5 U
		ALBW20411	24R2018	0.5 U	180	0.5 U	80	0.27 J	1 U	0.5 U	0.5 U
		ALBW20427	25R2018	0.5 U		0.5 U	80	0.32 J	1 U	0.5 U	0.5 U
		ALBW20451	26R2018	0.5 U	210	0.5 U	85	0.38 J	1 U	0.5 U	0.5 U
		ALBW20467	27R2019	0.5 U	190	0.5 U	73	0.5 U	0.72 J	0.5 U	0.5 U
		ALBW20483RA	28R2019	0.5 U		0.5 U	98 J+	0.5 U	1.8 J	0.5 U	0.5 U
		ALBW20499	29R2020	0.5 U	230 J	0.5 U	87	0.5 U	1 U	0.5 U	0.5 U
		ALBW20515	30R2021	0.5 U		0.5 U	82 J+	0.5 U	1 U	0.5 U	0.5 U
ALBW20531	31R2021	0.5 U		0.5 U	90	0.3 J	1 U	0.5 U	0.5 U		
ALBW20547	32R2021	0.5 U		0.5 U	88	0.3 J	1 U	0.5 U	0.5 U		
SEAD-AL-MW-7-20220628	33R2023	0.43 U	165	0.64 U	61.5	0.44 U	0.82 U	0.62 U	0.68 U		
MWT-22	Downgradient of Biowall B2 Post-Refresh	ALBW20071	1Q2007	2 U	5.2	2 U	130	2.7	98	2 U	2 U
		ALBW20121	5R2008	5 U	3 J	5 U	68	5 U	42	5 U	5 U
		ALBW20181	9R2010	0.15 U	0.6 J	0.12 J	41	1.3	57	0.25 U	0.1 U
		ALBW20241	13R2012	0.15 U	0.48 J	0.11 U	57	5	90	0.25 U	0.1 U
		ALBW20300	17R2014	0.15 U	0.19 J	0.11 U	19	2.8	65	0.25 U	0.11 J
		ALBW20380	22R2016	0.74 U	0.98 J	0.37 U	71	4.3	93	0.38 U	0.5 U
		ALBW20396	23R2017	0.5 U	0.5 U	0.5 U	51	5	150	0.5 U	0.5 U
		ALBW20412	24R2018	0.5 U	0.72 J	0.5 U	34	1.7	23	0.5 U	0.5 U
		ALBW20428	25R2018	0.5 U	0.41 J	0.5 U	66	1.9	52	0.5 U	0.5 U
		ALBW20446	26R2018	0.5 U	0.5 U	0.5 U	22	1.4	47	0.5 U	0.5 U
		ALBW20461	27R2019	0.5 U	0.66 J	0.5 U	49	3.2	55	0.5 U	0.5 U
		ALBW20478	28R2019	0.5 U	0.5 U	0.5 U	24	4.2	88	0.5 U	0.5 U
		ALBW20494	29R2020	0.5 U	0.5 U	0.5 U	25	4.1	76	0.5 U	0.5 U
		ALBW20509	30R2021	0.5 U	0.5 U	0.5 U	17 J+	2.4 J+	61 J+	0.5 U	0.5 U
ALBW20526	31R2021	0.5 U	0.5 U	0.5 U	11	2.8	68	0.5 U	0.5 U		
ALBW20542	32R2021	0.5 U	1.4	0.5 U	99	4.3	78	0.5 U	0.5 U		
SEAD-AL-MW-22-20220627	33R2023	0.22 U	0.35 U	0.32 U	7.8	1.3	94.6	0.31 U	0.34 U		
MWT-23	In Biowall C2 Post-Refresh	ALBW20065	1Q2007	4 U	4 U	4 U	60	4 U	23	4 U	2.3 J
		ALBW20125	5R2008	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J
		ALBW20185	9R2010	0.15 U	0.13 U	0.11 U	0.41 J	0.2 U	0.18 U	0.25 U	0.66 J
		ALBW20245	13R2012	0.15 U	0.13 U	0.11 U	0.55 J	0.42 J	0.33 J	0.25 U	0.65 J
		ALBW20304	17R2014	0.21 J	0.13 U	0.11 U	0.46 J	0.45 J	0.37 J	0.25 U	0.65 J
		ALBW20384	22R2016	0.74 U	0.48 U	0.36 U	0.65 J	0.37 U	0.9 J	0.38 U	0.64 J
		ALBW20400	23R2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.78 J	0.5 U	0.5 U
		ALBW20416/417	24R2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20432	25R2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.31 J	0.5 U	0.5 U
		ALBW20448	26R2018	0.5 U	0.5 U	0.5 U	0.52 J	0.5 U	1 U	0.5 U	0.5 U
		ALBW20463/464	27R2019	0.5 U	0.5 U	0.5 U	2.4	0.47 J	3.6	0.5 U	0.5 U
		ALBW20480	28R2019	0.5 U	0.47 J	0.5 U	2.5	0.33 J	2.4	0.5 U	0.67 J
		ALBW20496	29R2020	0.5 U	0.5 U	0.5 U	4.5	0.91 J	3.4	0.5 U	0.5 U
		ALBW20511/512	30R2021	0.5 U	0.5 U	0.5 U	1.5	0.5 U	1.5 J	0.5 U	0.5 U
ALBW20528	31R2021	0.5 U	0.5 U	0.5 U	2.8	0.7 J	3.8	0.5 U	0.5 U		
ALBW20544	32R2021	0.5 U	0.5 U	0.5 U	1.4	0.5 U	1.4 J	0.5 U	0.5 U		
SEAD-AL-MW-23-20220627	33R2023	0.22 U	0.35 U	0.32 U	0.28 U	0.22 U	0.72 J	0.31 U	0.34 U		



Table 5. Chlorinated Organics in Groundwater

Well ID	Location Description	Sample ID	Sample Round	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	cis-DCE (µg/L)	trans-DCE (µg/L)	VC (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)
<b>Class GA Standard</b>				<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>5</b>	<b>0.6</b>
MWT-24	Downgradient of Biowalls C1/C2 Post-Refresh	ALBW20063	1Q2007	1 U	0.94 J	1 U		2.1	19	0.81 J	1 U
		ALBW20122	5R2008	5 U		5 U	31	5 U	5 U	5 U	5 U
		ALBW20182	9R2010	0.15 U	5	0.11 U	31	0.41 J	7.5	0.79 J	0.1 U
		ALBW20242	13R2012	0.15 U	2.7	0.11 U	28	1.5	5.3	0.8 J	0.1 U
		ALBW20301	17R2014	0.15 U	1.5	0.11 U	21	1.6	3.6	0.25 U	0.1 U
		ALBW20381	22R2016	0.74 U	3.7	0.36 U	14	0.43 J	1.8	0.43 J	0.5 U
		ALBW20397	23R2017	0.5 U	3.9	0.5 U	18	0.94 J	2.2	0.65 J	0.5 U
		ALBW20413	24R2018	0.5 U	2	0.5 U	10	0.5 U	1 U	0.5 U	0.5 U
		ALBW20429	25R2018	0.5 U	2	0.5 U	13	0.95 J	2	0.4 J	0.5 U
		ALBW20449	26R2018	0.5 U	2.7	0.5 U	12	0.76 J	1.2 J	0.5 U	0.5 U
		ALBW20465	27R2019	0.5 U	2.5	0.5 U	15	1.1	1.9 J	0.57 J	0.5 U
		ALBW20481	28R2019	0.5 U	2.6	0.5 U	13	0.34 J	0.77 J	0.53 J	0.5 U
		ALBW20497	29R2020	0.5 U	3.3	0.5 U	13	0.5 U	1 U	0.5 U	0.5 U
		ALBW20513	30R2021	0.5 U	2.9	0.5 U	9.4	0.5 U	1 U	0.5 U	0.5 U
ALBW20529	31R2021	0.5 U	3.4	0.5 U	15	0.31 J	2.4	0.45 J	0.5 U		
ALBW20545	32R2021	0.5 U	2.9	0.5 U	10	0.37 J	0.79 J	0.5 U	0.5 U		
SEAD-AL-MWT-24-20230627	33R2023	0.22 U	2.1	0.32 U	9.3	0.22 U	0.86	0.31 U	0.34 U		
MWT-25	Upgradient of Biowall A Post-Refresh	ALBW20064	1Q2007	1 U	50	1 U	41	0.56 J	1.6	1 U	1 U
		ALBW20123	5R2008	1 U	19	1 U	17	1 U	1 U	1 U	1 U
		ALBW20183	9R2010	0.15 U	7.7	0.11 U	13	0.49 J	0.18 U	0.25 U	0.1 U
		ALBW20243	13R2012	0.15 U	6.1	0.11 U	21	0.2 U	0.18 U	0.25 U	0.1 U
		ALBW20302	17R2014	0.15 U	24	0.11 U	2.8	0.42 J	2.6	0.25 U	0.1 U
		ALBW20382	22R2016	0.74 U	3.5	0.36 U	2.4	0.37 U	0.5 U	0.38 U	0.5 U
		ALBW20398	23R2017	0.5 U	2.6	0.5 U	0.38	0.5 U	1 U	0.5 U	0.5 U
		ALBW20414	24R2018	0.5 U	1	0.5 U	46	0.5 U	1 U	0.5 U	0.5 U
		ALBW20430	25R2018	0.5 U	40	0.5 U	56	1	6.2	0.5 U	0.5 U
		ALBW20440	26R2018	0.5 U	35	0.5 U	220	1.1	4.1	0.5 U	0.5 U
		ALBW20456	27R2019	0.5 U	120	0.96 J	30	4.6	16	0.5 U	0.5 U
		ALBW20472	28R2019	0.5 U	5	0.5 U	390	1.8	0.97 J	0.5 U	0.5 U
		ALBW20488	29R2020	0.5 U	140	1.7	11	10	34	0.5 U	0.5 U
		ALBW20504	30R2021	0.5 U	3.8 J+	0.5 U	19	0.56 J	1 U	0.5 U	0.5 U
ALBW20520	31R2021	0.5 U	3.3	0.5 U		1.8	0.77 J	0.5 U	0.5 U		
ALBW20536	32R2021	0.5 U	8.6	0.5 U	48	2	2.5	0.5 U	0.5 U		
SEAD-AL-MWT-25-20230627	33R2023	0.43 U	87.7	0.64 U	100	2.7	8.4	0.62 U	0.68 U		
MWT-26	Upgradient of Biowalls B1/B2 Post-Refresh	ALBW20066	1Q2007	1 U	10	1 U	19	0.6 J	2	1 U	1 U
		ALBW20126	5R2008	1 U	1.7	1 U	3.3	1 U	1 U	1 U	1 U
		ALBW20186	9R2010	0.15 U	1.7	0.11 U	5.5	0.37 J	0.18 U	0.25 U	0.1 U
		ALBW20246	13R2012	0.15 U	1.6	0.11 U	4.4	0.24 J	1.1	0.25 U	0.1 U
		ALBW20306	17R2014	0.15 U	0.83 J	0.11 U	4.5	0.4 J	1.1	0.25 U	0.1 U
		ALBW20385	22R2016	0.74 U	1	0.36 U	1.3	0.37 U	0.5 U	0.38 U	0.5 U
		ALBW20401	23R2017	0.5 U	1.8	0.5 U	2.2	0.5 U	1 U	0.5 U	0.5 U
		ALBW20418	24R2018	0.5 U	0.79 J	0.5 U	0.8 J	0.5 U	1 U	0.5 U	0.5 U
		ALBW20433	25R2018	0.5 U	1.1	0.5 U	19	0.72 J	5	0.5 U	0.5 U
		ALBW20441	26R2018	0.5 U	0.6 J	0.5 U	4.4	0.48 J	0.48 J	0.5 U	0.5 U
		ALBW20457	27R2019	0.5 U	1.6	0.5 U	48	2.9	11	0.5 U	0.5 U
		ALBW20473	28R2019	0.5 U	0.78 J	0.5 U	2.2	0.38 J	1 U	0.5 U	0.5 U
		ALBW20489	29R2020	0.5 U	2.6	0.5 U	33	1.4	7.6	0.5 U	0.5 U
		ALBW20505	30R2021	0.5 U	0.76 J	0.5 U	2.4	0.5 U	1 U	0.5 U	0.5 U
ALBW20521	31R2021	0.5 U	2.9	0.5 U	22	0.84 J	5.6	0.5 U	0.5 U		
ALBW20537	32R2021	0.5 U	1.1	0.5 U	4.6	0.5 U	0.43 J	0.5 U	0.5 U		
SEAD-AL-MWT-26-20230628	33R2023	0.22 U	3.8	0.32 U	10.2	0.38 J	6	0.31 U	0.34 U		
MWT-27	In Biowall B1 Post-Refresh	ALBW20067	1Q2007	20 UJ	20 UJ	20 UJ	49 J	20 UJ	20 UJ	20 UJ	20 UJ
		ALBW20127	5R2008	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
		ALBW20187	9R2010	0.15 U	0.13 U	0.11 U	0.18 J	0.2 U	0.18 U	0.25 U	0.1 U
		ALBW20247	13R2012	0.15 UJ	0.13 U	0.11 U	0.42 J	0.2 U	0.61 J	0.25 U	0.1 UJ
		ALBW20307	17R2014	0.15 U	0.13 U	0.11 U	0.83 J	0.27 J	1	0.25 U	0.1 U
		ALBW20386/387	22R2016	0.74 U	0.48 U	0.36 U	2.5	0.37 U	4.5	0.38 U	0.5 U
		ALBW20402	23R2017	0.5 U	0.5 U	0.5 U	1.6 J+	0.5 U	2.7	0.5 U	0.5 U
		ALBW20419	24R2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20434/435	25R2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20442	26R2018	0.5 U	0.5 U	0.5 U	0.77 J	0.5 U	1 U	0.5 U	0.5 U
		ALBW20458	27R2019	0.5 U	0.5 U	0.5 U	1 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20474/475	28R2019	0.5 U	0.5 U	0.5 U	0.37 J	0.5 U	0.29 J	0.5 U	0.5 U
		ALBW20490	29R2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20506	30R2021	0.92 J	0.5 U	0.5 U	0.65 J	0.5 U	0.85 J	0.5 U	0.5 U
ALBW20522/523	31R2021	0.5 U	0.5 U	0.5 U	0.27 J	0.5 U	0.4 J	0.5 U	0.5 U		
ALBW20538	32R2021	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U		
SEAD-AL-MWT-27-20230628	33R2023	0.22 U	0.35 U	0.32 U	0.28 U	0.22 U	1.4	0.31 U	0.34 U		

**Table 5. Chlorinated Organics in Groundwater**

Well ID	Location Description	Sample ID	Sample Round	PCE (µg/L)	TCE (µg/L)	1,1-DCE (µg/L)	cis-DCE (µg/L)	trans-DCE (µg/L)	VC (µg/L)	1,1-DCA (µg/L)	1,2-DCA (µg/L)
Class GA Standard				5	5	5	5	5	2	5	0.6
MWT-28	In Biowall B2 Post-Refresh	ALBW20068	1Q2007	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ	20 UJ
		ALBW20128	5R2008	4 U	4 U	4 U	4 U	4 U	4 U	4 U	4 U
		ALBW20188/89	9R2010	0.15 U	0.13 U	0.11 U	0.15 U	0.2 U	0.18 U	0.25 U	0.1 U
		ALBW20248/49	13R2012	0.15 U	0.13 U	0.11 U	0.15 U	0.2 U	0.18 U	0.25 U	0.1 U
		ALBW20308	17R2014	0.15 U	0.13 U	0.11 U	0.15 U	0.2 U	0.18 U	0.25 U	0.1 U
		ALBW20388	22R2016	0.74 U	0.48 U	0.36 U	0.41 U	0.37 U	0.5 U	0.38 U	0.5 U
		ALBW20403/04	23R2017	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20420	24R2018	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20436	25R2018	0.5 U	0.36 J	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20443	26R2018	0.5 U	0.5 U	0.5 U	0.27 J	0.5 U	1 U	0.5 U	0.5 U
		ALBW20459	27R2019	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20476	28R2019	0.5 U	0.5 U	0.5 U	0.35 J	0.5 U	1 U	0.5 U	0.5 U
		ALBW20491/492	29R2020	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
		ALBW20507	30R2021	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U
ALBW20524	31R2021	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U		
ALBW20539	32R2021	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U		
SEAD-AL-MWT-28-20230629	33R2023	0.22 U	0.35 U	0.32 U	0.28 U	0.22 U	0.41 U	0.31 U	0.34 U		
MWT-29	Downgradient of Biowall B2 Post-Refresh	ALBW20070	1Q2007	2 U	22	2 U		6.5	140	2 U	2 U
		ALBW20129/30	5R2008	1 U	3.3	1 U	85	0.68 J	74	1 U	1 U
		ALBW20190	9R2010	0.15 U	1.3	0.26 J	78	1.1	69	0.25 U	0.1 U
		ALBW20250	13R2012	0.15 U	0.69 J	0.11 U	36	0.59 J	49	0.25 U	0.1 U
		ALBW20309	17R2014	0.15 U	0.71 J	0.13 J	49	1.1	130	0.25 U	0.1 U
		ALBW20389	22R2016	0.74 U	2.1	0.36 U	1.2	0.37 U	0.5 U	0.38 U	0.5 U
		ALBW20405	23R2017	0.5 U	3.2	0.5 U	38	0.85 J	16	0.5 U	0.5 U
		ALBW20421	24R2018	0.5 U	1	0.5 U	7.1	0.5 U	5.7	0.5 U	0.5 U
		ALBW20437	25R2018	0.5 U	2.9	0.5 U	110	1.6	85	0.5 U	0.5 U
		ALBW20445	26R2018	0.5 U	1.8	0.5 U	20	0.52 J	6.5	0.5 U	0.5 U
		ALBW20460	27R2019	0.5 U	4.1	0.5 U	77	2.3	29	0.5 U	0.5 U
		ALBW20477	28R2019	0.5 U	1.8	0.5 U	12	0.3 J	2.5	0.5 U	0.5 U
		ALBW20493	29R2020	0.5 U	3.5	0.5 U	78	1.7	41	0.5 U	0.5 U
		ALBW20508	30R2021	0.5 U	2	0.5 U	26	0.5 U	7.9	0.5 U	0.5 U
		ALBW20525	31R2021	0.5 U	2.1	0.5 U	31	0.61 J	16	0.5 U	0.5 U
		ALBW20541	32R2021	0.5 U	1.8	0.5 U	33	0.64 J	9.1	0.5 U	0.5 U
SEAD-AL-MWT-29-20230628	33R2023	0.22 U	0.48 J	0.32 U	98.1	2.1	77.3	0.31 U	0.34 U		

Notes:

Biowall refresh conducted between 25 August 2017 and 18 October 2017 prior to Round 24 of long-term monitoring (LTM)

µg/L = Microgram(s) per liter

DCA = Dichloroethane

DCE = Dichloroethene

J = The reported value is an estimated concentration

J+ = The reported value is estimated based high

PCE = Tetrachloroethene

TCE = Trichloroethene

U = Compound was not detected; detection limit shown

UJ = The compound was not detected; the associated reporting limit is approximate

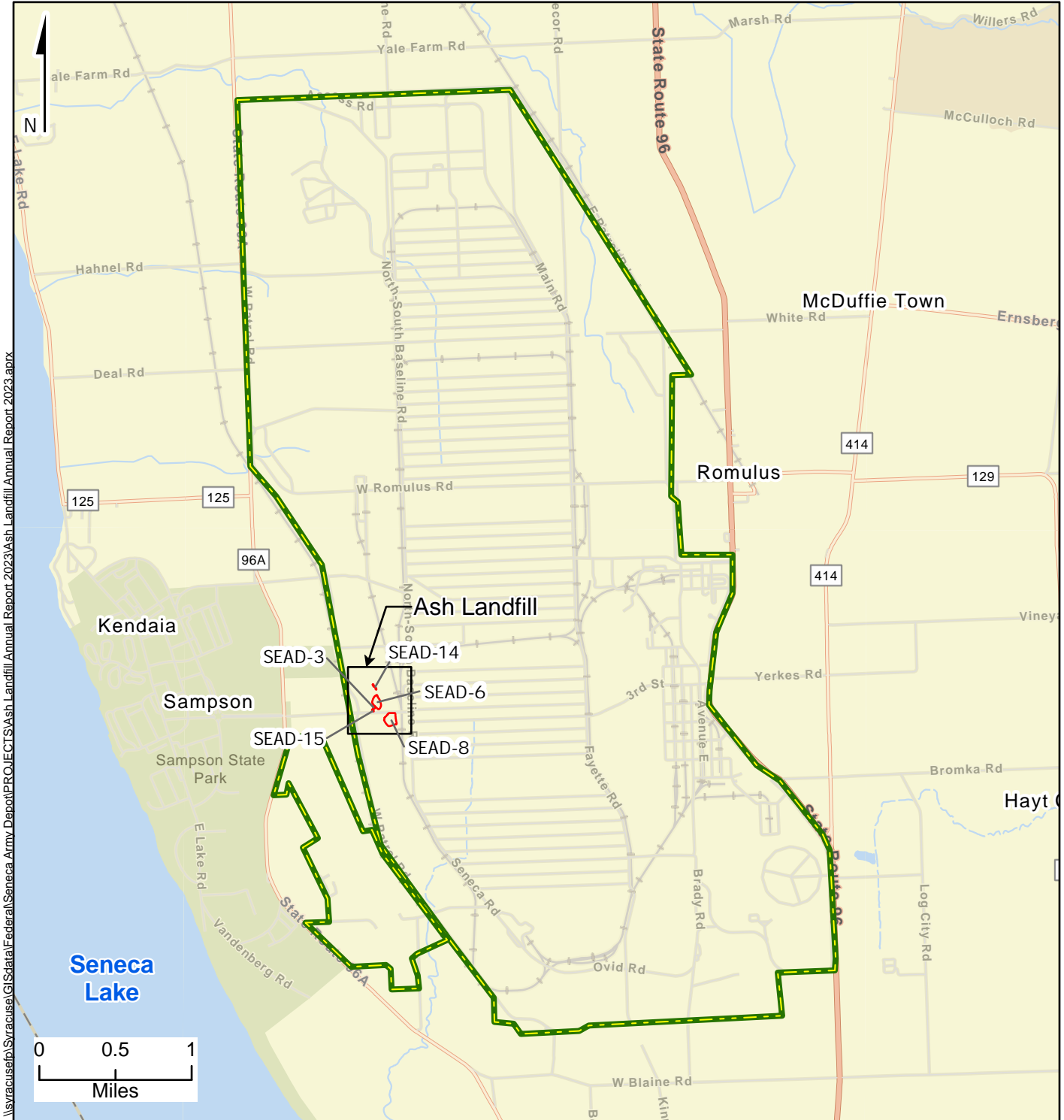
VC = Vinyl chloride

Grey shading = the concentration was detected above its Class GA groundwater standard (TCE and cis-DCE = 5 µg/L; VC = 2 µg/L)



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## **Figures**



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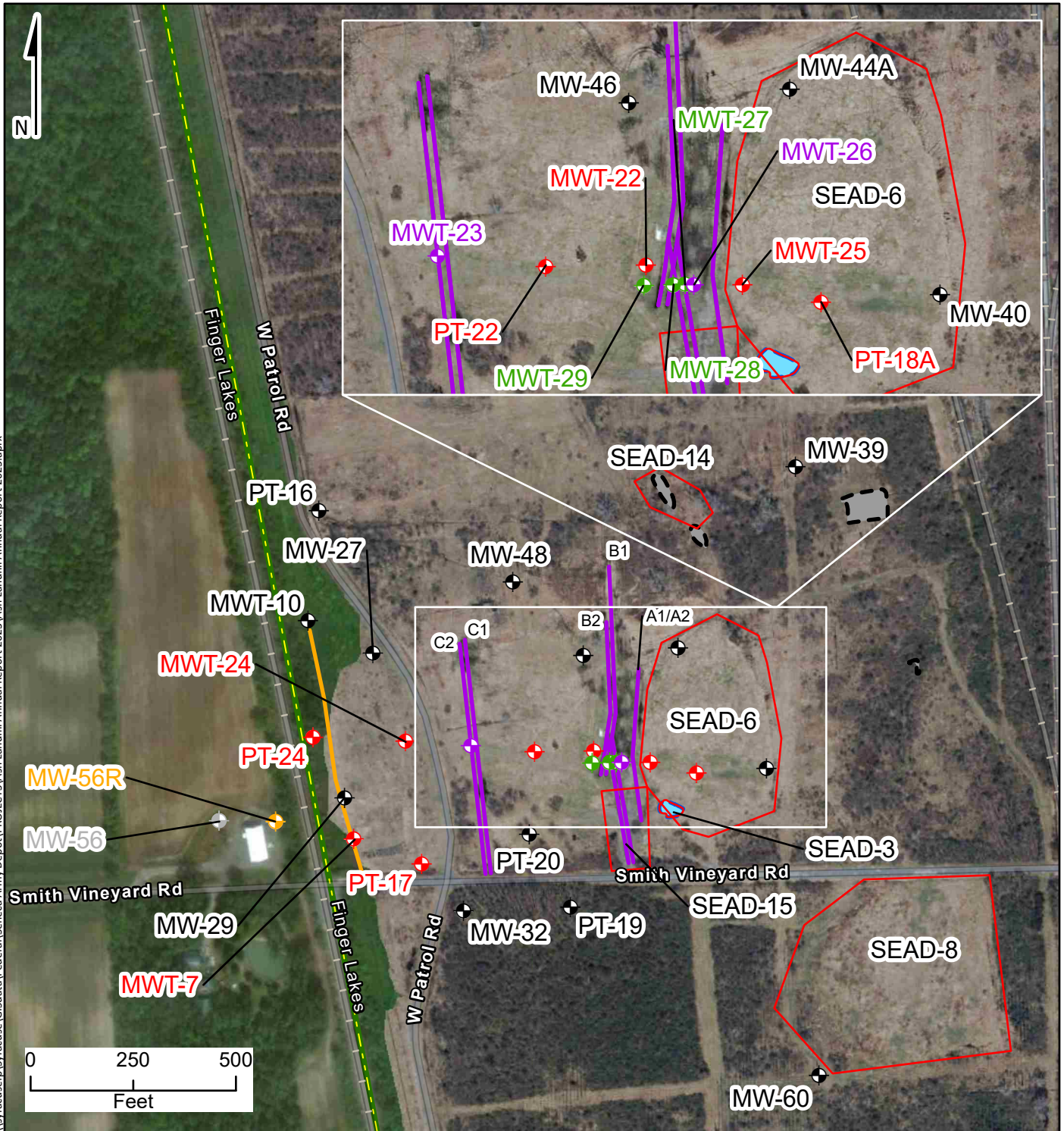


- Legend**
- Ash Landfill SEAD Sites
  - SEAD Boundary

**Figure 1**  
**Ash Landfill Location**  
 Seneca Army Depot (SEAD)  
 Romulus, Seneca County, New York

Map Date: 9/14/2023  
 Projection: NAD 1983 2011 State Plane  
 New York Central FIPS 3102 Ft US

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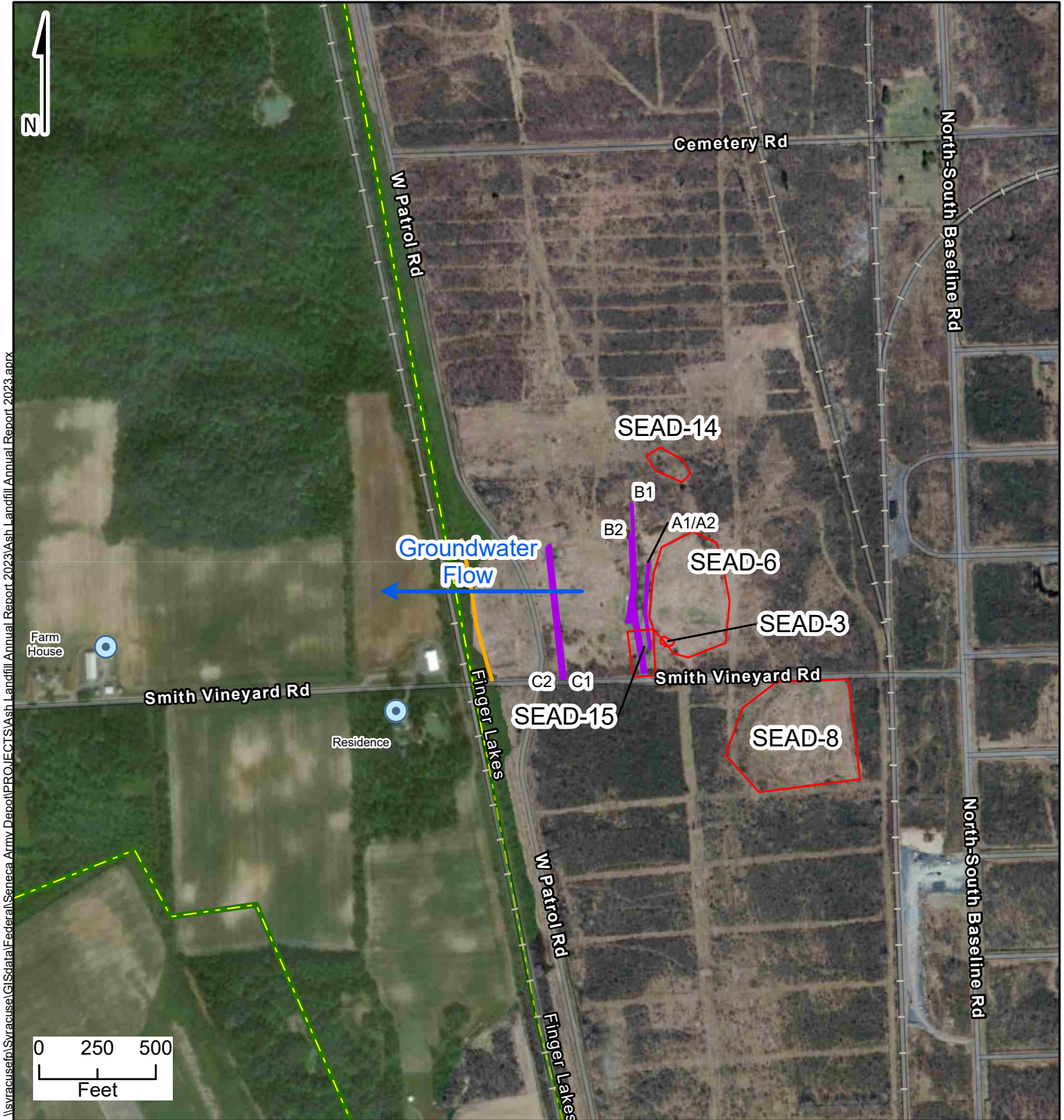


- Legend**
- SEAD Boundary
  - Ash Landfill Operable Unit
  - Former Debris Piles
  - Former Cooling Pond
  - Biowalls
  - ZVI Wall
- Existing Monitoring Well Network**
- Biowall Process Monitoring
  - Gauge Only
  - Long-Term Plume Monitoring
  - Long-Term Plume/Biowall Process Monitoring
  - Off-Site Performance Monitoring
  - Decommissioned Well

**Figure 2**  
**Ash Landfill Site Layout**  
 Seneca Army Depot (SEAD)  
 Romulus, Seneca County, New York

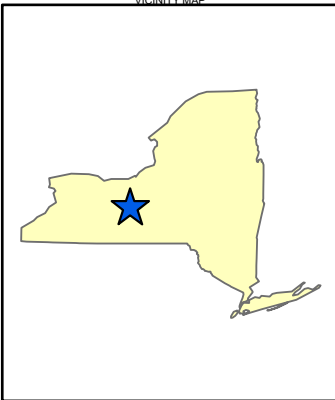
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 New York Central FIPS 3102 Ft US





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VICINITY MAP



- Legend**
- SEAD Boundary
  - Ash Landfill Operable Unit
  - Biowalls
  - ZVI Wall
  - Domestic Water Well

**Figure 3**  
**Ash Landfill Receptors**  
 Seneca Army Depot (SEAD)  
 Romulus, Seneca County, New York

Map Date: 10/11/2023  
 Projection: NAD 1983 2011 State Plane  
 New York Central FIPS 3102 Ft US



Figure 4  
 Reductive Dechlorination of Chlorinated Ethenes  
 Ash Landfill Annual Report  
 Seneca Army Depot

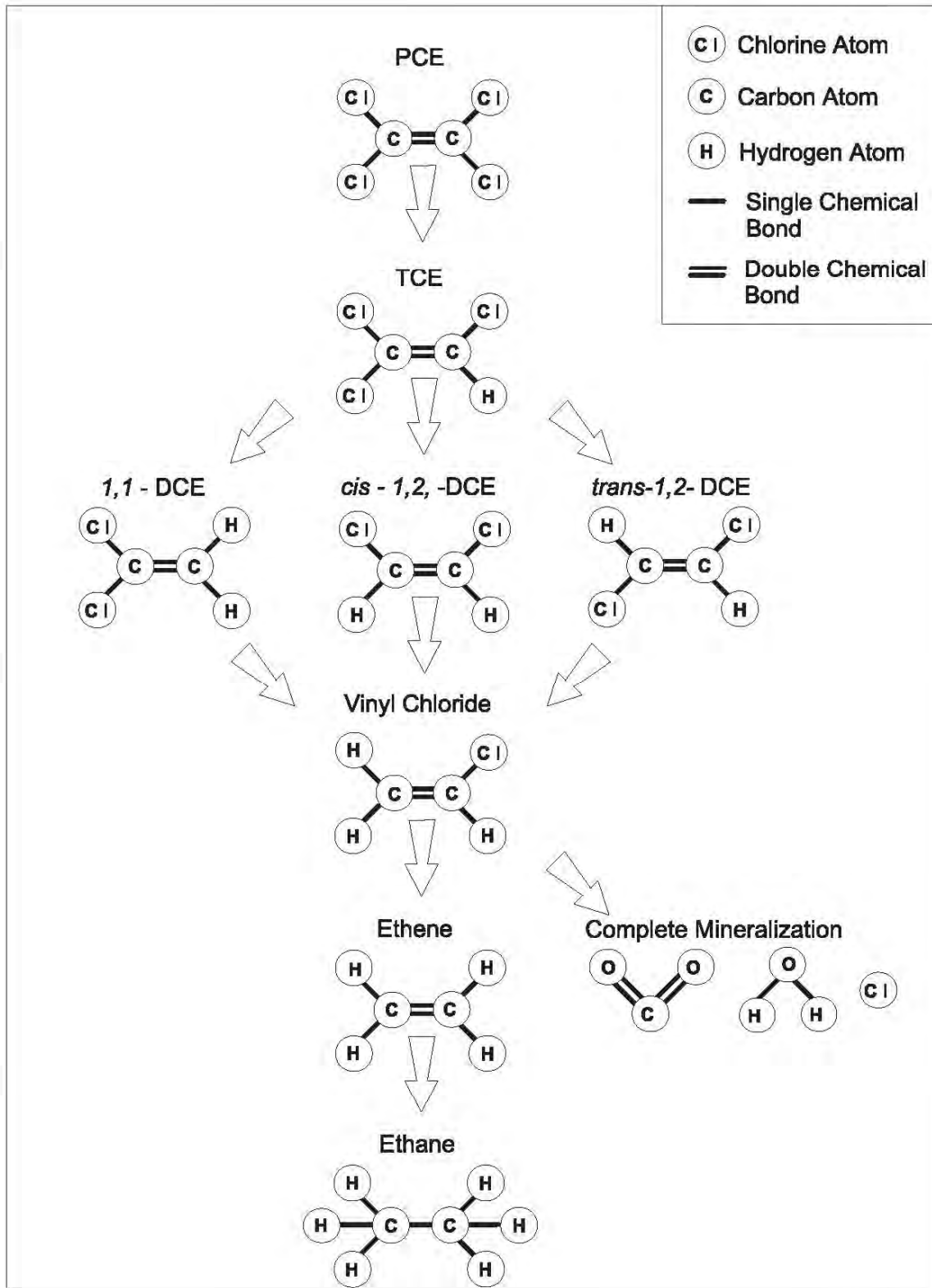
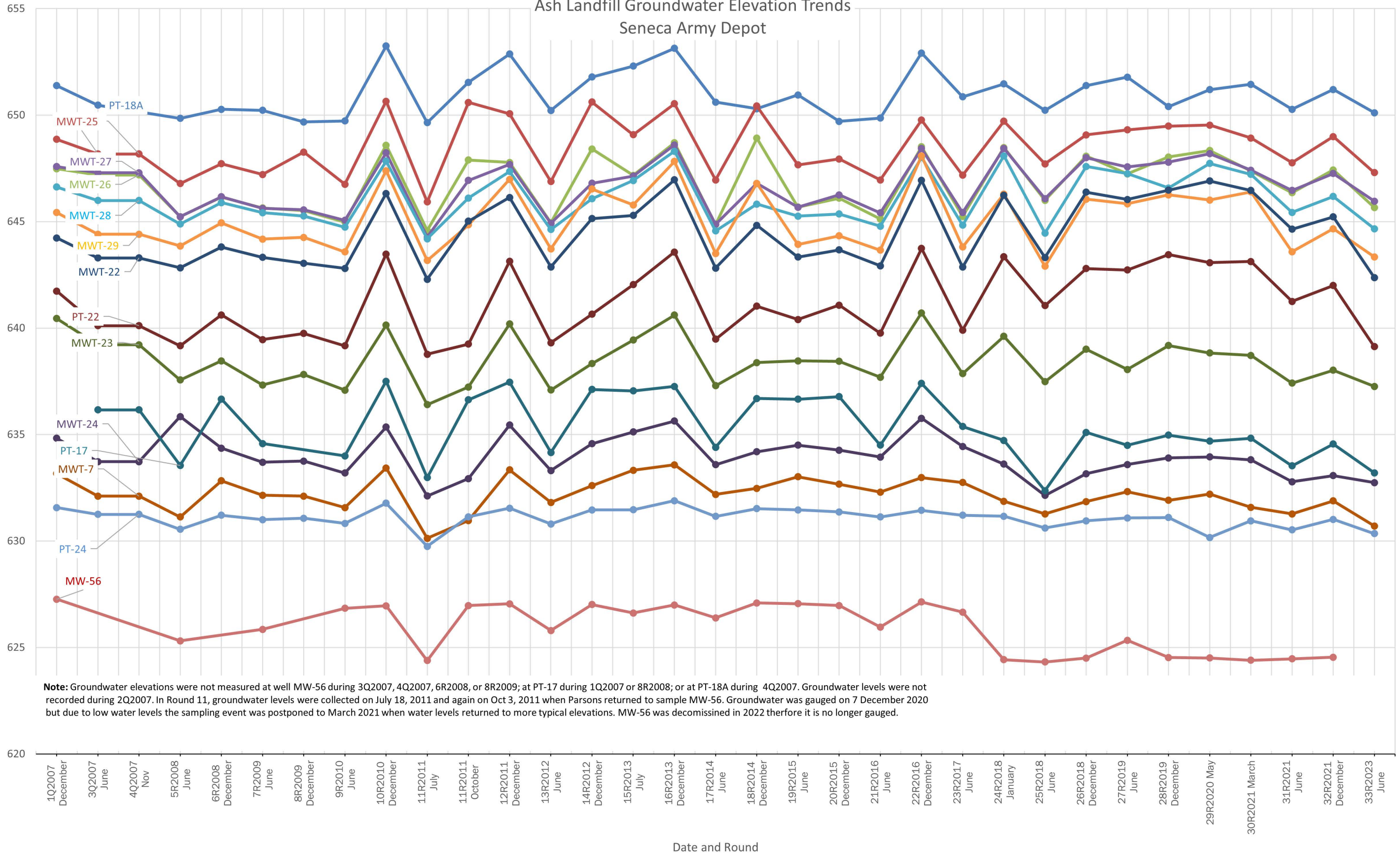
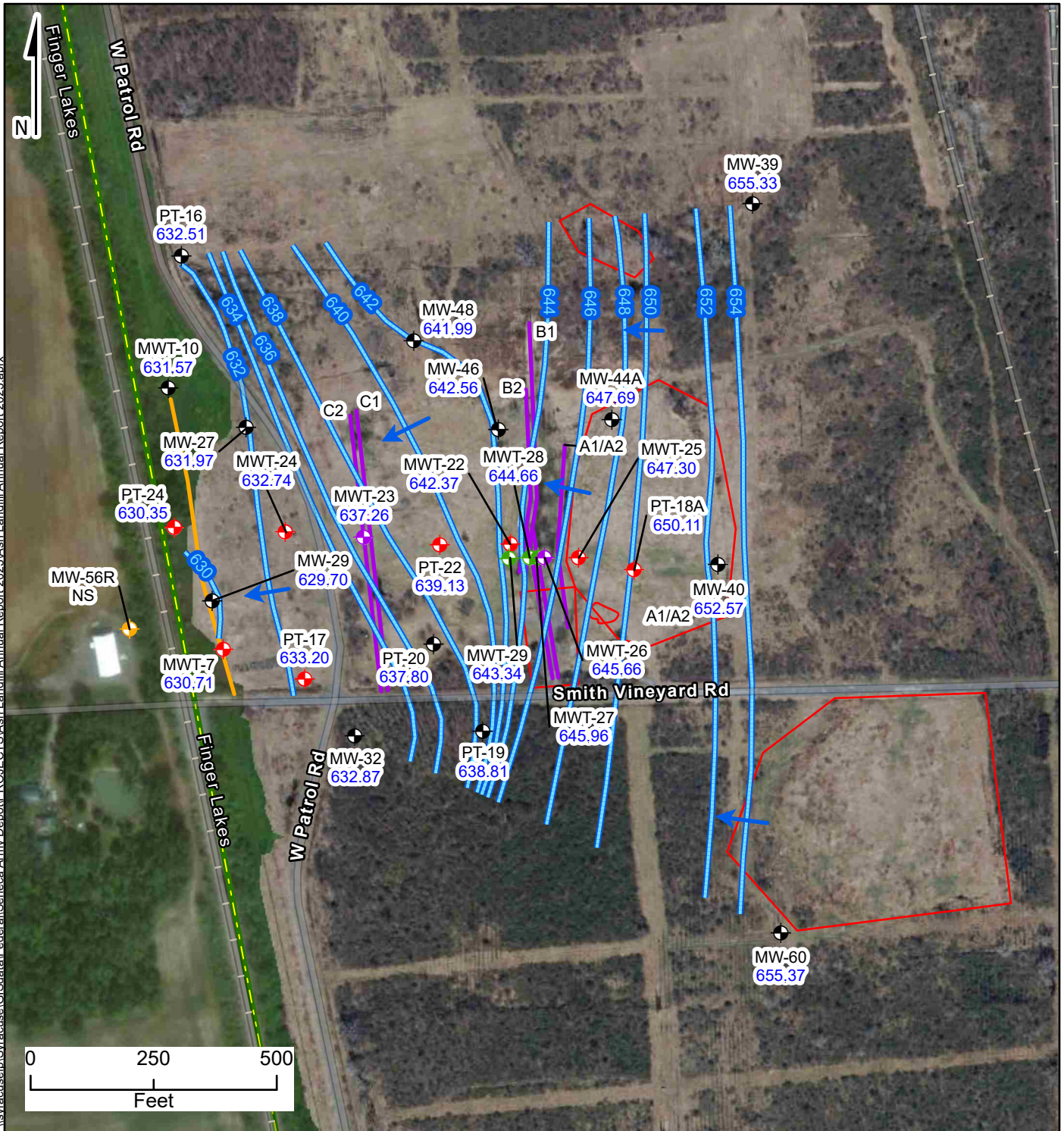


Figure 5  
Ash Landfill Groundwater Elevation Trends  
Seneca Army Depot



**Note:** Groundwater elevations were not measured at well MW-56 during 3Q2007, 4Q2007, 6R2008, or 8R2009; at PT-17 during 1Q2007 or 8R2008; or at PT-18A during 4Q2007. Groundwater levels were not recorded during 2Q2007. In Round 11, groundwater levels were collected on July 18, 2011 and again on Oct 3, 2011 when Parsons returned to sample MW-56. Groundwater was gauged on 7 December 2020 but due to low water levels the sampling event was postponed to March 2021 when water levels returned to more typical elevations. MW-56 was decommissioned in 2022 therefore it is no longer gauged.





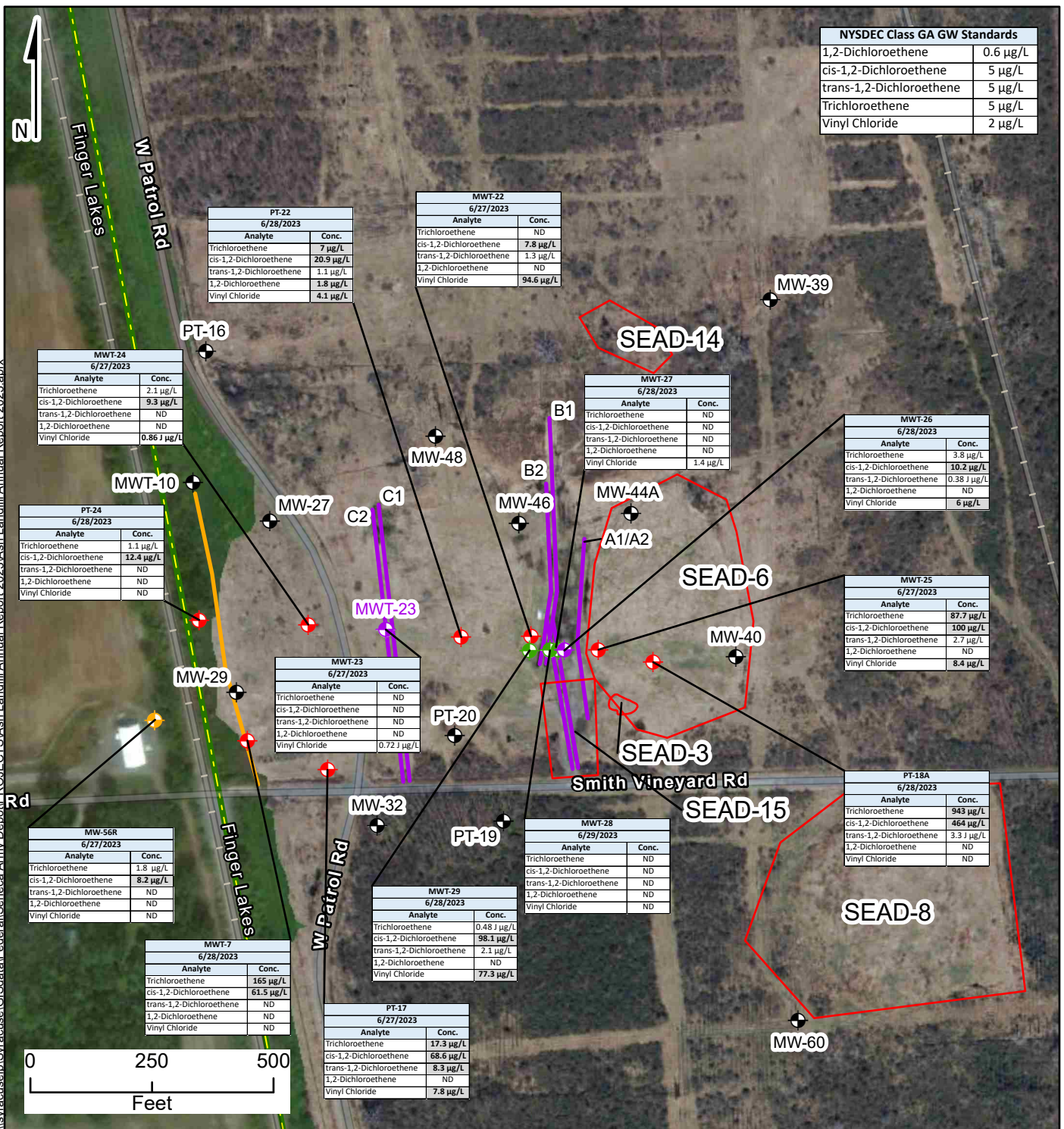
- Legend**
- SEAD Boundary
  - Ash Landfill Operable Unit
  - Biowalls
  - ZVI Wall
  - 2-Foot Groundwater Elevation Contour
  - Groundwater Flow Direction
  - ◆ Existing Monitoring Well Network
  - ◆ Biowall Process Monitoring
  - ◆ Gauge Only
  - ◆ Long-Term Plume Monitoring
  - ◆ Long-Term Plume/Biowall Process Monitoring
  - ◆ Off-Site Performance Monitoring

**Figure 6**  
**Groundwater Contours and**  
**Groundwater Flow Direction June 2023**  
 Seneca Army Depot (SEAD)  
 Romulus, Seneca County, New York

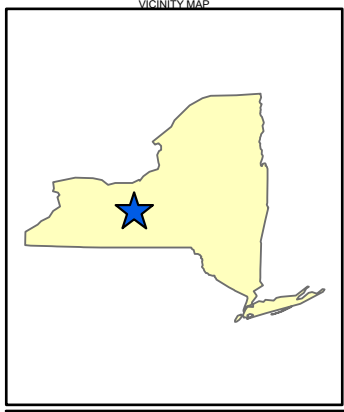
Map Date: 10/11/2023  
 Projection: NAD 1983 2011 State Plane  
 New York Central FIPS 3102 Ft US



NYSDEC Class GA GW Standards	
1,2-Dichloroethene	0.6 µg/L
cis-1,2-Dichloroethene	5 µg/L
trans-1,2-Dichloroethene	5 µg/L
Trichloroethene	5 µg/L
Vinyl Chloride	2 µg/L



\\svracusefp1\svracusefp1\Sdata\Federal\Seneca Army Depot\PROJECTS\Ash Landfill Annual Report 2023\Ash Landfill Annual Report 2023.aprx



**Legend**

- SEAD Boundary
- Ash Landfill Operable Unit
- Biowalls
- ZVI Wall

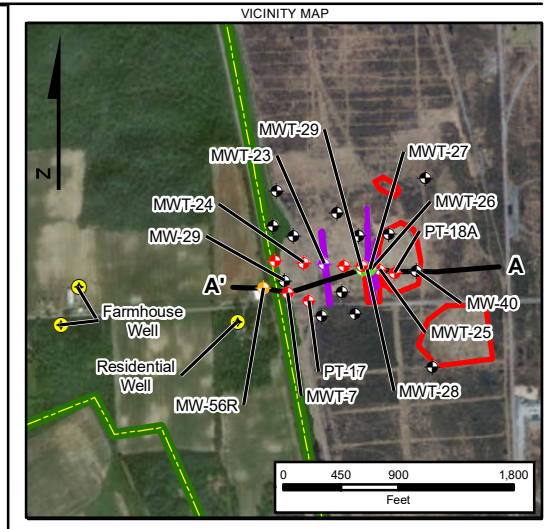
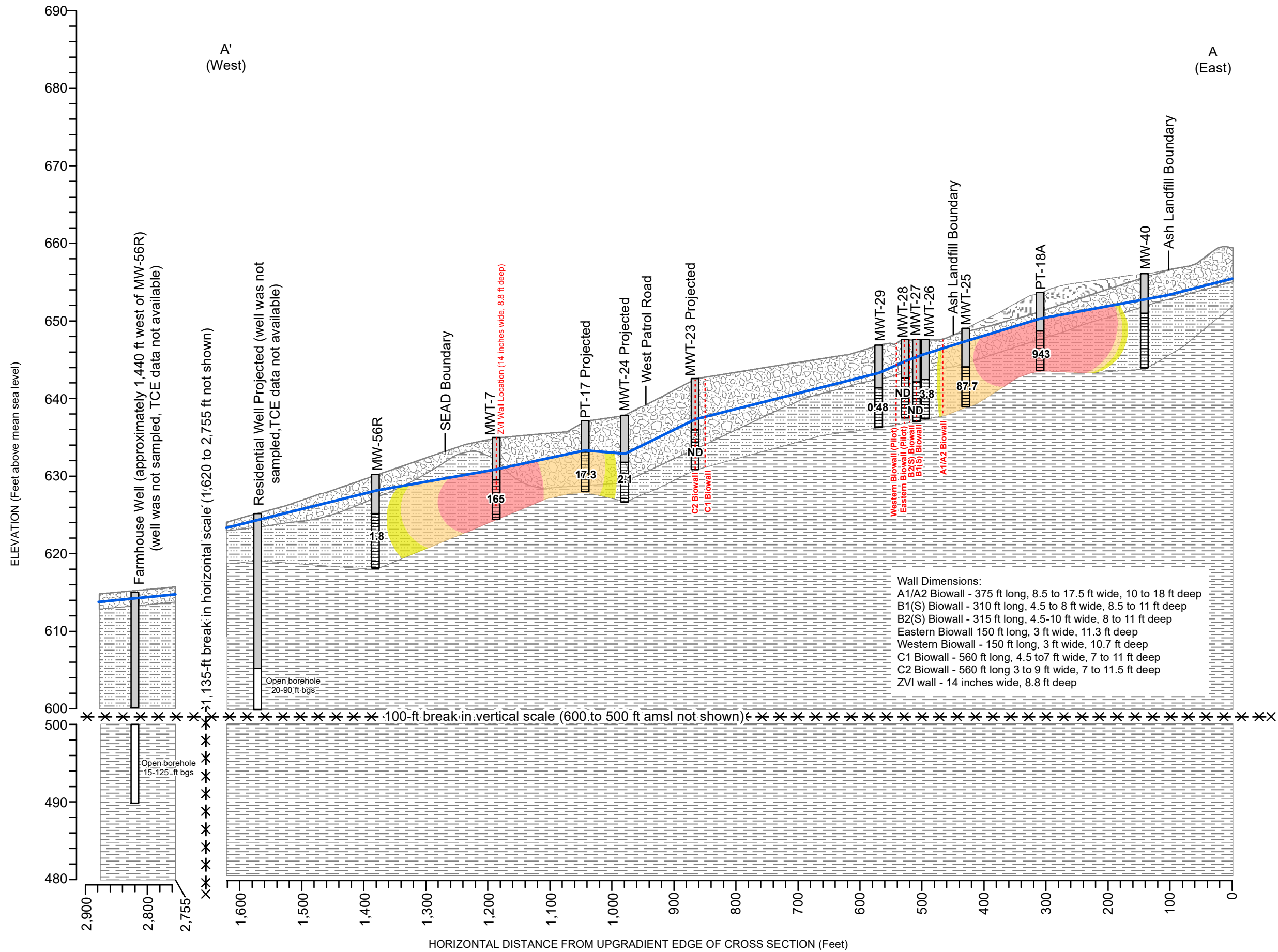
**Existing Monitoring Well Network**

- Biowall Process Monitoring
- Gauge Only
- Long-Term Plume Monitoring
- Long-Term Plume/Biowall Process Monitoring
- Off-Site Performance Monitoring

**Notes:**  
 Bold and shaded values indicate concentrations greater than NYSDEC Class GA AWQS  
 µg/L = micrograms per liter  
 AWQS = Ambient Water Quality Standards  
 ND = Non-detect  
 NYSDEC = New York State Department of Environmental Conservation

**Figure 7**  
**Chlorinated Ethenes**  
**Concentrations in Groundwater**  
 Seneca Army Depot (SEAD)  
 Romulus, Seneca County, New York

Map Date: 10/11/2023  
 Projection: NAD 1983 2011 State Plane  
 New York Central FIPS 3102 Ft US



**Legend**

- Well Riser
- Well Screen
- Open Borehole Interval
- Ash Landfill
- Till
- Weathered Shale
- Competent Shale
- Inferred Water Table
- Treatment Walls

**TCE Concentration (µg/L)**

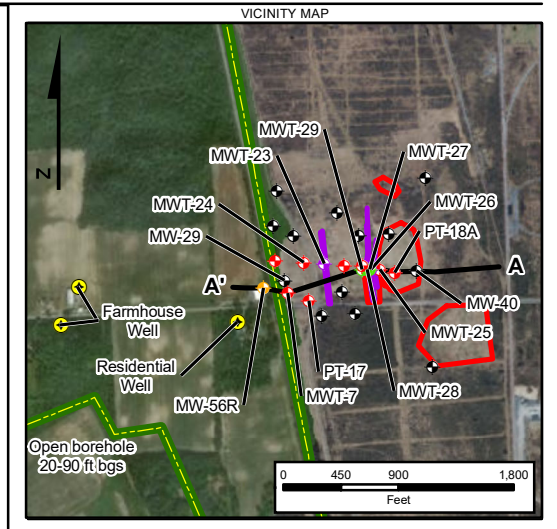
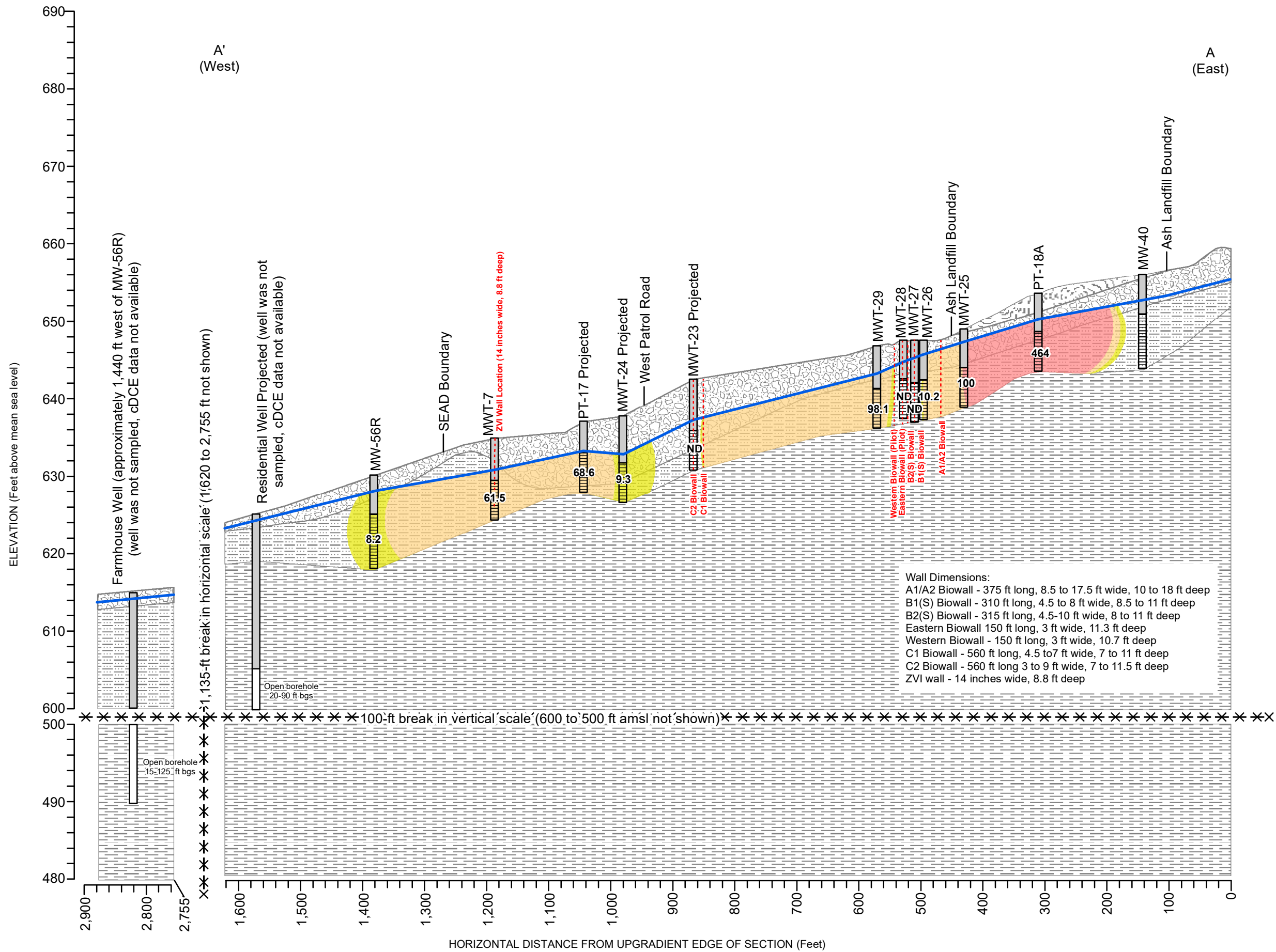
- 5-10
- 10-100
- >100

**Note:**

- TCE concentrations are in micrograms per liter (µg/L)
- ND = Not detected
- Class GA standard for TCE is 5 µg/L
- TCE was detected at furthest downgradient monitoring well MW-56R, screened in the weathered shale aquifer (1.8 µg/L).
- Historical data from the Remedial Investigation Report (Parsons 1994;) indicated the groundwater plume was restricted to the upper till/weathered shale aquifer and was not present in the deeper competent shale aquifer. However, recent groundwater data for the competent shale aquifer is not available.
- Downgradient residential well and farmhouse well were not sampled and information on TCE at these wells is not available.

Figure 8  
 Ash Landfill TCE Cross Section  
 Seneca Army Depot (SEAD)  
 Romulus, Seneca County, New York





**Legend**

- Well Riser
- Well Screen
- Open Borehole Interval
- Ash Landfill
- Till
- Weathered Shale
- Competent Shale
- Treatment Wall

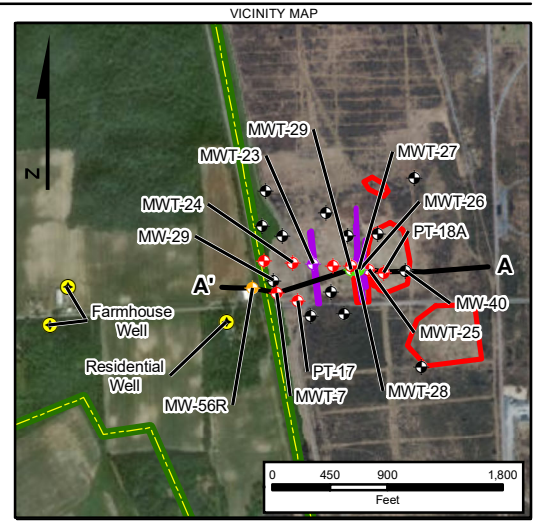
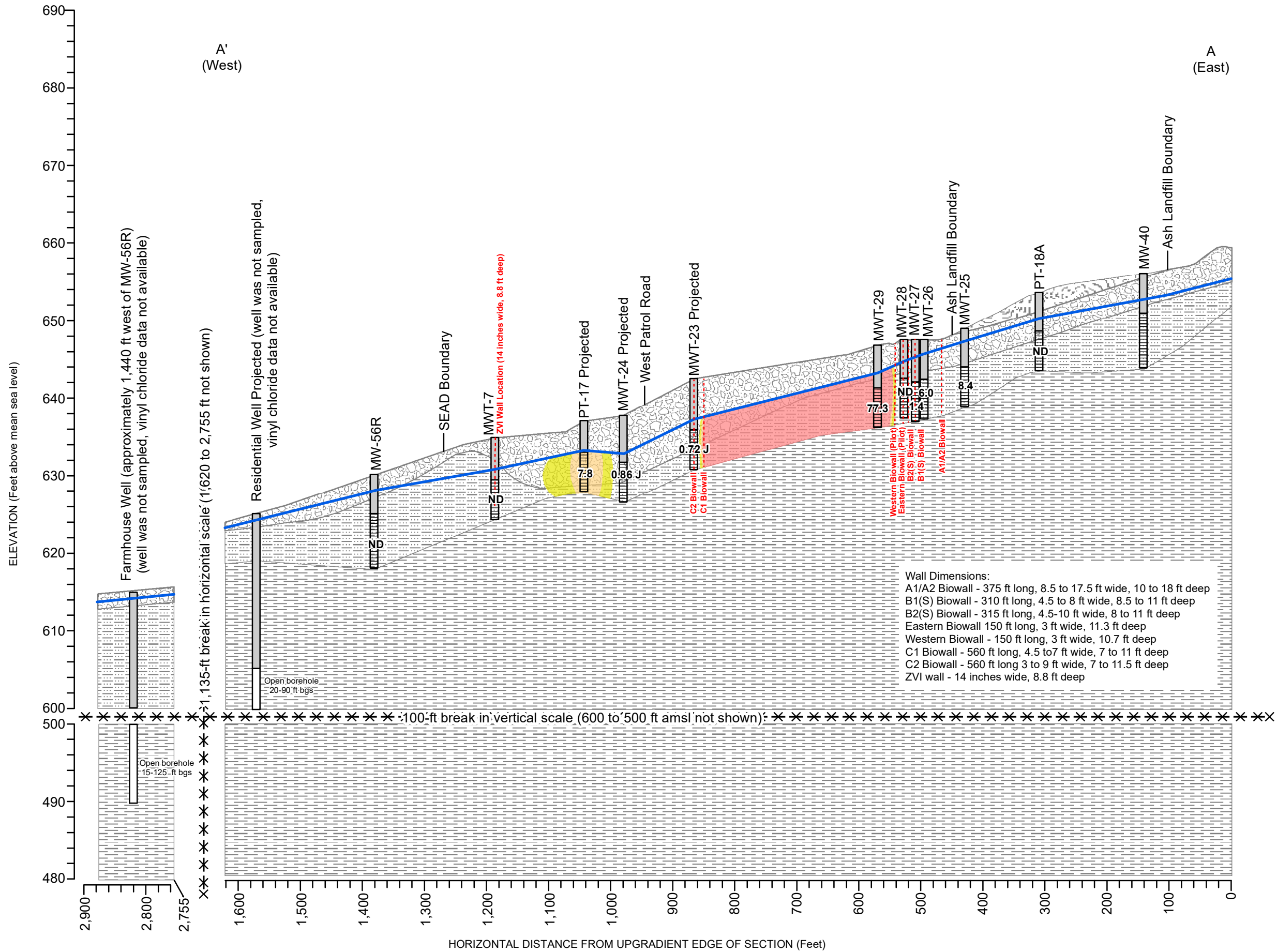
**cDCE Concentration (µg/L)**

- 5-10
- 10-100
- >100

**Note:**

- cDCE concentrations are in micrograms per liter (µg/L)
- ND = Not detected
- Class GA standard for cDCE is 5 µg/L
- cDCE was detected at furthest downgradient monitoring well MW-56R, screened in the weathered shale aquifer (8.2 µg/L). The downgradient edge of the cDCE plume in the weathered shale aquifer is inferred.
- Historical data from the Remedial Investigation Report (Parsons 1994;) indicated the groundwater plume was restricted to the upper till/weathered shale aquifer and was not present in the deeper competent shale aquifer. However, recent groundwater data for the competent shale aquifer is not available.
- Downgradient residential well and farmhouse well were not sampled and information on cDCE at these wells is not available.

Figure 9  
Ash Landfill cDCE Cross Section  
Seneca Army Depot (SEAD)  
Romulus, Seneca County, New York



**Legend**

- Well Riser
- Well Screen
- Open Borehole Interval
- Ash Landfill
- Till
- Weathered Shale
- Competent Shale
- Treatment Wall

**Vinyl Chloride Concentration (µg/L)**

- 2-7
- 7-10
- >10

Note:  
 -Vinyl chloride concentrations are in micrograms per liter (µg/L)  
 -ND = Not detected  
 -Class GA standard for vinyl chloride is 2 µg/L  
 -Vinyl chloride was not detected at furthest downgradient monitoring well MW-56R, screened in the weathered shale aquifer.  
 -Historical data from the Remedial Investigation Report (Parsons 1994;) indicated the groundwater plume was restricted to the upper till/weathered shale aquifer and was not present in the deeper competent shale aquifer. However, recent groundwater data for the competent shale aquifer is not available.  
 -Downgradient residential well and farmhouse well were not sampled and information on vinyl chloride at these wells is not available.

Figure 10  
 Ash Landfill Vinyl Chloride Cross Section  
 Seneca Army Depot (SEAD)  
 Romulus, Seneca County, New York

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# **Appendix A**

## **Field Forms**

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-24  
 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: lock  
 Elevation (top of inner casing): 651.82  
 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): 13.09 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 8.45 ftbtoc  
 Date: 6/20/23 Time: \_\_\_\_\_

\* 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): 0.0 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?	<u>Yes</u>	No
Is the well surface casing in good condition?	<u>Yes</u>	No
Is the surface casing vertical?	<u>Yes</u>	No
Is there an internal well seal?	<u>Yes</u>	No
Has there been physical damage to the well?	<u>Yes</u>	No
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	<u>Yes</u>	No
Is the well clearly labeled?	<u>Yes</u>	No
Flush mount - Is it secure from runoff?	<u>Yes</u>	No

Other Comments None

### Recommendations

Well needs to be redeveloped	Yes	<u>No</u>
Well needs to be re-surveyed.	<u>Yes</u>	No
Well needs to be repaired.	Yes	<u>No</u>
Well needs to be replaced.	Yes	<u>No</u>
Well needs to be properly abandoned.	Yes	<u>No</u>
No action necessary.	Yes	<u>No</u>

### Comments

Re survey PC

**Inspected by:** Mike Wynn  
**Date of Inspection:** \_\_\_\_\_  
**Reviewed by:** \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-28  
 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: Lock  
 Elevation (top of inner casing): 652169  
 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): 12.83 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 9.03 ftbtoc  
 Date: 6/16/23 Time: \_\_\_\_\_

\* 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): 0.0 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?	<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?	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 Heave

### Recommendations

Well needs to be redeveloped	Yes	<input checked="" type="radio"/> No
Well needs to be re-surveyed.	<input checked="" type="radio"/> Yes	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.	Yes	<input checked="" type="radio"/> No

### Comments

Heave Re Survey for

Inspected by: Mike Wozniak  
 Date of Inspection: 6/26/27  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-27  
 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: lock  
 Elevation (top of inner casing): 652.99  
 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): 12.44 ftoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 7.03 ftbtoc  
 Date: 6/26/23 Time: \_\_\_\_\_

\* 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): 0.0 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments no j plus near

**Recommendations**

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

**Comments**

Re survey TC

Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-26  
 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: Lock

Elevation (top of inner casing): 652.19

Surface casing material: steel

Well casing material: PVC

Surface Casing diameter: 24 inches

Well Diameter: \_\_\_\_\_ inches

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

Well Depth (as measured): 15.45 ftoc

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

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

Depth to water: 6.53 ftboc

Date: 6/26/22 Time: \_\_\_\_\_

\* 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): 0.00 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input type="radio"/> Yes	<input type="radio"/> No

Other Comments Bees

### Recommendations

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

### Comments

Resurvey Tee

Inspected by: Mike Wright  
 Date of Inspection: 6/24/13  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-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: Lock

Elevation (top of inner casing): 654.51

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): 131.8 ftoc

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

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

Depth to water: 7.2 ftbtoc

Date: 6/26/23 Time: \_\_\_\_\_

\* 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): 0.0 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments None?

**Recommendations**

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

**Comments**

Resurvey TOL

Inspected by: Mike Wight  
 Date of Inspection: 6/21/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-23  
 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: Lock  
 Elevation (top of inner casing): 646.77  
 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): 13.63 ftoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 9.51 ftbtoc  
 Date: 6/26/23      Time: -

\* 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): 00 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments MA

**Recommendations**

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

**Comments**

MA

Inspected by: Mike Wray  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-22  
 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: Lock  
 Elevation (top of inner casing): 650.66  
 Surface casing material: NONE  
 Well casing material: PVC  
 Surface Casing diameter: NONE inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 12.5 ftbgs  
 Well Depth (as measured): 14.85 ftoc  
 Screened interval: 7.5 - 12.5 ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 8.29 ftbtoc  
 Date: 6/26/23 Time: \_\_\_\_\_

\* 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): 0.0 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	Yes	<input checked="" type="radio"/> No
Is the surface casing vertical?	Yes	<input checked="" type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments no surface casing

### 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.	<input checked="" type="radio"/> Yes	<input 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.	Yes	<input type="radio"/> No

### Comments

NR

**Inspected by:** Mike Wiggins  
**Date of Inspection:** 6/26/23  
**Reviewed by:** \_\_\_\_\_ **(Print)**  
 \_\_\_\_\_ **(Sign)**

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-5GR  
 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: 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): 12 ftbgs  
 Well Depth (as measured): 14.98 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 7.54 fbtoc  
 Date: 01/27/12      Time: \_\_\_\_\_

\* If multilevel well please see attached worksheet.





**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-48  
 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: 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): 11.55 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 6.35 ftbtoc  
 Date: 6/26/23      Time: \_\_\_\_\_

\* 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): 0.10 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments Heave

### Recommendations

Well needs to be redeveloped	Yes	<input checked="" type="radio"/> No
Well needs to be re-surveyed.	<input checked="" type="radio"/> Yes	<input 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.	Yes	<input checked="" type="radio"/> No

### Comments

Re survey TEC

Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-46  
 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: 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): 11.43 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 7.85 ftbtoc  
 Date: 6/26/23      Time: \_\_\_\_\_

\* 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): 0.0 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?	<u>Yes</u>	No
Is the well surface casing in good condition?	<u>Yes</u>	No
Is the surface casing vertical?	<u>Yes</u>	No
Is there an internal well seal?	<u>Yes</u>	No
Has there been physical damage to the well?	Yes	<u>No</u>
Does sounding depth match completed depth?	Yes	No
Is measuring point marked?	<u>Yes</u>	No
Is the well clearly labeled?	<u>Yes</u>	No
Flush mount - Is it secure from runoff?	<u>Yes</u>	No

Other Comments It is a Stub

### Recommendations

Well needs to be redeveloped	Yes	<u>No</u>
Well needs to be re-surveyed.	Yes	<u>No</u>
Well needs to be repaired.	Yes	<u>No</u>
Well needs to be replaced.	Yes	<u>No</u>
Well needs to be properly abandoned.	Yes	<u>No</u>
No action necessary.	<u>Yes</u>	No

### Comments

Stub

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**Inspected by:** McCoy  
**Date of Inspection:** 6/26/25  
**Reviewed by:** \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-44A  
 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: 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): 12.41 fttoc

Screened interval: - ft

Open hole interval: - ft

Depth to water: 0.14 fbtoc

Date: 6/26/27 Time: -

\* If multilevel well please see attached worksheet.





**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-40  
 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: Lock  
 Elevation (top of inner casing): -  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: \_\_\_\_\_ inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 11.64 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 6.37 ftboc  
 Date: 6/26/23 Time: \_\_\_\_\_

\* If multilevel well please see attached worksheet.





## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-39  
 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: NO LOCK  
 Elevation (top of inner casing): NA  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 24 inches  
 Well Diameter: \_\_\_\_\_ inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 11.54 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 21.21 ftbtoc  
 Date: 6/26/23      Time: \_\_\_\_\_

\* 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): 0.0 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well surface casing in good condition?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the surface casing vertical?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is there an internal well seal?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Has there been physical damage to the well?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does sounding depth match completed depth?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Other Comments no plug, lid on stick up broken

**Recommendations**

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

**Comments**

needs repair

Inspected by: Michelle Wagner  
 Date of Inspection: 6/24/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: PT-22  
 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: Lock  
 Elevation (top of inner casing): 648.61  
 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): 11.90 ftoc  
 Screened interval: 9.48 (m) ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 9.48 ftbtoc  
 Date: 6/26/23      Time: \_\_\_\_\_

\* 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): 3.0 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments NA

**Recommendations**

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

**Comments**

NA

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Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: PT-20  
 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: No 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): 11.78 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 8.72 ftbtoc  
 Date: 01/26/23 Time: \_\_\_\_\_

\* 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): 0.0 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input checked="" type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input checked="" type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input checked="" type="radio"/> No
Has there been physical damage to the well?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Does sounding depth match completed depth?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments Needs Repair

### Recommendations

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

### Comments

Needs pad, j plug

Inspected by: Mike Woyt  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: DT-18A  
 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: Lock  
 Elevation (top of inner casing): 659.05  
 Surface casing material: SPW  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): 9.8 ftbgs  
 Well Depth (as measured): 12.71 ftoc  
 Screened interval: 4.8-9.8 ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 8.94 ftbtoc  
 Date: 6/24/23 Time: \_\_\_\_\_

\* 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): 0.0 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well surface casing in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the surface casing vertical?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is there an internal well seal?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Has there been physical damage to the well?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does sounding depth match completed depth?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Other Comments None

**Recommendations**

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

**Comments**

Resurvey TOC

Inspected by: Mike Wright  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-60  
 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: LOCK  
 Elevation (top of inner casing): NA  
 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): 10.01 fttoc  
 Screened interval: NA ft  
 Open hole interval: - ft  
 Depth to water: 4.55 ftbtoc  
 Date: 6/20/23 Time: \_\_\_\_\_

\* If multilevel well please see attached worksheet.



**EPA Region 2 Superfund Well Assessment Checklist**

**Facility Information**

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

**Well Locational Information**

State Well ID: \_\_\_\_\_  
 Well Tag ID: PT-19  
 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: Lock  
 Elevation (top of inner casing): \_\_\_\_\_  
 Surface casing material: 5" x 20"  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): \_\_\_\_\_ ftbgs  
 Well Depth (as measured): 11.65 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 0.45 ftbtoc  
 Date: 6/26/27      Time: 1105

\* 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): 0.0 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well surface casing in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the surface casing vertical?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is there an internal well seal?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Has there been physical damage to the well?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Does sounding depth match completed depth?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Other Comments NA

### Recommendations

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

### Comments

NA

Inspected by: Mike Wagoner  
 Date of Inspection: 6/28/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-32  
 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) Stick up Flush Mount Multilevel Well\*  
 Well lock/security type: 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): 10.70 fttoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 8.91 fbtoc  
 Date: 6/26/23 Time: 1112

\* 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): 0.0 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments N/A

### Recommendations

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

### Comments

N/A

Inspected by: Mila Wright  
 Date of Inspection: 01/26/27  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: PT-17  
 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: No Lock  
 Elevation (top of inner casing): 62/0.14  
 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): 7.50 ftoc  
 Screened interval: \_\_\_\_\_ ft  
 Open hole interval: \_\_\_\_\_ ft  
 Depth to water: 6.94 ftbtoc  
 Date: 6/20/23      Time: \_\_\_\_\_

\* 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): 0.0 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input type="radio"/> Yes	<input checked="" type="radio"/> No

Other Comments Well needed, broken Flush mount lid

**Recommendations**

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

**Comments**

Replace pad, Resurvey top

Inspected by: Mike Wash  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-7  
 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: No Lock  
 Elevation (top of inner casing): 651.42  
 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): 13.65 ftoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 7.63 ftbtoc      Date: 6/24/03      Time: \_\_\_\_\_

\* 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): 0.0 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments Tubing stuck in well

**Recommendations**

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

**Comments**

Not

Inspected by: Mike Wright  
 Date of Inspection: 6/16/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-24  
 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: No Lock  
 Elevation (top of inner casing): NA  
 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): 10.48 ftoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 7.61 ftbtoc  
 Date: 10/26/23      Time: \_\_\_\_\_

\* 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): 0.0 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?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well surface casing in good condition?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the surface casing vertical?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is there an internal well seal?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Has there been physical damage to the well?	<input checked="" type="radio"/> Yes	<input checked="" type="radio"/> No
Does sounding depth match completed depth?	<input type="radio"/> Yes	<input type="radio"/> No
Is measuring point marked?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Is the well clearly labeled?	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Flush mount - Is it secure from runoff?	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Other Comments well heaved

**Recommendations**

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

**Comments**

Re survey TOC?

Inspected by: Mike Wright  
 Date of Inspection: 6/16/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: ~~PT-24~~ PT-24  
 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: NO LOCK, Added new Lock  
 Elevation (top of inner casing): 636.40  
 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): 11.80 fttoc  
 Screened interval: - ft  
 Open hole interval: - ft  
 Depth to water: 6.05 fbtoc  
 Date: 6/18/23      Time: \_\_\_\_\_

\* If multilevel well please see attached worksheet.



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-10  
 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: NO LOCK  
 Elevation (top of inner casing): NA  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): NA ftbgs  
 Well Depth (as measured): 9.00 ftoc  
 Screened interval: NA ft  
 Open hole interval: - ft  
 Depth to water: 4.50 ftbtoc  
 Date: 6/26/23      Time: -

\* If multilevel well please see attached worksheet.



## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MWT-24  
 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: Lock

Elevation (top of inner casing): 641.56

Surface casing material: Steel

Well casing material: PVC

Surface Casing diameter: 4 inches

Well Diameter: 2 inches

Well Depth (as installed): N/A ftbgs

Well Depth (as measured): 12.74 ftoc

Screened interval: N/A ft

Open hole interval: - ft

Depth to water: 8.82 ftbtoc

Date: 6/26/23      Time: \_\_\_\_\_

\* 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): 0.1 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?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well surface casing in good condition?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the surface casing vertical?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is there an internal well seal?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Has there been physical damage to the well?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Does sounding depth match completed depth?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is measuring point marked?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Is the well clearly labeled?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flush mount - Is it secure from runoff?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Other Comments NA

**Recommendations**

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

**Comments**

NA

Inspected by: Mike Woych  
 Date of Inspection: 6/26/23  
 Reviewed by: \_\_\_\_\_ (Print)  
 \_\_\_\_\_ (Sign)

## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: MW-27  
 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: Lock  
 Elevation (top of inner casing): NA  
 Surface casing material: steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): NA ftbgs  
 Well Depth (as measured): 10.36 ftoc  
 Screened interval: NA ft  
 Open hole interval: - ft  
 Depth to water: 7.35 ftbtoc  
 Date: 6/26/23      Time: \_\_\_\_\_

\* If multilevel well please see attached worksheet.





## EPA Region 2 Superfund Well Assessment Checklist

### Facility Information

Site Name: Seneca Army Depot  
 Site Address: Route 96 South Romulus  
 Site County: Seneca  
 Site State: New York  
 EPA Site ID Number: NY0213820830  
 Site Owner: Multiple Owners  
 EPA Project Manager: Bob Morse

### Well Locational Information

State Well ID: \_\_\_\_\_  
 Well Tag ID: PT-16  
 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: Lock  
 Elevation (top of inner casing): NA  
 Surface casing material: Steel  
 Well casing material: PVC  
 Surface Casing diameter: 4 inches  
 Well Diameter: 2 inches  
 Well Depth (as installed): NA ftbgs  
 Well Depth (as measured): 11.15 ftoc  
 Screened interval: NA ft  
 Open hole interval: - ft  
 Depth to water: 5.00 ftbtoc  
 Date: 6/23/23      Time: -

\* If multilevel well please see attached worksheet.





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

CALIBRATION	
DATE:	6-27-23
TIME:	0728
METER ID:	46899

**pH CALIBRATION**

pH STANDARD	INITIAL READING	FINAL READING
4.0	4.09	3.98

**CONDUCTIVITY CALIBRATION**

CONDUCTIVITY STANDARD	STANDARD READING	FINAL READING
4.49	4.60	4.49

**TURBIDITY CALIBRATION**

STANDARD	INITIAL READING	FINAL READING
0 NTU	0.2	0.3

**COMMENTS**

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**SIGNATURE**





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

CALIBRATION	
DATE:	6-27-23
TIME:	0735
METER ID:	801635

**pH CALIBRATION**

pH STANDARD	INITIAL READING	FINAL READING
4.0	4.28	3.97

**CONDUCTIVITY CALIBRATION**

CONDUCTIVITY STANDARD	STANDARD READING	FINAL READING
4.49	2.68	1.50

**TURBIDITY CALIBRATION**

STANDARD	INITIAL READING	FINAL READING
0 NTU	0.0	0.0

**COMMENTS**

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**SIGNATURE**



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

CALIBRATION	
DATE:	6-28-23
TIME:	0725
METER ID:	46899

**pH CALIBRATION**

pH STANDARD	INITIAL READING	FINAL READING
4.0	5.62	3.98

**CONDUCTIVITY CALIBRATION**

CONDUCTIVITY STANDARD	STANDARD READING	FINAL READING
4.49	4.89	4.49

**TURBIDITY CALIBRATION**

STANDARD	INITIAL READING	FINAL READING
0 NTU	8.0	0.0

**COMMENTS**

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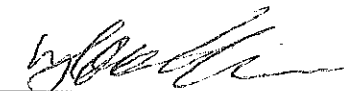
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**SIGNATURE**

  
\_\_\_\_\_

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

CALIBRATION
DATE: 6/28/23
TIME: 0725
METER ID: 801635

**pH CALIBRATION**

pH STANDARD	INITIAL READING	FINAL READING
4.0	4.30	4.0

**CONDUCTIVITY CALIBRATION**

CONDUCTIVITY STANDARD	STANDARD READING	FINAL READING
4.49	4.19	4.47

**TURBIDITY CALIBRATION**

STANDARD	INITIAL READING	FINAL READING
0 NTU	2.0	0.0

**COMMENTS**

NA

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**SIGNATURE**













## WELL PURGING AND SAMPLING RECORD

Site Name/Location	Project No: <u>637490571</u>	Page <u>1</u> of <u>1</u>
Well ID <u>MW 25-315</u>	Date <u>6-27-23</u>	Time <u>0820</u>
Well Site Description <u>Field</u>		
Weather/Temp <u>73° clouds</u>		
Field Technician <u>T. Robinson, M. Wright*</u>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <u>—</u>	Screened Interval (ft bgs) <u>—</u>
Well Diameter (in.) <u>2</u>	Nominal Borehole Diameter (in.) <u>8</u>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <u>18.40</u>	Gallons per foot of depth <u>0.183</u>
Depth to product (ft) <u>N/A</u>	Static water level (ft) <u>8.55</u>
Product column height (ft) <u>NA</u>	Water column height (ft) <u>9.85</u>
Product volume (Gallons) <u>NA</u>	Water volume (Gallons) <u>1.61</u>

18.40

### PURGE INFORMATION

Pump Type / ID <u>Piri 36778</u>	Water Quality Meter Type / ID <u>Hoshiz / 46899</u>
Pump Intake Depth (ft) <u>17.40</u>	Flow-Thru Cell Volume (L) <u>1</u>
Purge Start Time <u>0820</u>	Appearance/Odor (Start) <u>Clear, no odor</u>
Purge End Time <u>0913</u>	Appearance/Odor (End) <u>Clear No odor</u>
Average Purge Rate (mL/min) <u>250</u>	Total Drawdown (ft) <u>9.85</u>
Well Went Dry (Y/N) <u>Y</u>	Stop Time <u>0913</u>
Recovery Time <u>1 Day</u>	Recovery Rate (mL/min) <u>—</u>
Total Volume Removed (L) <u>12.50</u>	Total Pump Time (min) <u>53</u>

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/- 3%)	Temp. (°C) (+/- 3%)	ORP (mV) (+/- 10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
	0822	0.25	—	6.33	0.968	14.06	-14	12.9	2.74	8.82
	0827	0.25	1.75	6.50	0.948	17.66	-45	5.5	0.59	9.55
	0832	0.25	2.50	6.55	1.01	17.17	-42	1.6	0.56	10.44
	0837	0.25	3.75	6.54	1.02	17.02	-29	8.2	0.63	11.40
	0842	0.25	5.00	6.55	0.943	18.80	-13	21.8	0.72	12.68
	0847	0.25	6.75	6.52	0.985	18.80	-11	27.5	0.80	13.40
	0852	0.25	7.50	6.51	0.973	18.70	-12	28.3	0.82	14.02
	0857	0.25	8.75	6.51	0.970	18.65	-17	16.2	0.74	14.64
	0902	0.25	10.00	6.50	0.962	18.07	-62	29.4	0.67	15.65
	0907	0.25	11.25	6.49	0.967	17.75	-64	8.3	0.69	16.57
	0912	0.25	12.50	6.47	1.01	15.69	-84	2.8	0.39	17.82

COMMENTS well dry will sample with 80% packing

### SAMPLE COLLECTION

Sample Date <u>6/28/23</u>	Sample Time <u>1410</u>
Sample ID <u><del>1410</del> SEAD-25-MW25-315</u>	
QA/QC Collected / ID <u>DDP + MS/MC/D</u>	Sample Appearance/Odor <u>Clear No odor</u>
Analyses <u>JOC</u>	
Sampler <u>MW</u>	Signature <u>[Signature]</u>



## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Sevaca Army Depot</i>	Project No. <i>63740371</i>	Page ( of )
Well ID <i>MWT-29</i>	Date <i>6-28-23</i>	Time <i>1100</i>
Well Site Description <i>Ash Land RW</i>		
Weather/Temp <i>60 Clouds</i>		
Field Technician <i>T. Robinson</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>-</i>	Screened Interval (ft bgs) <i>-</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>13.09</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>NA</i>	Static water level (ft) <i>8.48</i>
Product column height (ft) <i>↓</i>	Water column height (ft) <i>4.61</i>
Product volume (Gallons)	Water volume (Gallons) <i>0.75</i>

### PURGE INFORMATION

Pump Type / ID <i>Peristaltic / 36778</i>	Water Quality Meter Type / ID <i>Horiba / 801635</i>	
Pump Intake Depth (ft) <i>Bottom</i>	Flow-Thru Cell Volume (L) <i>1</i>	
Purge Start Time <i>1046 1058</i>	Appearance/Odor (Start) <i>Clear murky</i>	
Purge End Time <i>1124</i>	Appearance/Odor (End) <i>Clear murky</i>	
Average Purge Rate (mL/min) <i>250</i>	Total Drawdown (ft) <i>1.75</i>	
Well Went Dry (Y/N) <i>N</i>	Stop Time <i>-</i>	Volume removed (L) <i>-</i>
Recovery Time <i>-</i>	Recovery Rate (mL/min) <i>-</i>	Restart Purge Time <i>-</i>
Total Volume Removed (L) <i>6.25</i>	Total Pump Time (min) <i>28</i>	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/-3%)	Temp. (°C) (+/-3%)	ORP (mV) (+/-10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
	1100	250	-	6.87	1.44	14.00	-52	129	1.42	8.89
	1105	250	1.25	5.99	1.39	13.67	-61	4.0	1.24	9.32
	1110	250	2.50	6.10	1.34	13.97	-54	0.0	1.14	9.56
	1115	250	3.75	6.14	1.37	13.98	-51	0.0	1.04	9.95
	1120	250	5.00	6.16	1.39	13.91	-52	0.0	1.14	10.29
	1125	250	6.25	6.13	1.40	13.96	-56	0.0	1.07	10.64
	1130									

COMMENTS *HACH FR = 0.80 Mn = 47.5 ~~AA for MW~~ = 6.25*  
Limit

### SAMPLE COLLECTION

Sample Date <i>6/28/23</i>	Sample Time <i>1126</i>
Sample ID <i>SEAD-AL-MWT-29-70280628</i>	
QA/QC Collected / ID <i>NA</i>	Sample Appearance/Odor <i>Clear Murky</i>
Analyses <i>VOC TOC Ammonia Diss Cos</i>	
Sampler <i>MW</i>	Signature <i>[Signature]</i>





## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Seneca Army Depot</i>	Project No: <i>639490574</i>	Page <i>1</i> of <i>1</i>
Well ID <i>MWT-26</i>	Date <i>6/28/23</i>	Time <i>1125</i>
Well Site Description <i>Ash Landfill</i>		
Weather/Temp <i>61 overcast</i>		
Field Technician <i>MW</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>—</i>	Screened Interval (ft bgs) <i>—</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>13.15</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>NA</i>	Static water level (ft) <i>6.53</i>
Product column height (ft) <i>↓</i>	Water column height (ft) <i>6.62</i>
Product volume (Gallons) <i>↓</i>	Water volume (Gallons) <i>1.08</i>

### PURGE INFORMATION

Pump Type / ID <i>peri pump 20742</i>	Water Quality Meter Type / ID <i>Horiba 801635</i>	
Pump Intake Depth (ft) <i>Bottom</i>	Flow-Thru Cell Volume (L) <i>1</i>	
Purge Start Time <i>1125</i>	Appearance/Odor (Start) <i>clear NONE</i>	
Purge End Time <i>1155</i>	Appearance/Odor (End) <i>clear NONE</i>	
Average Purge Rate (mL/min) <i>250</i>	Total Drawdown (ft) <i>1.72</i>	
Well Went Dry (Y/N) <i>N</i>	Stop Time <i>—</i>	Volume removed (L) <i>—</i>
Recovery Time <i>—</i>	Recovery Rate (mL/min) <i>—</i>	Restart Purge Time <i>—</i>
Total Volume Removed (L) <i>7.5</i>	Total Pump Time (min) <i>30</i>	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/-3%)	Temp. (°C) (+/-3%)	ORP (mV) (+/-10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
<i>6/28/23</i>	<i>1125</i>	<i>250</i>	<i>—</i>	<i>6.84</i>	<i>1.85</i>	<i>16.35</i>	<i>-41</i>	<i>820</i>	<i>3.11</i>	<i>7.10</i>
	<i>1130</i>	<i>—</i>	<i>1.25</i>	<i>6.71</i>	<i>1.87</i>	<i>15.65</i>	<i>-6</i>	<i>715</i>	<i>1.08</i>	<i>7.15</i>
	<i>1135</i>	<i>—</i>	<i>2.5</i>	<i>6.58</i>	<i>1.86</i>	<i>15.12</i>	<i>46</i>	<i>405</i>	<i>0.66</i>	<i>7.25</i>
	<i>1140</i>	<i>—</i>	<i>3.75</i>	<i>6.39</i>	<i>1.67</i>	<i>15.23</i>	<i>76</i>	<i>0.0</i>	<i>0.74</i>	<i>7.92</i>
	<i>1145</i>	<i>—</i>	<i>5.0</i>	<i>6.34</i>	<i>1.66</i>	<i>15.26</i>	<i>71</i>	<i>0.0</i>	<i>0.79</i>	<i>8.32</i>
	<i>1150</i>	<i>—</i>	<i>6.25</i>	<i>6.31</i>	<i>1.65</i>	<i>15.31</i>	<i>68</i>	<i>0.0</i>	<i>0.81</i>	<i>8.49</i>
	<i>1155</i>	<i>—</i>	<i>7.5</i>	<i>6.34</i>	<i>1.44</i>	<i>15.18</i>	<i>63</i>	<i>0.0</i>	<i>0.84</i>	<i>8.82</i>

COMMENTS *Each 0.100 mg/L Iron Mn = 41.5 mg/L limit*

### SAMPLE COLLECTION

Sample Date <i>6/28/23</i>	Sample Time <i>1155</i>
Sample ID	
QA/QC Collected / ID <i>NA</i>	Sample Appearance/Odor <i>clear NONE</i>
Analyses <i>VOC, TCE, Diss Gas, Anions</i>	
Sampler <i>MW</i>	Signature <i>[Signature]</i>



## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Seneca Army Depot</i>	Project No: <i>637440374</i>	Page <i>1</i> of <i>1</i>
Well ID <i>PT-24</i>	Date <i>6/28/23</i>	Time <i>0815</i>
Well Site Description <i>Ash Landfill</i>		
Weather/Temp <i>63 Overcast</i>		
Field Technician <i>MW</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>—</i>	Screened Interval (ft bgs) <i>—</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>11.80</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>NA</i>	Static water level (ft) <i>6.05</i>
Product column height (ft) <i>↓</i>	Water column height (ft) <i>5.75</i>
Product volume (Gallons) <i>↓</i>	Water volume (Gallons) <i>0.99</i>

### PURGE INFORMATION

Pump Type / ID <i>Peri pump 20792</i>	Water Quality Meter Type / ID <i>Horiba 801635</i>	
Pump Intake Depth (ft) <i>Bottom</i>	Flow-Thru Cell Volume (L) <i>1</i>	
Purge Start Time <i>0815</i>	Appearance/Odor (Start) <i>Clear None</i>	
Purge End Time <i>0845</i>	Appearance/Odor (End) <i>Clear None</i>	
Average Purge Rate (mL/min) <i>250</i>	Total Drawdown (ft) <i>0.08</i>	
Well Went Dry (Y/N) <i>NO</i>	Stop Time <i>—</i>	Volume removed (L) <i>—</i>
Recovery Time <i>—</i>	Recovery Rate (mL/min) <i>—</i>	Restart Purge Time <i>—</i>
Total Volume Removed (L) <i>7.5</i>	Total Pump Time (min) <i>30</i>	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+-3%)	Temp. (°C) (+-3%)	ORP (mV) (+/-10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
<i>6/28/23</i>	<i>0815</i>	<i>250</i>	<i>—</i>	<i>5.15</i>	<i>0.577</i>	<i>21.8</i>	<i>177</i>	<i>7.5</i>	<i>1.64</i>	<i>5.88</i>
	<i>0820</i>	<i>—</i>	<i>1.75</i>	<i>5.91</i>	<i>0.575</i>	<i>21.58</i>	<i>128</i>	<i>4.3</i>	<i>1.35</i>	<i>5.90</i>
	<i>0825</i>	<i>—</i>	<i>2.5</i>	<i>5.69</i>	<i>0.586</i>	<i>19.10</i>	<i>97</i>	<i>0.0</i>	<i>1.18</i>	<i>5.90</i>
	<i>0830</i>	<i>—</i>	<i>6.75</i>	<i>5.87</i>	<i>0.593</i>	<i>18.24</i>	<i>94</i>	<i>0.0</i>	<i>1.11</i>	<i>5.91</i>
	<i>0835</i>	<i>—</i>	<i>5.0</i>	<i>6.01</i>	<i>0.599</i>	<i>17.74</i>	<i>96</i>	<i>0.0</i>	<i>1.06</i>	<i>5.92</i>
	<i>0840</i>	<i>—</i>	<i>6.25</i>	<i>6.06</i>	<i>0.601</i>	<i>17.43</i>	<i>97</i>	<i>0.0</i>	<i>1.03</i>	<i>5.94</i>
	<i>0845</i>	<i>—</i>	<i>7.5</i>	<i>6.09</i>	<i>0.603</i>	<i>17.34</i>	<i>98</i>	<i>0.0</i>	<i>1.00</i>	<i>5.96</i>

COMMENTS *Hach Iron = 0.00 mg/L Mn = 36.2 mg/L*

### SAMPLE COLLECTION

Sample Date <i>6/28/23</i>	Sample Time <i>0845</i>
Sample ID <i>SEAD-AL-PT-24-20230628</i>	
QA/QC Collected / ID <i>NA</i>	Sample Appearance/Odor <i>Clear None</i>
Analyses <i>VOC, TOC, Dissgases, Anions, Hach</i>	
Sampler <i>MW</i>	Signature <i>[Signature]</i>





## WELL PURGING AND SAMPLING RECORD

Site Name/Location <u>Seneca Army Depot</u>	Project No: <u>63240871</u>	Page <u>1</u> of <u>1</u>
Well ID <u>MWT-7</u>	Date <u>6-28-23</u>	Time <u>8:15</u>
Well Site Description <u>open field</u>		
Weather/Temp <u>65 overcast</u>		
Field Technician <u>T. Robinson</u>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <u>—</u>	Screened Interval (ft bgs) <u>—</u>
Well Diameter (in.) <u>2</u>	Nominal Borehole Diameter (in.) <u>8</u>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <u>13.65</u>	Gallons per foot of depth <u>0.163</u>
Depth to product (ft) <u>NA</u>	Static water level (ft) <u>7.63</u>
Product column height (ft) <u>↓</u>	Water column height (ft) <u>6.02</u>
Product volume (Gallons) <u>↓</u>	Water volume (Gallons) <u>0.98</u>

### PURGE INFORMATION

Pump Type / ID <u>peristaltic / 36778</u>	Water Quality Meter Type / ID <u>Hanba / 801635</u>	
Pump Intake Depth (ft) <u>Bottom</u>	Flow-Thru Cell Volume (L) <u>1</u>	
Purge Start Time <u>0818</u>	Appearance/Odor (Start) <u>Clear no odor</u>	
Purge End Time <u>0850</u>	Appearance/Odor (End) <u>Clear no odor</u>	
Average Purge Rate (mL/min) <u>250</u>	Total Drawdown (ft) <u>0.40</u>	
Well Went Dry (Y/N) <u>N</u>	Stop Time <u>—</u>	Volume removed (L) <u>—</u>
Recovery Time <u>—</u>	Recovery Rate (mL/min) <u>—</u>	Restart Purge Time <u>—</u>
Total Volume Removed (L) <u>—</u>		Total Pump Time (min) <u>32</u>

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/-3%)	Temp. (°C) (+/-3%)	ORP (mV) (+/-10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
	8:19	250	—	5.82	0.728	13.90	40	118	1.19	7.91
	0824	250	1.25	5.94	0.714	13.63	51	4.9	1.43	7.95
	0829	250	2.50	5.95	0.712	13.23	86	0.0	1.44	8.00
	0834	250	3.75	5.97	0.713	13.01	101	0.0	1.22	8.01
	0839	250	5.00	5.98	0.715	13.00	103	0.0	1.04	8.02
	0844	250	6.25	5.99	0.716	12.98	104	0.1	0.99	8.03
	0849	250	7.50	6.01	0.717	12.96	106	0.4	0.98	8.03

COMMENTS bach Iron = 0.00 mg/L Mn = 47.5 mg/L

### SAMPLE COLLECTION

Sample Date <u>6/28/23</u>	Sample Time <u>0850</u>
Sample ID <u>SEAD-AL-MWT-7 - 20230628</u>	
QA/QC Collected / ID <u>NA</u>	Sample Appearance/Odor <u>Clear/None</u>
Analyses <u>VOC, TCE, Guass, Anions</u>	
Sampler <u>MW</u>	Signature <u>[Signature]</u>



## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Seneca Army Depot</i>	Project No: <i>63240374</i>	Page <i>1</i> of <i>1</i>
Well ID <i>MWT-24</i>	Date <i>6/27/23</i>	Time <i>1345</i>
Well Site Description <i>ASH Land Fill</i>		
Weather/Temp <i>82 Sun</i>		
Field Technician <i>MW</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>-</i>	Screened Interval (ft bgs) <i>-</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>17.74</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>NA</i>	Static water level (ft) <i>8.82</i>
Product column height (ft)	Water column height (ft) <i>3.92</i>
Product volume (Gallons) <i>↓</i>	Water volume (Gallons) <i>0.63</i>

### PURGE INFORMATION

Pump Type / ID <i>Peri pump 36778</i>	Water Quality Meter Type / ID <i>Hanba 801635</i>	
Pump Intake Depth (ft) <i>Bottoms</i>	Flow-Thru Cell Volume (L) <i>1</i>	
Purge Start Time <i>1345</i>	Appearance/Odor (Start) <i>Clear None</i>	
Purge End Time <i>1410</i>	Appearance/Odor (End) <i>Clear None</i>	
Average Purge Rate (mL/min) <i>250</i>	Total Drawdown (ft) <i>1.38</i>	
Well Went Dry (Y/N) <i>N</i>	Stop Time <i>-</i>	Volume removed (L) <i>-</i>
Recovery Time <i>-</i>	Recovery Rate (mL/min) <i>-</i>	Restart Purge Time <i>-</i>
Total Volume Removed (L) <i>6.25</i>	Total Pump Time (min)	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+- 3%)	Temp. (°C) (+- 3%)	ORP (mV) (+/- 10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
<i>6/27/23</i>	<i>1345</i>	<i>250</i>	<i>-</i>	<i>7.07</i>	<i>0.843</i>	<i>17.88</i>	<i>56</i>	<i>5.1</i>	<i>2.16</i>	<i>8.98</i>
	<i>1350</i>	<i>-</i>	<i>1.25</i>	<i>6.95</i>	<i>0.845</i>	<i>16.31</i>	<i>52</i>	<i>4.3</i>	<i>1.80</i>	<i>9.31</i>
	<i>1355</i>	<i>-</i>	<i>2.50</i>	<i>6.94</i>	<i>0.847</i>	<i>16.21</i>	<i>55</i>	<i>4.4</i>	<i>1.45</i>	<i>9.50</i>
	<i>1400</i>	<i>-</i>	<i>3.75</i>	<i>6.95</i>	<i>0.842</i>	<i>16.11</i>	<i>57</i>	<i>4.1</i>	<i>1.31</i>	<i>9.72</i>
	<i>1405</i>	<i>-</i>	<i>5.00</i>	<i>6.95</i>	<i>0.839</i>	<i>16.08</i>	<i>59</i>	<i>3.7</i>	<i>1.28</i>	<i>9.95</i>
	<i>1410</i>	<i>-</i>	<i>6.25</i>	<i>6.98</i>	<i>0.827</i>	<i>16.01</i>	<i>61</i>	<i>3.2</i>	<i>1.29</i>	<i>10.20</i>

COMMENTS \_\_\_\_\_

### SAMPLE COLLECTION

Sample Date <i>6/27/23</i>	Sample Time <i>1410</i>
Sample ID <i>SEAD-AL-MWT-24</i>	
QA/QC Collected / ID <i>NA</i>	Sample Appearance/Odor <i>Clear/None</i>
Analyses <i>✓</i>	
Sampler <i>MW</i>	Signature <i>[Signature]</i>







## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Sentosa Army Depot</i>	Project No: <i>637490574</i>	Page <i>1</i> of <i>1</i>
Well ID <i>PT-17</i>	Date <i>6/27/23</i>	Time <i>1215</i>
Well Site Description <i>Ash Landfill</i>		
Weather/Temp <i>80 clouds</i>		
Field Technician <i>MW</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>—</i>	Screened Interval (ft bgs) <i>—</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>7.50</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>NA</i>	Static water level (ft) <i>5.60</i>
Product column height (ft) <i>↓</i>	Water column height (ft) <i>1.9</i>
Product volume (Gallons) <i>↓</i>	Water volume (Gallons) <i>0.31</i>

### PURGE INFORMATION

Pump Type / ID <i>per 36778</i>	Water Quality Meter Type / ID <i>Hanna 80635</i>	
Pump Intake Depth (ft) <i>Bottom</i>	Flow-Thru Cell Volume (L) <i>1</i>	
Purge Start Time <i>1215</i>	Appearance/Odor (Start) <i>clear new</i>	
Purge End Time <i>1245</i>	Appearance/Odor (End) <i>clear new</i>	
Average Purge Rate (mL/min) <i>250</i>	Total Drawdown (ft) <i>0.30</i>	
Well Went Dry (Y/N) <i>N</i>	Stop Time <i>—</i>	Volume removed (L) <i>—</i>
Recovery Time <i>—</i>	Recovery Rate (mL/min) <i>—</i>	Restart Purge Time <i>—</i>
Total Volume Removed (L) <i>7.75</i>	Total Pump Time (min) <i>30</i>	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/- 3%)	Temp. (°C) (+/- 3%)	ORP (mV) (+/- 10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
	1215	300	—	7.21	0.681	19.01	88	0.0	0.73	5.60
	1220	250	1.5	6.76	0.707	16.55	82	0.0	0.77	5.95
	1225	250	2.75	6.69	0.712	16.63	68	1.0	0.69	5.80
	1230	250	4.00	6.67	0.705	16.83	67	3.1	0.70	5.85
	1235	250	5.25	6.66	0.702	16.81	72	0.3	0.71	5.88
	1240	250	6.50	6.66	0.700	16.84	76	0.0	0.73	5.89
	1245	250	7.75	6.66	0.708	16.83	80	0.0	0.74	5.90

COMMENTS *HACH Fe<sup>2+</sup> = 0.00 mg/L HACH Mn = 47.5 mg/L*  
*0.00 mg/L 47.5 mg/L*

### SAMPLE COLLECTION

Sample Date <i>6-27-23</i>	Sample Time <i>1247</i>
Sample ID <i>SEAD-AL-PT-17-2023 062723</i>	
QA/QC Collected / ID <i>DUP-RSM, TOC, Arsenic</i>	Sample Appearance/Odor <i>clear new</i>
Analyses <i>VOL, TOC, Diss Gases, Arsenic</i>	
Sampler <i>T. Robinson</i>	Signature <i>[Signature]</i>

*sh*





# WELL PURGING AND SAMPLING RECORD

Site Name/Location	SEAD	Project No:	037490374	Page	1	of	7
Well ID	MWT-25	Date	6-27-23	Time	1020		
Well Site Description	open hole						
Weather/Temp	74, cloudy						
Field Technician	T. Robinson						

## WELL CONSTRUCTION DATA

TOC Elevation (ft amsl)	-	Screened Interval (ft bgs)	-
Well Diameter (in.)	2	Nominal Borehole Diameter (in.)	8

## FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft)	13.18	Gallons per foot of depth	0.163
Depth to product (ft)	NA	Static water level (ft)	7.21
Product column height (ft)	NA	Water column height (ft)	5.96
Product volume (Gallons)	NA	Water volume (Gallons)	0.96

## PURGE INFORMATION

Pump Type / ID	Peristaltic / 36778	Water Quality Meter Type / ID	Horiba / 46899
Pump Intake Depth (ft)	Bottom	Flow-Thru Cell Volume (L)	1
Purge Start Time	1020	Appearance/Odor (Start)	Cloudy, no odor
Purge End Time	1058	Appearance/Odor (End)	clear, no odor
Average Purge Rate (mL/min)	300	Total Drawdown (ft)	2.03
Well Went Dry (Y/N)		Stop Time	-
Recovery Time	-	Recovery Rate (mL/min)	-
Total Volume Removed (L)	10.5	Restart Purge Time	-
		Total Pump Time (min)	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+- 3%)	Temp. (°C) (+- 3%)	ORP (mV) (+/- 10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
	1022	0.3	-	7.00	1.55	16.08	-125	172	0.92	7.56
	1027	0.3	1.5	6.83	1.58	14.92	-76	24.4	0.55	7.83
	1032	0.3	3.0	6.80	1.45	15.20	-68	8.2	0.85	8.21
	1037	0.3	4.5	6.81	1.42	15.46	-89	0.2	1.00	8.53
	1042	0.3	6.0	6.80	1.44	15.55	-94	0	0.94	8.88
	1047	0.3	7.5	6.80	1.45	15.63	-94	0	0.84	9.10
	1052	0.3	9.0	6.79	1.48	15.66	-91	0	0.83	9.39
	1057	0.3	10.5	6.79	1.48	15.65	-89	0.2	0.82	9.59

COMMENTS \_\_\_\_\_

## SAMPLE COLLECTION

Sample Date	6-27-23	Sample Time	1058
Sample ID	SEAD-AL-MWT-25-20230627		
QA/QC Collected / ID	MS/MSD	Sample Appearance/Odor	Clear, no odor
Analyses	VOC		
Sampler	T. Robinson	Signature	





## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Seneca Army Depot</i>	Project No: <i>637490374</i>	Page <i>1</i> of <i>2</i>
Well ID <i>PT-181A</i>	Date <i>6/27/23</i>	Time <i>1020</i>
Well Site Description <i>Ash Landfill</i>		
Weather/Temp <i>75 clouds</i>		
Field Technician <i>MW</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>—</i>	Screened Interval (ft bgs) <i>—</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>12.74</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>NA</i>	Static water level (ft) <i>8.84</i>
Product column height (ft) <i>.j</i>	Water column height (ft) <i>3.80</i>
Product volume (Gallons)	Water volume (Gallons) <i>3.64</i>

### PURGE INFORMATION

Pump Type / ID <i>20792 peri pump</i>	Water Quality Meter Type / ID <i>801635</i>	
Pump Intake Depth (ft) <i>Bottom</i>	Flow-Thru Cell Volume (L) <i>1</i>	
Purge Start Time <i>1022</i>	Appearance/Odor (Start) <i>Clear/NONE</i>	
Purge End Time <i>1052</i>	Appearance/Odor (End) <i>Clear/NONE</i>	
Average Purge Rate (mL/min) <i>350</i>	Total Drawdown (ft) <i>3.33</i>	
Well Went Dry (Y/N) <i>N</i>	Stop Time <i><del>1052</del></i>	Volume removed (L)
Recovery Time <i>—</i>	Recovery Rate (mL/min) <i>—</i>	Restart Purge Time <i>—</i>
Total Volume Removed (L) <i>—</i>	Total Pump Time (min) <i>—</i>	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/- 3%)	Temp. (°C) (+/- 3%)	ORP (mV) (+/- 10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
<i>6/27/23</i>	<i>1022</i>	<i>350</i>	<i>—</i>	<i>6.23</i>	<i>1.34</i>	<i>24.25</i>	<i>116</i>	<i>4.6</i>	<i>2.92</i>	<i>8.98</i>
	<i>1027</i>	<i>350</i>		<i>6.44</i>	<i>1.22</i>	<i>21.84</i>	<i>47</i>	<i>3.7</i>	<i>1.27</i>	<i>9.96</i>
	<i>1032</i>	<i>350</i>		<i>6.49</i>	<i>1.25</i>	<i>20.91</i>	<i>-4</i>	<i>16.0</i>	<i>1.03</i>	<i>10.40</i>
	<i>1037</i>	<i>350</i>		<i>6.66</i>	<i>1.22</i>	<i>20.23</i>	<i>-24</i>	<i>20.2</i>	<i>0.91</i>	<i>10.82</i>
	<i>1042</i>	<i>350</i>		<i>6.74</i>	<i>1.19</i>	<i>19.80</i>	<i>-30</i>	<i>17.3</i>	<i>0.84</i>	<i>11.39</i>
	<i>1047</i>	<i>350</i>		<i>6.78</i>	<i>1.16</i>	<i>19.53</i>	<i>-26</i>	<i>16.9</i>	<i>0.84</i>	<i>11.70</i>
	<i>1052</i>	<i>350</i>		<i>6.79</i>	<i>1.14</i>	<i>19.41</i>	<i>-22</i>	<i>17.1</i>	<i>0.83</i>	<i>12.21</i>

COMMENTS \_\_\_\_\_

### SAMPLE COLLECTION

Sample Date <i>6/27/23</i>	Sample Time <i>1052</i>
Sample ID <i>SEAD-AL-PT181A-20230627</i>	
QA/QC Collected / ID <i>DUP-01-20230627</i>	Sample Appearance/Odor <i>Clear None</i>
Analyses <i>UOL</i>	
Sampler <i>MW</i>	Signature <i>[Signature]</i>



## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Senior Army Depot</i>	Project No: <i>6340374</i>	Page <i>1</i> of <i>1</i>
Well ID <i>MW-5GR</i>	Date <i>6/27/23</i>	Time <i>1230</i>
Well Site Description <i>Ash Landfill off-site</i>		
Weather/Temp <i>80 clouds</i>		
Field Technician <i>MW</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>-</i>	Screened Interval (ft bgs) <i>-</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>14.98</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>NA</i>	Static water level (ft) <i>7.56</i>
Product column height (ft) <i>↓</i>	Water column height (ft) <i>7.42</i>
Product volume (Gallons) <i>↓</i>	Water volume (Gallons) <i>1.21</i>

### PURGE INFORMATION

Pump Type / ID <i>peri pump 36778</i>	Water Quality Meter Type / ID <i>Hanley 801635</i>	
Pump Intake Depth (ft) <i>Bottom</i>	Flow-Thru Cell Volume (L) <i>1</i>	
Purge Start Time <i>1235</i>	Appearance/Odor (Start) <i>clear/none</i>	
Purge End Time <i>1300</i>	Appearance/Odor (End) <i>clear/none</i>	
Average Purge Rate (mL/min) <i>250</i>	Total Drawdown (ft) <i>0.00</i>	
Well Went Dry (Y/N) <i>N</i>	Stop Time <i>-</i>	Volume removed (L) <i>-</i>
Recovery Time <i>-</i>	Recovery Rate (mL/min) <i>-</i>	Restart Purge Time <i>-</i>
Total Volume Removed (L) <i>6.25</i>	Total Pump Time (min)	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+-3%)	Temp. (°C) (+-3%)	ORP (mV) (+/-10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
<i>6/27/23</i>	<i>1235</i>	<i>250</i>	<i>-</i>	<i>7.24</i>	<i>0.701</i>	<i>18.10</i>	<i>10</i>	<i>17.9</i>	<i>2.77</i>	<i>7.40</i>
	<i>1240</i>	<i>-</i>	<i>1.25</i>	<i>7.08</i>	<i>0.643</i>	<i>17.15</i>	<i>22</i>	<i>15.6</i>	<i>1.53</i>	<i>7.40</i>
	<i>1245</i>	<i>-</i>	<i>2.50</i>	<i>7.02</i>	<i>0.636</i>	<i>16.55</i>	<i>30</i>	<i>15.2</i>	<i>1.36</i>	<i>7.40</i>
	<i>1250</i>	<i>-</i>	<i>3.75</i>	<i>7.00</i>	<i>0.637</i>	<i>16.55</i>	<i>33</i>	<i>14.9</i>	<i>1.30</i>	<i>7.40</i>
	<i>1255</i>	<i>-</i>	<i>5.00</i>	<i>6.98</i>	<i>0.639</i>	<i>16.38</i>	<i>37</i>	<i>14.4</i>	<i>1.29</i>	<i>7.40</i>
	<i>1300</i>	<i>-</i>	<i>6.25</i>	<i>6.96</i>	<i>0.641</i>	<i>16.29</i>	<i>39</i>	<i>14.1</i>	<i>1.26</i>	<i>7.40</i>

COMMENTS \_\_\_\_\_

### SAMPLE COLLECTION

Sample Date <i>6/27/23</i>	Sample Time <i>1300</i>
Sample ID <i>SEAD-AL-MW-5GR-20230627</i>	
QA/QC Collected / ID <i>none</i>	Sample Appearance/Odor <i>clear/none</i>
Analyses <i>DOC</i>	
Sampler <i>MW</i>	Signature <i>[Signature]</i>





## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Seneca Army Depot</i>	Project No: <i>637490374</i>	Page <i>1</i> of <i>1</i>
Well ID <i>MWT-22</i>	Date <i>6/27/23</i>	Time <i>1130</i>
Well Site Description <i>Ash Land Fill</i>		
Weather/Temp <i>78 sun</i>		
Field Technician <i>MW</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>—</i>	Screened Interval (ft bgs) <i>—</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>14.85</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>NA</i>	Static water level (ft) <i>8.29</i>
Product column height (ft) <i>↓</i>	Water column height (ft) <i>6.56</i>
Product volume (Gallons) <i>↓</i>	Water volume (Gallons) <i>1.07</i>

### PURGE INFORMATION

Pump Type / ID <i>Peri 20792</i>	Water Quality Meter Type / ID <i>Hanba 801835</i>	
Pump Intake Depth (ft) <i>Bottom</i>	Flow-Thru Cell Volume (L) <i>1</i>	
Purge Start Time <i>1135</i>	Appearance/Odor (Start) <i>Turbid NONE</i>	
Purge End Time <i>1200</i>	Appearance/Odor (End) <i>Clear NONE</i>	
Average Purge Rate (mL/min) <i>250</i>	Total Drawdown (ft) <i>3.40</i>	
Well Went Dry (Y/N) <i>N</i>	Stop Time <i>—</i>	Volume removed (L) <i>—</i>
Recovery Time <i>—</i>	Recovery Rate (mL/min) <i>—</i>	Restart Purge Time <i>—</i>
Total Volume Removed (L)		Total Pump Time (min) <i>25</i>

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+-3%)	Temp. (°C) (+-3%)	ORP (mV) (+/-10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
<i>6/27</i>	<i>1135</i>	<i>250</i>	<i>—</i>	<i>6.72</i>	<i>1.58</i>	<i>13.89</i>	<i>-83</i>	<i>7800</i>	<i>2.26</i>	<i>8.10</i>
	<i>1140</i>	<i>250</i>		<i>6.70</i>	<i>1.49</i>	<i>14.09</i>	<i>-87</i>	<i>30.9</i>	<i>1.37</i>	<i>10.35</i>
	<i>1145</i>	<i>250</i>		<i>6.72</i>	<i>1.44</i>	<i>14.53</i>	<i>-91</i>	<i>10.7</i>	<i>1.18</i>	<i>10.50</i>
	<i>1150</i>	<i>250</i>		<i>6.71</i>	<i>1.43</i>	<i>14.20</i>	<i>-89</i>	<i>4.9</i>	<i>1.17</i>	<i>10.83</i>
	<i>1155</i>	<i>250</i>		<i>6.70</i>	<i>1.42</i>	<i>14.28</i>	<i>-86</i>	<i>4.4</i>	<i>1.16</i>	<i>11.17</i>
	<i>1200</i>	<i>250</i>		<i>6.70</i>	<i>1.45</i>	<i>13.99</i>	<i>-82</i>	<i>4.2</i>	<i>1.13</i>	<i>11.50</i>

COMMENTS \_\_\_\_\_

### SAMPLE COLLECTION

Sample Date <i>6/27/23</i>	Sample Time <i>1200</i>
Sample ID <i>SEAD-AL-MWT-22-20230627</i>	
QA/QC Collected / ID <i>N/A</i>	Sample Appearance/Odor <i>Clear/None</i>
Analyses <i>VOC</i>	
Sampler <i>MW</i>	Signature <i>[Signature]</i>



# WELL PURGING AND SAMPLING RECORD

Site Name/Location	Project No:	Page 1 of 1
Well ID <u>MWT-23</u>	Date <u>6-27-23</u>	Time <u>1340</u>
Well Site Description <u>open field</u>		
Weather/Temp <u>82 Cloudy</u>		
Field Technician <u>T. Robinson</u>		

## WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <u>-</u>	Screened Interval (ft bgs) <u>-</u>
Well Diameter (in.) <u>2</u>	Nominal Borehole Diameter (in.) <u>8</u>

## FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <u>13.63</u>	Gallons per foot of depth <u>0.163</u>
Depth to product (ft) <u>NA</u>	Static water level (ft) <u>9.51</u>
Product column height (ft) <u>1</u>	Water column height (ft) <u>4.12</u>
Product volume (Gallons) <u>1</u>	Water volume (Gallons) <u>0.167</u>

## PURGE INFORMATION

Pump Type / ID <u>Peri pump 36778</u>	Water Quality Meter Type / ID <u>Hanover 41899</u>	
Pump Intake Depth (ft) <u>263 Bottom</u>	Flow-Thru Cell Volume (L) <u>1</u>	
Purge Start Time <u>1343</u>	Appearance/Odor (Start) <u>Cloudy, no odor</u>	
Purge End Time <u>1416</u>	Appearance/Odor (End) <u>clear none</u>	
Average Purge Rate (mL/min) <u>250</u>	Total Drawdown (ft) <u>1.49</u>	
Well Went Dry (Y/N) <u>N</u>	Stop Time <u>-</u>	Volume removed (L) <u>-</u>
Recovery Time <u>-</u>	Recovery Rate (mL/min) <u>-</u>	Restart Purge Time <u>-</u>
Total Volume Removed (L) <u>7.5</u>	Total Pump Time (min) <u>33</u>	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/- 3%)	Temp. (°C) (+/- 3%)	ORP (mV) (+/- 10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
	1344	250	-	6.65	0.861	16.18	-69	94.1	1.41	10.30
	1349	250	1.25	6.51	0.854	15.44	-62	34.0	0.58	10.72
	1354	250	2.50	6.45	0.853	15.54	-53	22.0	0.37	10.85
	1359	250	3.75	6.44	0.885	15.28	-52	16.2	0.32	10.91
	1404	250	5.0	6.43	0.844	15.65	-53	14.0	0.36	10.92
	1409	250	6.25	6.42	0.836	15.64	-55	16.2	0.38	11.00
	1414	250	7.5	6.42	0.838	15.67	-57	16.4	0.40	11.00
	<del>1414</del>									

COMMENTS High Ferrrous Iron = 1.17 mg/L Mn 475 mg/L

*High water Limit*

## SAMPLE COLLECTION

Sample Date <u>6/27/23</u>	Sample Time <u>1416</u>
Sample ID <u>SEAD-AL-MWT-23</u>	
QA/QC Collected / ID <u>ms/msd for Diss gas</u>	Sample Appearance/Odor <u>Clear none</u>
Analyses <u>VOC, TOC, Diss gas, Anion, TOC, Ammonia</u>	
Sampler <u>TR</u>	Signature <u>T. Robinson</u>

33  
96

b





## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Seabee Army Depot</i>	Project No: <i>637490371</i>	Page <i>1</i> of <i>1</i>
Well ID <i>MWT-28</i>	Date <i>6/28/23</i>	Time <i>12/3</i>
Well Site Description <i>Ash Land Fill</i>		
Weather/Temp <i>80 clear</i>		
Field Technician <i>MW</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>—</i>	Screened Interval (ft bgs) <i>—</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>12.83</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>NA</i>	Static water level (ft) <i>5.03</i>
Product column height (ft) <i>↓</i>	Water column height (ft) <i>4.80</i>
Product volume (Gallons)	Water volume (Gallons) <i>0.178</i>

### PURGE INFORMATION

Pump Type / ID <i>Ferris/2 / 36778</i>	Water Quality Meter Type / ID <i>Hanna / 801635</i>
Pump Intake Depth (ft) <i>Bottom</i>	Flow-Thru Cell Volume (L) <i>1</i>
Purge Start Time <i>1212</i>	Appearance/Odor (Start) <i>clear now</i>
Purge End Time <i>1223</i>	Appearance/Odor (End) <i>clear now</i>
Average Purge Rate (mL/min) <i>250</i>	Total Drawdown (ft) <i>4.80</i>
Well Went Dry (Y/N) <i>Y</i>	Stop Time <i>1226</i>
Recovery Time <i>1 Day</i>	Recovery Rate (mL/min) <i>—</i>
Total Volume Removed (L) <i>2.50</i>	Volume removed (L) <i>2.50</i>
	Restart Purge Time <i>6/29/23 0850</i>
	Total Pump Time (min) <i>10</i>

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/-3%)	Temp. (°C) (+/-3%)	ORP (mV) (+/-10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
	1213	250	—	6.04	1.64	13.67	-78	111	3.82	9.89
	1218	250	1.25	5.98	1.64	13.60	-75	67.5	1.53	11.37
	1223	250	2.50	6.07	1.61	13.78	-78	77.8	2.45	12.35
	1228									
	1233									
	1238									

COMMENTS *well purged dry, Resample 6/29/23*

### SAMPLE COLLECTION

Sample Date <i>6/29/23</i>	Sample Time <i>0850</i>
Sample ID <i>SEAD-AL-MWT-28-20230623</i>	
QA/QC Collected / ID <i>NA</i>	Sample Appearance/Odor <i>clear now</i>
Analyses <i>VOC, TOC, Diss gas, Anions</i>	
Sampler <i>MW</i>	Signature <i>[Signature]</i>



## WELL PURGING AND SAMPLING RECORD

Site Name/Location <i>Seneca Army Depot</i>	Project No: <i>639490371</i>	Page <i>1</i> of <i>2</i>
Well ID <i>MWT-27</i>	Date <i>6-28-23</i>	Time <i>1240</i>
Well Site Description <i>Ash Landfill</i>		
Weather/Temp <i>60, cloudy</i>		
Field Technician <i>T. Robinson</i>		

### WELL CONSTRUCTION DATA

TOC Elevation (ft amsl) <i>—</i>	Screened Interval (ft bgs) <i>—</i>
Well Diameter (in.) <i>2</i>	Nominal Borehole Diameter (in.) <i>8</i>

### FIELD MEASUREMENTS

Well Depth (gauge after sampling) (ft) <i>10.36</i>	Gallons per foot of depth <i>0.163</i>
Depth to product (ft) <i>N/A</i>	Static water level (ft) <i>7.55</i>
Product column height (ft) <i>↓</i>	Water column height (ft) <i>3.01</i>
Product volume (Gallons) <i>↓</i>	Water volume (Gallons) <i>0.49</i>

### PURGE INFORMATION

Pump Type/ID <i>Peristaltic 36778</i>	Water Quality Meter Type/ID <i>Hor. Ver. 80635</i>	
Pump Intake Depth (ft) <i>Bottom</i>	Flow-Thru Cell Volume (L) <i>1</i>	
Purge Start Time <i>1240</i>	Appearance/Odor (Start) <i>Clear, no odor</i>	
Purge End Time <i>1336</i>	Appearance/Odor (End) <i>Clear none</i>	
Average Purge Rate (mL/min) <i>250</i>	Total Drawdown (ft) <i>0.74</i>	
Well Went Dry (Y/N) <i>N</i>	Stop Time <i>✓</i>	Volume removed (L) <i>✓</i>
Recovery Time <i>✓</i>	Recovery Rate (mL/min) <i>✓</i>	Restart Purge Time <i>✓</i>
Total Volume Removed (L) <i>13.75</i>	Total Pump Time (min) <i>56</i>	

Date	Time	Purge Rate (mL/min)	Volume Removed (LPM)	pH (+/-0.1)	Cond. (µS/cm) (+/-3%)	Temp. (°C) (+/-3%)	ORP (mV) (+/-10)	Turbidity (NTU) +/-10% or <5 NTU	DO (mg/L) +/-10% or <0.5 mg/L	Depth to Water (ft below TOC)
	1241	250	0	6.20	1.86	14.36	-88	338	0.97	7.79
	1246	250	1.25	6.21	1.80	14.55	-79	132	0.94	8.08
	1251	250	2.5	6.23	1.86	14.44	-75	84.2	0.83	8.08
	1256	250	3.75	6.20	1.88	14.53	-75	52.4	0.84	8.11
	1301	250	5.0	6.25	1.78	14.84	-81	28.2	1.00	8.19
	1306	250	6.25	6.20	1.80	14.25	-70	9.4	0.86	8.20
	1311	250	7.50	6.22	1.78	14.34	-73	5.0	0.85	8.24
	1316	250	8.75	6.26	1.80	14.35	-77	6.7	0.83	8.35
	1321	250	10.00	6.29	1.79	14.34	-78	8.4	0.84	8.41
	1326	250	11.25	6.27	1.79	14.36	-79	4.57.4	0.86	8.49
	1331	250	12.50	6.29	1.78	14.38	-80	7.5	0.86	8.50

COMMENTS *Hach Fe<sup>2+</sup> = 0.71 mg/L Mn 47.5 mg/L (Limit)*

### SAMPLE COLLECTION

Sample Date <i>6/28/23</i>	Sample Time <i>1336</i>
Sample ID <i>SEAD-AL-MWT-27-70230678</i>	
QA/QC Collected / ID <i>NONE</i>	Sample Appearance/Odor <i>Clear none</i>
Analyses <i>VOC, TOC, Diss Gas Anions</i>	
Sampler <i>TR</i>	Signature <i>[Signature]</i>





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**Appendix B**  
**Regression Plots**

Figure B-1  
 Regression Plot of Well Concentrations at PT-18A  
 Ash Landfill Annual Report

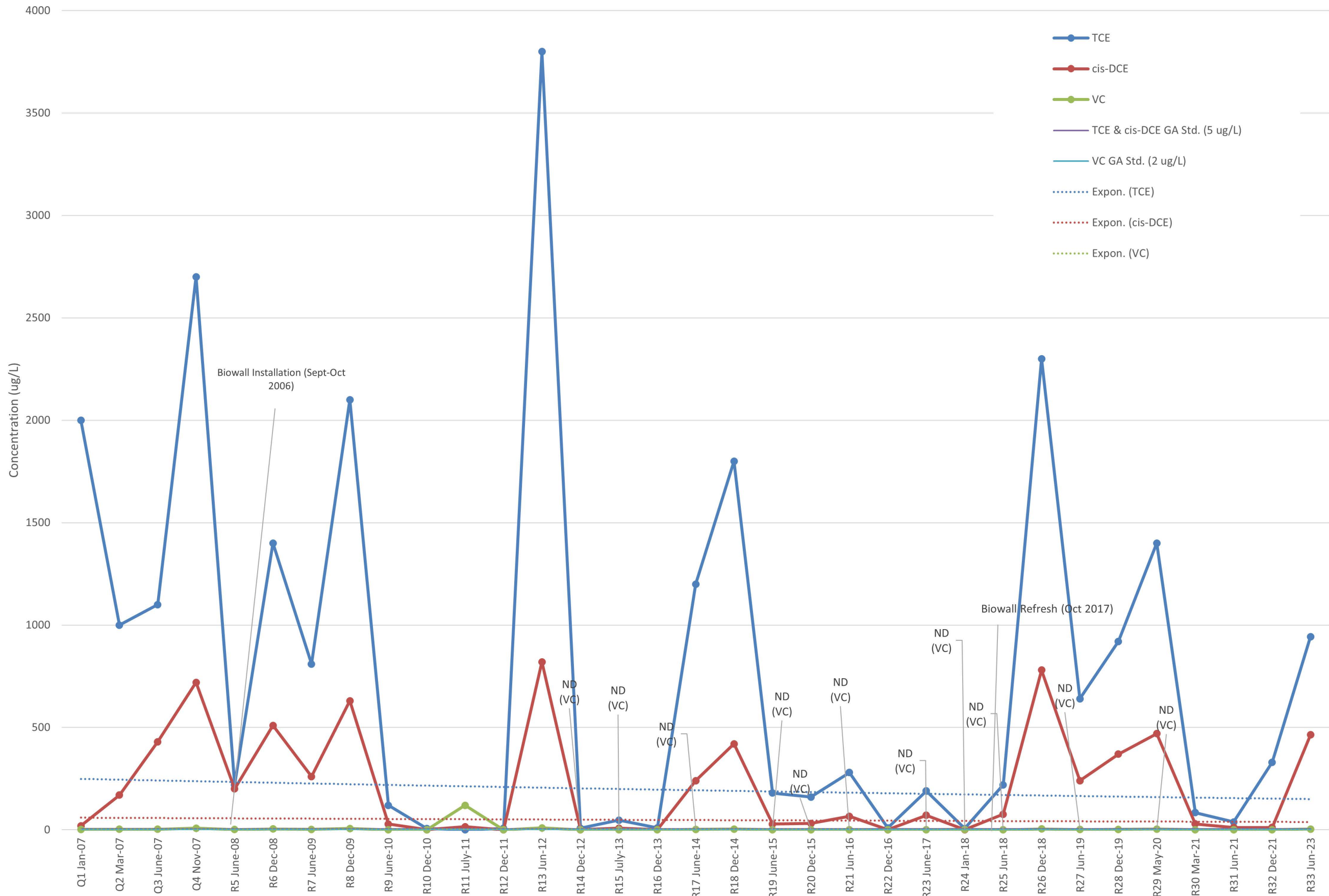


Figure B-2  
Regression Plot of Well Concentrations at MWT-25  
Ash Landfill Annual Report

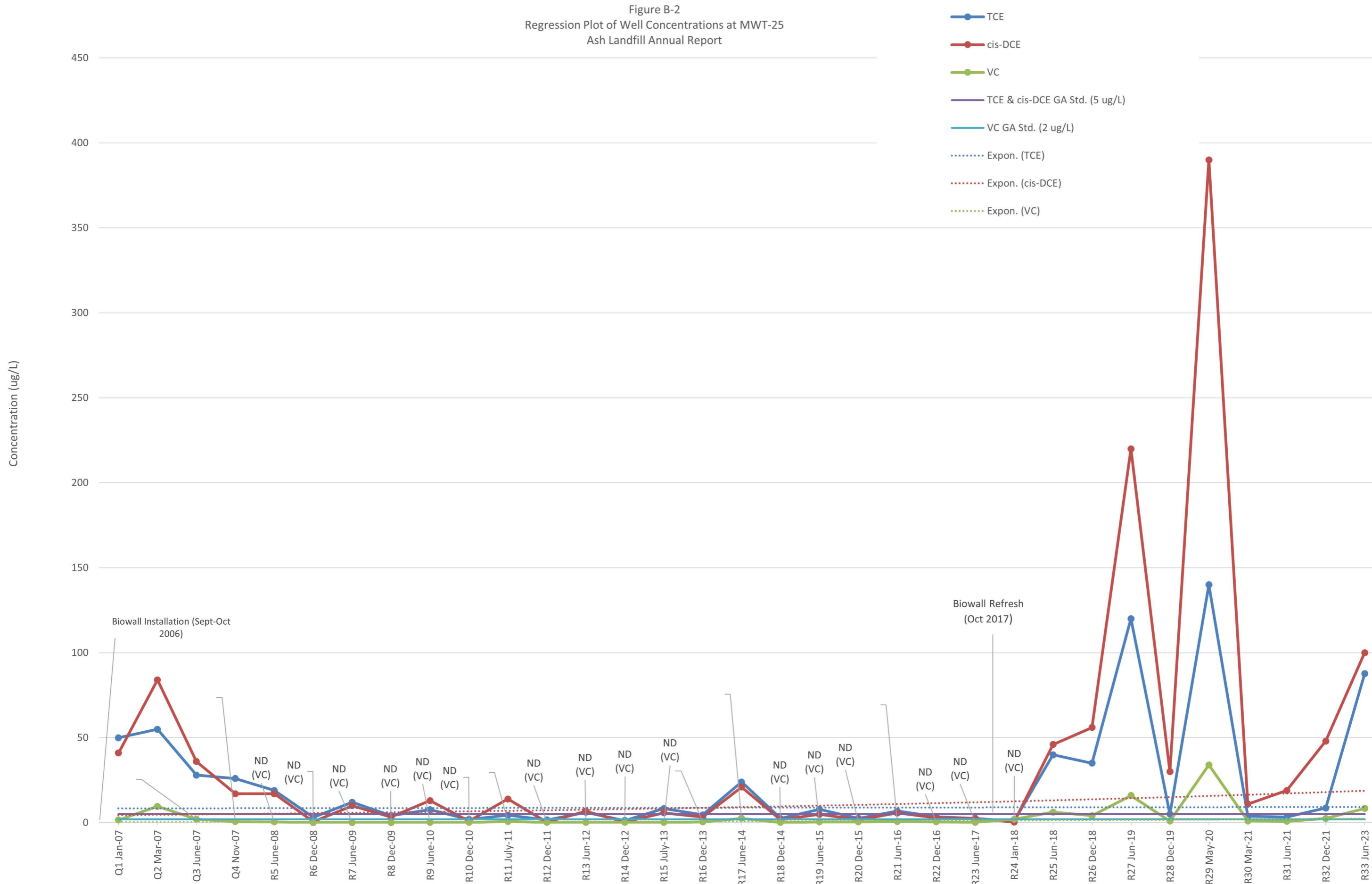


Figure B-3  
 Regression Plot of Well Concentrations at MWT-26  
 Ash Landfill Annual Report

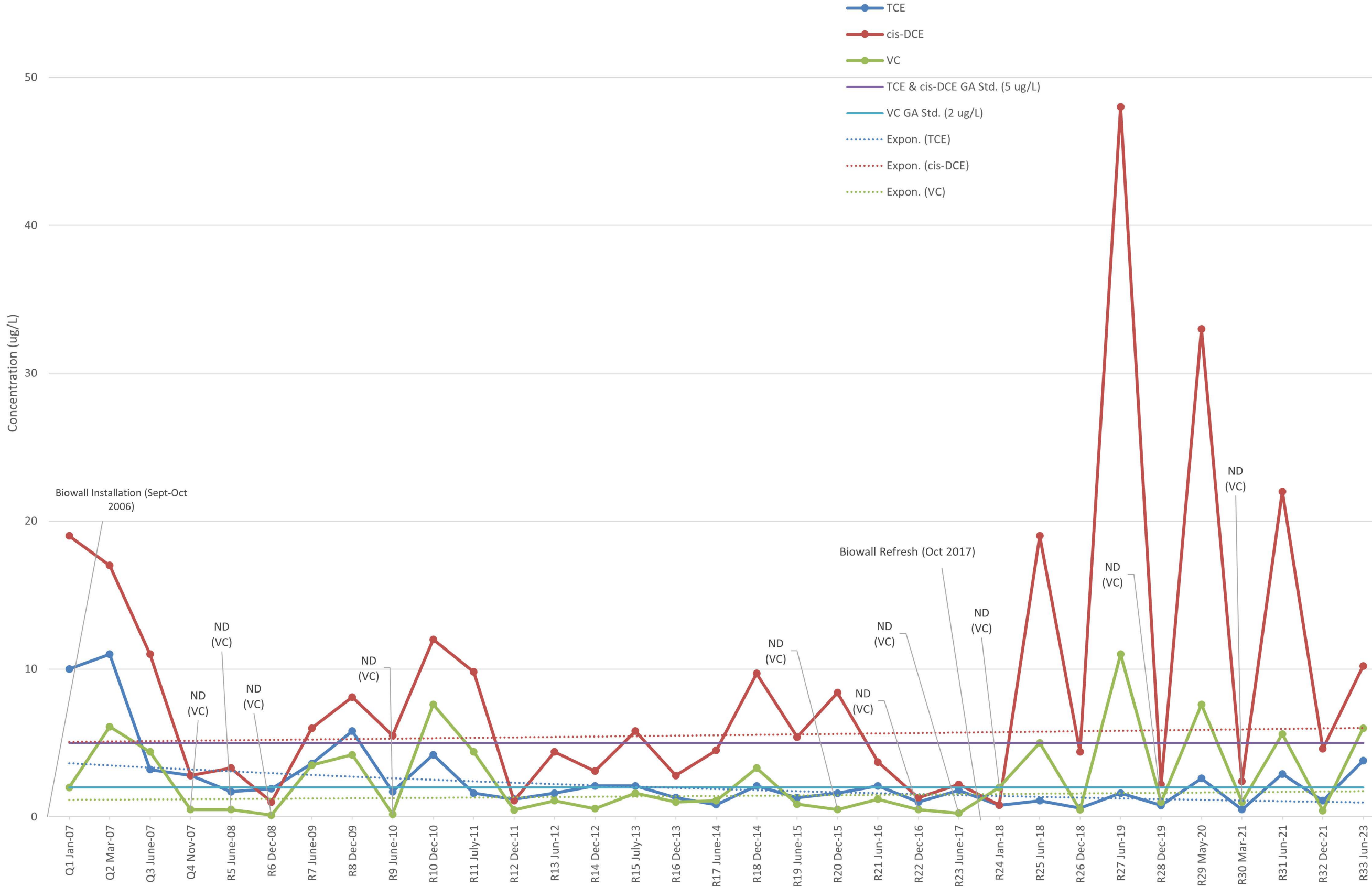




Figure B-4  
 Regression Plot of Well Concentrations at MWT-27  
 Ash Landfill Annual Report

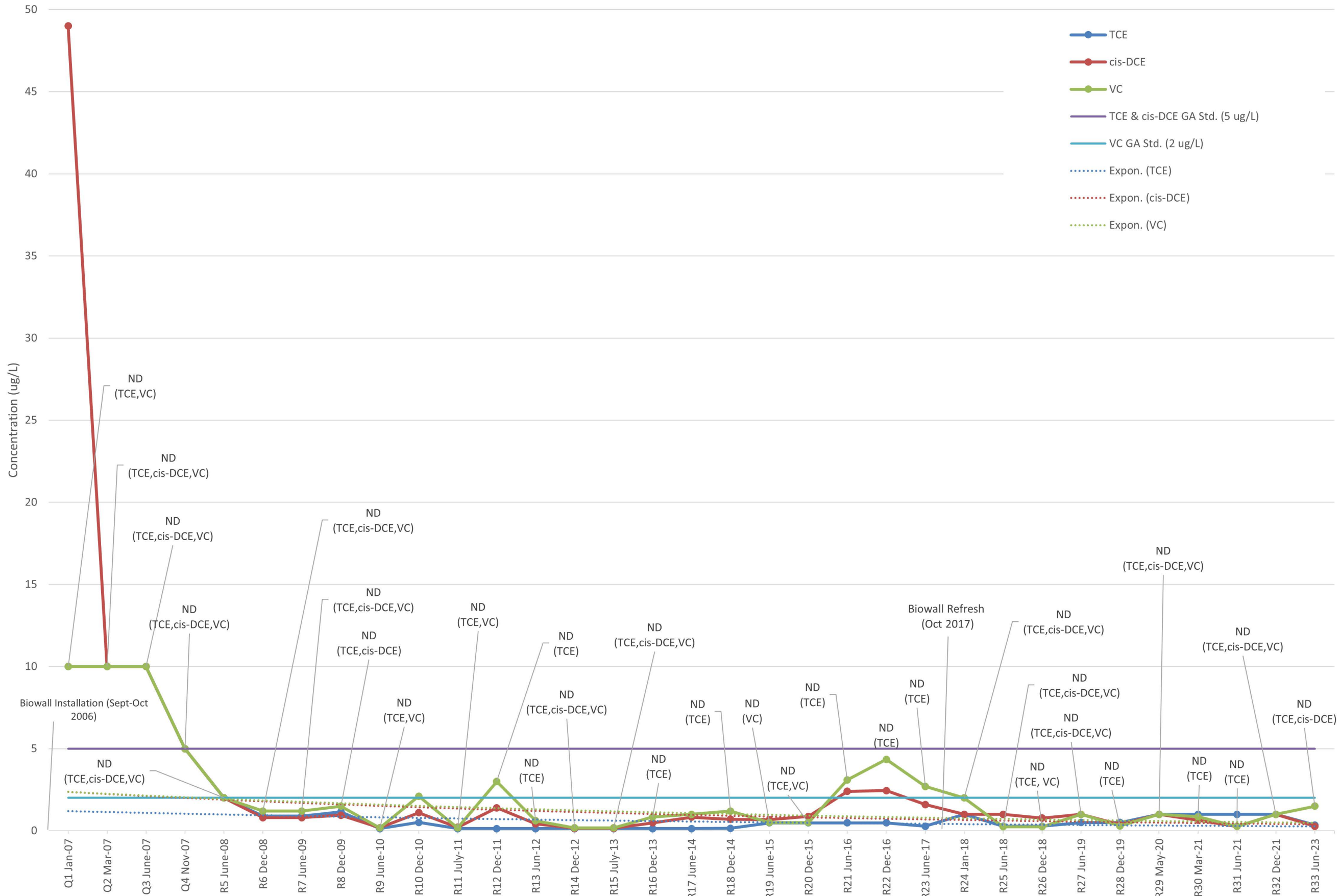


Figure B-5  
 Regression Plot of Well Concentrations at MWT-28  
 Ash Landfill Annual Report

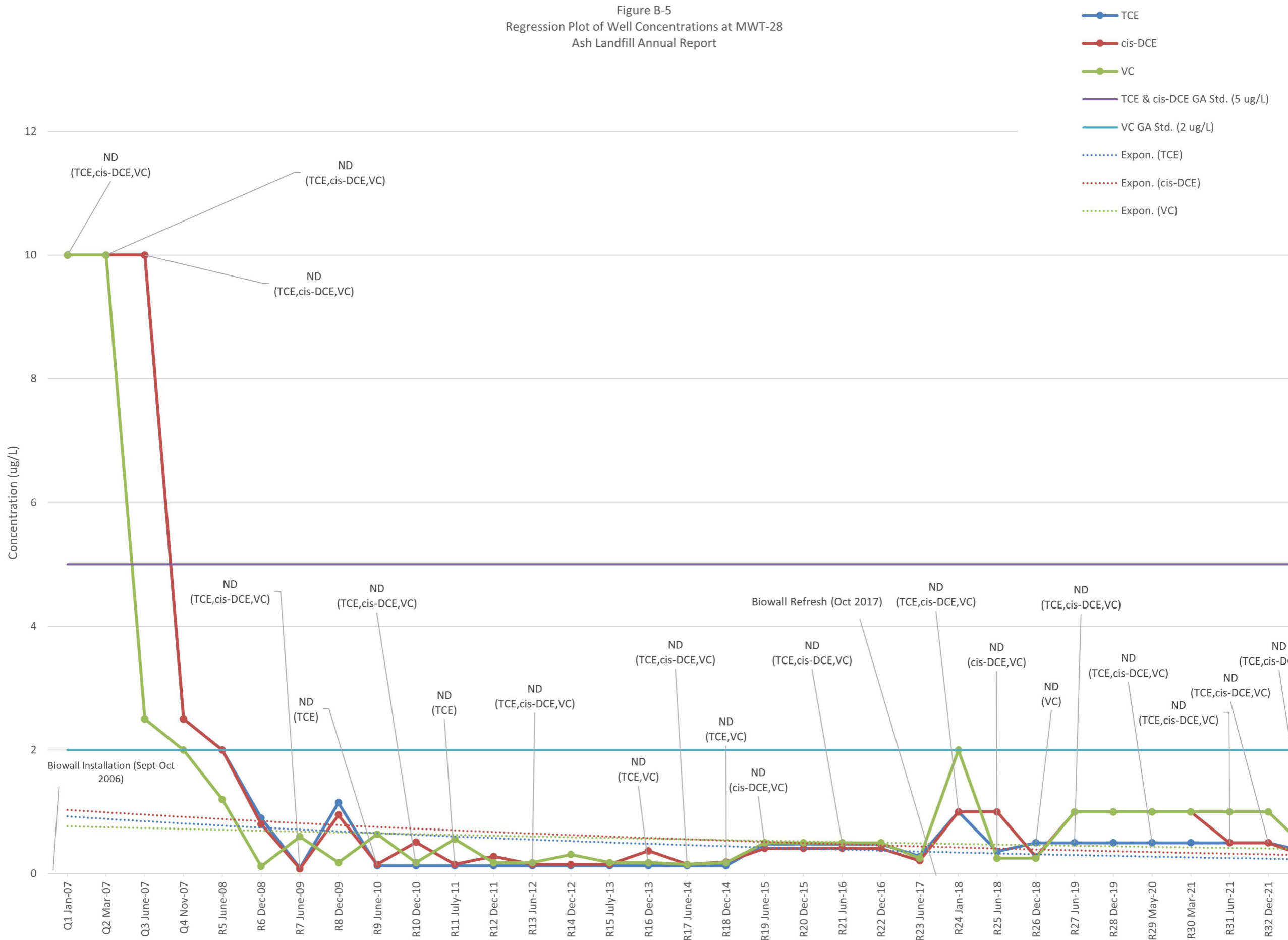


Figure B-6  
 Regression Plot of Well Concentrations at MWT-29  
 Ash Landfill Annual Report

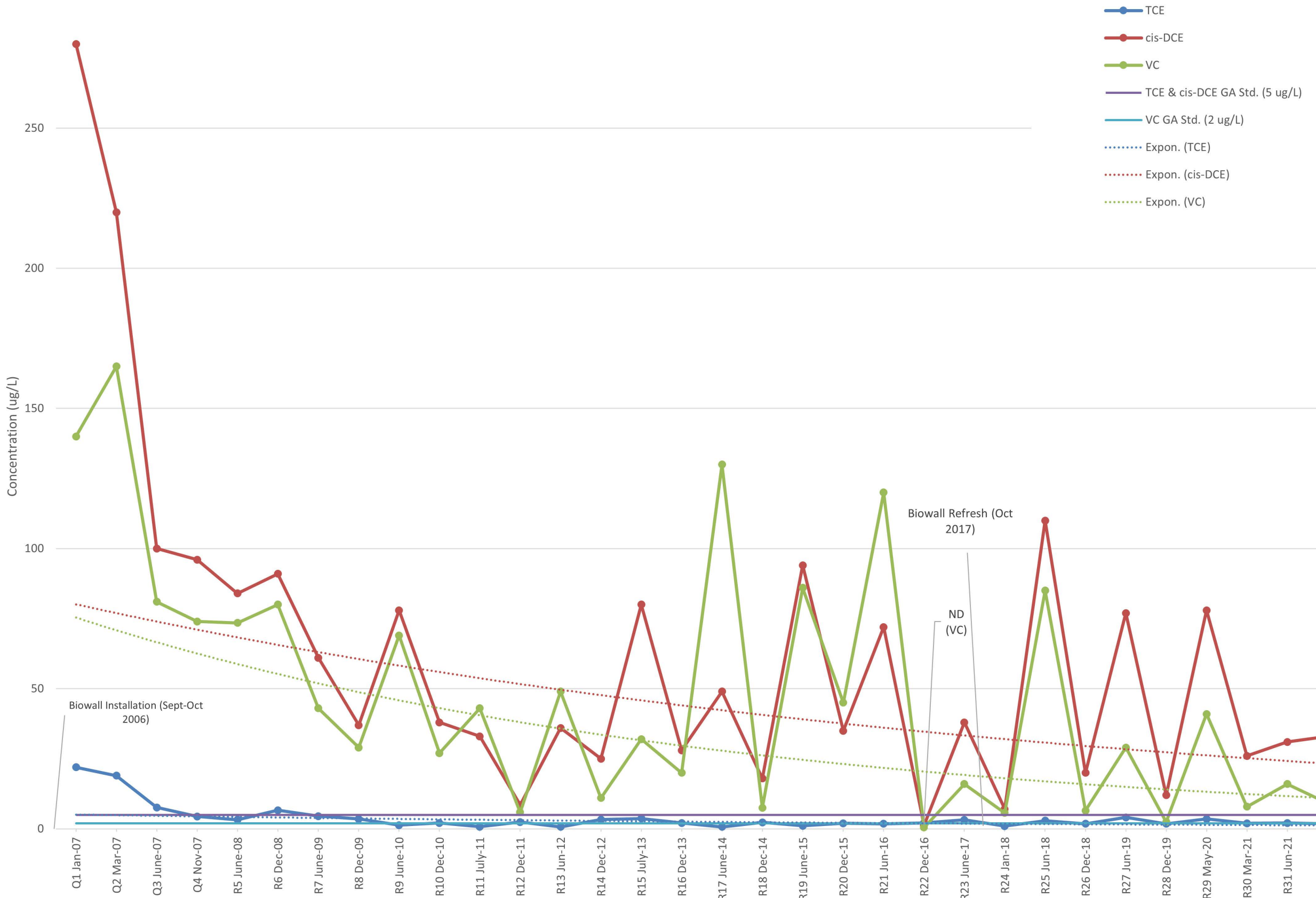


Figure B-7  
 Regression Plot of Well Concentrations at MWT-22  
 Ash Landfill Annual Report

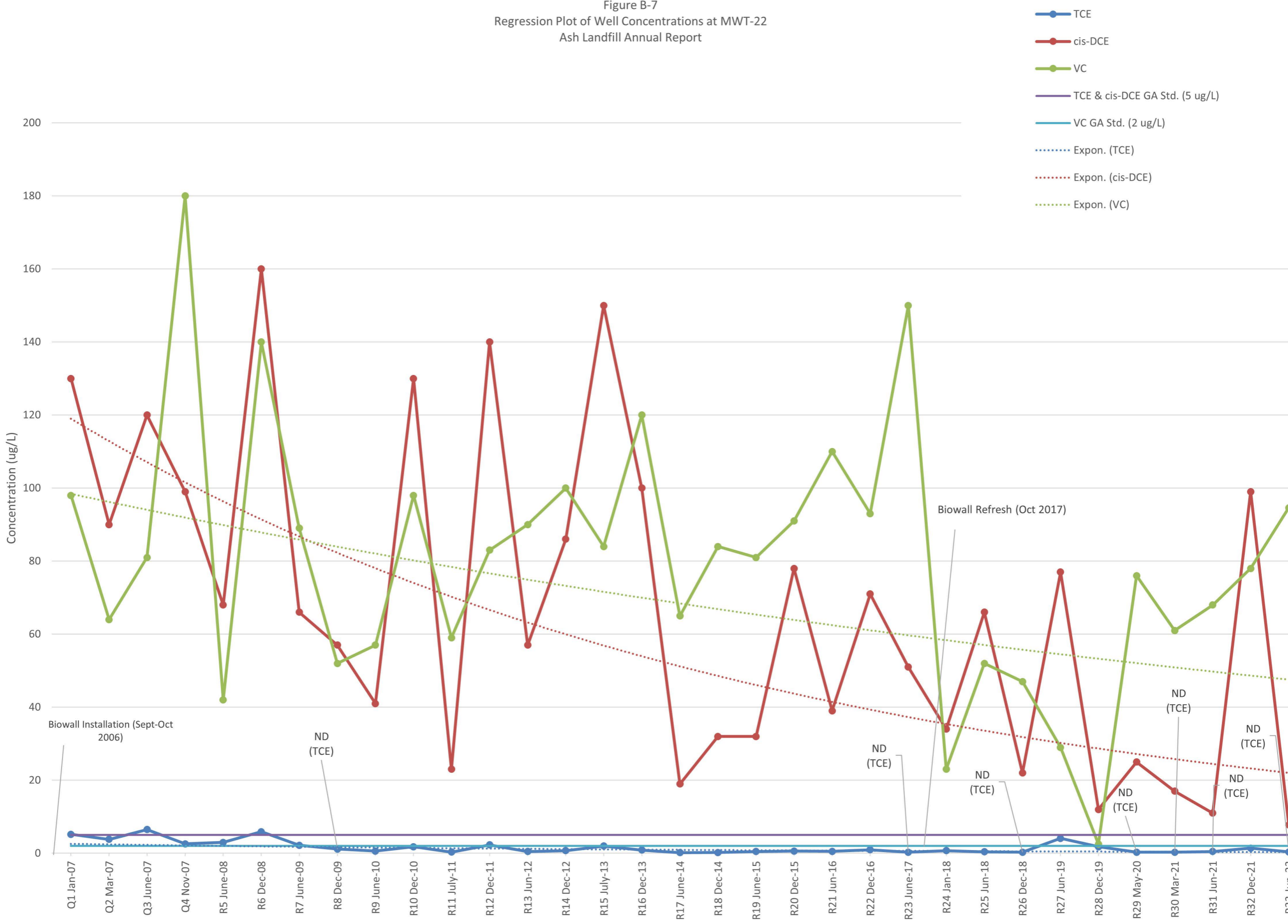




Figure B-8  
 Regression Plot of Well Concentrations at PT-22  
 Ash Landfill Annual Report

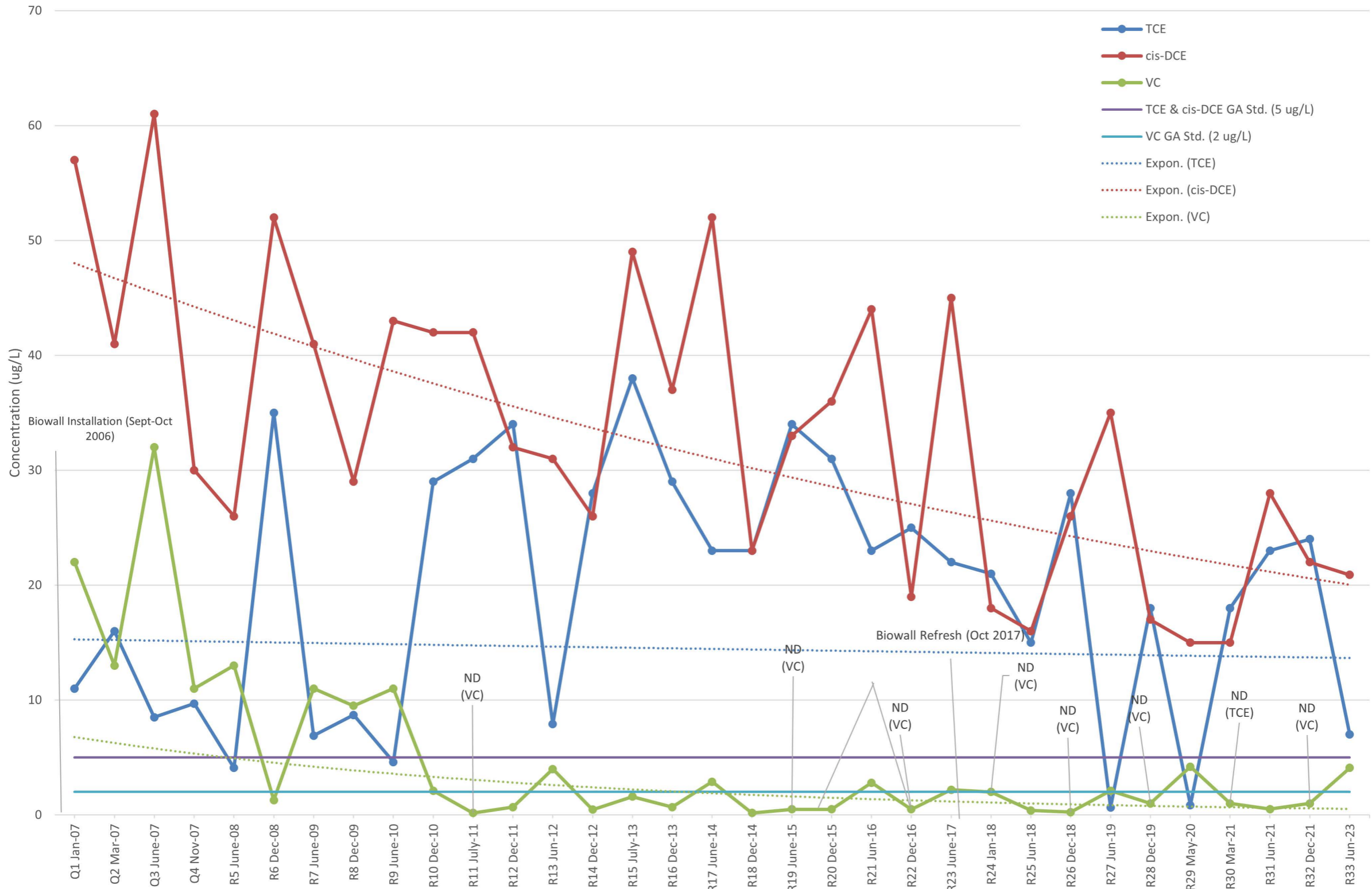


Figure B-9  
 Regression Plot of Well Concentrations at MWT-23  
 Ash Landfill Annual Report

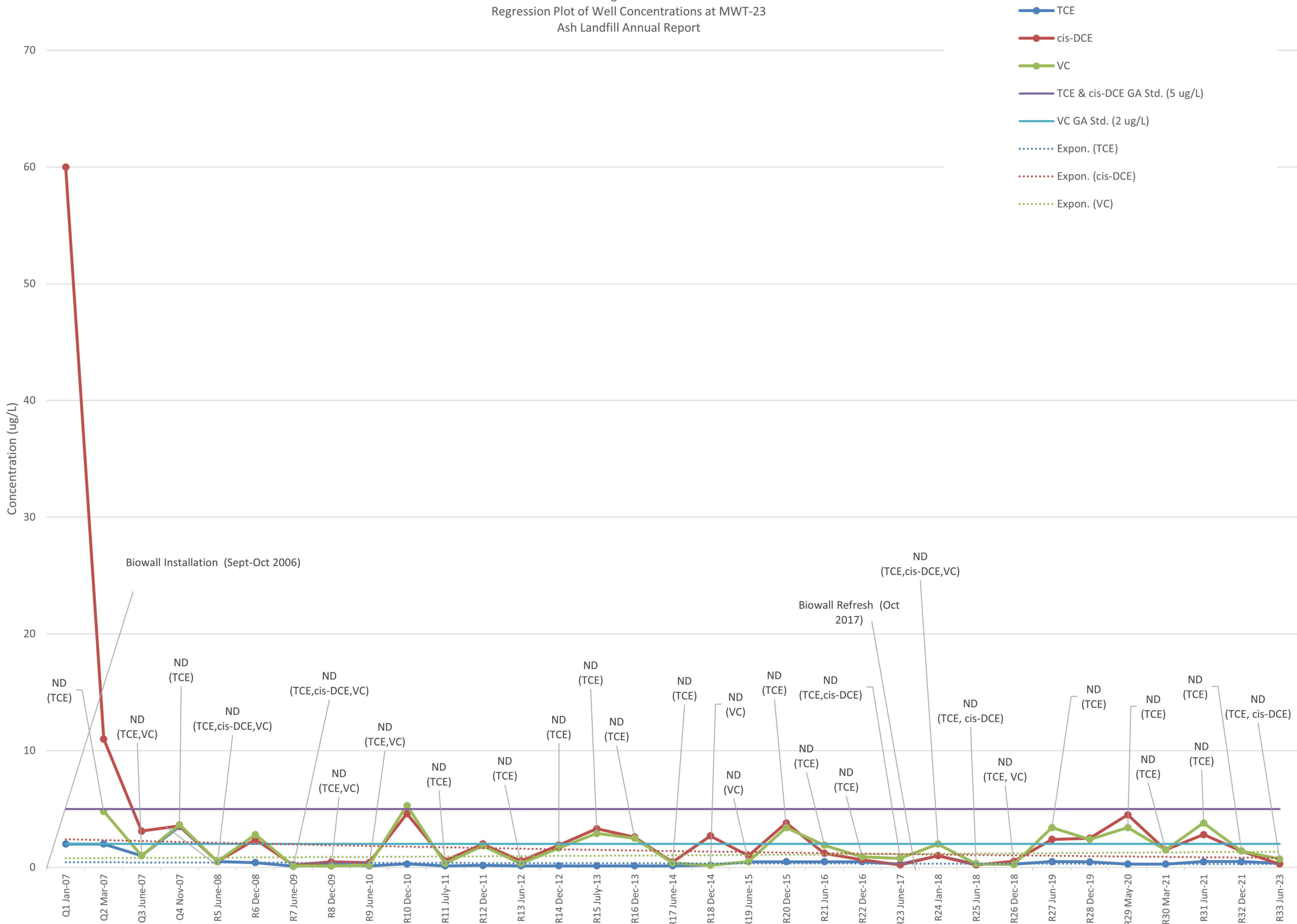


Figure B-10  
 Regression Plot of Well Concentrations at PT-17  
 Ash Landfill Annual Report

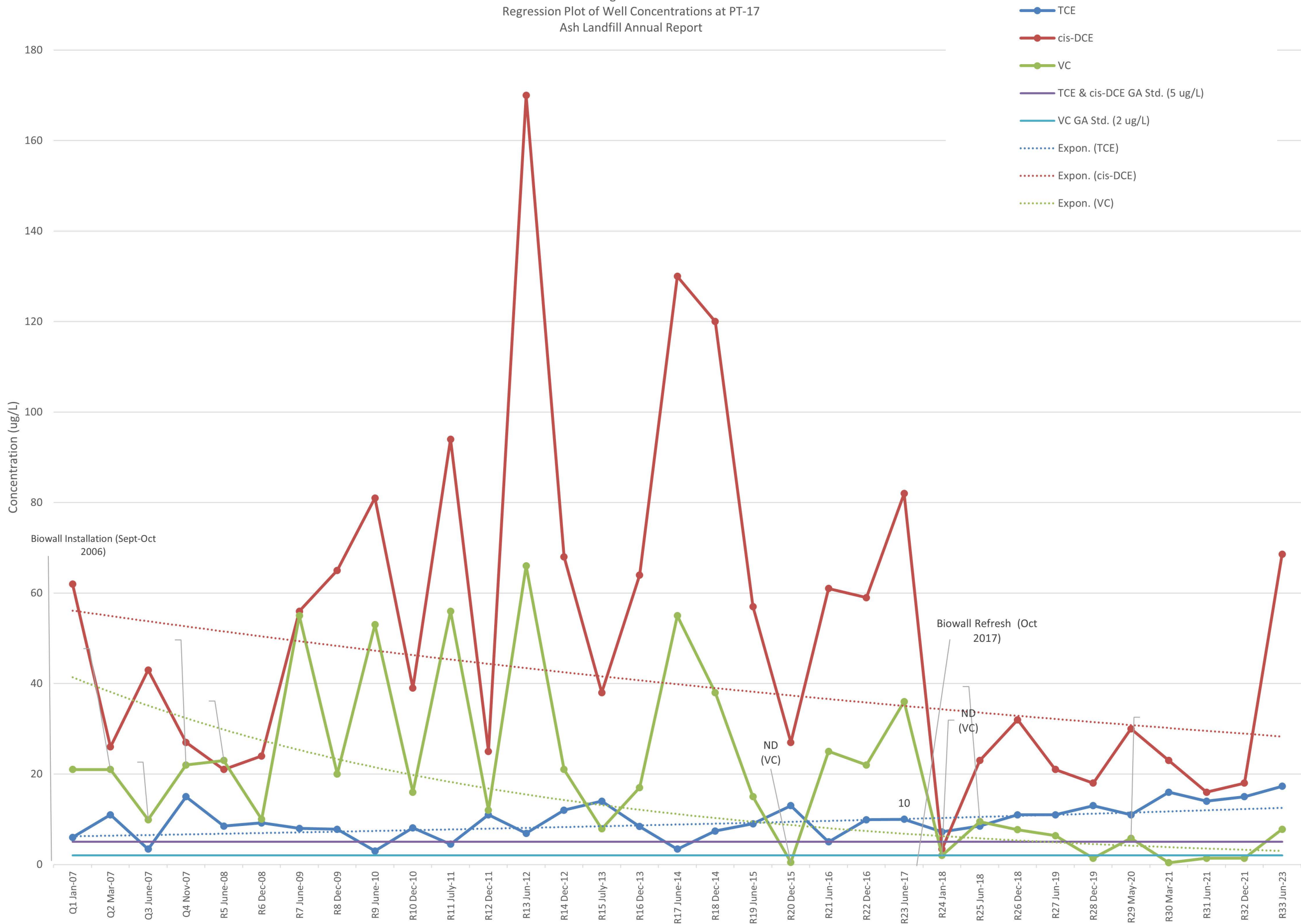


Figure B-11  
 Regression Plot of Well Concentrations at MWT-24  
 Ash Landfill Annual Report

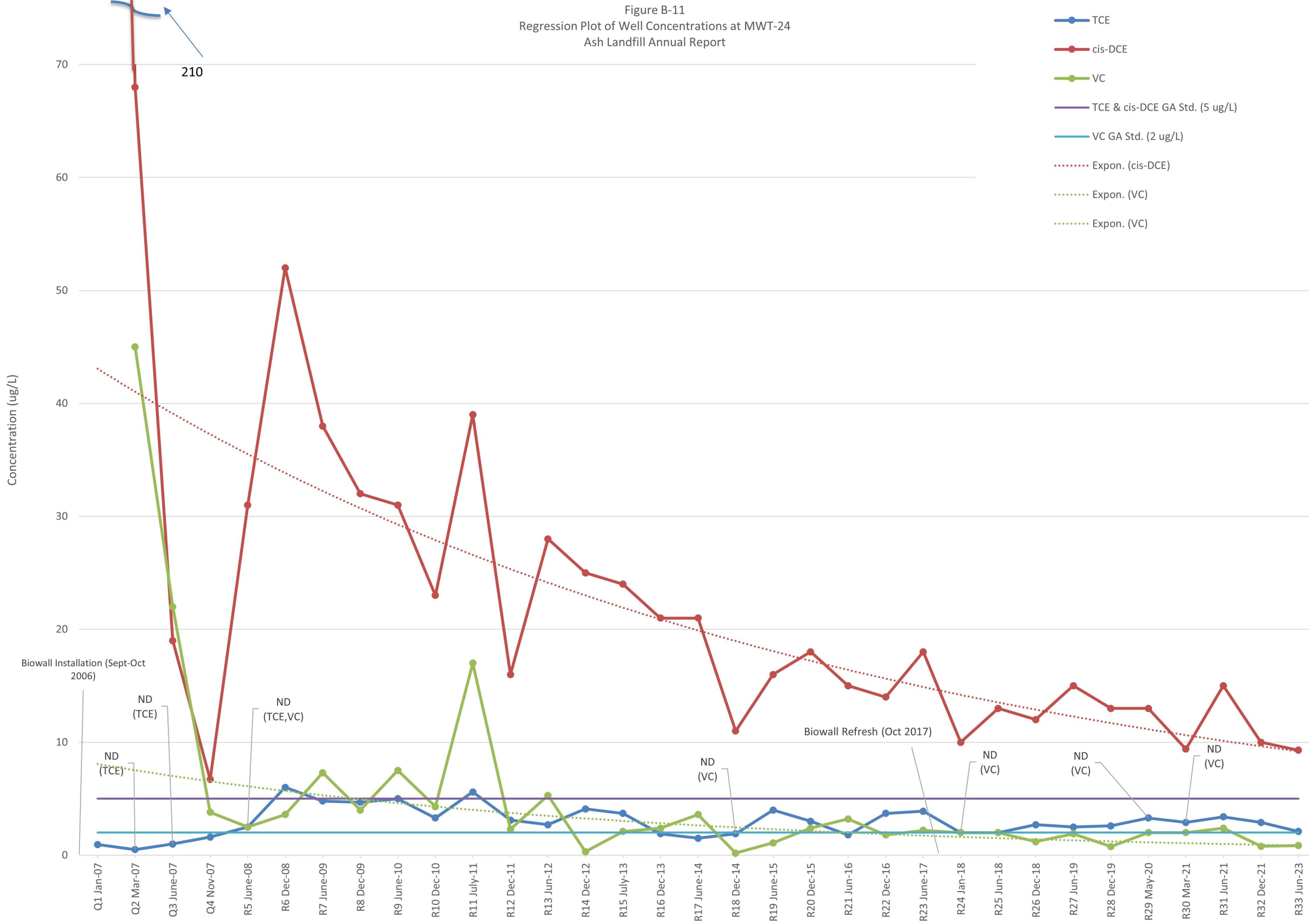




Figure B-12  
 Regression Plot of Well Concentrations at MWT-7  
 Ash Landfill Annual Report

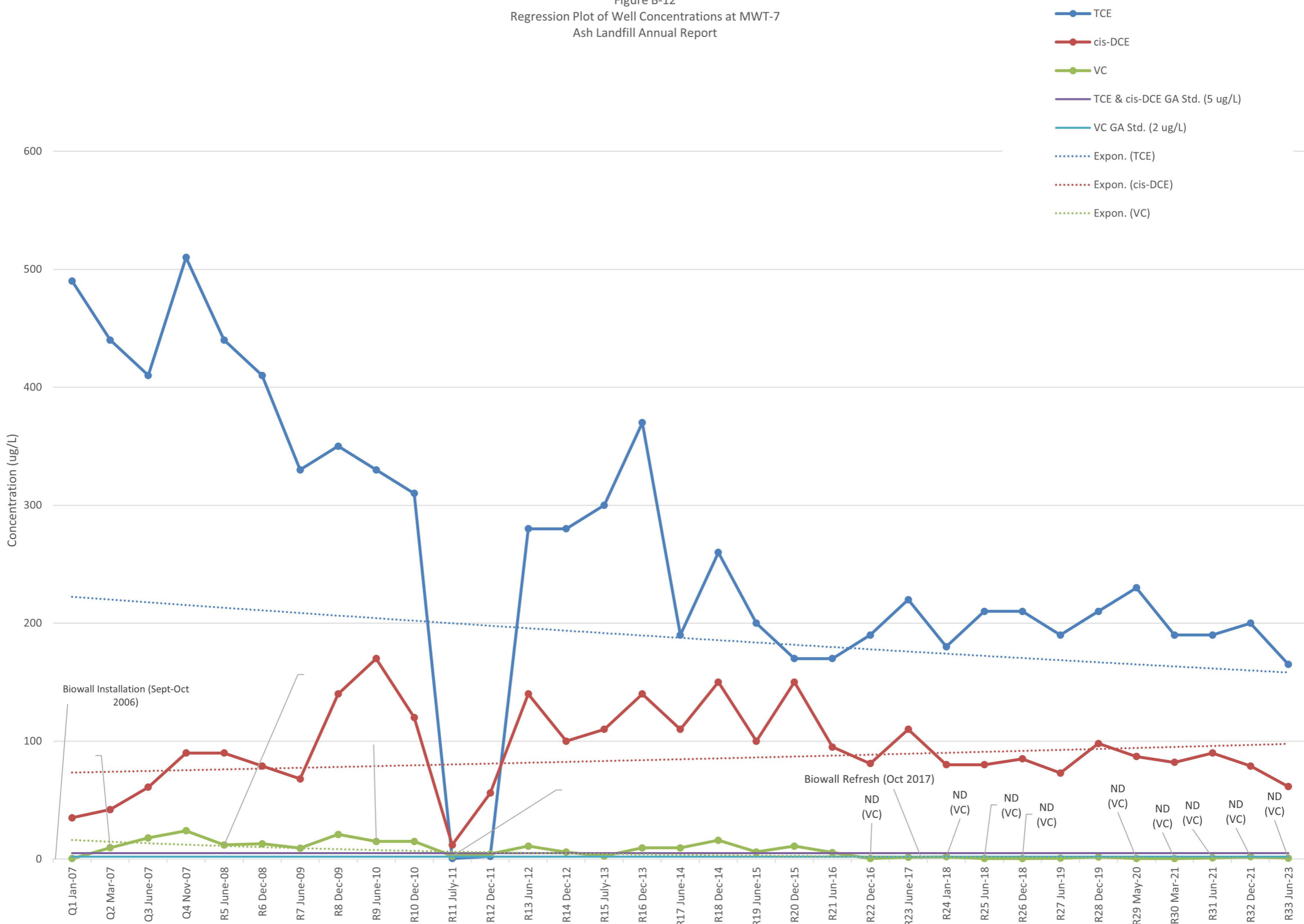
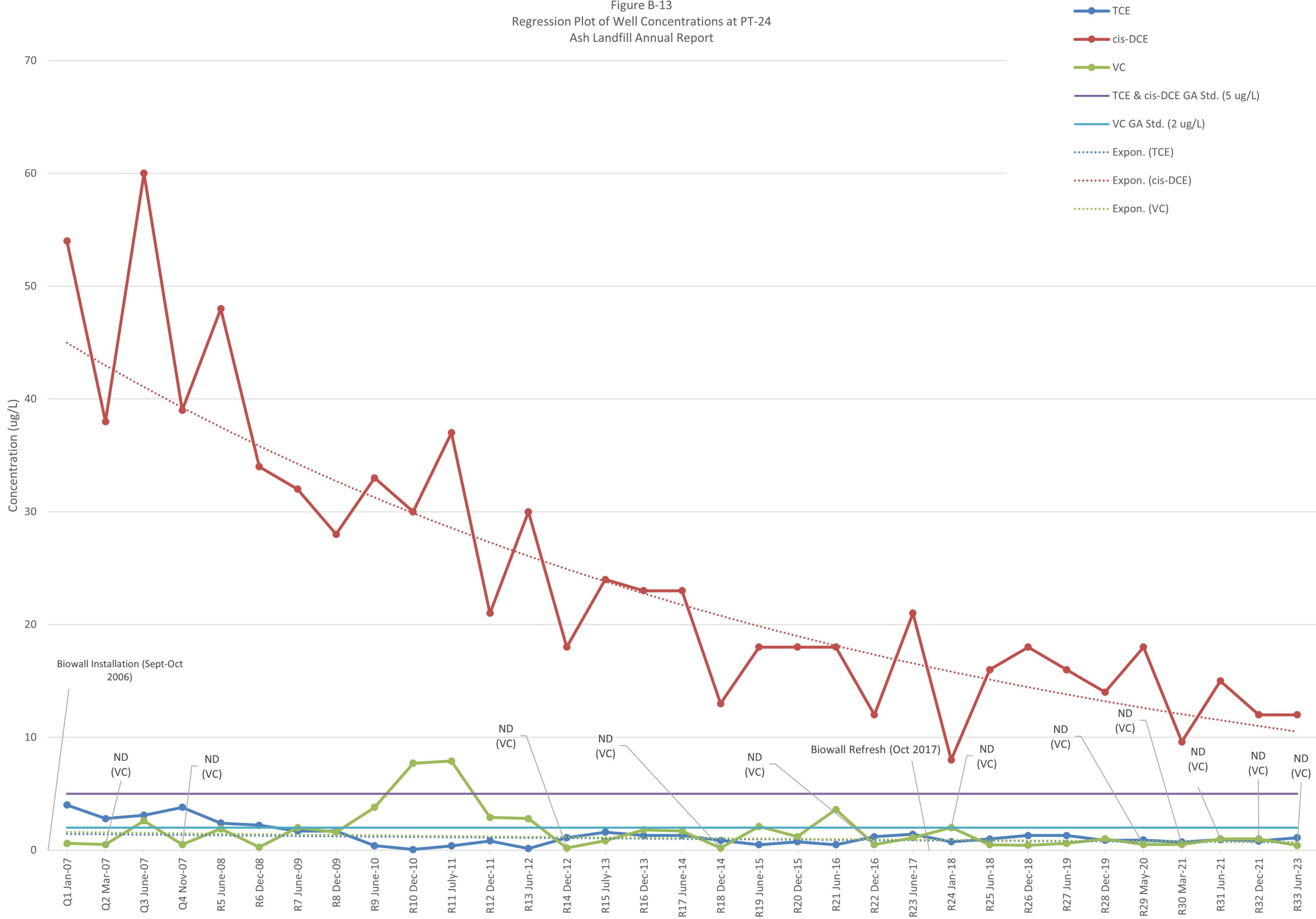


Figure B-13  
 Regression Plot of Well Concentrations at PT-24  
 Ash Landfill Annual Report



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**Appendix C**  
**Laboratory Reports**



The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

### EA Engineering

Former Seneca Army Depot; NY

SGS Job Number: FC7322

Sampling Date: 06/27/23

#### Report to:

EA Science and Technology  
269 W Jefferson St  
Syracuse, NY 13202  
fdesantis@eaest.com; mwright@eaest.com

ATTN: Frank DeSantis

Total number of pages in report: 636



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

A handwritten signature in black ink that reads "Norm Farmer".

**Norm Farmer**  
Technical Director

#### Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001)

DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),

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Test results relate only to samples analyzed.

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## Sample Summary

EA Engineering

**Job No:** FC7322

Former Seneca Army Depot; NY

Sample Number	Collected		Matrix Code	Type	Client Sample ID
	Date	Time By			
FC7322-1	06/27/23	14:16 TRM	W06/28/23	AQ Ground Water	SEAD-AL-MWT-23-20230627
FC7322-1D	06/27/23	14:16 TRM	W06/28/23	AQ Water Dup/MSD	SEAD-AL-MWT-23-20230627
FC7322-1S	06/27/23	14:16 TRM	W06/28/23	AQ Water Matrix Spike	SEAD-AL-MWT-23-20230627
FC7322-2	06/27/23	12:00 TRM	W06/28/23	AQ Ground Water	SEAD-AL-MWT-22-20230627
FC7322-3	06/27/23	13:00 TRM	W06/28/23	AQ Ground Water	SEAD-AL-MW-56R-20230627
FC7322-4	06/27/23	10:52 TRM	W06/28/23	AQ Ground Water	SEAD-AL-PT-18A-20230627
FC7322-5	06/27/23	10:58 TRM	W06/28/23	AQ Ground Water	SEAD-AL-MWT-25-20230627
FC7322-5D	06/27/23	10:58 TRM	W06/28/23	AQ Water Dup/MSD	SEAD-AL-MWT-25-20230627
FC7322-5S	06/27/23	10:58 TRM	W06/28/23	AQ Water Matrix Spike	SEAD-AL-MWT-25-20230627
FC7322-6	06/27/23	12:47 TRM	W06/28/23	AQ Ground Water	SEAD-AL-PT-17-20230627
FC7322-7	06/27/23	00:00 TRM	W06/28/23	AQ Ground Water	DUP-02-20230627
FC7322-8	06/27/23	14:10 TRM	W06/28/23	AQ Ground Water	SEAD-AL-MWT-24-20230627
FC7322-9	06/27/23	00:00 TRM	W06/28/23	AQ Trip Blank Water	TRIP BLANK





## Sample Summary

(continued)

EA Engineering

Job No: FC7322

Former Seneca Army Depot; NY

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
FC7322-10	06/27/23	00:00	TRMW06/28/23	AQ Ground Water	DUP-01-20230627

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** EA Engineering

**Job No:** FC7322

**Site:** Former Seneca Army Depot; NY

**Report Date:** 7/10/2023 12:53:27 PM

On 06/28/2023, 9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC7322 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### MS Volatiles By Method SW846 8260D

**Matrix:** AQ

**Batch ID:** V2O3013

Sample(s) FC7351-1MS, FC7351-1MSD were used as the QC samples indicated.

**Matrix:** AQ

**Batch ID:** VI2958

Sample(s) FC7322-5MS, FC7322-5MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for Methyl Bromide are outside control limits.

RPD(s) for MSD for Methyl Bromide are outside control limits for sample FC7322-5MSD. Probable cause is due to sample non-homogeneity.

For Sample(s) FC7322-1, FC7322-10, FC7322-2, FC7322-3, FC7322-4, FC7322-5, FC7322-6, FC7322-8 are associated with a blank spike that has a recovery for Methyl Bromide outside DOD QSM control limits.

VI2958-MB: Sample was treated with an anti-foaming agent.

FC7322-1 for Chloroethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7322-1 for Methyl Bromide: Associated BS recovery outside DOD QSM control limits high, sample is ND.

FC7322-2 for Chloroethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7322-2 for Methyl Bromide: Associated BS recovery outside DOD QSM control limits high, sample is ND.

FC7322-3 for Chloroethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7322-3 for Methyl Bromide: Associated BS recovery outside DOD QSM control limits high, sample is ND.

FC7322-4 for Chloroethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7322-4 for Methyl Bromide: Associated BS recovery outside DOD QSM control limits high, sample is ND.

FC7322-4 for Methylene Chloride: Suspected laboratory contaminant.

FC7322-5 for Chloroethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7322-5 for Methyl Bromide: Associated BS recovery outside DOD QSM control limits high, sample is ND.

FC7322-5 for Methylene Chloride: Suspected laboratory contaminant.

FC7322-6 for Chloroethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7322-6 for Methyl Bromide: Associated BS recovery outside DOD QSM control limits high, sample is ND.

FC7322-8 for Chloroethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7322-8 for Methyl Bromide: Associated BS recovery outside DOD QSM control limits high, sample is ND.

FC7322-9 for Chloroethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7322-10 for Chloroethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7322-10 for Methyl Bromide: Associated BS recovery outside DOD QSM control limits high, sample is ND.

FC7322-10 for Methylene Chloride: Suspected laboratory contaminant.

### GC Volatiles By Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GLL2899

Sample(s) FC7322-1DUP, FC7322-1MS were used as the QC samples indicated.

Matrix Spike Recovery(s) for Methane are outside control limits. Outside control limits due to high level in sample relative to spike amount.

### General Chemistry By Method EPA 300/SW846 9056A

**Matrix:** AQ

**Batch ID:** GP38901

Sample(s) FC7322-1MS, FC7322-1MSD were used as the QC samples for Chloride, Nitrogen, Nitrate, Sulfate.

Matrix Spike Recovery(s) for Nitrogen, Nitrate, Sulfate are outside control limits. Spike recovery indicates possible matrix interference.

FC7322-1 for Chloride: Dilution required based on initial conductivity reading.

FC7322-1 for Nitrogen, Nitrate: Dilution required based on initial conductivity reading.

FC7322-1 for Sulfate: Dilution required based on initial conductivity reading.

FC7322-6 for Chloride: Dilution required based on initial conductivity reading.

FC7322-6 for Nitrogen, Nitrate: Dilution required based on initial conductivity reading.

FC7322-7 for Chloride: Dilution required based on initial conductivity reading.

FC7322-7 for Nitrogen, Nitrate: Dilution required based on initial conductivity reading.

### General Chemistry By Method SM5310 B-14/SW9060A

**Matrix:** AQ

**Batch ID:** GP38919

Sample(s) FC7322-1MS, FC7322-1MSD were used as the QC samples for Total Organic Carbon.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

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Kim Benham, Client Services (*Signature on File*)

## Summary of Hits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
<b>FC7322-1</b>	<b>SEAD-AL-MWT-23-20230627</b>					
Vinyl Chloride		0.72 J	1.0	0.50	ug/l	SW846 8260D
Methane		12300	10	5.0	ug/l	RSKSOP-147/175
Sulfate <sup>a</sup>		3.4 J	10	5.0	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		2.7	2.0	1.0	mg/l	SM5310 B-14/SW9060A
<b>FC7322-2</b>	<b>SEAD-AL-MWT-22-20230627</b>					
cis-1,2-Dichloroethylene		7.8	1.0	0.50	ug/l	SW846 8260D
trans-1,2-Dichloroethylene		1.3	1.0	0.50	ug/l	SW846 8260D
Vinyl Chloride		94.6	1.0	0.50	ug/l	SW846 8260D
<b>FC7322-3</b>	<b>SEAD-AL-MW-56R-20230627</b>					
cis-1,2-Dichloroethylene		8.2	1.0	0.50	ug/l	SW846 8260D
Trichloroethylene		1.8	1.0	0.50	ug/l	SW846 8260D
<b>FC7322-4</b>	<b>SEAD-AL-PT-18A-20230627</b>					
cis-1,2-Dichloroethylene		464	10	5.0	ug/l	SW846 8260D
trans-1,2-Dichloroethylene		3.3 J	10	5.0	ug/l	SW846 8260D
Methylene Chloride <sup>b</sup>		77.5	50	40	ug/l	SW846 8260D
Trichloroethylene		943	10	5.0	ug/l	SW846 8260D
<b>FC7322-5</b>	<b>SEAD-AL-MWT-25-20230627</b>					
cis-1,2-Dichloroethylene		100	2.0	1.0	ug/l	SW846 8260D
trans-1,2-Dichloroethylene		2.7	2.0	1.0	ug/l	SW846 8260D
Methylcyclohexane		0.89 J	2.0	1.0	ug/l	SW846 8260D
Methylene Chloride <sup>b</sup>		17.8	10	8.0	ug/l	SW846 8260D
Trichloroethylene		87.7	2.0	1.0	ug/l	SW846 8260D
Vinyl Chloride		8.4	2.0	1.0	ug/l	SW846 8260D
<b>FC7322-6</b>	<b>SEAD-AL-PT-17-20230627</b>					
cis-1,2-Dichloroethylene		68.6	1.0	0.50	ug/l	SW846 8260D
trans-1,2-Dichloroethylene		8.3	1.0	0.50	ug/l	SW846 8260D
Trichloroethylene		17.3	1.0	0.50	ug/l	SW846 8260D
Vinyl Chloride		7.8	1.0	0.50	ug/l	SW846 8260D
Methane		209	0.50	0.25	ug/l	RSKSOP-147/175
Ethane		0.43 J	1.0	0.50	ug/l	RSKSOP-147/175
Sulfate		30.4	10	5.0	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		1.9 J	2.0	1.0	mg/l	SM5310 B-14/SW9060A



## Summary of Hits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
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**FC7322-7      DUP-02-20230627**

Methane		229	0.50	0.25	ug/l	RSKSOP-147/175
Ethane		0.45 J	1.0	0.50	ug/l	RSKSOP-147/175
Sulfate		30.5	10	5.0	mg/l	EPA 300/SW846 9056A
Total Organic Carbon		1.9 J	2.0	1.0	mg/l	SM5310 B-14/SW9060A

**FC7322-8      SEAD-AL-MWT-24-20230627**

cis-1,2-Dichloroethylene		9.3	1.0	0.50	ug/l	SW846 8260D
Trichloroethylene		2.1	1.0	0.50	ug/l	SW846 8260D
Vinyl Chloride		0.86 J	1.0	0.50	ug/l	SW846 8260D

**FC7322-9      TRIP BLANK**

No hits reported in this sample.

**FC7322-10      DUP-01-20230627**

cis-1,2-Dichloroethylene		490	10	5.0	ug/l	SW846 8260D
trans-1,2-Dichloroethylene		2.6 J	10	5.0	ug/l	SW846 8260D
Methylene Chloride <sup>b</sup>		74.2	50	40	ug/l	SW846 8260D
Trichloroethylene		995	10	5.0	ug/l	SW846 8260D

- (a) Dilution required based on initial conductivity reading.
- (b) Suspected laboratory contaminant.

Sample Results

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Report of Analysis

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SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-23-20230627		
<b>Lab Sample ID:</b>	FC7322-1	<b>Date Sampled:</b>	06/27/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/28/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I757577.D	1	06/29/23 15:47	AL	n/a	n/a	VI2958
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane <sup>a</sup>	1.0 U	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-MWT-23-20230627	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-1	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide <sup>b</sup>	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.72	1.0	0.50	0.41	ug/l	J
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Associated CCV outside of DOD QSM control limits high, sample is ND.

(b) Associated BS recovery outside DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



SGS North America Inc.

# Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> SEAD-AL-MWT-23-20230627	
<b>Lab Sample ID:</b> FC7322-1	<b>Date Sampled:</b> 06/27/23
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/28/23
<b>Method:</b> RSKSOP-147/175	<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83506.D	20	07/06/23 11:46	SS	n/a	n/a	GLL2899
Run #2							

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2				

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	12300	10	5.0	3.2	ug/l	
74-84-0	Ethane	10 U	20	10	6.4	ug/l	
74-85-1	Ethene	10 U	20	10	8.6	ug/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
4

# Report of Analysis

<b>Client Sample ID:</b> SEAD-AL-MWT-23-20230627	<b>Date Sampled:</b> 06/27/23
<b>Lab Sample ID:</b> FC7322-1	<b>Date Received:</b> 06/28/23
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY	

## General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By Method
Chloride <sup>a</sup>	5.0 U	10	5.0	4.0	mg/l	5	06/28/23 15:28	JB EPA 300/SW846 9056A
Nitrogen, Nitrate <sup>a</sup>	0.25 U	0.50	0.25	0.20	mg/l	5	06/28/23 15:28	JB EPA 300/SW846 9056A
Sulfate <sup>a</sup>	3.4 J	10	5.0	3.0	mg/l	5	06/28/23 15:28	JB EPA 300/SW846 9056A
Total Organic Carbon	2.7	2.0	1.0	0.54	mg/l	1	07/04/23 05:30	FN SM5310 B-14/SW9060A

(a) Dilution required based on initial conductivity reading.

LOQ = Limit of Quantitation    DL = Detection Limit    U = Indicates a result < LOD  
 LOD = Limit of Detection    B = Analyte found in associated blank    J = Indicates a result > = DL (MDL) but < LOQ

4.1  
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SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-22-20230627		
<b>Lab Sample ID:</b>	FC7322-2	<b>Date Sampled:</b>	06/27/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/28/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I757578.D	1	06/29/23 16:11	AL	n/a	n/a	VI2958
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane <sup>a</sup>	1.0 U	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	7.8	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	1.3	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-MWT-22-20230627	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-2	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide <sup>b</sup>	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	94.6	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	107%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Associated CCV outside of DOD QSM control limits high, sample is ND.

(b) Associated BS recovery outside DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MW-56R-20230627	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-3	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I757579.D	1	06/29/23 16:35	AL	n/a	n/a	VI2958
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane <sup>a</sup>	1.0 U	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	8.2	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> SEAD-AL-MW-56R-20230627	
<b>Lab Sample ID:</b> FC7322-3	<b>Date Sampled:</b> 06/27/23
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/28/23
<b>Method:</b> SW846 8260D	<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY	

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide <sup>b</sup>	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	1.8	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Associated CCV outside of DOD QSM control limits high, sample is ND.

(b) Associated BS recovery outside DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-PT-18A-20230627		
<b>Lab Sample ID:</b>	FC7322-4	<b>Date Sampled:</b>	06/27/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/28/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I757580.D	10	06/29/23 16:59	AL	n/a	n/a	VI2958
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	200 U	250	200	100	ug/l	
71-43-2	Benzene	5.0 U	10	5.0	3.1	ug/l	
74-97-5	Bromochloromethane	5.0 U	10	5.0	4.5	ug/l	
75-27-4	Bromodichloromethane	5.0 U	10	5.0	2.4	ug/l	
75-25-2	Bromoform	5.0 U	10	5.0	4.1	ug/l	
78-93-3	2-Butanone (MEK)	35 U	50	35	20	ug/l	
75-15-0	Carbon Disulfide	10 U	20	10	5.3	ug/l	
56-23-5	Carbon Tetrachloride	5.0 U	10	5.0	3.6	ug/l	
108-90-7	Chlorobenzene	5.0 U	10	5.0	2.0	ug/l	
75-00-3	Chloroethane <sup>a</sup>	10 U	20	10	6.7	ug/l	
67-66-3	Chloroform	5.0 U	10	5.0	3.0	ug/l	
110-82-7	Cyclohexane	5.0 U	10	5.0	3.9	ug/l	
124-48-1	Dibromochloromethane	5.0 U	10	5.0	2.8	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	20 U	50	20	10	ug/l	
106-93-4	1,2-Dibromoethane	10 U	20	10	2.8	ug/l	
75-71-8	Dichlorodifluoromethane	10 U	20	10	5.0	ug/l	
95-50-1	1,2-Dichlorobenzene	5.0 U	10	5.0	3.2	ug/l	
541-73-1	1,3-Dichlorobenzene	5.0 U	10	5.0	2.2	ug/l	
106-46-7	1,4-Dichlorobenzene	5.0 U	10	5.0	2.6	ug/l	
75-34-3	1,1-Dichloroethane	5.0 U	10	5.0	3.4	ug/l	
107-06-2	1,2-Dichloroethane	5.0 U	10	5.0	3.1	ug/l	
75-35-4	1,1-Dichloroethylene	5.0 U	10	5.0	3.2	ug/l	
156-59-2	cis-1,2-Dichloroethylene	464	10	5.0	2.8	ug/l	
156-60-5	trans-1,2-Dichloroethylene	3.3	10	5.0	2.2	ug/l	J
78-87-5	1,2-Dichloropropane	5.0 U	10	5.0	4.3	ug/l	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	10	5.0	2.9	ug/l	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	10	5.0	2.1	ug/l	
100-41-4	Ethylbenzene	5.0 U	10	5.0	3.6	ug/l	
76-13-1	Freon 113	5.0 U	10	5.0	4.8	ug/l	
591-78-6	2-Hexanone	50 U	100	50	20	ug/l	
98-82-8	Isopropylbenzene	5.0 U	10	5.0	2.2	ug/l	
79-20-9	Methyl Acetate	100 U	200	100	50	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-PT-18A-20230627	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-4	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide <sup>b</sup>	40 U	50	40	20	ug/l	
74-87-3	Methyl Chloride	10 U	20	10	5.0	ug/l	
108-87-2	Methylcyclohexane	5.0 U	10	5.0	4.4	ug/l	
75-09-2	Methylene Chloride <sup>c</sup>	77.5	50	40	20	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	20 U	50	20	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	5.0 U	10	5.0	2.3	ug/l	
100-42-5	Styrene	5.0 U	10	5.0	2.2	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	10	5.0	3.0	ug/l	
127-18-4	Tetrachloroethylene	5.0 U	10	5.0	2.2	ug/l	
108-88-3	Toluene	5.0 U	10	5.0	3.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	10 U	20	10	6.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	10 U	20	10	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	5.0 U	10	5.0	2.5	ug/l	
79-00-5	1,1,2-Trichloroethane	5.0 U	10	5.0	4.7	ug/l	
79-01-6	Trichloroethylene	943	10	5.0	3.5	ug/l	
75-69-4	Trichlorofluoromethane	10 U	20	10	5.0	ug/l	
75-01-4	Vinyl Chloride	5.0 U	10	5.0	4.1	ug/l	
	m,p-Xylene	10 U	20	10	4.7	ug/l	
95-47-6	o-Xylene	5.0 U	10	5.0	2.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	105%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

- (a) Associated CCV outside of DOD QSM control limits high, sample is ND.
- (b) Associated BS recovery outside DOD QSM control limits high, sample is ND.
- (c) Suspected laboratory contaminant.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-25-20230627		
<b>Lab Sample ID:</b>	FC7322-5	<b>Date Sampled:</b>	06/27/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/28/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I757576.D	2	06/29/23 15:23	AL	n/a	n/a	VI2958
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	40 U	50	40	20	ug/l	
71-43-2	Benzene	1.0 U	2.0	1.0	0.62	ug/l	
74-97-5	Bromochloromethane	1.0 U	2.0	1.0	0.90	ug/l	
75-27-4	Bromodichloromethane	1.0 U	2.0	1.0	0.48	ug/l	
75-25-2	Bromoform	1.0 U	2.0	1.0	0.81	ug/l	
78-93-3	2-Butanone (MEK)	7.0 U	10	7.0	4.0	ug/l	
75-15-0	Carbon Disulfide	2.0 U	4.0	2.0	1.1	ug/l	
56-23-5	Carbon Tetrachloride	1.0 U	2.0	1.0	0.71	ug/l	
108-90-7	Chlorobenzene	1.0 U	2.0	1.0	0.40	ug/l	
75-00-3	Chloroethane <sup>a</sup>	2.0 U	4.0	2.0	1.3	ug/l	
67-66-3	Chloroform	1.0 U	2.0	1.0	0.60	ug/l	
110-82-7	Cyclohexane	1.0 U	2.0	1.0	0.78	ug/l	
124-48-1	Dibromochloromethane	1.0 U	2.0	1.0	0.55	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	4.0 U	10	4.0	2.1	ug/l	
106-93-4	1,2-Dibromoethane	2.0 U	4.0	2.0	0.55	ug/l	
75-71-8	Dichlorodifluoromethane	2.0 U	4.0	2.0	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	1.0 U	2.0	1.0	0.65	ug/l	
541-73-1	1,3-Dichlorobenzene	1.0 U	2.0	1.0	0.43	ug/l	
106-46-7	1,4-Dichlorobenzene	1.0 U	2.0	1.0	0.51	ug/l	
75-34-3	1,1-Dichloroethane	1.0 U	2.0	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	1.0 U	2.0	1.0	0.62	ug/l	
75-35-4	1,1-Dichloroethylene	1.0 U	2.0	1.0	0.64	ug/l	
156-59-2	cis-1,2-Dichloroethylene	100	2.0	1.0	0.55	ug/l	
156-60-5	trans-1,2-Dichloroethylene	2.7	2.0	1.0	0.44	ug/l	
78-87-5	1,2-Dichloropropane	1.0 U	2.0	1.0	0.85	ug/l	
10061-01-5	cis-1,3-Dichloropropene	1.0 U	2.0	1.0	0.58	ug/l	
10061-02-6	trans-1,3-Dichloropropene	1.0 U	2.0	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	1.0 U	2.0	1.0	0.71	ug/l	
76-13-1	Freon 113	1.0 U	2.0	1.0	0.96	ug/l	
591-78-6	2-Hexanone	10 U	20	10	4.0	ug/l	
98-82-8	Isopropylbenzene	1.0 U	2.0	1.0	0.44	ug/l	
79-20-9	Methyl Acetate	20 U	40	20	10	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SEAD-AL-MWT-25-20230627	<b>Date Sampled:</b> 06/27/23
<b>Lab Sample ID:</b> FC7322-5	<b>Date Received:</b> 06/28/23
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260D	
<b>Project:</b> Former Seneca Army Depot; NY	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide <sup>b</sup>	8.0 U	10	8.0	4.0	ug/l	
74-87-3	Methyl Chloride	2.0 U	4.0	2.0	1.0	ug/l	
108-87-2	Methylcyclohexane	0.89	2.0	1.0	0.87	ug/l	J
75-09-2	Methylene Chloride <sup>c</sup>	17.8	10	8.0	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.0 U	10	4.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.0 U	2.0	1.0	0.46	ug/l	
100-42-5	Styrene	1.0 U	2.0	1.0	0.44	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U	2.0	1.0	0.60	ug/l	
127-18-4	Tetrachloroethylene	1.0 U	2.0	1.0	0.43	ug/l	
108-88-3	Toluene	1.0 U	2.0	1.0	0.60	ug/l	
87-61-6	1,2,3-Trichlorobenzene	2.0 U	4.0	2.0	1.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	2.0 U	4.0	2.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	1.0 U	2.0	1.0	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	1.0 U	2.0	1.0	0.93	ug/l	
79-01-6	Trichloroethylene	87.7	2.0	1.0	0.69	ug/l	
75-69-4	Trichlorofluoromethane	2.0 U	4.0	2.0	1.0	ug/l	
75-01-4	Vinyl Chloride	8.4	2.0	1.0	0.82	ug/l	
	m,p-Xylene	2.0 U	4.0	2.0	0.93	ug/l	
95-47-6	o-Xylene	1.0 U	2.0	1.0	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	103%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

- (a) Associated CCV outside of DOD QSM control limits high, sample is ND.
- (b) Associated BS recovery outside DOD QSM control limits high, sample is ND.
- (c) Suspected laboratory contaminant.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-PT-17-20230627		
<b>Lab Sample ID:</b>	FC7322-6	<b>Date Sampled:</b>	06/27/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/28/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I757581.D	1	06/29/23 17:23	AL	n/a	n/a	VI2958
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane <sup>a</sup>	1.0 U	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	68.6	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	8.3	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-PT-17-20230627	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-6	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide <sup>b</sup>	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	17.3	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	7.8	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	104%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

(a) Associated CCV outside of DOD QSM control limits high, sample is ND.

(b) Associated BS recovery outside DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-PT-17-20230627		
<b>Lab Sample ID:</b>	FC7322-6	<b>Date Sampled:</b>	06/27/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/28/23
<b>Method:</b>	RSKSOP-147/175	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83508.D	1	07/06/23 12:38	SS	n/a	n/a	GLL2899
Run #2							

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2				

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	209	0.50	0.25	0.16	ug/l	
74-84-0	Ethane	0.43	1.0	0.50	0.32	ug/l	J
74-85-1	Ethene	0.50 U	1.0	0.50	0.43	ug/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.6  
4

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-PT-17-20230627	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-6	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

## General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By Method
Chloride <sup>a</sup>	5.0 U	10	5.0	4.0	mg/l	5	06/28/23 16:30	JB EPA 300/SW846 9056A
Nitrogen, Nitrate <sup>a</sup>	0.25 U	0.50	0.25	0.20	mg/l	5	06/28/23 16:30	JB EPA 300/SW846 9056A
Sulfate	30.4	10	5.0	3.0	mg/l	5	06/28/23 16:30	JB EPA 300/SW846 9056A
Total Organic Carbon	1.9 J	2.0	1.0	0.54	mg/l	1	07/04/23 06:36	FN SM5310 B-14/SW9060A

(a) Dilution required based on initial conductivity reading.

LOQ = Limit of Quantitation    DL = Detection Limit    U = Indicates a result < LOD  
 LOD = Limit of Detection    B = Analyte found in associated blank    J = Indicates a result > = DL (MDL) but < LOQ

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# Report of Analysis

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<b>Client Sample ID:</b>	DUP-02-20230627	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-7	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSKSOP-147/175		
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83509.D	1	07/06/23 12:45	SS	n/a	n/a	GLL2899
Run #2							

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2				

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	229	0.50	0.25	0.16	ug/l	
74-84-0	Ethane	0.45	1.0	0.50	0.32	ug/l	J
74-85-1	Ethene	0.50 U	1.0	0.50	0.43	ug/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
4



# Report of Analysis

<b>Client Sample ID:</b> DUP-02-20230627	<b>Date Sampled:</b> 06/27/23
<b>Lab Sample ID:</b> FC7322-7	<b>Date Received:</b> 06/28/23
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY	

## General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By Method
Chloride <sup>a</sup>	5.0 U	10	5.0	4.0	mg/l	5	06/28/23 16:51	JB EPA 300/SW846 9056A
Nitrogen, Nitrate <sup>a</sup>	0.25 U	0.50	0.25	0.20	mg/l	5	06/28/23 16:51	JB EPA 300/SW846 9056A
Sulfate	30.5	10	5.0	3.0	mg/l	5	06/28/23 16:51	JB EPA 300/SW846 9056A
Total Organic Carbon	1.9 J	2.0	1.0	0.54	mg/l	1	07/04/23 06:57	FN SM5310 B-14/SW9060A

(a) Dilution required based on initial conductivity reading.

LOQ = Limit of Quantitation    DL = Detection Limit    U = Indicates a result < LOD  
 LOD = Limit of Detection    B = Analyte found in associated blank    J = Indicates a result > = DL (MDL) but < LOQ

4.7  
4

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## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-24-20230627		
<b>Lab Sample ID:</b>	FC7322-8	<b>Date Sampled:</b>	06/27/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/28/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I757582.D	1	06/29/23 17:47	AL	n/a	n/a	VI2958
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane <sup>a</sup>	1.0 U	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	9.3	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-MWT-24-20230627	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-8	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide <sup>b</sup>	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	2.1	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.86	1.0	0.50	0.41	ug/l	J
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	103%		79-125%
2037-26-5	Toluene-D8	99%		85-112%
460-00-4	4-Bromofluorobenzene	101%		83-118%

(a) Associated CCV outside of DOD QSM control limits high, sample is ND.

(b) Associated BS recovery outside DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-9	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I757573.D	1	06/29/23 14:11	AL	n/a	n/a	VI2958
Run #2	2077332.D	1	06/30/23 11:25	AL	n/a	n/a	V203013

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane <sup>a</sup>	1.0 U	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-9	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U <sup>b</sup>	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	105%	79-125%
2037-26-5	Toluene-D8	99%	103%	85-112%
460-00-4	4-Bromofluorobenzene	100%	96%	83-118%

(a) Associated CCV outside of DOD QSM control limits high, sample is ND.

(b) Result is from Run# 2

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	DUP-01-20230627		
<b>Lab Sample ID:</b>	FC7322-10	<b>Date Sampled:</b>	06/27/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/28/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I757583.D	10	06/29/23 18:11	AL	n/a	n/a	VI2958
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	200 U	250	200	100	ug/l	
71-43-2	Benzene	5.0 U	10	5.0	3.1	ug/l	
74-97-5	Bromochloromethane	5.0 U	10	5.0	4.5	ug/l	
75-27-4	Bromodichloromethane	5.0 U	10	5.0	2.4	ug/l	
75-25-2	Bromoform	5.0 U	10	5.0	4.1	ug/l	
78-93-3	2-Butanone (MEK)	35 U	50	35	20	ug/l	
75-15-0	Carbon Disulfide	10 U	20	10	5.3	ug/l	
56-23-5	Carbon Tetrachloride	5.0 U	10	5.0	3.6	ug/l	
108-90-7	Chlorobenzene	5.0 U	10	5.0	2.0	ug/l	
75-00-3	Chloroethane <sup>a</sup>	10 U	20	10	6.7	ug/l	
67-66-3	Chloroform	5.0 U	10	5.0	3.0	ug/l	
110-82-7	Cyclohexane	5.0 U	10	5.0	3.9	ug/l	
124-48-1	Dibromochloromethane	5.0 U	10	5.0	2.8	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	20 U	50	20	10	ug/l	
106-93-4	1,2-Dibromoethane	10 U	20	10	2.8	ug/l	
75-71-8	Dichlorodifluoromethane	10 U	20	10	5.0	ug/l	
95-50-1	1,2-Dichlorobenzene	5.0 U	10	5.0	3.2	ug/l	
541-73-1	1,3-Dichlorobenzene	5.0 U	10	5.0	2.2	ug/l	
106-46-7	1,4-Dichlorobenzene	5.0 U	10	5.0	2.6	ug/l	
75-34-3	1,1-Dichloroethane	5.0 U	10	5.0	3.4	ug/l	
107-06-2	1,2-Dichloroethane	5.0 U	10	5.0	3.1	ug/l	
75-35-4	1,1-Dichloroethylene	5.0 U	10	5.0	3.2	ug/l	
156-59-2	cis-1,2-Dichloroethylene	490	10	5.0	2.8	ug/l	
156-60-5	trans-1,2-Dichloroethylene	2.6	10	5.0	2.2	ug/l	J
78-87-5	1,2-Dichloropropane	5.0 U	10	5.0	4.3	ug/l	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	10	5.0	2.9	ug/l	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	10	5.0	2.1	ug/l	
100-41-4	Ethylbenzene	5.0 U	10	5.0	3.6	ug/l	
76-13-1	Freon 113	5.0 U	10	5.0	4.8	ug/l	
591-78-6	2-Hexanone	50 U	100	50	20	ug/l	
98-82-8	Isopropylbenzene	5.0 U	10	5.0	2.2	ug/l	
79-20-9	Methyl Acetate	100 U	200	100	50	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	DUP-01-20230627	<b>Date Sampled:</b>	06/27/23
<b>Lab Sample ID:</b>	FC7322-10	<b>Date Received:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide <sup>b</sup>	40 U	50	40	20	ug/l	
74-87-3	Methyl Chloride	10 U	20	10	5.0	ug/l	
108-87-2	Methylcyclohexane	5.0 U	10	5.0	4.4	ug/l	
75-09-2	Methylene Chloride <sup>c</sup>	74.2	50	40	20	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	20 U	50	20	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	5.0 U	10	5.0	2.3	ug/l	
100-42-5	Styrene	5.0 U	10	5.0	2.2	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	10	5.0	3.0	ug/l	
127-18-4	Tetrachloroethylene	5.0 U	10	5.0	2.2	ug/l	
108-88-3	Toluene	5.0 U	10	5.0	3.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	10 U	20	10	6.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	10 U	20	10	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	5.0 U	10	5.0	2.5	ug/l	
79-00-5	1,1,2-Trichloroethane	5.0 U	10	5.0	4.7	ug/l	
79-01-6	Trichloroethylene	995	10	5.0	3.5	ug/l	
75-69-4	Trichlorofluoromethane	10 U	20	10	5.0	ug/l	
75-01-4	Vinyl Chloride	5.0 U	10	5.0	4.1	ug/l	
	m,p-Xylene	10 U	20	10	4.7	ug/l	
95-47-6	o-Xylene	5.0 U	10	5.0	2.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		83-118%
17060-07-0	1,2-Dichloroethane-D4	101%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

- (a) Associated CCV outside of DOD QSM control limits high, sample is ND.
- (b) Associated BS recovery outside DOD QSM control limits high, sample is ND.
- (c) Suspected laboratory contaminant.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits



SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.sgs.com

SGS - ORLANDO JOB # :

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SGS - ORLANDO Quote #

SKIFF #

Client / Reporting Information			Project Information										Analytical Information										Matrix Codes		
Company Name: EA Engineering			Project Name: Seneca Army Depot																				DW - Drinking Water		
Address: 269 West Jefferson St			Street: Patrol Rd																				GW - Ground Water		
City: Syracuse State: NY Zip: 1302			City: Romulus State: NY																				WW - Water		
Project Contact: Frank Desantog Email: fdesantog@eaest.com			Project #																				SW - Surface Water		
Phone #: Mike Wright mwright@eaest.com			Fax #																				SO - Soil		
Sampler(s) Name(s) (Printed)			Client Purchase Order #																				SL - Sludge		
Sampler 1: M. Wright																							OI - Oil		
Sampler 2: Thomas Robinson																							LIQ - Other Liquid		
																							AIR - Air		
																							SOL - Other Solid		
SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	ICI	INCH	INCH3	INCH4	INCH5	INCH6	INCH7	INCH8	INCH9	INCH10	INCH11	INCH12	LAB USE ONLY				
1	SEAD-AL-MWT-23-20230627	6/27/23	1416	TR	GW	21			X																
2	SEAD-AL-MWT-22-20230627		1200	MW		3			X																
3	SEAD-AL-MW-SGR-20230627		1300	MW		3			X																
4	SEAD-AL-PT-18A-20230627		1052	MW		3			X																
10	DUP-01-20230627		-	-		3			X																
5	SEAD-AL-MWT-25-20230627		1058	TR		9			X																
6	SEAD-AL-PT-17-20230627		1247	TR		9			X																
7	DUP-02-20230627		-	-		3			X																
8	SEAD-AL-MWT-24-20230627	6/23/23	1410	MW		3			X																
9	Trip Blank		-	-		3			X																
Turnaround Time ( Business days)			Data Deliverable Information										Comments / Remarks												
<input checked="" type="checkbox"/> 10 Day (Business) <input type="checkbox"/> 7 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> Other			Approved By: / Date:			<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input checked="" type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S										MS/MSD for TOC, Diss Gas, Arsenic on MWT-23 MS/MSD for VOC on MWT-25 Prefix on all sample SEAD-AL-									
Rush T/A Data Available VIA Email or Lablink																									
Sample Custody must be documented below each time samples change possession, including courier delivery.																									
Relinquished by Sampler/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Relinquished By/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Relinquished By/Affiliation		Date Time:		Received By/Affiliation					
1 EA		6/27/23 1400		2 Fed Ex				3 Fed Ex				4		6/28/23 0945		5				6					
5				6				7				8				9				10					
Lab Use Only : Cooler Temperature (s) Celsius (corrected): 3.0 FL #1																									
http://www.sgs.com/en/terms-and-conditions																									

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FC7322: Chain of Custody

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
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V2O3013 SW846 8260D

V2O3013-BS	74-83-9	Methyl Bromide	BSP	REC	84	%	53-141
V2O3013-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	99	%	80-119
V2O3013-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	98	%	81-118
V2O3013-BS	2037-26-5	Toluene-D8	BSP	SURR	98	%	89-112
V2O3013-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	95	%	85-114
FC7351-1MS*	74-83-9	Methyl Bromide	MS	REC	67	%	53-141
FC7351-1MS*	1868-53-7	Dibromofluoromethane	MS	SURR	102	%	80-119
FC7351-1MS*	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	98	%	81-118
FC7351-1MS*	2037-26-5	Toluene-D8	MS	SURR	97	%	89-112
FC7351-1MS*	460-00-4	4-Bromofluorobenzene	MS	SURR	94	%	85-114
FC7351-1MSD*	74-83-9	Methyl Bromide	MSD	REC	75	%	53-141
FC7351-1MSD*	74-83-9	Methyl Bromide	MSD	RPD	11	%	20
FC7351-1MSD*	1868-53-7	Dibromofluoromethane	MSD	SURR	101	%	80-119
FC7351-1MSD*	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	98	%	81-118
FC7351-1MSD*	2037-26-5	Toluene-D8	MSD	SURR	97	%	89-112
FC7351-1MSD*	460-00-4	4-Bromofluorobenzene	MSD	SURR	95	%	85-114
V2O3013-MB	1868-53-7	Dibromofluoromethane	MB	SURR	103	%	80-119
V2O3013-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	98	%	81-118
V2O3013-MB	2037-26-5	Toluene-D8	MB	SURR	103	%	89-112
V2O3013-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	112	%	85-114
FC7322-9	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
FC7322-9	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	105	%	81-118
FC7322-9	2037-26-5	Toluene-D8	SAMP	SURR	103	%	89-112
FC7322-9	460-00-4	4-Bromofluorobenzene	SAMP	SURR	96	%	85-114

VI2958 SW846 8260D

VI2958-BS	67-64-1	Acetone	BSP	REC	89	%	39-160
VI2958-BS	71-43-2	Benzene	BSP	REC	97	%	79-120
VI2958-BS	74-97-5	Bromochloromethane	BSP	REC	96	%	78-123
VI2958-BS	75-27-4	Bromodichloromethane	BSP	REC	95	%	79-125
VI2958-BS	75-25-2	Bromoform	BSP	REC	104	%	66-130
VI2958-BS	78-93-3	2-Butanone (MEK)	BSP	REC	90	%	56-143
VI2958-BS	75-15-0	Carbon Disulfide	BSP	REC	88	%	64-133
VI2958-BS	56-23-5	Carbon Tetrachloride	BSP	REC	102	%	72-136
VI2958-BS	108-90-7	Chlorobenzene	BSP	REC	102	%	82-118
VI2958-BS	75-00-3	Chloroethane	BSP	REC	128	%	60-138
VI2958-BS	67-66-3	Chloroform	BSP	REC	98	%	79-124
VI2958-BS	110-82-7	Cyclohexane	BSP	REC	104	%	71-130
VI2958-BS	124-48-1	Dibromochloromethane	BSP	REC	108	%	74-126
VI2958-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	102	%	62-128
VI2958-BS	106-93-4	1,2-Dibromoethane	BSP	REC	105	%	77-121

\* Sample used for QC is not from job FC7322

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
VI2958-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	106	%	32-152
VI2958-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	104	%	80-119
VI2958-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	102	%	80-119
VI2958-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	100	%	79-118
VI2958-BS	75-34-3	1,1-Dichloroethane	BSP	REC	95	%	77-125
VI2958-BS	107-06-2	1,2-Dichloroethane	BSP	REC	98	%	73-128
VI2958-BS	75-35-4	1,1-Dichloroethylene	BSP	REC	98	%	71-131
VI2958-BS	156-59-2	cis-1,2-Dichloroethylene	BSP	REC	94	%	78-123
VI2958-BS	156-60-5	trans-1,2-Dichloroethylene	BSP	REC	95	%	75-124
VI2958-BS	78-87-5	1,2-Dichloropropane	BSP	REC	100	%	78-122
VI2958-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	97	%	75-124
VI2958-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	94	%	73-127
VI2958-BS	100-41-4	Ethylbenzene	BSP	REC	101	%	79-121
VI2958-BS	76-13-1	Freon 113	BSP	REC	112	%	70-136
VI2958-BS	591-78-6	2-Hexanone	BSP	REC	99	%	57-139
VI2958-BS	98-82-8	Isopropylbenzene	BSP	REC	100	%	72-131
VI2958-BS	79-20-9	Methyl Acetate	BSP	REC	91	%	56-136
VI2958-BS	74-83-9	Methyl Bromide	BSP	REC	158	%	53-141
VI2958-BS	74-87-3	Methyl Chloride	BSP	REC	100	%	50-139
VI2958-BS	108-87-2	Methylcyclohexane	BSP	REC	100	%	72-132
VI2958-BS	75-09-2	Methylene Chloride	BSP	REC	104	%	74-124
VI2958-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	98	%	67-130
VI2958-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	96	%	71-124
VI2958-BS	100-42-5	Styrene	BSP	REC	102	%	78-123
VI2958-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	104	%	71-121
VI2958-BS	127-18-4	Tetrachloroethylene	BSP	REC	107	%	74-129
VI2958-BS	108-88-3	Toluene	BSP	REC	102	%	80-121
VI2958-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	101	%	69-129
VI2958-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	98	%	69-130
VI2958-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	98	%	74-131
VI2958-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	102	%	80-119
VI2958-BS	79-01-6	Trichloroethylene	BSP	REC	97	%	79-123
VI2958-BS	75-69-4	Trichlorofluoromethane	BSP	REC	107	%	65-141
VI2958-BS	75-01-4	Vinyl Chloride	BSP	REC	97	%	58-137
VI2958-BS		m,p-Xylene	BSP	REC	102	%	80-121
VI2958-BS	95-47-6	o-Xylene	BSP	REC	95	%	78-122
VI2958-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	103	%	80-119
VI2958-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	108	%	81-118
VI2958-BS	2037-26-5	Toluene-D8	BSP	SURR	103	%	89-112
VI2958-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	99	%	85-114
FC7322-5MS	67-64-1	Acetone	MS	REC	99	%	39-160
FC7322-5MS	71-43-2	Benzene	MS	REC	99	%	79-120
FC7322-5MS	74-97-5	Bromochloromethane	MS	REC	94	%	78-123
FC7322-5MS	75-27-4	Bromodichloromethane	MS	REC	95	%	79-125
FC7322-5MS	75-25-2	Bromoform	MS	REC	98	%	66-130

\* Sample used for QC is not from job FC7322

# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7322-5MS	78-93-3	2-Butanone (MEK)	MS	REC	97	%	56-143
FC7322-5MS	75-15-0	Carbon Disulfide	MS	REC	99	%	64-133
FC7322-5MS	56-23-5	Carbon Tetrachloride	MS	REC	107	%	72-136
FC7322-5MS	108-90-7	Chlorobenzene	MS	REC	103	%	82-118
FC7322-5MS	75-00-3	Chloroethane	MS	REC	135	%	60-138
FC7322-5MS	67-66-3	Chloroform	MS	REC	99	%	79-124
FC7322-5MS	110-82-7	Cyclohexane	MS	REC	107	%	71-130
FC7322-5MS	124-48-1	Dibromochloromethane	MS	REC	105	%	74-126
FC7322-5MS	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	97	%	62-128
FC7322-5MS	106-93-4	1,2-Dibromoethane	MS	REC	101	%	77-121
FC7322-5MS	75-71-8	Dichlorodifluoromethane	MS	REC	104	%	32-152
FC7322-5MS	95-50-1	1,2-Dichlorobenzene	MS	REC	101	%	80-119
FC7322-5MS	541-73-1	1,3-Dichlorobenzene	MS	REC	100	%	80-119
FC7322-5MS	106-46-7	1,4-Dichlorobenzene	MS	REC	101	%	79-118
FC7322-5MS	75-34-3	1,1-Dichloroethane	MS	REC	96	%	77-125
FC7322-5MS	107-06-2	1,2-Dichloroethane	MS	REC	98	%	73-128
FC7322-5MS	75-35-4	1,1-Dichloroethylene	MS	REC	105	%	71-131
FC7322-5MS	156-59-2	cis-1,2-Dichloroethylene	MS	REC	107	%	78-123
FC7322-5MS	156-60-5	trans-1,2-Dichloroethylene	MS	REC	101	%	75-124
FC7322-5MS	78-87-5	1,2-Dichloropropane	MS	REC	100	%	78-122
FC7322-5MS	10061-01-5	cis-1,3-Dichloropropene	MS	REC	87	%	75-124
FC7322-5MS	10061-02-6	trans-1,3-Dichloropropene	MS	REC	88	%	73-127
FC7322-5MS	100-41-4	Ethylbenzene	MS	REC	103	%	79-121
FC7322-5MS	76-13-1	Freon 113	MS	REC	122	%	70-136
FC7322-5MS	591-78-6	2-Hexanone	MS	REC	105	%	57-139
FC7322-5MS	98-82-8	Isopropylbenzene	MS	REC	99	%	72-131
FC7322-5MS	79-20-9	Methyl Acetate	MS	REC	89	%	56-136
FC7322-5MS	74-83-9	Methyl Bromide	MS	REC	82	%	53-141
FC7322-5MS	74-87-3	Methyl Chloride	MS	REC	94	%	50-139
FC7322-5MS	108-87-2	Methylcyclohexane	MS	REC	106	%	72-132
FC7322-5MS	75-09-2	Methylene Chloride	MS	REC	115	%	74-124
FC7322-5MS	108-10-1	4-Methyl-2-pentanone (MIBK)	MS	REC	105	%	67-130
FC7322-5MS	1634-04-4	Methyl Tert Butyl Ether	MS	REC	96	%	71-124
FC7322-5MS	100-42-5	Styrene	MS	REC	101	%	78-123
FC7322-5MS	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	104	%	71-121
FC7322-5MS	127-18-4	Tetrachloroethylene	MS	REC	108	%	74-129
FC7322-5MS	108-88-3	Toluene	MS	REC	102	%	80-121
FC7322-5MS	87-61-6	1,2,3-Trichlorobenzene	MS	REC	97	%	69-129
FC7322-5MS	120-82-1	1,2,4-Trichlorobenzene	MS	REC	94	%	69-130
FC7322-5MS	71-55-6	1,1,1-Trichloroethane	MS	REC	104	%	74-131
FC7322-5MS	79-00-5	1,1,2-Trichloroethane	MS	REC	100	%	80-119
FC7322-5MS	79-01-6	Trichloroethylene	MS	REC	101	%	79-123
FC7322-5MS	75-69-4	Trichlorofluoromethane	MS	REC	107	%	65-141
FC7322-5MS	75-01-4	Vinyl Chloride	MS	REC	99	%	58-137
FC7322-5MS		m,p-Xylene	MS	REC	104	%	80-121

\* Sample used for QC is not from job FC7322

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7322-5MS	95-47-6	o-Xylene	MS	REC	95	%	78-122
FC7322-5MS	1868-53-7	Dibromofluoromethane	MS	SURR	103	%	80-119
FC7322-5MS	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	107	%	81-118
FC7322-5MS	2037-26-5	Toluene-D8	MS	SURR	103	%	89-112
FC7322-5MS	460-00-4	4-Bromofluorobenzene	MS	SURR	101	%	85-114
FC7322-5MSD	67-64-1	Acetone	MSD	REC	96	%	39-160
FC7322-5MSD	67-64-1	Acetone	MSD	RPD	3	%	20
FC7322-5MSD	71-43-2	Benzene	MSD	REC	96	%	79-120
FC7322-5MSD	71-43-2	Benzene	MSD	RPD	3	%	20
FC7322-5MSD	74-97-5	Bromochloromethane	MSD	REC	94	%	78-123
FC7322-5MSD	74-97-5	Bromochloromethane	MSD	RPD	1	%	20
FC7322-5MSD	75-27-4	Bromodichloromethane	MSD	REC	94	%	79-125
FC7322-5MSD	75-27-4	Bromodichloromethane	MSD	RPD	1	%	20
FC7322-5MSD	75-25-2	Bromoform	MSD	REC	96	%	66-130
FC7322-5MSD	75-25-2	Bromoform	MSD	RPD	2	%	20
FC7322-5MSD	78-93-3	2-Butanone (MEK)	MSD	REC	95	%	56-143
FC7322-5MSD	78-93-3	2-Butanone (MEK)	MSD	RPD	2	%	20
FC7322-5MSD	75-15-0	Carbon Disulfide	MSD	REC	97	%	64-133
FC7322-5MSD	75-15-0	Carbon Disulfide	MSD	RPD	2	%	20
FC7322-5MSD	56-23-5	Carbon Tetrachloride	MSD	REC	104	%	72-136
FC7322-5MSD	56-23-5	Carbon Tetrachloride	MSD	RPD	3	%	20
FC7322-5MSD	108-90-7	Chlorobenzene	MSD	REC	100	%	82-118
FC7322-5MSD	108-90-7	Chlorobenzene	MSD	RPD	2	%	20
FC7322-5MSD	75-00-3	Chloroethane	MSD	REC	127	%	60-138
FC7322-5MSD	75-00-3	Chloroethane	MSD	RPD	6	%	20
FC7322-5MSD	67-66-3	Chloroform	MSD	REC	96	%	79-124
FC7322-5MSD	67-66-3	Chloroform	MSD	RPD	3	%	20
FC7322-5MSD	110-82-7	Cyclohexane	MSD	REC	108	%	71-130
FC7322-5MSD	110-82-7	Cyclohexane	MSD	RPD	0	%	20
FC7322-5MSD	124-48-1	Dibromochloromethane	MSD	REC	105	%	74-126
FC7322-5MSD	124-48-1	Dibromochloromethane	MSD	RPD	0	%	20
FC7322-5MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	REC	100	%	62-128
FC7322-5MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	RPD	3	%	20
FC7322-5MSD	106-93-4	1,2-Dibromoethane	MSD	REC	102	%	77-121
FC7322-5MSD	106-93-4	1,2-Dibromoethane	MSD	RPD	0	%	20
FC7322-5MSD	75-71-8	Dichlorodifluoromethane	MSD	REC	103	%	32-152
FC7322-5MSD	75-71-8	Dichlorodifluoromethane	MSD	RPD	1	%	20
FC7322-5MSD	95-50-1	1,2-Dichlorobenzene	MSD	REC	100	%	80-119
FC7322-5MSD	95-50-1	1,2-Dichlorobenzene	MSD	RPD	1	%	20
FC7322-5MSD	541-73-1	1,3-Dichlorobenzene	MSD	REC	98	%	80-119
FC7322-5MSD	541-73-1	1,3-Dichlorobenzene	MSD	RPD	2	%	20
FC7322-5MSD	106-46-7	1,4-Dichlorobenzene	MSD	REC	98	%	79-118
FC7322-5MSD	106-46-7	1,4-Dichlorobenzene	MSD	RPD	2	%	20
FC7322-5MSD	75-34-3	1,1-Dichloroethane	MSD	REC	94	%	77-125
FC7322-5MSD	75-34-3	1,1-Dichloroethane	MSD	RPD	3	%	20

\* Sample used for QC is not from job FC7322

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7322-5MSD	107-06-2	1,2-Dichloroethane	MSD	REC	96	%	73-128
FC7322-5MSD	107-06-2	1,2-Dichloroethane	MSD	RPD	3	%	20
FC7322-5MSD	75-35-4	1,1-Dichloroethylene	MSD	REC	104	%	71-131
FC7322-5MSD	75-35-4	1,1-Dichloroethylene	MSD	RPD	2	%	20
FC7322-5MSD	156-59-2	cis-1,2-Dichloroethylene	MSD	REC	106	%	78-123
FC7322-5MSD	156-59-2	cis-1,2-Dichloroethylene	MSD	RPD	1	%	20
FC7322-5MSD	156-60-5	trans-1,2-Dichloroethylene	MSD	REC	98	%	75-124
FC7322-5MSD	156-60-5	trans-1,2-Dichloroethylene	MSD	RPD	3	%	20
FC7322-5MSD	78-87-5	1,2-Dichloropropane	MSD	REC	97	%	78-122
FC7322-5MSD	78-87-5	1,2-Dichloropropane	MSD	RPD	4	%	20
FC7322-5MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	84	%	75-124
FC7322-5MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	4	%	20
FC7322-5MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	88	%	73-127
FC7322-5MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	0	%	20
FC7322-5MSD	100-41-4	Ethylbenzene	MSD	REC	101	%	79-121
FC7322-5MSD	100-41-4	Ethylbenzene	MSD	RPD	2	%	20
FC7322-5MSD	76-13-1	Freon 113	MSD	REC	121	%	70-136
FC7322-5MSD	76-13-1	Freon 113	MSD	RPD	1	%	20
FC7322-5MSD	591-78-6	2-Hexanone	MSD	REC	103	%	57-139
FC7322-5MSD	591-78-6	2-Hexanone	MSD	RPD	2	%	20
FC7322-5MSD	98-82-8	Isopropylbenzene	MSD	REC	99	%	72-131
FC7322-5MSD	98-82-8	Isopropylbenzene	MSD	RPD	0	%	20
FC7322-5MSD	79-20-9	Methyl Acetate	MSD	REC	88	%	56-136
FC7322-5MSD	79-20-9	Methyl Acetate	MSD	RPD	1	%	20
FC7322-5MSD	74-83-9	Methyl Bromide	MSD	REC	101	%	53-141
FC7322-5MSD	74-83-9	Methyl Bromide	MSD	RPD	21	%	20
FC7322-5MSD	74-87-3	Methyl Chloride	MSD	REC	94	%	50-139
FC7322-5MSD	74-87-3	Methyl Chloride	MSD	RPD	1	%	20
FC7322-5MSD	108-87-2	Methylcyclohexane	MSD	REC	105	%	72-132
FC7322-5MSD	108-87-2	Methylcyclohexane	MSD	RPD	1	%	20
FC7322-5MSD	75-09-2	Methylene Chloride	MSD	REC	116	%	74-124
FC7322-5MSD	75-09-2	Methylene Chloride	MSD	RPD	1	%	20
FC7322-5MSD	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	REC	102	%	67-130
FC7322-5MSD	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	RPD	3	%	20
FC7322-5MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	REC	94	%	71-124
FC7322-5MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	RPD	2	%	20
FC7322-5MSD	100-42-5	Styrene	MSD	REC	99	%	78-123
FC7322-5MSD	100-42-5	Styrene	MSD	RPD	2	%	20
FC7322-5MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	101	%	71-121
FC7322-5MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	3	%	20
FC7322-5MSD	127-18-4	Tetrachloroethylene	MSD	REC	106	%	74-129
FC7322-5MSD	127-18-4	Tetrachloroethylene	MSD	RPD	2	%	20
FC7322-5MSD	108-88-3	Toluene	MSD	REC	100	%	80-121
FC7322-5MSD	108-88-3	Toluene	MSD	RPD	2	%	20
FC7322-5MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	REC	95	%	69-129

\* Sample used for QC is not from job FC7322

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7322-5MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	RPD	2	%	20
FC7322-5MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	REC	93	%	69-130
FC7322-5MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	RPD	1	%	20
FC7322-5MSD	71-55-6	1,1,1-Trichloroethane	MSD	REC	102	%	74-131
FC7322-5MSD	71-55-6	1,1,1-Trichloroethane	MSD	RPD	1	%	20
FC7322-5MSD	79-00-5	1,1,2-Trichloroethane	MSD	REC	101	%	80-119
FC7322-5MSD	79-00-5	1,1,2-Trichloroethane	MSD	RPD	1	%	20
FC7322-5MSD	79-01-6	Trichloroethylene	MSD	REC	98	%	79-123
FC7322-5MSD	79-01-6	Trichloroethylene	MSD	RPD	1	%	20
FC7322-5MSD	75-69-4	Trichlorofluoromethane	MSD	REC	106	%	65-141
FC7322-5MSD	75-69-4	Trichlorofluoromethane	MSD	RPD	0	%	20
FC7322-5MSD	75-01-4	Vinyl Chloride	MSD	REC	96	%	58-137
FC7322-5MSD	75-01-4	Vinyl Chloride	MSD	RPD	3	%	20
FC7322-5MSD		m,p-Xylene	MSD	REC	102	%	80-121
FC7322-5MSD		m,p-Xylene	MSD	RPD	2	%	20
FC7322-5MSD	95-47-6	o-Xylene	MSD	REC	95	%	78-122
FC7322-5MSD	95-47-6	o-Xylene	MSD	RPD	0	%	20
FC7322-5MSD	1868-53-7	Dibromofluoromethane	MSD	SURR	101	%	80-119
FC7322-5MSD	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	106	%	81-118
FC7322-5MSD	2037-26-5	Toluene-D8	MSD	SURR	103	%	89-112
FC7322-5MSD	460-00-4	4-Bromofluorobenzene	MSD	SURR	99	%	85-114
VI2958-MB	1868-53-7	Dibromofluoromethane	MB	SURR	99	%	80-119
VI2958-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	102	%	81-118
VI2958-MB	2037-26-5	Toluene-D8	MB	SURR	98	%	89-112
VI2958-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	99	%	85-114
FC7322-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
FC7322-1	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	104	%	81-118
FC7322-1	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
FC7322-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	100	%	85-114
FC7322-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
FC7322-2	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	107	%	81-118
FC7322-2	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
FC7322-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	100	%	85-114
FC7322-3	1868-53-7	Dibromofluoromethane	SAMP	SURR	100	%	80-119
FC7322-3	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	104	%	81-118
FC7322-3	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
FC7322-3	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
FC7322-4	1868-53-7	Dibromofluoromethane	SAMP	SURR	98	%	80-119
FC7322-4	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	105	%	81-118
FC7322-4	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7322-4	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
FC7322-5	1868-53-7	Dibromofluoromethane	SAMP	SURR	98	%	80-119
FC7322-5	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	81-118
FC7322-5	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7322-5	460-00-4	4-Bromofluorobenzene	SAMP	SURR	100	%	85-114

\* Sample used for QC is not from job FC7322

5.2  
5

# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7322-6	1868-53-7	Dibromofluoromethane	SAMP	SURR	98	%	80-119
FC7322-6	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	104	%	81-118
FC7322-6	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7322-6	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
FC7322-8	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
FC7322-8	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	81-118
FC7322-8	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
FC7322-8	460-00-4	4-Bromofluorobenzene	SAMP	SURR	101	%	85-114
FC7322-9	1868-53-7	Dibromofluoromethane	SAMP	SURR	98	%	80-119
FC7322-9	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	81-118
FC7322-9	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
FC7322-9	460-00-4	4-Bromofluorobenzene	SAMP	SURR	100	%	85-114
FC7322-10	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
FC7322-10	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	101	%	81-118
FC7322-10	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7322-10	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
GLL2899 RSKSOP-147/175							
GLL2899-BS	74-82-8	Methane	BSP	REC	107	%	73-125
GLL2899-BS	74-84-0	Ethane	BSP	REC	105	%	74-131
GLL2899-BS	74-85-1	Ethene	BSP	REC	107	%	72-133
GLL2899-BSD	74-82-8	Methane	BSD	REC	105	%	73-125
GLL2899-BSD	74-82-8	Methane	BSD	RPD	3	%	30
GLL2899-BSD	74-84-0	Ethane	BSD	REC	102	%	74-131
GLL2899-BSD	74-84-0	Ethane	BSD	RPD	3	%	30
GLL2899-BSD	74-85-1	Ethene	BSD	REC	104	%	72-133
GLL2899-BSD	74-85-1	Ethene	BSD	RPD	3	%	30
FC7322-1MS	74-82-8	Methane	MS	REC	-10667 <sup>a</sup>	%	73-125
FC7322-1MS	74-84-0	Ethane	MS	REC	106	%	74-131
FC7322-1MS	74-85-1	Ethene	MS	REC	107	%	72-133
FC7322-1DUP	74-82-8	Methane	DUP	RPD	12	%	30
FC7322-1DUP	74-84-0	Ethane	DUP	RPD	0	%	30
FC7322-1DUP	74-85-1	Ethene	DUP	RPD	0	%	30
GP38901 EPA 300/SW846 9056A							
GP38901-B1	16887-00-6	Chloride	BSP	REC	93.6	%	87-111
GP38901-B1	14797-55-8	Nitrogen, Nitrate	BSP	REC	101.6	%	88-111
GP38901-B1	14808-79-8	Sulfate	BSP	REC	95.2	%	87-112
GP38901-S3	16887-00-6	Chloride	MS	REC	97.8	%	87-111
GP38901-S3	14797-55-8	Nitrogen, Nitrate	MS	REC	112 <sup>b</sup>	%	88-111
GP38901-S3	14808-79-8	Sulfate	MS	REC	87.4 <sup>b</sup>	%	87-112
GP38901-S4	16887-00-6	Chloride	MSD	RPD	.4	%	15
GP38901-S4	16887-00-6	Chloride	MSD	REC	98.2	%	87-111

\* Sample used for QC is not from job FC7322

# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7322  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/27/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
GP38901-S4	14797-55-8	Nitrogen, Nitrate	MSD	RPD	0	%	15
GP38901-S4	14797-55-8	Nitrogen, Nitrate	MSD	REC	112	%	88-111
GP38901-S4	14808-79-8	Sulfate	MSD	RPD	.8	%	15
GP38901-S4	14808-79-8	Sulfate	MSD	REC	88.2	%	87-112

- (a) Outside control limits due to high level in sample relative to spike amount.
- (b) Spike recovery indicates possible matrix interference.

\* Sample used for QC is not from job FC7322

## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

**Method Blank Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2958-MB <sup>a</sup>	I757571.D	1	06/29/23	AL	n/a	n/a	VI2958

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7322-1, FC7322-2, FC7322-3, FC7322-4, FC7322-5, FC7322-6, FC7322-8, FC7322-9, FC7322-10

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.39	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
76-13-1	Freon 113	ND	1.0	0.48	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	3.9	5.0	2.0	ug/l	J
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.44	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	



## Method Blank Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2958-MB <sup>a</sup>	I757571.D	1	06/29/23	AL	n/a	n/a	VI2958

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7322-1, FC7322-2, FC7322-3, FC7322-4, FC7322-5, FC7322-6, FC7322-8, FC7322-9, FC7322-10

CAS No.	Compound	Result	RL	MDL	Units	Q
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.23	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
	m,p-Xylene	ND	2.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 83-118%
17060-07-0	1,2-Dichloroethane-D4	102% 79-125%
2037-26-5	Toluene-D8	98% 85-112%
460-00-4	4-Bromofluorobenzene	99% 83-118%

(a) Sample was treated with an anti-foaming agent.

**Method Blank Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3013-MB	2077330.D	1	06/30/23	AL	n/a	n/a	V2O3013

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7322-9

CAS No.	Compound	Result	RL	MDL	Units	Q
74-83-9	Methyl Bromide	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	98%	79-125%
2037-26-5	Toluene-D8	103%	85-112%
460-00-4	4-Bromofluorobenzene	112%	83-118%

**Blank Spike Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2958-BS	I757570.D	1	06/29/23	AL	n/a	n/a	VI2958

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7322-1, FC7322-2, FC7322-3, FC7322-4, FC7322-5, FC7322-6, FC7322-8, FC7322-9, FC7322-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	111	89	50-147
71-43-2	Benzene	25	24.2	97	81-122
74-97-5	Bromochloromethane	25	23.9	96	76-123
75-27-4	Bromodichloromethane	25	23.7	95	79-123
75-25-2	Bromoform	25	25.9	104	66-123
78-93-3	2-Butanone (MEK)	125	113	90	56-143
75-15-0	Carbon Disulfide	25	22.1	88	66-148
56-23-5	Carbon Tetrachloride	25	25.5	102	76-136
108-90-7	Chlorobenzene	25	25.6	102	82-124
75-00-3	Chloroethane	25	32.0	128	62-144
67-66-3	Chloroform	25	24.6	98	80-124
110-82-7	Cyclohexane	25	25.9	104	73-138
124-48-1	Dibromochloromethane	25	27.0	108	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	25.6	102	64-123
106-93-4	1,2-Dibromoethane	25	26.3	105	75-120
75-71-8	Dichlorodifluoromethane	25	26.4	106	42-167
95-50-1	1,2-Dichlorobenzene	25	26.1	104	82-124
541-73-1	1,3-Dichlorobenzene	25	25.5	102	84-125
106-46-7	1,4-Dichlorobenzene	25	25.1	100	78-120
75-34-3	1,1-Dichloroethane	25	23.7	95	81-122
107-06-2	1,2-Dichloroethane	25	24.6	98	75-125
75-35-4	1,1-Dichloroethylene	25	24.5	98	78-137
156-59-2	cis-1,2-Dichloroethylene	25	23.5	94	78-120
156-60-5	trans-1,2-Dichloroethylene	25	23.8	95	76-127
78-87-5	1,2-Dichloropropane	25	24.9	100	76-124
10061-01-5	cis-1,3-Dichloropropene	25	24.2	97	75-118
10061-02-6	trans-1,3-Dichloropropene	25	23.5	94	80-120
100-41-4	Ethylbenzene	25	25.2	101	81-121
76-13-1	Freon 113	25	27.9	112	72-134
591-78-6	2-Hexanone	125	124	99	61-129
98-82-8	Isopropylbenzene	25	24.9	100	83-132
79-20-9	Methyl Acetate	125	114	91	65-126
74-83-9	Methyl Bromide	25	39.4	158*	59-143
74-87-3	Methyl Chloride	25	25.1	100	50-159
108-87-2	Methylcyclohexane	25	25.0	100	76-129
75-09-2	Methylene Chloride	25	26.1	104	69-135

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2958-BS	I757570.D	1	06/29/23	AL	n/a	n/a	VI2958

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7322-1, FC7322-2, FC7322-3, FC7322-4, FC7322-5, FC7322-6, FC7322-8, FC7322-9, FC7322-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-10-1	4-Methyl-2-pentanone (MIBK)	125	123	98	66-122
1634-04-4	Methyl Tert Butyl Ether	25	24.0	96	72-117
100-42-5	Styrene	25	25.6	102	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	25.9	104	72-120
127-18-4	Tetrachloroethylene	25	26.8	107	76-135
108-88-3	Toluene	25	25.4	102	80-120
87-61-6	1,2,3-Trichlorobenzene	25	25.2	101	68-131
120-82-1	1,2,4-Trichlorobenzene	25	24.6	98	73-129
71-55-6	1,1,1-Trichloroethane	25	24.6	98	75-130
79-00-5	1,1,2-Trichloroethane	25	25.4	102	76-119
79-01-6	Trichloroethylene	25	24.2	97	81-126
75-69-4	Trichlorofluoromethane	25	26.8	107	71-156
75-01-4	Vinyl Chloride	25	24.2	97	69-159
95-47-6	m,p-Xylene	50	51.1	102	79-126
	o-Xylene	25	23.8	95	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	108%	79-125%
2037-26-5	Toluene-D8	103%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

\* = Outside of Control Limits.

**Blank Spike Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V203013-BS	2077328.D	1	06/30/23	AL	n/a	n/a	V203013

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7322-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-83-9	Methyl Bromide	25	20.9	84	59-143

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	98%	79-125%
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	95%	83-118%

\* = Outside of Control Limits.



## Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7322-5MS	I757590.D	2.5	06/29/23	AL	n/a	n/a	VI2958
FC7322-5MSD	I757591.D	2.5	06/29/23	AL	n/a	n/a	VI2958
FC7322-5	I757576.D	2	06/29/23	AL	n/a	n/a	VI2958

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7322-1, FC7322-2, FC7322-3, FC7322-4, FC7322-5, FC7322-6, FC7322-8, FC7322-9, FC7322-10

CAS No.	Compound	FC7322-5		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
		ug/l	Q								
67-64-1	Acetone	50 U		313	310	99	313	301	96	3	50-147/21
71-43-2	Benzene	2.0 U		62.5	61.9	99	62.5	60.3	96	3	81-122/14
74-97-5	Bromochloromethane	2.0 U		62.5	58.9	94	62.5	58.6	94	1	76-123/14
75-27-4	Bromodichloromethane	2.0 U		62.5	59.1	95	62.5	58.6	94	1	79-123/19
75-25-2	Bromoform	2.0 U		62.5	61.4	98	62.5	60.3	96	2	66-123/21
78-93-3	2-Butanone (MEK)	10 U		313	302	97	313	296	95	2	56-143/18
75-15-0	Carbon Disulfide	4.0 U		62.5	61.7	99	62.5	60.4	97	2	66-148/23
56-23-5	Carbon Tetrachloride	2.0 U		62.5	66.8	107	62.5	64.7	104	3	76-136/23
108-90-7	Chlorobenzene	2.0 U		62.5	64.3	103	62.5	62.8	100	2	82-124/14
75-00-3	Chloroethane	4.0 U		62.5	84.2	135	62.5	79.5	127	6	62-144/20
67-66-3	Chloroform	2.0 U		62.5	62.0	99	62.5	60.1	96	3	80-124/15
110-82-7	Cyclohexane	2.0 U		62.5	67.0	107	62.5	67.2	108	0	73-138/18
124-48-1	Dibromochloromethane	2.0 U		62.5	65.4	105	62.5	65.5	105	0	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	10 U		62.5	60.7	97	62.5	62.4	100	3	64-123/18
106-93-4	1,2-Dibromoethane	4.0 U		62.5	63.4	101	62.5	63.5	102	0	75-120/13
75-71-8	Dichlorodifluoromethane	4.0 U		62.5	65.0	104	62.5	64.1	103	1	42-167/19
95-50-1	1,2-Dichlorobenzene	2.0 U		62.5	63.3	101	62.5	62.7	100	1	82-124/14
541-73-1	1,3-Dichlorobenzene	2.0 U		62.5	62.6	100	62.5	61.2	98	2	84-125/14
106-46-7	1,4-Dichlorobenzene	2.0 U		62.5	62.9	101	62.5	61.5	98	2	78-120/15
75-34-3	1,1-Dichloroethane	2.0 U		62.5	60.0	96	62.5	58.5	94	3	81-122/15
107-06-2	1,2-Dichloroethane	2.0 U		62.5	61.3	98	62.5	59.7	96	3	75-125/14
75-35-4	1,1-Dichloroethylene	2.0 U		62.5	65.7	105	62.5	64.7	104	2	78-137/18
156-59-2	cis-1,2-Dichloroethylene	100		62.5	167	107	62.5	166	106	1	78-120/15
156-60-5	trans-1,2-Dichloroethylene	2.7		62.5	66.0	101	62.5	63.9	98	3	76-127/17
78-87-5	1,2-Dichloropropane	2.0 U		62.5	62.6	100	62.5	60.4	97	4	76-124/14
10061-01-5	cis-1,3-Dichloropropene	2.0 U		62.5	54.6	87	62.5	52.6	84	4	75-118/23
10061-02-6	trans-1,3-Dichloropropene	2.0 U		62.5	55.3	88	62.5	55.3	88	0	80-120/22
100-41-4	Ethylbenzene	2.0 U		62.5	64.4	103	62.5	62.9	101	2	81-121/14
76-13-1	Freon 113	2.0 U		62.5	76.5	122	62.5	75.8	121	1	72-134/20
591-78-6	2-Hexanone	20 U		313	329	105	313	322	103	2	61-129/18
98-82-8	Isopropylbenzene	2.0 U		62.5	61.9	99	62.5	62.0	99	0	83-132/15
79-20-9	Methyl Acetate	40 U		313	279	89	313	275	88	1	65-126/18
74-83-9	Methyl Bromide	10 U		62.5	51.2	82	62.5	62.9	101	21*	59-143/19
74-87-3	Methyl Chloride	4.0 U		62.5	58.5	94	62.5	59.0	94	1	50-159/19
108-87-2	Methylcyclohexane	0.89	J	62.5	67.2	106	62.5	66.4	105	1	76-129/17
75-09-2	Methylene Chloride	17.8		62.5	89.7	115	62.5	90.5	116	1	69-135/16

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7322-5MS	I757590.D	2.5	06/29/23	AL	n/a	n/a	VI2958
FC7322-5MSD	I757591.D	2.5	06/29/23	AL	n/a	n/a	VI2958
FC7322-5	I757576.D	2	06/29/23	AL	n/a	n/a	VI2958

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7322-1, FC7322-2, FC7322-3, FC7322-4, FC7322-5, FC7322-6, FC7322-8, FC7322-9, FC7322-10

CAS No.	Compound	FC7322-5 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-10-1	4-Methyl-2-pentanone (MIBK)	10 U	313	327	105	313	318	102	3	66-122/16
1634-04-4	Methyl Tert Butyl Ether	2.0 U	62.5	60.0	96	62.5	58.8	94	2	72-117/14
100-42-5	Styrene	2.0 U	62.5	63.2	101	62.5	62.1	99	2	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U	62.5	64.8	104	62.5	62.9	101	3	72-120/14
127-18-4	Tetrachloroethylene	2.0 U	62.5	67.4	108	62.5	66.2	106	2	76-135/16
108-88-3	Toluene	2.0 U	62.5	63.7	102	62.5	62.7	100	2	80-120/14
87-61-6	1,2,3-Trichlorobenzene	4.0 U	62.5	60.4	97	62.5	59.3	95	2	68-131/25
120-82-1	1,2,4-Trichlorobenzene	4.0 U	62.5	58.9	94	62.5	58.2	93	1	73-129/20
71-55-6	1,1,1-Trichloroethane	2.0 U	62.5	64.7	104	62.5	63.9	102	1	75-130/16
79-00-5	1,1,2-Trichloroethane	2.0 U	62.5	62.8	100	62.5	63.2	101	1	76-119/14
79-01-6	Trichloroethylene	87.7	62.5	151	101	62.5	149	98	1	81-126/15
75-69-4	Trichlorofluoromethane	4.0 U	62.5	66.7	107	62.5	66.4	106	0	71-156/21
75-01-4	Vinyl Chloride	8.4	62.5	70.0	99	62.5	68.2	96	3	69-159/18
	m,p-Xylene	4.0 U	125	130	104	125	128	102	2	79-126/15
95-47-6	o-Xylene	2.0 U	62.5	59.3	95	62.5	59.1	95	0	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FC7322-5	Limits
1868-53-7	Dibromofluoromethane	103%	101%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	107%	106%	103%	79-125%
2037-26-5	Toluene-D8	103%	103%	98%	85-112%
460-00-4	4-Bromofluorobenzene	101%	99%	100%	83-118%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7351-1MS	2077351.D	5	06/30/23	AL	n/a	n/a	V203013
FC7351-1MSD	2077352.D	5	06/30/23	AL	n/a	n/a	V203013
FC7351-1	2077339.D	1	06/30/23	AL	n/a	n/a	V203013

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7322-9

CAS No.	Compound	FC7351-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
74-83-9	Methyl Bromide	5.0 U	125	83.5	67	125	93.5	75	11	59-143/19

CAS No.	Surrogate Recoveries	MS	MSD	FC7351-1	Limits
1868-53-7	Dibromofluoromethane	102%	101%	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	98%	98%	101%	79-125%
2037-26-5	Toluene-D8	97%	97%	103%	85-112%
460-00-4	4-Bromofluorobenzene	94%	95%	101%	83-118%

\* = Outside of Control Limits.

**Instrument Performance Check (BFB)**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V202981-BFB	<b>Injection Date:</b> 06/07/23
<b>Lab File ID:</b> 2076618.D	<b>Injection Time:</b> 09:26
<b>Instrument ID:</b> GCMS20	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	15441	17.4	Pass
75	30.0 - 60.0% of mass 95	44797	50.5	Pass
95	Base peak, 100% relative abundance	88696	100.0	Pass
96	5.0 - 9.0% of mass 95	6368	7.18	Pass
173	Less than 2.0% of mass 174	520	0.59 (0.77) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	67133	75.7	Pass
175	5.0 - 9.0% of mass 174	5047	5.69 (7.52) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	64680	72.9 (96.3) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	4269	4.81 (6.60) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V202981-IC2981	2076622.D	06/07/23	11:22	01:56	Initial cal 4
V202981-ICC2981	2076623.D	06/07/23	11:47	02:21	Initial cal 5
V202981-IC2981	2076624.D	06/07/23	12:13	02:47	Initial cal 6
V202981-IC2981	2076625.D	06/07/23	12:38	03:12	Initial cal 7
V202981-IC2981	2076627.D	06/07/23	13:55	04:29	Initial cal 1
V202981-IC2981	2076628.D	06/07/23	14:20	04:54	Initial cal 2
V202981-IC2981	2076629.D	06/07/23	14:46	05:20	Initial cal 3
V202981-ICV2981	2076631.D	06/07/23	15:37	06:11	Initial cal verification 5
V202981-ICV2981	2076632.D	06/07/23	16:02	06:36	Initial cal verification 4

**Instrument Performance Check (BFB)**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V2O3013-BFB	<b>Injection Date:</b> 06/30/23
<b>Lab File ID:</b> 2077326.D	<b>Injection Time:</b> 08:41
<b>Instrument ID:</b> GCMS20	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	13541	16.8	Pass
75	30.0 - 60.0% of mass 95	40400	50.1	Pass
95	Base peak, 100% relative abundance	80672	100.0	Pass
96	5.0 - 9.0% of mass 95	5521	6.84	Pass
173	Less than 2.0% of mass 174	536	0.66 (0.90) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	59325	73.5	Pass
175	5.0 - 9.0% of mass 174	4327	5.36 (7.29) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	56528	70.1 (95.3) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	3688	4.57 (6.52) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2O3013-CC2981	2077327.D	06/30/23	09:10	00:29	Continuing cal 4
V2O3014-BS	2077328.D	06/30/23	09:42	01:01	Blank Spike
V2O3013-BS	2077328.D	06/30/23	09:42	01:01	Blank Spike
V2O3014-MB	2077330.D	06/30/23	10:33	01:52	Method Blank
V2O3013-MB	2077330.D	06/30/23	10:33	01:52	Method Blank
ZZZZZZ	2077331.D	06/30/23	10:59	02:18	(unrelated sample)
FC7322-9	2077332.D	06/30/23	11:25	02:44	TRIP BLANK
ZZZZZZ	2077333.D	06/30/23	11:50	03:09	(unrelated sample)
ZZZZZZ	2077334.D	06/30/23	12:16	03:35	(unrelated sample)
ZZZZZZ	2077335.D	06/30/23	12:42	04:01	(unrelated sample)
ZZZZZZ	2077336.D	06/30/23	13:08	04:27	(unrelated sample)
ZZZZZZ	2077337.D	06/30/23	13:33	04:52	(unrelated sample)
ZZZZZZ	2077338.D	06/30/23	13:59	05:18	(unrelated sample)
FC7351-1	2077339.D	06/30/23	14:24	05:43	(used for QC only; not part of job FC7322)
ZZZZZZ	2077340.D	06/30/23	14:50	06:09	(unrelated sample)
ZZZZZZ	2077341.D	06/30/23	15:16	06:35	(unrelated sample)
ZZZZZZ	2077342.D	06/30/23	15:41	07:00	(unrelated sample)
ZZZZZZ	2077343.D	06/30/23	16:07	07:26	(unrelated sample)
ZZZZZZ	2077344.D	06/30/23	16:33	07:52	(unrelated sample)
ZZZZZZ	2077345.D	06/30/23	16:58	08:17	(unrelated sample)
ZZZZZZ	2077346.D	06/30/23	17:24	08:43	(unrelated sample)
ZZZZZZ	2077347.D	06/30/23	17:50	09:09	(unrelated sample)
ZZZZZZ	2077348.D	06/30/23	18:15	09:34	(unrelated sample)
ZZZZZZ	2077349.D	06/30/23	18:41	10:00	(unrelated sample)



# Instrument Performance Check (BFB)

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V2O3013-BFB	<b>Injection Date:</b> 06/30/23
<b>Lab File ID:</b> 2O77326.D	<b>Injection Time:</b> 08:41
<b>Instrument ID:</b> GCMS20	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	2O77350.D	06/30/23	19:07	10:26	(unrelated sample)
FC7351-1MS	2O77351.D	06/30/23	19:32	10:51	Matrix Spike
FC7351-1MSD	2O77352.D	06/30/23	19:58	11:17	Matrix Spike Duplicate
V2O3013-ECC2981	2O77353.D	06/30/23	20:24	11:43	Ending cal 4

6.4.2

6

**Instrument Performance Check (BFB)**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2948-BFB	<b>Injection Date:</b> 06/15/23
<b>Lab File ID:</b> I757260.D	<b>Injection Time:</b> 10:08
<b>Instrument ID:</b> GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	37549	17.4	Pass
75	30.0 - 60.0% of mass 95	102373	47.6	Pass
95	Base peak, 100% relative abundance	215275	100.0	Pass
96	5.0 - 9.0% of mass 95	14176	6.59	Pass
173	Less than 2.0% of mass 174	1477	0.69 (0.72) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	205205	95.3	Pass
175	5.0 - 9.0% of mass 174	15382	7.15 (7.50) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	207019	96.2 (100.9) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	13947	6.48 (6.74) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VI2948-IC2948	I757261.D	06/15/23	10:43	00:35	Initial cal 1
VI2948-IC2948	I757262.D	06/15/23	11:16	01:08	Initial cal 2
VI2948-IC2948	I757263.D	06/15/23	11:40	01:32	Initial cal 3
VI2948-IC2948	I757264.D	06/15/23	12:04	01:56	Initial cal 4
VI2948-ICC2948	I757265.D	06/15/23	12:28	02:20	Initial cal 5
VI2948-IC2948	I757266.D	06/15/23	12:52	02:44	Initial cal 6
VI2948-IC2948	I757267.D	06/15/23	13:15	03:07	Initial cal 7
VI2948-CC2948	I757269A.D	06/15/23	14:04	03:56	Continuing cal 5
VI2948-ICV2948	I757269.D	06/15/23	14:04	03:56	Initial cal verification 5
VI2948-BS	I757270A.D	06/15/23	14:27	04:19	Blank Spike
VI2948-ICV2948	I757270.D	06/15/23	14:27	04:19	Initial cal verification 4
VI2948-BSD	I757271.D	06/15/23	14:51	04:43	Blank Spike Duplicate
VI2948-MB	I757273.D	06/15/23	15:39	05:31	Method Blank
ZZZZZZ	I757274.D	06/15/23	16:03	05:55	(unrelated sample)
ZZZZZZ	I757275.D	06/15/23	16:27	06:19	(unrelated sample)
ZZZZZZ	I757276.D	06/15/23	16:51	06:43	(unrelated sample)
ZZZZZZ	I757277.D	06/15/23	17:15	07:07	(unrelated sample)
ZZZZZZ	I757278.D	06/15/23	17:39	07:31	(unrelated sample)
ZZZZZZ	I757279.D	06/15/23	18:03	07:55	(unrelated sample)
ZZZZZZ	I757280.D	06/15/23	18:27	08:19	(unrelated sample)
ZZZZZZ	I757281.D	06/15/23	18:51	08:43	(unrelated sample)
ZZZZZZ	I757282.D	06/15/23	19:15	09:07	(unrelated sample)
ZZZZZZ	I757283.D	06/15/23	19:39	09:31	(unrelated sample)
ZZZZZZ	I757284.D	06/15/23	20:03	09:55	(unrelated sample)

# Instrument Performance Check (BFB)

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2948-BFB	<b>Injection Date:</b> 06/15/23
<b>Lab File ID:</b> I757260.D	<b>Injection Time:</b> 10:08
<b>Instrument ID:</b> GCMSI	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	I757285.D	06/15/23	20:27	10:19	(unrelated sample)
VI2948-ECC2948	I757286.D	06/15/23	20:51	10:43	Ending cal 5

6.4.3

6

**Instrument Performance Check (BFB)**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2958-BFB	<b>Injection Date:</b> 06/29/23
<b>Lab File ID:</b> I757566.D	<b>Injection Time:</b> 10:58
<b>Instrument ID:</b> GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	27309	17.8	Pass
75	30.0 - 60.0% of mass 95	73827	48.1	Pass
95	Base peak, 100% relative abundance	153424	100.0	Pass
96	5.0 - 9.0% of mass 95	10481	6.83	Pass
173	Less than 2.0% of mass 174	1273	0.83 (0.83) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	152749	99.6	Pass
175	5.0 - 9.0% of mass 174	11010	7.18 (7.21) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	147600	96.2 (96.6) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	10067	6.56 (6.82) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VI2958-CC2948	I757567.D	06/29/23	11:27	00:29	Continuing cal 5
VI2958-CC2948	I757568.D	06/29/23	12:04	01:06	Continuing cal 5
VI2958-CC2948	I757569.D	06/29/23	12:34	01:36	Continuing cal 5
VI2958-BS	I757570.D	06/29/23	12:58	02:00	Blank Spike
VI2958-MB	I757571.D	06/29/23	13:22	02:24	Method Blank
ZZZZZZ	I757572.D	06/29/23	13:46	02:48	(unrelated sample)
FC7322-9	I757573.D	06/29/23	14:11	03:13	TRIP BLANK
ZZZZZZ	I757574.D	06/29/23	14:35	03:37	(unrelated sample)
FC7339-5	I757575.D	06/29/23	14:59	04:01	(used for QC only; not part of job FC7322)
FC7322-5	I757576.D	06/29/23	15:23	04:25	SEAD-AL-MWT-25-20230627
FC7322-1	I757577.D	06/29/23	15:47	04:49	SEAD-AL-MWT-23-20230627
FC7322-2	I757578.D	06/29/23	16:11	05:13	SEAD-AL-MWT-22-20230627
FC7322-3	I757579.D	06/29/23	16:35	05:37	SEAD-AL-MW-56R-20230627
FC7322-4	I757580.D	06/29/23	16:59	06:01	SEAD-AL-PT-18A-20230627
FC7322-6	I757581.D	06/29/23	17:23	06:25	SEAD-AL-PT-17-20230627
FC7322-8	I757582.D	06/29/23	17:47	06:49	SEAD-AL-MWT-24-20230627
FC7322-10	I757583.D	06/29/23	18:11	07:13	DUP-01-20230627
ZZZZZZ	I757584.D	06/29/23	18:35	07:37	(unrelated sample)
ZZZZZZ	I757585.D	06/29/23	18:59	08:01	(unrelated sample)
ZZZZZZ	I757586.D	06/29/23	19:23	08:25	(unrelated sample)
ZZZZZZ	I757587.D	06/29/23	19:47	08:49	(unrelated sample)
ZZZZZZ	I757588.D	06/29/23	20:11	09:13	(unrelated sample)
ZZZZZZ	I757589.D	06/29/23	20:34	09:36	(unrelated sample)
FC7322-5MS	I757590.D	06/29/23	20:58	10:00	Matrix Spike

# Instrument Performance Check (BFB)

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2958-BFB	<b>Injection Date:</b> 06/29/23
<b>Lab File ID:</b> I757566.D	<b>Injection Time:</b> 10:58
<b>Instrument ID:</b> GCMSI	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FC7322-5MSD	I757591.D	06/29/23	21:22	10:24	Matrix Spike Duplicate
FC7339-5MS	I757592.D	06/29/23	21:46	10:48	Matrix Spike
FC7339-5MSD	I757593.D	06/29/23	22:10	11:12	Matrix Spike Duplicate
VI2958-ECC2948	I757594.D	06/29/23	22:34	11:36	Ending cal 5

6.4.4  
6



# Internal Standard Area Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b>	V203013-CC2981	<b>Injection Date:</b>	06/30/23
<b>Lab File ID:</b>	2077327.D	<b>Injection Time:</b>	09:10
<b>Instrument ID:</b>	GCMS20	<b>Method:</b>	SW846 8260D

	<b>IS 1</b>		<b>IS 2</b>		<b>IS 3</b>	
	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>
Initial Cal <sup>a</sup>	426373	4.01	320814	6.02	169764	7.78
Check Std <sup>b</sup>	411911	4.01	303135	6.02	153133	7.77
Upper Limit <sup>c</sup>	823822	4.18	606270	6.19	306266	7.94
Lower Limit <sup>d</sup>	205956	3.84	151568	5.85	76567	7.60

<b>Lab</b>	<b>IS 1</b>		<b>IS 2</b>		<b>IS 3</b>	
<b>Sample ID</b>	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>
V203014-BS <sup>e</sup>	435133	4.01	318173	6.02	160910	7.77
V203013-BS	435133	4.01	318173	6.02	160910	7.77
V203014-MB	387235	4.01	272143	6.02	135540	7.78
V203013-MB	387235	4.01	272143	6.02	135540	7.78
ZZZZZZ	390004	4.01	270504	6.02	130189	7.77
FC7322-9	382820	4.01	266312	6.02	128613	7.78
ZZZZZZ	368675	4.01	254727	6.02	123010	7.78
ZZZZZZ	357611	4.01	252676	6.02	120646	7.77
ZZZZZZ	385258	4.01	269603	6.02	133330	7.78
ZZZZZZ	379015	4.01	268020	6.02	133429	7.78
ZZZZZZ	391164	4.01	278559	6.02	135499	7.78
ZZZZZZ	392547	4.01	283827	6.02	141143	7.78
FC7351-1	400943	4.01	275641	6.02	132624	7.78
ZZZZZZ	391489	4.01	270698	6.02	132310	7.78
ZZZZZZ	375510	4.02	260002	6.02	126160	7.78
ZZZZZZ	380391	4.01	263157	6.02	128345	7.78
ZZZZZZ	375909	4.01	264796	6.02	127344	7.78
ZZZZZZ	376388	4.01	262148	6.02	125222	7.78
ZZZZZZ	376481	4.02	261832	6.02	126136	7.78
ZZZZZZ	364216	4.01	253374	6.02	123892	7.78
ZZZZZZ	362647	4.01	249896	6.02	121675	7.78
ZZZZZZ	356424	4.01	249789	6.02	120401	7.78
ZZZZZZ	354172	4.01	244309	6.02	118545	7.78
ZZZZZZ	347311	4.01	245144	6.02	117337	7.78
FC7351-1MS	395499	4.01	289406	6.02	144989	7.78
FC7351-1MSD	419125	4.01	306924	6.02	155337	7.78
V203013-ECC2981	423203	4.01	308707	6.02	154630	7.78

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Initial Cal is: V202981-ICC2981 2076623.D 06/07/23 11:47

# Internal Standard Area Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b> V2O3013-CC2981	<b>Injection Date:</b> 06/30/23
<b>Lab File ID:</b> 2O77327.D	<b>Injection Time:</b> 09:10
<b>Instrument ID:</b> GCMS20	<b>Method:</b> SW846 8260D

Lab	IS 1		IS 2		IS 3	
Sample ID	AREA	RT	AREA	RT	AREA	RT

- (b) Check Std Limit = -50 to + 100% of initial cal area.
- (c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
- (d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
- (e) No sample available for MS/MSD.

6.5.1  
6

# Internal Standard Area Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b> VI2958-CC2948	<b>Injection Date:</b> 06/29/23
<b>Lab File ID:</b> I757567.D	<b>Injection Time:</b> 11:27
<b>Instrument ID:</b> GCMSI	<b>Method:</b> SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Initial Cal <sup>a</sup>	1166537	7.85	854326	11.01	520019	13.37
Check Std <sup>b</sup>	971769	7.85	670516	11.01	419770	13.37
Upper Limit <sup>c</sup>	1943538	8.02	1341032	11.18	839540	13.54
Lower Limit <sup>d</sup>	485885	7.68	335258	10.84	209885	13.20

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
VI2958-BS	991842	7.85	690989	11.01	422900	13.37
VI2958-MB <sup>e</sup>	968159	7.85	695663	11.01	391168	13.37
ZZZZZZ	979309	7.85	711361	11.01	413869	13.37
FC7322-9	978482	7.85	696206	11.01	388552	13.37
ZZZZZZ	977385	7.85	692486	11.01	393621	13.37
FC7339-5	985137	7.85	709750	11.01	403114	13.37
FC7322-5	977580	7.85	683517	11.01	385435	13.37
FC7322-1	950307	7.86	673586	11.01	378006	13.37
FC7322-2	942833	7.85	676529	11.01	381795	13.37
FC7322-3	954052	7.85	675878	11.01	380187	13.37
FC7322-4	956565	7.85	672453	11.01	382666	13.37
FC7322-6	964810	7.85	684153	11.01	385972	13.37
FC7322-8	965210	7.85	680387	11.01	378240	13.37
FC7322-10	952671	7.85	666130	11.01	374375	13.37
ZZZZZZ	963660	7.85	686484	11.01	389097	13.37
ZZZZZZ	971894	7.86	693860	11.01	396344	13.37
ZZZZZZ	939141	7.85	668982	11.01	378723	13.37
ZZZZZZ	943408	7.85	661290	11.01	369322	13.37
ZZZZZZ	946416	7.85	676114	11.01	374184	13.37
ZZZZZZ	934466	7.85	665774	11.01	376872	13.37
FC7322-5MS	955767	7.85	661854	11.01	405914	13.37
FC7322-5MSD	969721	7.85	668511	11.01	410815	13.37
FC7339-5MS	975449	7.85	679876	11.01	408017	13.37
FC7339-5MSD	987994	7.85	683941	11.01	416664	13.37
VI2958-ECC2948	973536	7.85	677727	11.01	411102	13.37

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Initial Cal is: VI2948-ICC2948 I757265.D 06/15/23 12:28  
 (b) Check Std Limit = -50 to + 100% of initial cal area.  
 (c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.

6.5.2  
6

# Internal Standard Area Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b> VI2958-CC2948	<b>Injection Date:</b> 06/29/23
<b>Lab File ID:</b> I757567.D	<b>Injection Time:</b> 11:27
<b>Instrument ID:</b> GCMSI	<b>Method:</b> SW846 8260D

Lab	IS 1		IS 2		IS 3	
Sample ID	AREA	RT	AREA	RT	AREA	RT

- (d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
- (e) Sample was treated with an anti-foaming agent.

6.5.2  
6

# Surrogate Recovery Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Method:</b> SW846 8260D	<b>Matrix:</b> AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FC7322-1	I757577.D	99	104	99	100
FC7322-2	I757578.D	102	107	99	100
FC7322-3	I757579.D	100	104	99	99
FC7322-4	I757580.D	98	105	98	99
FC7322-5	I757576.D	98	103	98	100
FC7322-6	I757581.D	98	104	98	99
FC7322-8	I757582.D	99	103	99	101
FC7322-9	2O77332.D	103	105	103	96
FC7322-9	I757573.D	98	103	99	100
FC7322-10	I757583.D	99	101	98	99
FC7322-5MS	I757590.D	103	107	103	101
FC7322-5MSD	I757591.D	101	106	103	99
FC7351-1MS	2O77351.D	102	98	97	94
FC7351-1MSD	2O77352.D	101	98	97	95
V2O3013-BS	2O77328.D	99	98	98	95
V2O3013-MB	2O77330.D	103	98	103	112
VI2958-BS	I757570.D	103	108	103	99
VI2958-MB	I757571.D	99	102	98	99

**Surrogate Compounds**

**Recovery Limits**

<b>S1</b> = Dibromofluoromethane	83-118%
<b>S2</b> = 1,2-Dichloroethane-D4	79-125%
<b>S3</b> = Toluene-D8	85-112%
<b>S4</b> = 4-Bromofluorobenzene	83-118%



# Initial Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

## Response Factor Report MSVOA12

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

### Calibration Files

1 =2076627.D 2 =2076628.D 3 =2076629.D 4 =2076622.D  
 5 =2076623.D 6 =2076624.D 7 =2076625.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
-----									
1) I Fluorobenzene	-----ISTD-----								
2) Dichlorodifluorom	0.199	0.193	0.169	0.190	0.193	0.170	0.179	0.185	6.50
3)P Chloromethane	0.242	0.184	0.170	0.181	0.183	0.175	0.182	0.188	12.81
4) 1,3-butadiene	0.184	0.219	0.262	0.220	0.202	0.170	0.176	0.205	15.75
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9941								
	Response Ratio = 0.00000 + 0.22857 *A + -0.03029 *A^2								
5)C Vinyl Chloride	0.224	0.193	0.177	0.194	0.202	0.183	0.186	0.194	7.89
6) Bromomethane	0.216	0.145	0.152	0.146	0.158	0.150	0.160	0.161	15.43
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9990								
	Response Ratio = 0.00000 + 0.14854 *A + 0.00475 *A^2								
7) Chloroethane	0.181	0.147	0.137	0.137	0.109	0.049		0.127	35.18
	---- Quadratic regression ---- Coefficient = 0.9957								
	Response Ratio = -0.00294 + 0.19150 *A + -0.10024 *A^2								
8) Trichlorofluorome	0.387	0.389	0.344	0.382	0.397	0.348	0.315	0.366	8.33
9) Ethyl Ether	0.199	0.149	0.169	0.168	0.182	0.170	0.171	0.173	8.72
10) Ethanol		0.004	0.004	0.004	0.003	0.004	0.004	0.004	8.47
11) 1,2-Dichlorotrifl	0.260	0.218	0.254	0.243	0.269	0.227	0.242	0.245	7.39
12)C 1,1-Dichloroethen	0.341	0.268	0.305	0.307	0.341	0.282	0.308	0.307	8.84
13) Freon 113	0.218	0.196	0.217	0.222	0.246	0.195	0.217	0.216	7.93
14) Carbon Disulfide	0.839	0.488	0.554	0.559	0.629	0.531	0.584	0.598	19.24
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9950								
	Response Ratio = 0.00000 + 0.57110 *A + 0.00043 *A^2								
15) Iodomethane	0.186	0.130	0.141	0.186	0.225	0.214	0.224	0.186	20.67
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9944								
	Response Ratio = 0.00000 + 0.17722 *A + 0.02549 *A^2								
16) Acrolein	0.038	0.067	0.052	0.055	0.056	0.058	0.058	0.055	16.38
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9983								
	Response Ratio = 0.00000 + 0.05486 *A + 0.00033 *A^2								
17) Allyl chloride	0.170	0.221	0.277	0.231	0.227	0.215	0.226	0.224	13.96
18) Methylene Chlorid	0.495	0.287	0.279	0.271	0.289	0.264	0.267	0.307	27.05
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9990								
	Response Ratio = 0.00000 + 0.28145 *A + -0.00783 *A^2								
19) Acetone	0.149	0.117	0.096	0.111	0.110	0.113	0.113	0.115	13.91
20) Methyl acetate	0.338	0.244	0.254	0.264	0.273	0.267	0.266	0.272	11.24
21) trans-1,2-Dichlor	0.368	0.280	0.297	0.304	0.332	0.287	0.306	0.310	9.75
22) Hexane	0.177	0.152	0.155	0.157	0.170	0.142	0.152	0.158	7.45
23) Methyl Tert Butyl	0.681	0.546	0.581	0.602	0.672	0.639	0.650	0.624	7.96
24) Tert Butyl Alcoho	0.037	0.031	0.034	0.039	0.040	0.044	0.046	0.039	13.65
25) Acetonitrile	0.050	0.049	0.055	0.042	0.039	0.041	0.040	0.045	13.89

6.7.1  
6

# Initial Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

26)	Di-isopropyl ethe	0.677	0.525	0.593	0.601	0.659	0.617	0.628	0.614	8.07
27)	Chloroprene	0.185	0.280	0.363	0.312	0.300	0.272	0.290	0.286	18.76
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9961
										Response Ratio = 0.00000 + 0.31146 *A + -0.01485 *A^2
28)P	1,1-Dichloroethan	0.456	0.359	0.396	0.393	0.432	0.384	0.403	0.403	7.90
29)	Acrylonitrile	0.137	0.109	0.099	0.116	0.105	0.106	0.109	0.111	10.94
30)	ETBE	0.605	0.487	0.543	0.576	0.649	0.606	0.624	0.584	9.36
31)	Vinyl acetate	0.390	0.406	0.394	0.491	0.461	0.452	0.470	0.438	9.25
32)	cis-1,2-Dichloroe	0.330	0.234	0.257	0.250	0.275	0.248	0.256	0.264	11.97
33)	2,2-Dichloropropa	0.290	0.221	0.256	0.263	0.302	0.266	0.289	0.270	10.04
34)	Bromochloromethan	0.148	0.121	0.130	0.131	0.134	0.117	0.119	0.129	8.45
35)	Cyclohexane	0.289	0.276	0.319	0.318	0.346	0.292	0.315	0.308	7.68
36)C	Chloroform	0.518	0.407	0.442	0.452	0.487	0.435	0.448	0.456	7.99
37)	Ethyl acetate	0.321	0.318	0.293	0.363	0.328	0.331	0.340	0.328	6.60
38)	Tetrahydrofuran	0.134	0.110	0.113	0.113	0.116	0.123	0.114	0.117	7.06
39)S	Dibromofluorometh	0.271	0.272	0.268	0.273	0.273	0.275	0.273	0.272	0.82
40)	Carbon Tetrachlor	0.302	0.231	0.279	0.296	0.342	0.291	0.314	0.294	11.62
41)	1,1,1-Trichloroet	0.371	0.308	0.342	0.366	0.405	0.351	0.374	0.360	8.45
42)	2-Butanone	0.213	0.178	0.141	0.178	0.176	0.183	0.181	0.178	11.74
43)	1,1-Dichloroprope	0.315	0.265	0.301	0.301	0.335	0.287	0.304	0.301	7.25
44)	tert-Butyl format	0.054	0.061	0.065	0.072	0.089	0.089	0.089	0.074	20.04
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9963
										Response Ratio = 0.00000 + 0.07340 *A + 0.00178 *A^2
45)	Propionitrile	0.044	0.057	0.065	0.056	0.052	0.056	0.056	0.055	11.67
46)	Methacrylonitrile	0.148	0.194	0.235	0.198	0.187	0.193	0.190	0.192	13.12
47)	Benzene	1.049	0.798	0.880	0.890	0.983	0.871	0.897	0.910	9.00
48)	TAME	0.546	0.456	0.509	0.540	0.625	0.594	0.608	0.554	10.76
49)	Isobutyl alcohol	0.008	0.014	0.017	0.017	0.016	0.018	0.018	0.016	22.24
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9981
										Response Ratio = 0.00000 + 0.01574 *A + 0.00006 *A^2
50)S	1,2-Dichloroethan	0.307	0.327	0.296	0.319	0.331	0.336	0.344	0.323	5.21
51)	1,2-Dichloroethan	0.479	0.333	0.354	0.361	0.387	0.353	0.353	0.374	13.09
52)	Tert Amyl Alcohol	0.026	0.021	0.024	0.028	0.031	0.034	0.035	0.028	18.39
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9995
										Response Ratio = 0.00000 + 0.02749 *A + 0.00040 *A^2
53)	Trichloroethene	0.314	0.233	0.258	0.259	0.281	0.245	0.256	0.264	10.11
54)	Methylcyclohexane	0.334	0.282	0.318	0.332	0.368	0.306	0.328	0.324	8.20
55)	Dibromomethane	0.233	0.156	0.169	0.173	0.184	0.171	0.172	0.180	13.82
56)C	1,2-Dichloropropa	0.245	0.185	0.216	0.211	0.233	0.215	0.219	0.218	8.66
57)	Bromodichlorometh	0.327	0.246	0.280	0.304	0.340	0.315	0.322	0.305	10.54
58)	Methyl methacryla	0.137	0.197	0.273	0.229	0.228	0.242	0.246	0.222	19.64
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9978
										Response Ratio = 0.00000 + 0.22704 *A + 0.00940 *A^2
59)	1,4-Dioxane	0.006	0.004	0.004	0.004	0.004	0.005	0.005	0.005	16.01
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9989
										Response Ratio = 0.00000 + 0.00413 *A + 0.00002 *A^2
60)	2-Chloroethyl vin	0.153	0.174	0.175	0.178	0.197	0.190	0.178	0.178	7.82
61)	cis-1,3-Dichlorop	0.311	0.267	0.303	0.328	0.380	0.355	0.364	0.329	11.94
62) I	Chlorobenzene-d5									-----ISTD-----
63)S	Toluene-d8	1.354	1.343	1.371	1.315	1.306	1.318	1.323	1.333	1.77
64)C	Toluene	1.589	1.201	1.315	1.295	1.397	1.255	1.299	1.336	9.48
65)	2-Nitropropane	0.073	0.058	0.068	0.096	0.109	0.114	0.117	0.091	26.68
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9955

# Initial Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

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Response Ratio = 0.00000 + 0.08537 \*A + 0.00351 \*A^2

66)	4-Methyl-2-pentan	0.434	0.405	0.345	0.428	0.427	0.433	0.433	0.415	7.83
67)	trans-1,3-Dichlor	0.471	0.357	0.407	0.448	0.503	0.479	0.490	0.451	11.50
68)	Tetrachloroethene	0.383	0.310	0.351	0.344	0.372	0.324	0.346	0.347	7.29
69)	Ethyl methacrylat	0.166	0.341	0.440	0.390	0.381	0.404	0.414	0.363	25.30
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9983								
		Response Ratio = 0.00000 + 0.37690 *A + 0.01862 *A^2								
70)	1,1,2-Trichloroet	0.309	0.253	0.283	0.279	0.293	0.273	0.273	0.281	6.28
71)	Dibromochlorometh	0.282	0.250	0.290	0.321	0.363	0.349	0.356	0.316	13.59
72)	1,3-Dichloropropa	0.645	0.486	0.514	0.518	0.556	0.517	0.513	0.536	9.77
73)	1,2-Dibromoethane	0.463	0.304	0.347	0.348	0.379	0.358	0.362	0.366	13.25
74)	3,3-dimethyl-1-bu	0.039	0.049	0.051	0.057	0.060	0.067	0.066	0.055	17.95
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9987								
		Response Ratio = 0.00000 + 0.05396 *A + 0.00013 *A^2								
75)	2-hexanone	0.405	0.410	0.369	0.431	0.429	0.445	0.443	0.419	6.34
76)	1-Chlorohexane	0.504	0.356	0.403	0.395	0.433	0.375	0.397	0.409	11.78
77)C	Ethylbenzene	1.690	1.287	1.457	1.435	1.536	1.386	1.427	1.460	8.66
78)P	Chlorobenzene	1.125	0.831	0.910	0.897	0.961	0.874	0.901	0.929	10.24
79)	1,1,1,2-Tetrachlo	0.272	0.243	0.291	0.305	0.333	0.312	0.325	0.297	10.60
80)	m,p-Xylene	1.289	1.004	1.147	1.142	1.233	1.109	1.147	1.153	7.85
81)	o-Xylene	1.278	0.979	1.132	1.153	1.245	1.137	1.186	1.159	8.34
82)	Styrene	0.836	0.730	0.859	0.889	0.988	0.928	0.954	0.883	9.74
83)P	Bromoform	0.174	0.131	0.162	0.190	0.217	0.221	0.230	0.189	18.98
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9974								
		Response Ratio = 0.00000 + 0.17818 *A + 0.02789 *A^2								
84)	Isopropylbenzene	1.370	1.142	1.311	1.340	1.465	1.316	1.393	1.334	7.48
85) I	1,4-Dichlorobenzene-d	-----ISTD-----								
86)S	4-Bromofluorobenz	0.734	0.732	0.744	0.722	0.723	0.725	0.734	0.731	1.05
87)	cis-1,4-Dichloro-	0.162	0.231	0.180	0.182	0.200	0.217	0.195		13.22
88)	n-Propylbenzene	3.526	2.613	3.159	3.009	3.236	2.904	3.049	3.071	9.24
89)	Bromobenzene	0.840	0.595	0.700	0.654	0.712	0.660	0.662	0.689	11.11
90)P	1,1,2,2-Tetrachlo	1.164	0.841	1.013	0.970	1.024	0.976	0.985	0.996	9.57
91)	1,3,5-Trimethylbe	2.352	1.834	2.275	2.154	2.359	2.159	2.231	2.195	8.16
92)	2-Chlorotoluene	2.369	1.941	2.231	2.122	2.243	2.048	2.102	2.151	6.58
93)	trans-1,4-Dichlor	0.135	0.183	0.172	0.191	0.194	0.204	0.180		13.56
94)	1,2,3-Trichloropr	0.387	0.280	0.320	0.302	0.328	0.311	0.307	0.319	10.44
95)	Cyclohexanone	0.028	0.028	0.037	0.033	0.037	0.040	0.034		14.46
96)	4-Chlorotoluene	2.448	1.737	2.111	1.957	2.125	1.940	2.005	2.046	10.71
97)	tert-Butylbenzene	1.314	1.027	1.204	1.162	1.273	1.149	1.214	1.192	7.81
98)	a-Methyl styrene							0.000		-1.00
99)	1,2,4-Trimethylbe	2.319	1.797	2.292	2.156	2.374	2.191	2.258	2.198	8.72
100)	Pentachloroethane	0.123	0.256	0.367	0.314	0.316	0.327	0.347	0.293	28.20
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9976								
		Response Ratio = 0.00000 + 0.30147 *A + 0.02163 *A^2								
101)	sec-Butylbenzene	2.742	2.152	2.584	2.498	2.686	2.408	2.546	2.516	7.79
102)	4-Isopropyltoluen	2.178	1.762	2.198	2.130	2.339	2.173	2.262	2.149	8.56
103)	1,3-Dichlorobenze	1.666	1.184	1.393	1.304	1.396	1.308	1.329	1.369	10.91
104)	1,2,3-Trimethylbe	2.609	1.981	2.416	2.229	2.457	2.311	2.347	2.336	8.46
105)	1,4-Dichlorobenze	1.896	1.251	1.424	1.317	1.419	1.307	1.348	1.423	15.28
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9986								
		Response Ratio = 0.00000 + 1.37713 *A + -0.02106 *A^2								
106)	n-Butylbenzene	1.229	0.878	1.103	1.082	1.167	1.098	1.151	1.101	10.06
107)	Benzyl Chloride	0.175	0.137	0.182	0.221	0.269	0.284	0.306	0.225	28.33

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6.7.1  
6

# Initial Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

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----- Quadratic regr., Force(0,0) ----- Coefficient = 0.9969  
Response Ratio = 0.00000 + 0.19871 \*A + 0.05689 \*A^2

108) 1,2-Dichlorobenze 1.554 1.186 1.342 1.238 1.329 1.252 1.270 1.310 9.17  
109) 1,2-Dibromo-3-Chl 0.158 0.154 0.175 0.199 0.213 0.225 0.231 0.194 16.31  
----- Quadratic regr., Force(0,0) ----- Coefficient = 0.9989  
Response Ratio = 0.00000 + 0.18574 \*A + 0.02424 \*A^2

110) Hexachlorobutadie 0.520 0.232 0.259 0.239 0.250 0.227 0.243 0.281 37.55  
----- Quadratic regr., Force(0,0) ----- Coefficient = 0.9966  
Response Ratio = 0.00000 + 0.24940 \*A + -0.00637 \*A^2

111) 1,2,4-Trichlorobe 1.101 0.645 0.751 0.730 0.772 0.744 0.750 0.785 18.55  
----- Quadratic regr., Force(0,0) ----- Coefficient = 0.9987  
Response Ratio = 0.00000 + 0.74777 \*A + 0.00083 \*A^2

112) Naphthalene 2.978 2.093 2.574 2.649 2.954 2.902 2.930 2.726 11.77  
113) 1,2,3-Trichlorobe 0.959 0.646 0.727 0.695 0.748 0.712 0.718 0.744 13.50

-----  
(#) = Out of Range

V20\_06-07-2023.M

Thu Jun 08 09:33:23 2023

## Initial Calibration Verification

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076631.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-07\2076631.D Vial: 14  
 Acq On : 7 Jun 2023 3:37 pm Operator: joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	97	0.00	4.01
2	Dichlorodifluoromethane			NA			
3 P	Chloromethane			NA			
	----- Amount		Calc.	%Drift			
4	1,3-butadiene			NA			
	----- AvgRF		CCRF	%Dev			
5 C	Vinyl Chloride			NA			
	----- Amount		Calc.	%Drift			
6	Bromomethane			NA			
7	Chloroethane			NA			
	----- AvgRF		CCRF	%Dev			
8	Trichlorofluoromethane			NA			
9	Ethyl Ether			NA			
10	Ethanol	0.004	0.004	0.0	104	0.00	2.16
11	1,2-Dichlorotrifluoroetha			NA			
12 C	1,1-Dichloroethene			NA			
13	Freon 113			NA			
	----- Amount		Calc.	%Drift			
14	Carbon Disulfide			NA			
15	Iodomethane			NA			
16	Acrolein			NA			
	----- AvgRF		CCRF	%Dev			
17	Allyl chloride	0.224	0.266	-18.8	114	0.00	2.47
	----- Amount		Calc.	%Drift			
18	Methylene Chloride			NA			
	----- AvgRF		CCRF	%Dev			
19	Acetone			NA			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert Butyl Alcohol			NA			
25	Acetonitrile			NA			
26	Di-isopropyl ether			NA			



# Initial Calibration Verification

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076631.D

		Amount	Calc.	%Drift			
27	Chloroprene			NA			
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane			NA			
29	Acrylonitrile			NA			
30	ETBE			NA			
31	Vinyl acetate			NA			
32	cis-1,2-Dichloroethene			NA			
33	2,2-Dichloropropane			NA			
34	Bromochloromethane			NA			
35	Cyclohexane			NA			
36 C	Chloroform			NA			
37	Ethyl acetate			NA			
38	Tetrahydrofuran			NA			
39 S	Dibromofluoromethane	0.272	0.273	-0.4	97	0.00	3.54
40	Carbon Tetrachloride			NA			
41	1,1,1-Trichloroethane			NA			
42	2-Butanone			NA			
43	1,1-Dichloropropene			NA			
		Amount	Calc.	%Drift			
44	tert-Butyl formate			NA			
		AvgRF	CCRF	%Dev			
45	Propionitrile			NA			
46	Methacrylonitrile			NA			
47	Benzene			NA			
48	TAME			NA			
		Amount	Calc.	%Drift			
49	Isobutyl alcohol			NA			
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.329	-1.9	97	0.00	3.85
51	1,2-Dichloroethane			NA			
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol			NA			
		AvgRF	CCRF	%Dev			
53	Trichloroethene			NA			
54	Methylcyclohexane			NA			
55	Dibromomethane			NA			
56 C	1,2-Dichloropropane			NA			
57	Bromodichloromethane			NA			
		Amount	Calc.	%Drift			
58	Methyl methacrylate			NA			
59	1,4-Dioxane			NA			
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether			NA			
61	cis-1,3-Dichloropropene			NA			
62 I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00	6.02
63 S	Toluene-d8	1.333	1.340	-0.5	98	0.00	4.98
64 C	Toluene			NA			

6.7.2  
6

# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076631.D

	Amount	Calc.	%Drift				
65	2-Nitropropane		NA				
	AvgRF	CCRF	%Dev				
66	4-Methyl-2-pentanone		NA				
67	trans-1,3-Dichloropropene		NA				
68	Tetrachloroethene		NA				
	Amount	Calc.	%Drift				
69	Ethyl methacrylate		NA				
	AvgRF	CCRF	%Dev				
70	1,1,2-Trichloroethane		NA				
71	Dibromochloromethane		NA				
72	1,3-Dichloropropane		NA				
73	1,2-Dibromoethane		NA				
	Amount	Calc.	%Drift				
74	3,3-dimethyl-1-butanol		NA				
	AvgRF	CCRF	%Dev				
75	2-hexanone		NA				
76	1-Chlorohexane		NA				
77 C	Ethylbenzene		NA				
78 P	Chlorobenzene		NA				
79	1,1,1,2-Tetrachloroethane		NA				
80	m,p-Xylene		NA				
81	o-Xylene		NA				
82	Styrene		NA				
	Amount	Calc.	%Drift				
83 P	Bromoform		NA				
	AvgRF	CCRF	%Dev				
84	Isopropylbenzene		NA				
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	7.78
86 S	4-Bromofluorobenzene	0.731	0.729	0.3	94	0.00	6.92
87	cis-1,4-Dichloro-2-butene		NA				
88	n-Propylbenzene		NA				
89	Bromobenzene		NA				
90 P	1,1,2,2-Tetrachloroethane		NA				
91	1,3,5-Trimethylbenzene		NA				
92	2-Chlorotoluene		NA				
93	trans-1,4-Dichloro-2-Bute		NA				
94	1,2,3-Trichloropropane		NA				
95	Cyclohexanone		NA				
96	4-Chlorotoluene		NA				
97	tert-Butylbenzene		NA				
98	a-Methyl styrene		NA				
99	1,2,4-Trimethylbenzene		NA				
	Amount	Calc.	%Drift				
100	Pentachloroethane		NA				
	AvgRF	CCRF	%Dev				
101	sec-Butylbenzene		NA				
102	4-Isopropyltoluene		NA				
103	1,3-Dichlorobenzene		NA				
104	1,2,3-Trimethylbenzene		NA				

6.7.2  
6

# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076631.D

	Amount	Calc.	%Drift
105	1,4-Dichlorobenzene		NA
	AvgRF	CCRF	%Dev
106	n-Butylbenzene		NA
	Amount	Calc.	%Drift
107	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
108	1,2-Dichlorobenzene		NA
	Amount	Calc.	%Drift
109	1,2-Dibromo-3-Chloropropa		NA
110	Hexachlorobutadiene		NA
111	1,2,4-Trichlorobenzene		NA
	AvgRF	CCRF	%Dev
112	Naphthalene		NA
113	1,2,3-Trichlorobenzene		NA

(#) = Out of Range  
 2076623.D V20\_06-07-2023.M

SPCC's out = 4 CCC's out = 6  
 Thu Jun 08 09:32:40 2023

## Initial Calibration Verification

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076632.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-07\2076632.D Vial: 15  
 Acq On : 7 Jun 2023 4:02 pm Operator: joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	106	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.239	-29.2#	133	0.00	1.22
3 P	Chloromethane	0.188	0.199	-5.9	116	0.00	1.37
	----- Amount Calc. %Drift -----						
4	1,3-butadiene	25.000	21.916	12.3	91	0.00	1.45
	----- AvgRF CCRF %Dev -----						
5 C	Vinyl Chloride	0.194	0.207	-6.7	112	0.00	1.43
	----- Amount Calc. %Drift -----						
6	Bromomethane	25.000	27.914	-11.7	122	0.00	1.67
7	Chloroethane	25.000	24.999	0.0	104	0.00	1.75
	----- AvgRF CCRF %Dev -----						
8	Trichlorofluoromethane	0.366	0.376	-2.7	104	0.00	1.85
9	Ethyl Ether	0.173	0.177	-2.3	111	0.00	2.06
10	Ethanol			-----NA-----			
11	1,2-Dichlorotrifluoroetha	0.245	0.252	-2.9	109	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.291	5.2	100	0.00	2.18
13	Freon 113	0.216	0.219	-1.4	104	0.00	2.21
	----- Amount Calc. %Drift -----						
14	Carbon Disulfide	25.000	23.805	4.8	103	0.00	2.20
15	Iodomethane	25.000	26.121	-4.5	113	0.00	2.27
16	Acrolein	125.000	134.322	-7.5	116	0.00	2.39
	----- AvgRF CCRF %Dev -----						
17	Allyl chloride			-----NA-----			
	----- Amount Calc. %Drift -----						
18	Methylene Chloride	25.000	24.748	1.0	107	0.00	2.53
	----- AvgRF CCRF %Dev -----						
19	Acetone	0.115	0.099	13.9	94	0.00	2.56
20	Methyl acetate	0.272	0.239	12.1	95	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.297	4.2	103	0.00	2.63
22	Hexane	0.158	0.152	3.8	102	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.624	0.0	109	0.00	2.69
24	Tert Butyl Alcohol	0.039	0.040	-2.6	110	0.00	2.74
25	Acetonitrile	0.045	0.050	-11.1	127	0.00	2.83
26	Di-isopropyl ether	0.614	0.605	1.5	106	0.00	2.91

# Initial Calibration Verification

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V2O2981-ICV2981  
 Lab FileID: 2076632.D

		Amount	Calc.	%Drift			
27	Chloroprene	25.000	23.540	5.8	97	0.00	2.97
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane	0.403	0.384	4.7	103	0.00	2.98
29	Acrylonitrile	0.111	0.103	7.2	94	0.00	3.01
30	ETBE	0.584	0.598	-2.4	110	0.00	3.12
31	Vinyl acetate	0.438	0.463	-5.7	100	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.243	8.0	103	0.00	3.29
33	2,2-Dichloropropane	0.270	0.283	-4.8	113	0.00	3.35
34	Bromochloromethane	0.129	0.128	0.8	103	0.00	3.40
35	Cyclohexane	0.308	0.297	3.6	99	0.00	3.41
36 C	Chloroform	0.456	0.448	1.8	105	0.00	3.44
37	Ethyl acetate	0.328	0.315	4.0	91	0.00	3.50
38	Tetrahydrofuran	0.117	0.117	0.0	109	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.270	0.7	105	0.00	3.54
40	Carbon Tetrachloride	0.294	0.285	3.1	101	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.350	2.8	101	0.00	3.57
42	2-Butanone	0.178	0.160	10.1	95	0.00	3.61
43	1,1-Dichloropropene	0.301	0.298	1.0	104	0.00	3.64
		Amount	Calc.	%Drift			
44	tert-Butyl formate	125.000	156.333	-25.1#	144	0.00	3.70
		AvgRF	CCRF	%Dev			
45	Propionitrile	0.055	0.063	-14.5	118	0.00	3.78
46	Methacrylonitrile	0.192	0.216	-12.5	115	0.00	3.79
47	Benzene	0.910	0.907	0.3	108	0.00	3.78
48	TAME	0.554	0.561	-1.3	110	0.00	3.84
		Amount	Calc.	%Drift			
49	Isobutyl alcohol	500.000	579.850	-16.0	122	0.00	3.87
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.321	0.6	106	0.00	3.85
51	1,2-Dichloroethane	0.374	0.355	5.1	104	0.00	3.89
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol	250.000	254.654	-1.9	112	0.00	3.93
		AvgRF	CCRF	%Dev			
53	Trichloroethene	0.264	0.254	3.8	103	0.00	4.12
54	Methylcyclohexane	0.324	0.305	5.9	97	0.00	4.12
55	Dibromomethane	0.180	0.175	2.8	107	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.226	-3.7	113	0.00	4.43
57	Bromodichloromethane	0.305	0.290	4.9	101	0.00	4.46
		Amount	Calc.	%Drift			
58	Methyl methacrylate	25.000	26.725	-6.9	114	0.00	4.54
59	1,4-Dioxane	500.000	523.964	-4.8	114	0.00	4.59
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether	0.178	0.173	2.8	102	0.00	4.81
61	cis-1,3-Dichloropropene	0.329	0.330	-0.3	106	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00	6.02
63 S	Toluene-d8	1.333	1.346	-1.0	106	0.00	4.98
64 C	Toluene	1.336	1.330	0.4	106	0.00	5.01

6.7.3  
6



# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076632.D

	Amount	Calc.	%Drift			
65	2-Nitropropane	125.000	117.093	6.3	94	0.00 5.15
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.415	0.385	7.2	93	0.00 5.24
67	trans-1,3-Dichloropropene	0.451	0.430	4.7	99	0.00 5.27
68	Tetrachloroethene	0.347	0.351	-1.2	106	0.00 5.26
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	25.000	29.496	-18.0	121	0.00 5.37
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.281	0.273	2.8	101	0.00 5.38
71	Dibromochloromethane	0.316	0.336	-6.3	108	0.00 5.51
72	1,3-Dichloropropane	0.536	0.559	-4.3	111	0.00 5.57
73	1,2-Dibromoethane	0.366	0.363	0.8	108	0.00 5.67
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	1250.000	1246.189	0.3	104	0.00 5.78
	AvgRF	CCRF	%Dev			
75	2-hexanone	0.419	0.406	3.1	97	0.00 5.81
76	1-Chlorohexane	0.409	0.388	5.1	101	0.00 6.01
77 C	Ethylbenzene	1.460	1.458	0.1	105	0.00 6.05
78 P	Chlorobenzene	0.929	0.912	1.8	105	0.00 6.04
79	1,1,1,2-Tetrachloroethane	0.297	0.307	-3.4	104	0.00 6.08
80	m,p-Xylene	1.153	1.175	-1.9	106	0.00 6.15
81	o-Xylene	1.159	1.154	0.4	104	0.00 6.47
82	Styrene	0.883	0.921	-4.3	107	0.00 6.51
	Amount	Calc.	%Drift			
83 P	Bromoform	25.000	24.139	3.4	101	0.00 6.53
	AvgRF	CCRF	%Dev			
84	Isopropylbenzene	1.334	1.350	-1.2	104	0.00 6.71
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00 7.78
86 S	4-Bromofluorobenzene	0.731	0.734	-0.4	104	0.00 6.92
87	cis-1,4-Dichloro-2-butene	0.195	0.238	-22.1#	135	0.00 6.96
88	n-Propylbenzene	3.071	3.058	0.4	104	0.00 7.02
89	Bromobenzene	0.689	0.705	-2.3	110	0.00 7.00
90 P	1,1,2,2-Tetrachloroethane	0.996	0.995	0.1	105	0.00 7.07
91	1,3,5-Trimethylbenzene	2.195	2.284	-4.1	108	0.00 7.18
92	2-Chlorotoluene	2.151	2.176	-1.2	105	0.00 7.14
93	trans-1,4-Dichloro-2-Bute	0.180	0.171	5.0	102	0.00 7.21
94	1,2,3-Trichloropropane	0.319	0.329	-3.1	111	0.00 7.18
95	Cyclohexanone	0.034	0.043	-26.5#	118	0.00 7.21
96	4-Chlorotoluene	2.046	2.027	0.9	106	0.00 7.27
97	tert-Butylbenzene	1.192	1.194	-0.2	105	0.00 7.42
98	a-Methyl styrene			NA		
99	1,2,4-Trimethylbenzene	2.198	2.261	-2.9	107	0.00 7.48
	Amount	Calc.	%Drift			
100	Pentachloroethane	25.000	28.469	-13.9	117	0.00 7.44
	AvgRF	CCRF	%Dev			
101	sec-Butylbenzene	2.516	2.390	5.0	98	0.00 7.56
102	4-Isopropyltoluene	2.149	2.158	-0.4	104	0.00 7.67
103	1,3-Dichlorobenzene	1.369	1.300	5.0	102	0.00 7.73
104	1,2,3-Trimethylbenzene	2.336	2.275	2.6	104	0.00 7.81

6.7.3  
6

# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V2O2981-ICV2981  
**Lab FileID:** 2076632.D

	Amount	Calc.	%Drift				
105	1,4-Dichlorobenzene	25.000	25.028	-0.1	106	0.00	7.79
	AvgRF	CCRF	%Dev				
106	n-Butylbenzene	1.101	1.149	-4.4	109	0.00	7.99
	Amount	Calc.	%Drift				
107	Benzyl Chloride	25.000	24.864	0.5	104	0.00	7.98
	AvgRF	CCRF	%Dev				
108	1,2-Dichlorobenzene	1.310	1.251	4.5	103	0.00	8.10
	Amount	Calc.	%Drift				
109	1,2-Dibromo-3-Chloropropa	25.000	25.422	-1.7	104	0.00	8.68
110	Hexachlorobutadiene	25.000	23.736	5.1	100	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	24.530	1.9	103	0.00	9.15
	AvgRF	CCRF	%Dev				
112	Naphthalene	2.726	2.735	-0.3	106	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.708	4.8	104	0.00	9.50

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2076622.D V2O\_06-07-2023.M            Thu Jun 08 09:33:10 2023

6.7.3  
6

## Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203013-CC2981  
 Lab FileID: 2077327.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-30\2077327.D Vial: 2  
 Acq On : 30 Jun 2023 9:10 am Operator: adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:01:58 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	100	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.226	-22.2#	119	0.00	1.23
3 P	Chloromethane	0.188	0.225	-19.7	124	0.00	1.38
	----- Amount Calc. %Drift -----						
4	1,3-butadiene	25.000	23.055	7.8	90	0.00	1.45
	----- AvgRF CCRF %Dev -----						
5 C	Vinyl Chloride	0.194	0.219	-12.9	113	0.00	1.43
	----- Amount Calc. %Drift -----						
6	Bromomethane	25.000	20.748	17.0	86	0.00	1.67
7	Chloroethane	25.000	25.767	-3.1	101	0.00	1.76
	----- AvgRF CCRF %Dev -----						
8	Trichlorofluoromethane	0.366	0.378	-3.3	99	0.00	1.85
9	Ethyl Ether	0.173	0.160	7.5	95	0.00	2.06
10	Ethanol	0.004	0.004	0.0	98	0.00	2.15
11	1,2-Dichlorotrifluoroetha	0.245	0.240	2.0	99	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.292	4.9	95	0.00	2.18
13	Freon 113	0.216	0.205	5.1	92	0.00	2.21
	----- Amount Calc. %Drift -----						
14	Carbon Disulfide	25.000	25.785	-3.1	105	0.00	2.20
15	Iodomethane	25.000	19.590	21.6#	79	0.00	2.27
16	Acrolein	125.000	112.679	9.9	92	0.00	2.39
	----- AvgRF CCRF %Dev -----						
17	Allyl chloride	0.224	0.234	-4.5	101	0.00	2.47
	----- Amount Calc. %Drift -----						
18	Methylene Chloride	25.000	31.069	-24.3#	127	0.00	2.53
	----- AvgRF CCRF %Dev -----						
19	Acetone	0.115	0.133	-15.7	120	0.00	2.56
20	Methyl acetate	0.272	0.275	-1.1	104	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.295	4.8	97	0.00	2.63
22	Hexane	0.158	0.151	4.4	96	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.563	9.8	94	0.00	2.69
24	Tert Butyl Alcohol	0.039	0.036	7.7	92	0.00	2.74
25	Acetonitrile	0.045	0.048	-6.7	114	0.00	2.83
26	Di-isopropyl ether	0.614	0.558	9.1	93	0.00	2.91

# Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203013-CC2981  
 Lab FileID: 2077327.D

		Amount	Calc.	%Drift			
27	Chloroprene	25.000	22.653	9.4	89	0.00	2.97
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane	0.403	0.394	2.2	100	0.00	2.98
29	Acrylonitrile	0.111	0.108	2.7	93	0.00	3.01
30	ETBE	0.584	0.538	7.9	93	0.00	3.12
31	Vinyl acetate	0.438	0.425	3.0	87	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.238	9.8	95	0.00	3.29
33	2,2-Dichloropropane	0.270	0.262	3.0	99	0.00	3.35
34	Bromochloromethane	0.129	0.124	3.9	95	0.00	3.40
35	Cyclohexane	0.308	0.278	9.7	87	0.00	3.41
36 C	Chloroform	0.456	0.429	5.9	95	0.00	3.44
37	Ethyl acetate	0.328	0.321	2.1	88	0.00	3.50
38	Tetrahydrofuran	0.117	0.119	-1.7	105	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.273	-0.4	100	0.00	3.54
40	Carbon Tetrachloride	0.294	0.293	0.3	99	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.339	5.8	93	0.00	3.57
42	2-Butanone	0.178	0.183	-2.8	103	0.00	3.61
43	1,1-Dichloropropene	0.301	0.292	3.0	97	0.00	3.64
		Amount	Calc.	%Drift			
44	tert-Butyl formate	125.000	137.299	-9.8	119	0.00	3.70
		AvgRF	CCRF	%Dev			
45	Propionitrile	0.055	0.058	-5.5	103	0.00	3.78
46	Methacrylonitrile	0.192	0.202	-5.2	102	0.00	3.79
47	Benzene	0.910	0.897	1.4	101	0.00	3.78
48	TAME	0.554	0.514	7.2	95	0.00	3.84
		Amount	Calc.	%Drift			
49	Isobutyl alcohol	500.000	500.028	-0.0	99	0.00	3.87
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.317	1.9	99	0.00	3.85
51	1,2-Dichloroethane	0.374	0.329	12.0	91	0.00	3.89
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol	250.000	230.945	7.6	96	0.00	3.93
		AvgRF	CCRF	%Dev			
53	Trichloroethene	0.264	0.248	6.1	96	0.00	4.12
54	Methylcyclohexane	0.324	0.291	10.2	88	0.00	4.12
55	Dibromomethane	0.180	0.157	12.8	91	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.214	1.8	102	0.00	4.43
57	Bromodichloromethane	0.305	0.294	3.6	97	0.00	4.46
		Amount	Calc.	%Drift			
58	Methyl methacrylate	25.000	22.318	10.7	90	0.00	4.54
59	1,4-Dioxane	500.000	396.397	20.7#	81	0.00	4.59
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether	0.178	0.166	6.7	93	0.00	4.81
61	cis-1,3-Dichloropropene	0.329	0.326	0.9	99	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00	6.02
63 S	Toluene-d8	1.333	1.319	1.1	100	0.00	4.98
64 C	Toluene	1.336	1.243	7.0	96	0.00	5.01

6.7.4  
6

# Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203013-CC2981  
 Lab FileID: 2077327.D

	Amount	Calc.	%Drift			
65	2-Nitropropane	125.000	121.672	2.7	95	0.00 5.15
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.415	0.430	-3.6	100	0.00 5.24
67	trans-1,3-Dichloropropene	0.451	0.450	0.2	100	0.00 5.27
68	Tetrachloroethene	0.347	0.322	7.2	94	0.00 5.26
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	25.000	22.249	11.0	88	0.00 5.37
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.281	0.270	3.9	97	0.00 5.38
71	Dibromochloromethane	0.316	0.310	1.9	96	0.00 5.50
72	1,3-Dichloropropane	0.536	0.496	7.5	95	0.00 5.56
73	1,2-Dibromoethane	0.366	0.327	10.7	94	0.00 5.67
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	1250.000	1232.658	1.4	99	0.00 5.78
	AvgRF	CCRF	%Dev			
75	2-hexanone	0.419	0.437	-4.3	101	0.00 5.81
76	1-Chlorohexane	0.409	0.331	19.1	84	0.00 6.01
77 C	Ethylbenzene	1.460	1.394	4.5	97	0.00 6.05
78 P	Chlorobenzene	0.929	0.866	6.8	96	0.00 6.03
79	1,1,1,2-Tetrachloroethane	0.297	0.293	1.3	96	0.00 6.07
80	m,p-Xylene	1.153	1.071	7.1	94	0.00 6.15
81	o-Xylene	1.159	1.000	13.7	87	0.00 6.47
82	Styrene	0.883	0.801	9.3	90	0.00 6.51
	Amount	Calc.	%Drift			
83 P	Bromoform	25.000	24.270	2.9	98	0.00 6.52
	AvgRF	CCRF	%Dev			
84	Isopropylbenzene	1.334	1.176	11.8	88	0.00 6.70
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00 7.77
86 S	4-Bromofluorobenzene	0.731	0.693	5.2	92	0.00 6.91
87	cis-1,4-Dichloro-2-butene	0.195	0.167	14.4	89	0.00 6.96
88	n-Propylbenzene	3.071	2.941	4.2	93	0.00 7.02
89	Bromobenzene	0.689	0.639	7.3	93	0.00 7.00
90 P	1,1,2,2-Tetrachloroethane	0.996	0.978	1.8	96	0.00 7.07
91	1,3,5-Trimethylbenzene	2.195	2.086	5.0	92	0.00 7.17
92	2-Chlorotoluene	2.151	2.003	6.9	90	0.00 7.14
93	trans-1,4-Dichloro-2-Bute	0.180	0.157	12.8	87	0.00 7.20
94	1,2,3-Trichloropropane	0.319	0.320	-0.3	101	0.00 7.18
95	Cyclohexanone	0.034	0.033	2.9	85	0.00 7.21
96	4-Chlorotoluene	2.046	1.920	6.2	94	0.00 7.27
97	tert-Butylbenzene	1.192	1.066	10.6	88	0.00 7.42
98	a-Methyl styrene			NA		
99	1,2,4-Trimethylbenzene	2.198	2.046	6.9	91	0.00 7.48
	Amount	Calc.	%Drift			
100	Pentachloroethane	25.000	26.712	-6.8	102	0.00 7.44
	AvgRF	CCRF	%Dev			
101	sec-Butylbenzene	2.516	2.336	7.2	89	0.00 7.56
102	4-Isopropyltoluene	2.149	1.948	9.4	87	0.00 7.66
103	1,3-Dichlorobenzene	1.369	1.283	6.3	94	0.00 7.72
104	1,2,3-Trimethylbenzene	2.336	2.225	4.8	95	0.00 7.80

6.7.4  
6



# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203013-CC2981  
**Lab FileID:** 2077327.D

	Amount	Calc.	%Drift			
105	1,4-Dichlorobenzene	25.000	24.149	3.4	96	0.00 7.79
	AvgRF	CCRF	%Dev			
106	n-Butylbenzene	1.101	1.081	1.8	95	0.00 7.98
	Amount	Calc.	%Drift			
107	Benzyl Chloride	25.000	27.644	-10.6	110	0.00 7.98
	AvgRF	CCRF	%Dev			
108	1,2-Dichlorobenzene	1.310	1.197	8.6	92	0.00 8.10
	Amount	Calc.	%Drift			
109	1,2-Dibromo-3-Chloropropa	25.000	25.299	-1.2	96	0.00 8.67
110	Hexachlorobutadiene	25.000	21.678	13.3	86	0.00 9.13
111	1,2,4-Trichlorobenzene	25.000	19.765	20.9#	77	0.00 9.15
	AvgRF	CCRF	%Dev			
112	Naphthalene	2.726	2.135	21.7#	77	0.00 9.37
113	1,2,3-Trichlorobenzene	0.744	0.604	18.8	83	0.00 9.49

(#) = Out of Range  
 2076622.D V20\_06-07-2023.M

SPCC's out = 0 CCC's out = 0  
 Fri Jun 30 09:55:27 2023

6.7.4

6

## Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203013-ECC2981  
 Lab FileID: 2077353.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-30\2077353.D Vial: 28  
 Acq On : 30 Jun 2023 8:24 pm Operator: adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:01:58 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	103	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.229	-23.8	124	0.00	1.23
3 P	Chloromethane	0.188	0.229	-21.8	130	0.00	1.38
----- Amount Calc. %Drift -----							
4	1,3-butadiene	25.000	24.725	1.1	99	0.00	1.45
----- AvgRF CCRF %Dev -----							
5 C	Vinyl Chloride	0.194	0.229	-18.0	121	0.00	1.43
----- Amount Calc. %Drift -----							
6	Bromomethane	25.000	19.260	23.0	82	0.00	1.67
7	Chloroethane	25.000	25.285	-1.1	102	0.00	1.75
----- AvgRF CCRF %Dev -----							
8	Trichlorofluoromethane	0.366	0.375	-2.5	101	0.00	1.86
9	Ethyl Ether	0.173	0.160	7.5	98	0.00	2.06
10	Ethanol	0.004	0.004	0.0	109	0.00	2.15
11	1,2-Dichlorotrifluoroetha	0.245	0.247	-0.8	104	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.297	3.3	99	0.00	2.18
13	Freon 113	0.216	0.207	4.2	96	0.00	2.21
----- Amount Calc. %Drift -----							
14	Carbon Disulfide	25.000	25.781	-3.1	108	0.00	2.20
15	Iodomethane	25.000	22.409	10.4	93	0.00	2.27
16	Acrolein	125.000	109.509	12.4	92	0.00	2.39
----- AvgRF CCRF %Dev -----							
17	Allyl chloride	0.224	0.243	-8.5	108	0.00	2.47
----- Amount Calc. %Drift -----							
18	Methylene Chloride	25.000	30.865	-23.5	129	0.00	2.53
----- AvgRF CCRF %Dev -----							
19	Acetone	0.115	0.128	-11.3	119	0.00	2.56
20	Methyl acetate	0.272	0.281	-3.3	109	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.301	2.9	102	0.00	2.63
22	Hexane	0.158	0.150	5.1	98	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.581	6.9	99	0.00	2.69
24	Tert Butyl Alcohol	0.039	0.037	5.1	98	0.00	2.74
25	Acetonitrile	0.045	0.048	-6.7	119	0.00	2.83
26	Di-isopropyl ether	0.614	0.581	5.4	99	0.00	2.91

# Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203013-ECC2981  
 Lab FileID: 2077353.D

		Amount	Calc.	%Drift			
27	Chloroprene	25.000	22.905	8.4	92	0.00	2.97
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane	0.403	0.403	0.0	105	0.00	2.98
29	Acrylonitrile	0.111	0.108	2.7	96	0.00	3.01
30	ETBE	0.584	0.557	4.6	99	0.00	3.12
31	Vinyl acetate	0.438	0.417	4.8	87	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.237	10.2	98	0.00	3.29
33	2,2-Dichloropropane	0.270	0.252	6.7	99	0.00	3.35
34	Bromochloromethane	0.129	0.124	3.9	97	0.00	3.40
35	Cyclohexane	0.308	0.288	6.5	93	0.00	3.42
36 C	Chloroform	0.456	0.436	4.4	99	0.00	3.44
37	Ethyl acetate	0.328	0.324	1.2	92	0.00	3.50
38	Tetrahydrofuran	0.117	0.122	-4.3	110	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.269	1.1	101	0.00	3.54
40	Carbon Tetrachloride	0.294	0.292	0.7	101	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.349	3.1	98	0.00	3.57
42	2-Butanone	0.178	0.181	-1.7	104	0.00	3.61
43	1,1-Dichloropropene	0.301	0.295	2.0	101	0.00	3.64
		Amount	Calc.	%Drift			
44	tert-Butyl formate	125.000	138.233	-10.6	123	0.00	3.69
		AvgRF	CCRF	%Dev			
45	Propionitrile	0.055	0.057	-3.6	105	0.00	3.78
46	Methacrylonitrile	0.192	0.202	-5.2	105	0.00	3.79
47	Benzene	0.910	0.901	1.0	104	0.00	3.78
48	TAME	0.554	0.530	4.3	101	0.00	3.84
		Amount	Calc.	%Drift			
49	Isobutyl alcohol	500.000	488.338	2.3	99	0.00	3.87
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.314	2.8	101	0.00	3.85
51	1,2-Dichloroethane	0.374	0.332	11.2	94	0.00	3.89
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol	250.000	235.034	6.0	100	0.00	3.93
		AvgRF	CCRF	%Dev			
53	Trichloroethene	0.264	0.249	5.7	99	0.00	4.12
54	Methylcyclohexane	0.324	0.289	10.8	90	0.00	4.12
55	Dibromomethane	0.180	0.159	11.7	95	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.215	1.4	105	0.00	4.43
57	Bromodichloromethane	0.305	0.290	4.9	98	0.00	4.46
		Amount	Calc.	%Drift			
58	Methyl methacrylate	25.000	23.611	5.6	98	0.00	4.54
59	1,4-Dioxane	500.000	450.254	9.9	95	0.00	4.58
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether	0.178	0.167	6.2	97	0.00	4.81
61	cis-1,3-Dichloropropene	0.329	0.328	0.3	103	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	102	0.00	6.02
63 S	Toluene-d8	1.333	1.325	0.6	102	0.00	4.98
64 C	Toluene	1.336	1.290	3.4	101	0.00	5.01

6.7.5  
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# Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203013-ECC2981  
 Lab FileID: 2077353.D

	Amount	Calc.	%Drift			
65	2-Nitropropane	125.000	118.557	5.2	94	0.00 5.15
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.415	0.433	-4.3	103	0.00 5.24
67	trans-1,3-Dichloropropene	0.451	0.454	-0.7	103	0.00 5.27
68	Tetrachloroethene	0.347	0.338	2.6	100	0.00 5.26
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	25.000	22.911	8.4	92	0.00 5.37
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.281	0.279	0.7	101	0.00 5.38
71	Dibromochloromethane	0.316	0.305	3.5	97	0.00 5.50
72	1,3-Dichloropropane	0.536	0.499	6.9	98	0.00 5.57
73	1,2-Dibromoethane	0.366	0.332	9.3	97	0.00 5.67
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	1250.000	1256.998	-0.6	103	0.00 5.78
	AvgRF	CCRF	%Dev			
75	2-hexanone	0.419	0.437	-4.3	103	0.00 5.81
76	1-Chlorohexane	0.409	0.361	11.7	93	0.00 6.01
77 C	Ethylbenzene	1.460	1.431	2.0	101	0.00 6.05
78 P	Chlorobenzene	0.929	0.883	5.0	100	0.00 6.04
79	1,1,1,2-Tetrachloroethane	0.297	0.299	-0.7	100	0.00 6.08
80	m,p-Xylene	1.153	1.083	6.1	96	0.00 6.15
81	o-Xylene	1.159	1.032	11.0	91	0.00 6.47
82	Styrene	0.883	0.820	7.1	94	0.00 6.51
	Amount	Calc.	%Drift			
83 P	Bromoform	25.000	23.763	4.9	97	0.00 6.52
	AvgRF	CCRF	%Dev			
84	Isopropylbenzene	1.334	1.213	9.1	92	0.00 6.70
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	96	0.00 7.78
86 S	4-Bromofluorobenzene	0.731	0.701	4.1	94	0.00 6.92
87	cis-1,4-Dichloro-2-butene	0.195	0.158	19.0	84	0.00 6.96
88	n-Propylbenzene	3.071	3.022	1.6	97	0.00 7.02
89	Bromobenzene	0.689	0.638	7.4	94	0.00 7.00
90 P	1,1,2,2-Tetrachloroethane	0.996	1.011	-1.5	100	0.00 7.07
91	1,3,5-Trimethylbenzene	2.195	2.136	2.7	96	0.00 7.17
92	2-Chlorotoluene	2.151	2.103	2.2	96	0.00 7.14
93	trans-1,4-Dichloro-2-Bute	0.180	0.146	18.9	82	0.00 7.21
94	1,2,3-Trichloropropane	0.319	0.318	0.3	101	0.00 7.18
95	Cyclohexanone	0.034	0.034	0.0	88	0.00 7.21
96	4-Chlorotoluene	2.046	1.981	3.2	98	0.00 7.27
97	tert-Butylbenzene	1.192	1.118	6.2	93	0.00 7.42
98	a-Methyl styrene			NA		
99	1,2,4-Trimethylbenzene	2.198	2.092	4.8	94	0.00 7.48
	Amount	Calc.	%Drift			
100	Pentachloroethane	25.000	24.604	1.6	94	0.00 7.44
	AvgRF	CCRF	%Dev			
101	sec-Butylbenzene	2.516	2.381	5.4	92	0.00 7.56
102	4-Isopropyltoluene	2.149	1.999	7.0	90	0.00 7.67
103	1,3-Dichlorobenzene	1.369	1.291	5.7	95	0.00 7.73
104	1,2,3-Trimethylbenzene	2.336	2.289	2.0	99	0.00 7.81

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203013-ECC2981  
**Lab FileID:** 2077353.D

	-----	Amount	Calc.	%Drift	-----		
105	1,4-Dichlorobenzene	25.000	24.592	1.6	98	0.00	7.79
	-----	AvgRF	CCRF	%Dev	-----		
106	n-Butylbenzene	1.101	1.062	3.5	95	0.00	7.98
	-----	Amount	Calc.	%Drift	-----		
107	Benzyl Chloride	25.000	25.303	-1.2	100	0.00	7.98
	-----	AvgRF	CCRF	%Dev	-----		
108	1,2-Dichlorobenzene	1.310	1.214	7.3	95	0.00	8.10
	-----	Amount	Calc.	%Drift	-----		
109	1,2-Dibromo-3-Chloropropa	25.000	25.874	-3.5	99	0.00	8.68
110	Hexachlorobutadiene	25.000	22.240	11.0	89	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	20.671	17.3	82	0.00	9.15
	-----	AvgRF	CCRF	%Dev	-----		
112	Naphthalene	2.726	2.277	16.5	83	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.621	16.5	86	0.00	9.49

(#) = Out of Range  
 2076622.D V20\_06-07-2023.M

SPCC's out = 0 CCC's out = 0  
 Sun Jul 02 15:25:22 2023

6.7.5

6



# Initial Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

## Response Factor Report MSVOA16

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

### Calibration Files

1 =I757261.D 2 =I757262.D 3 =I757263.D 4 =I757264.D  
 5 =I757265.D 6 =I757266.D 7 =I757267.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
-----									
1) I Fluorobenzene	-----ISTD-----								
2) Dichlorodifluorom	0.230	0.235	0.217	0.216	0.196	0.216	0.228	0.220	5.90
3)P Chloromethane	0.329	0.277	0.233	0.214	0.216	0.227	0.224	0.246	17.15
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9987								
	Response Ratio = 0.00000 + 0.22695 *A + -0.00178 *A^2								
4)C Vinyl Chloride	0.226	0.253	0.218	0.211	0.205	0.222	0.228	0.223	6.91
5) 1,3-Butadiene	0.240	0.260	0.194	0.205	0.165	0.184	0.185	0.205	16.49
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9940								
	Response Ratio = 0.00000 + 0.19523 *A + -0.00710 *A^2								
6) Bromomethane	0.282	0.109	0.074	0.069	0.073	0.081	0.077	0.109	70.57
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9963								
	Response Ratio = 0.00000 + 0.07544 *A + 0.00124 *A^2								
7) Chloroethane	0.233	0.158	0.117	0.095	0.089	0.092	0.090	0.125	43.28
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9947								
	Response Ratio = 0.00000 + 0.09359 *A								
8) Trichlorofluorome	0.318	0.327	0.303	0.289	0.277	0.298	0.300	0.302	5.56
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9989								
	Response Ratio = 0.00000 + 0.29537 *A								
9) Ethyl Ether	0.156	0.151	0.138	0.154	0.153	0.168	0.163	0.155	6.18
10) 1,2-Dichlorotrifl	0.210	0.215	0.192	0.207	0.183	0.215	0.218	0.206	6.39
11)C 1,1-Dichloroethen	0.269	0.282	0.247	0.276	0.246	0.287	0.292	0.271	6.81
12) Ethanol	0.012	0.009	0.008	0.008	0.007	0.008	0.007	0.008	22.81
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9954								
	Response Ratio = 0.00000 + 0.00796 *A + -0.00003 *A^2								
13) Freon 113	0.163	0.172	0.158	0.172	0.146	0.178	0.190	0.169	8.46
14) Carbon Disulfide	0.640	0.581	0.490	0.544	0.488	0.574	0.583	0.557	9.76
15) Iodomethane	0.113	0.084	0.081	0.132	0.141	0.141		0.115	23.88
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9965								
	Response Ratio = 0.00000 + 0.12493 *A + 0.01219 *A^2								
16) Acrolein	0.093	0.058	0.074	0.071	0.068	0.080	0.077	0.075	14.49
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9971								
	Response Ratio = 0.00000 + 0.06843 *A + 0.00104 *A^2								
17) Allyl chloride	0.322	0.349	0.252	0.261	0.239	0.266	0.256	0.278	14.79
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9963								
	Response Ratio = 0.00000 + 0.26329 *A + -0.00342 *A^2								
18) Methylene Chlorid	0.554	0.326	0.258	0.268	0.261	0.274	0.260	0.314	34.39
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9977								

6.7.6  
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# Initial Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

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Response Ratio = 0.00000 + 0.28093 \*A + -0.00979 \*A^2

19)	Acetone	0.210	0.110	0.158	0.129	0.127	0.140	0.133	0.144	22.61
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9957								
		Response Ratio = 0.00000 + 0.13453 *A + 0.00001 *A^2								
20)	Methyl acetate	0.262	0.249	0.256	0.290	0.287	0.323	0.306	0.282	9.76
21)	trans-1,2-Dichlor	0.288	0.304	0.255	0.280	0.268	0.301	0.298	0.285	6.42
22)	Hexane	0.152	0.140	0.124	0.146	0.123	0.144	0.148	0.140	8.23
23)	Methyl Tert Butyl	0.615	0.576	0.544	0.602	0.597	0.648	0.628	0.601	5.70
24)	Tert butyl alchoh	0.080	0.070	0.075	0.085	0.083	0.094	0.088	0.082	9.98
25)	Acetonitrile	0.121	0.071	0.059	0.056	0.050	0.053	0.047	0.065	39.28
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9962								
		Response Ratio = 0.00000 + 0.06065 *A + -0.00067 *A^2								
26)	Di-isopropyl ethe	0.645	0.625	0.566	0.627	0.621	0.672	0.648	0.629	5.23
27)	Chloroprene	0.276	0.347	0.262	0.280	0.248	0.292	0.301	0.287	11.16
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9964								
		Response Ratio = 0.00000 + 0.26060 *A + 0.01926 *A^2								
28)P	1,1-Dichloroethan	0.359	0.411	0.334	0.372	0.357	0.397	0.385	0.374	6.99
29)	Acrylonitrile	0.119	0.112	0.138	0.151	0.139	0.153	0.147	0.137	11.57
30)	ETBE	0.626	0.623	0.535	0.598	0.595	0.642	0.620	0.606	5.78
31)	Vinyl acetate	0.333	0.298	0.357	0.415	0.405	0.445	0.431	0.384	14.28
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9979								
		Response Ratio = 0.00000 + 0.38215 *A + 0.00599 *A^2								
32)	cis-1,2-Dichloroe	0.220	0.238	0.197	0.221	0.219	0.242	0.236	0.225	6.96
33)	2,2-Dichloropropa	0.294	0.306	0.255	0.280	0.263	0.299	0.298	0.285	6.81
34)	Bromochloromethan	0.121	0.120	0.105	0.114	0.114	0.121	0.116	0.116	4.77
35)	Cyclohexane	0.310	0.310	0.290	0.318	0.265	0.315	0.332	0.305	7.16
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9969								
		Response Ratio = 0.00000 + 0.27692 *A + 0.02616 *A^2								
36)C	Chloroform	0.414	0.413	0.348	0.380	0.369	0.408	0.397	0.390	6.47
37)	Ethyl acetate	0.261	0.236	0.301	0.346	0.328	0.367	0.358	0.314	15.99
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9978								
		Response Ratio = 0.00000 + 0.31225 *A + 0.00542 *A^2								
38)	Tetrahydrofuran	0.169	0.147	0.146	0.156	0.149	0.164	0.157	0.155	5.64
39)S	Dibromofluorometh	0.278	0.279	0.280	0.290	0.287	0.284	0.289	0.284	1.73
40)	Carbon Tetrachlor	0.274	0.283	0.243	0.276	0.247	0.292	0.303	0.274	8.05
41)	1,1,1-Trichloroet	0.324	0.339	0.291	0.322	0.298	0.341	0.343	0.323	6.45
42)	2-Butanone	0.168	0.136	0.230	0.198	0.204	0.231	0.227	0.199	17.98
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9965								
		Response Ratio = 0.00000 + 0.19383 *A + 0.00380 *A^2								
43)	1,1-Dichloropropo	0.232	0.269	0.235	0.259	0.238	0.273	0.275	0.255	7.51
44)	tert-Butyl Format	0.149	0.146	0.144	0.150	0.159	0.176	0.171	0.156	8.16
45)	Propionitrile	0.063	0.076	0.065	0.070	0.064	0.072	0.070	0.069	6.66
46)	Methacrylonitrile	0.207	0.238	0.196	0.195	0.182	0.200	0.193	0.201	8.76
47)	Benzene	0.790	0.830	0.720	0.769	0.742	0.814	0.798	0.780	5.01
48)	TAME	0.628	0.598	0.520	0.574	0.574	0.616	0.594	0.586	6.05
49)S	1,2-Dichloroethan	0.260	0.256	0.260	0.269	0.254	0.249	0.259	0.258	2.50
50)	Isobutyl alcohol	0.019	0.016	0.016	0.018	0.017	0.020	0.021	0.018	11.24
51)	1,2-Dichloroethan	0.299	0.271	0.246	0.265	0.260	0.283	0.274	0.271	6.18
52)	Tert Amyl Alcohol	0.062	0.053	0.061	0.071	0.069	0.079	0.077	0.068	13.63
53)	Trichloroethene	0.263	0.214	0.190	0.210	0.199	0.226	0.226	0.218	10.87
54)	Methylcyclohexane	0.269	0.282	0.263	0.287	0.238	0.289	0.303	0.276	7.72
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9966								

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# Initial Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

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Response Ratio = 0.00000 + 0.24923 \*A + 0.02580 \*A^2

55)	Dibromomethane	0.148	0.134	0.124	0.134	0.138	0.150	0.148	0.139	6.94
56)C	1,2-Dichloropropa	0.206	0.202	0.181	0.196	0.197	0.217	0.210	0.201	5.76
57)	Bromodichlorometh	0.264	0.275	0.250	0.273	0.276	0.305	0.298	0.277	6.84
58)	Methyl methacryla	0.053	0.205	0.185	0.226	0.226	0.256	0.252	0.200	34.65
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9981								
		Response Ratio = 0.00000 + 0.20577 *A + 0.02624 *A^2								
59)	1,4-Dioxane	0.005	0.005	0.006	0.007	0.006	0.007	0.007	0.006	15.55
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9976								
		Response Ratio = 0.00000 + 0.00610 *A + 0.00002 *A^2								
60)	2-Chloroethyl vin	0.074	0.112	0.116	0.119	0.127	0.138	0.132	0.117	17.92
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9986								
		Response Ratio = 0.00000 + 0.11892 *A + 0.00165 *A^2								
61)	cis-1,3-Dichlorop	0.286	0.306	0.277	0.312	0.317	0.351	0.340	0.313	8.52
62) I	Chlorobenzene-d5	-----ISTD-----								
63)S	Toluene-d8	1.370	1.360	1.434	1.445	1.457	1.464	1.451	1.426	3.01
64)C	Toluene	1.152	1.163	1.039	1.121	1.098	1.230	1.183	1.141	5.40
65)	2-Nitropropane	0.095	0.082	0.089	0.107	0.111	0.128	0.124	0.105	16.56
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9969								
		Response Ratio = 0.00000 + 0.09900 *A + 0.00290 *A^2								
66)	4-Methyl-2-pentan	0.476	0.378	0.593	0.486	0.491	0.534	0.504	0.494	13.16
67)	trans-1,3-Dichlor	0.208	0.351	0.329	0.389	0.397	0.436	0.420	0.361	21.28
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9983								
		Response Ratio = 0.00000 + 0.36809 *A + 0.03171 *A^2								
68)	Tetrachloroethene	0.341	0.348	0.323	0.345	0.320	0.372	0.367	0.345	5.69
69)	Ethyl methacrylat	0.194	0.365	0.320	0.372	0.364	0.407	0.390	0.344	20.83
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9981								
		Response Ratio = 0.00000 + 0.35184 *A + 0.02388 *A^2								
70)	1,1,2-Trichloroet	0.237	0.230	0.216	0.229	0.232	0.249	0.235	0.233	4.32
71)	Dibromochlorometh	0.311	0.293	0.285	0.324	0.330	0.362	0.348	0.322	8.67
72)	1,3-Dichloropropa	0.361	0.382	0.368	0.411	0.422	0.459	0.435	0.405	9.03
73)	1,2-Dibromoethane	0.290	0.269	0.273	0.303	0.306	0.337	0.323	0.300	8.33
74)	3,3-dimethyl-1-bu	0.063	0.060	0.080	0.088	0.092	0.106	0.099	0.084	20.80
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9959								
		Response Ratio = 0.00000 + 0.08317 *A + 0.00020 *A^2								
75)	2-hexanone	0.296	0.276	0.468	0.387	0.392	0.433	0.421	0.382	18.64
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9961								
		Response Ratio = 0.00000 + 0.38610 *A + 0.00420 *A^2								
76)	1-Chlorohexane	0.346	0.310	0.296	0.319	0.292	0.346	0.349	0.323	7.51
77)C	Ethylbenzene	1.306	1.240	1.131	1.209	1.169	1.308	1.260	1.232	5.45
78)P	Chlorobenzene	0.740	0.779	0.703	0.750	0.735	0.802	0.768	0.754	4.31
79)	1,1,1,2-Tetrachlo	0.305	0.283	0.260	0.288	0.288	0.316	0.303	0.292	6.29
80)	m,p-Xylene	0.860	0.927	0.854	0.926	0.907	1.015	0.985	0.925	6.45
81)	o-Xylene	1.002	0.996	0.922	0.976	0.962	1.072	1.031	0.994	4.87
82)	Styrene	0.498	0.625	0.611	0.702	0.711	0.800	0.771	0.674	15.44
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9982								
		Response Ratio = 0.00000 + 0.66427 *A + 0.06420 *A^2								
83)P	Bromoform	0.243	0.238	0.240	0.272	0.287	0.317	0.303	0.271	11.82
84)	Isopropylbenzene	1.168	1.191	1.080	1.163	1.114	1.254	1.221	1.170	5.10

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# Initial Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

85) I	1,4-Dichlorobenzene-d	-----ISTD-----								
86) S	4-Bromofluorobenz	0.828	0.841	0.833	0.838	0.855	0.856	0.842	0.842	1.25
87)	cis-1,4-Dichloro-	0.152	0.175	0.156	0.175	0.182	0.212	0.204	0.179	12.53
88)	n-Propylbenzene	2.223	2.363	1.993	2.137	2.074	2.369	2.249	2.201	6.44
89)	Bromobenzene	0.567	0.589	0.512	0.546	0.553	0.614	0.570	0.564	5.75
90) P	1,1,2,2-Tetrachlo	0.827	0.773	0.705	0.749	0.756	0.823	0.754	0.769	5.61
91)	1,3,5-Trimethylbe	1.547	1.703	1.450	1.534	1.510	1.704	1.595	1.577	6.10
92)	2-Chlorotoluene	1.516	1.610	1.392	1.468	1.430	1.604	1.490	1.501	5.50
93)	trans-1,4-Dichlor	0.108	0.140	0.147	0.185	0.193	0.226	0.214	0.173	24.85
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9960										
Response Ratio = 0.00000 + 0.19294 *A + 0.01285 *A^2										
94)	1,2,3-Trichloropr	0.229	0.239	0.221	0.237	0.235	0.264	0.240	0.238	5.58
95)	Cyclohexanone	0.060	0.045	0.052	0.054	0.050	0.057	0.053	0.053	9.27
96)	4-Chlorotoluene	1.337	1.391	1.230	1.302	1.331	1.483	1.384	1.351	5.86
97)	tert-Butylbenzene	0.849	0.896	0.785	0.804	0.786	0.894	0.856	0.838	5.71
98)	1,2,4-Trimethylbe	1.550	1.650	1.395	1.501	1.511	1.695	1.573	1.554	6.40
99)	Pentachloroethane	0.339	0.405	0.299	0.331	0.327	0.369	0.345	0.345	9.82
100)	sec-Butylbenzene	1.972	1.970	1.708	1.760	1.670	1.932	1.846	1.837	6.87
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9978										
Response Ratio = 0.00000 + 1.73377 *A + 0.07069 *A^2										
101)	4-Isopropyltoluen	1.497	1.699	1.441	1.535	1.494	1.710	1.624	1.571	6.77
102)	1,3-Dichlorobenze	0.930	1.003	0.869	0.948	0.967	1.078	1.012	0.972	6.85
103)	1,2,3-Trimethylbe	1.731	1.736	1.467	1.539	1.567	1.747	1.607	1.628	6.85
104)	1,4-Dichlorobenze	1.163	1.088	0.943	0.993	1.002	1.108	1.020	1.045	7.35
105)	n-Butylbenzene	0.669	0.803	0.700	0.777	0.756	0.870	0.833	0.773	9.19
106)	Benzyl Chloride	0.207	0.234	0.222	0.263	0.282	0.325	0.298	0.262	16.43
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9951										
Response Ratio = 0.00000 + 0.25719 *A + 0.02740 *A^2										
107)	1,2-Dichlorobenze	0.946	0.990	0.863	0.917	0.939	1.048	0.967	0.953	6.08
108)	1,2-Dibromo-3-Chl	0.190	0.166	0.172	0.192	0.198	0.229	0.215	0.194	11.46
109)	Hexachlorobutadie	0.336	0.349	0.298	0.312	0.294	0.335	0.337	0.323	6.65
110)	1,2,4-Trichlorobe	0.682	0.721	0.618	0.675	0.701	0.798	0.734	0.704	7.93
111)	Naphthalene	2.074	2.030	1.942	2.175	2.267	2.569	2.358	2.202	9.76
112)	1,2,3-Trichlorobe	0.725	0.722	0.609	0.670	0.693	0.776	0.719	0.702	7.44

(#) = Out of Range

VI-2023-06-15.m

Thu Jun 15 14:54:00 2023

## Initial Calibration Verification

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2948-ICV2948  
 Lab FileID: I757269.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-15\I757269.D Vial: 10  
 Acq On : 15 Jun 2023 2:04 pm Operator: joannel  
 Sample : ICV2948-5 Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	100	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.195	11.4	99	0.00	2.35
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane	40.000	35.621	10.9	93	0.00	2.64
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride	0.223	0.185	17.0	90	0.00	2.77
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene			NA			
6	Bromomethane	40.000	35.861	10.3	94	0.00	3.23
7	Chloroethane	40.000	32.753	18.1	87	0.00	3.40
8	Trichlorofluoromethane	40.000	32.473	18.8	87	0.00	3.59
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether	0.155	0.165	-6.5	108	0.00	4.02
10	1,2-Dichlorotrifluoroetha	0.206	0.189	8.3	103	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.231	14.8	94	0.00	4.28
	----- Amount	Calc.	%Drift	-----			
12	Ethanol	800.000	755.110	5.6	107	0.00	4.21
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113	0.169	0.150	11.2	103	0.00	4.32
14	Carbon Disulfide	0.557	0.460	17.4	94	0.00	4.33
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane	40.000	41.691	-4.2	100	0.00	4.46
16	Acrolein	200.000	185.924	7.0	99	0.00	4.68
17	Allyl chloride	40.000	34.765	13.1	95	0.00	4.85
18	Methylene Chloride	40.000	38.344	4.1	101	0.00	4.98
19	Acetone	200.000	194.726	2.6	103	0.00	5.03
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate	0.282	0.279	1.1	97	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.259	9.1	97	0.00	5.18
22	Hexane	0.140	0.124	11.4	101	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.617	-2.7	103	0.00	5.30
24	Tert butyl alcohol	0.082	0.091	-11.0	110	0.00	5.39
	----- Amount	Calc.	%Drift	-----			



# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

25	Acetonitrile	400.000	389.314	2.7	108	0.00	5.56
	----- AvgRF	CCRF	%Dev	-----			
26	Di-isopropyl ether	0.629	0.606	3.7	98	0.00	5.73
	----- Amount	Calc.	%Drift	-----			
27	Chloroprene			-----NA-----			
	----- AvgRF	CCRF	%Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.339	9.4	95	0.00	5.88
29	Acrylonitrile	0.137	0.146	-6.6	105	0.00	5.92
30	ETBE	0.606	0.611	-0.8	103	0.00	6.13
	----- Amount	Calc.	%Drift	-----			
31	Vinyl acetate	200.000	208.013	-4.0	105	0.00	6.14
	----- AvgRF	CCRF	%Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.208	7.6	95	0.00	6.51
33	2,2-Dichloropropane	0.285	0.272	4.6	103	0.00	6.62
34	Bromochloromethane	0.116	0.109	6.0	96	0.00	6.73
	----- Amount	Calc.	%Drift	-----			
35	Cyclohexane	40.000	34.412	14.0	96	0.00	6.76
	----- AvgRF	CCRF	%Dev	-----			
36 C	Chloroform	0.390	0.365	6.4	99	0.00	6.79
	----- Amount	Calc.	%Drift	-----			
37	Ethyl acetate	200.000	196.355	1.8	100	0.00	6.88
	----- AvgRF	CCRF	%Dev	-----			
38	Tetrahydrofuran	0.155	0.152	1.9	102	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.290	-2.1	101	0.00	6.99
40	Carbon Tetrachloride	0.274	0.238	13.1	96	0.00	6.98
41	1,1,1-Trichloroethane	0.323	0.289	10.5	97	0.00	7.04
	----- Amount	Calc.	%Drift	-----			
42	2-Butanone	200.000	199.356	0.3	102	0.00	7.10
	----- AvgRF	CCRF	%Dev	-----			
43	1,1-Dichloropropene	0.255	0.234	8.2	98	0.00	7.17
44	tert-Butyl Formate	0.156	0.205	-31.4#	129	0.00	7.26
45	Propionitrile	0.069	0.064	7.2	100	0.00	7.41
46	Methacrylonitrile	0.201	0.178	11.4	98	0.00	7.44
47	Benzene	0.780	0.729	6.5	98	0.00	7.43
48	TAME	0.586	0.575	1.9	100	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.257	0.4	101	0.00	7.56
50	Isobutyl alcohol	0.018	0.018	0.0	106	0.00	7.59
51	1,2-Dichloroethane	0.271	0.258	4.8	99	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.075	-10.3	109	0.00	7.70
53	Trichloroethene	0.218	0.195	10.6	98	0.00	8.04
	----- Amount	Calc.	%Drift	-----			
54	Methylcyclohexane	40.000	33.591	16.0	94	0.00	8.05
	----- AvgRF	CCRF	%Dev	-----			
55	Dibromomethane	0.139	0.138	0.7	100	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.201	0.0	102	0.00	8.57
57	Bromodichloromethane	0.277	0.264	4.7	96	0.00	8.62

6.7.7  
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# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate	40.000	36.540	8.7	91	0.00	8.74
59	1,4-Dioxane	800.000	806.023	-0.8	104	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	188.357	5.8	93	0.00	9.16
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene	0.313	0.314	-0.3	99	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	11.01
63 S	Toluene-d8	1.426	1.437	-0.8	100	0.00	9.45
64 C	Toluene	1.141	1.073	6.0	99	0.00	9.50
		Amount	Calc.	%Drift			
65	2-Nitropropane	200.000	193.743	3.1	97	0.00	9.69
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.494	0.478	3.2	98	0.00	9.83
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene	40.000	37.046	7.4	92	0.00	9.90
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene	0.345	0.311	9.9	98	0.00	9.91
		Amount	Calc.	%Drift			
69	Ethyl methacrylate	40.000	39.786	0.5	103	0.00	10.01
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.233	0.223	4.3	97	0.00	10.05
71	Dibromochloromethane	0.322	0.336	-4.3	103	0.00	10.26
72	1,3-Dichloropropane	0.405	0.439	-8.4	105	0.00	10.34
73	1,2-Dibromoethane	0.300	0.304	-1.3	101	0.00	10.51
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	2000.000	2073.237	-3.7	105	0.00	10.62
75	2-hexanone	200.000	194.984	2.5	101	0.00	10.65
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane	0.323	0.275	14.9	95	0.00	10.96
77 C	Ethylbenzene	1.232	1.133	8.0	98	0.00	11.02
78 P	Chlorobenzene	0.754	0.709	6.0	98	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.281	3.8	99	0.00	11.07
80	m,p-Xylene	0.925	0.887	4.1	99	0.00	11.16
81	o-Xylene	0.994	0.917	7.7	96	0.00	11.60
		Amount	Calc.	%Drift			
82	Styrene	40.000	39.073	2.3	99	0.00	11.66
		AvgRF	CCRF	%Dev			
83 P	Bromoform	0.271	0.278	-2.6	98	0.00	11.71
84	Isopropylbenzene	1.170	1.068	8.7	97	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.842	0.0	102	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.196	-9.5	111	0.00	12.26
88	n-Propylbenzene	2.201	1.942	11.8	97	0.00	12.33
89	Bromobenzene	0.564	0.558	1.1	104	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.739	3.9	101	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.462	7.3	100	0.00	12.51
92	2-Chlorotoluene	1.501	1.408	6.2	102	0.00	12.52

6.7.7  
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# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

	Amount	Calc.	%Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	36.749	8.1	100	0.00 12.57
	AvgRF	CCRF	%Dev			
94	1,2,3-Trichloropropane	0.238	0.255	-7.1	112	0.00 12.55
95	Cyclohexanone	0.053	0.065	-22.6#	136	0.00 12.61
96	4-Chlorotoluene	1.351	1.259	6.8	98	0.00 12.68
97	tert-Butylbenzene	0.838	0.736	12.2	97	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.455	6.4	99	0.00 12.93
99	Pentachloroethane	0.345	0.298	13.6	94	0.00 12.90
	Amount	Calc.	%Drift			
100	sec-Butylbenzene	40.000	33.776	15.6	93	0.00 13.04
	AvgRF	CCRF	%Dev			
101	4-Isopropyltoluene	1.571	1.385	11.8	96	0.00 13.17
102	1,3-Dichlorobenzene	0.972	0.918	5.6	98	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.532	5.9	101	0.00 13.38
104	1,4-Dichlorobenzene	1.045	0.968	7.4	100	0.00 13.39
105	n-Butylbenzene	0.773	0.743	3.9	101	0.00 13.61
	Amount	Calc.	%Drift			
106	Benzyl Chloride	40.000	40.140	-0.4	103	0.00 13.63
	AvgRF	CCRF	%Dev			
107	1,2-Dichlorobenzene	0.953	0.913	4.2	100	0.00 13.83
108	1,2-Dibromo-3-Chloropropa	0.194	0.208	-7.2	109	0.00 14.58
109	Hexachlorobutadiene	0.323	0.276	14.6	97	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.691	1.8	102	0.00 15.19
111	Naphthalene	2.202	2.224	-1.0	101	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.687	2.1	102	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Thu Jun 15 14:53:16 2023

6.7.7  
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## Initial Calibration Verification

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2948-ICV2948  
 Lab FileID: I757270.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-15\I757270.D Vial: 11  
 Acq On : 15 Jun 2023 2:27 pm Operator: joannel  
 Sample : ICV2948-4 Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	101	0.00	7.85
2	Dichlorodifluoromethane			NA			
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane			NA			
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride			NA			
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene	25.000	19.946	20.2#	76	0.00	2.79
6	Bromomethane			NA			
7	Chloroethane			NA			
8	Trichlorofluoromethane			NA			
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether			NA			
10	1,2-Dichlorotrifluoroethane			NA			
11 C	1,1-Dichloroethene			NA			
	----- Amount	Calc.	%Drift	-----			
12	Ethanol			NA			
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113			NA			
14	Carbon Disulfide			NA			
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane			NA			
16	Acrolein			NA			
17	Allyl chloride			NA			
18	Methylene Chloride			NA			
19	Acetone			NA			
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert butyl alcohol			NA			
	----- Amount	Calc.	%Drift	-----			

# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

Line	Compound	Amount	Calc.	%Drift	84	0.00	5.87
25	Acetonitrile						
		AvgRF	CCRF	%Dev			
26	Di-isopropyl ether						
		Amount	Calc.	%Drift			
27	Chloroprene	25.000	21.657	13.4	84	0.00	5.87
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane						
29	Acrylonitrile						
30	ETBE						
		Amount	Calc.	%Drift			
31	Vinyl acetate						
		AvgRF	CCRF	%Dev			
32	cis-1,2-Dichloroethene						
33	2,2-Dichloropropane						
34	Bromochloromethane						
		Amount	Calc.	%Drift			
35	Cyclohexane						
		AvgRF	CCRF	%Dev			
36 C	Chloroform						
		Amount	Calc.	%Drift			
37	Ethyl acetate						
		AvgRF	CCRF	%Dev			
38	Tetrahydrofuran						
39 S	Dibromofluoromethane	0.284	0.288	-1.4	100	0.00	6.99
40	Carbon Tetrachloride						
41	1,1,1-Trichloroethane						
		Amount	Calc.	%Drift			
42	2-Butanone						
		AvgRF	CCRF	%Dev			
43	1,1-Dichloropropene						
44	tert-Butyl Formate						
45	Propionitrile						
46	Methacrylonitrile						
47	Benzene						
48	TAME						
49 S	1,2-Dichloroethane-d4	0.258	0.268	-3.9	101	0.00	7.56
50	Isobutyl alcohol						
51	1,2-Dichloroethane						
52	Tert Amyl Alcohol						
53	Trichloroethene						
		Amount	Calc.	%Drift			
54	Methylcyclohexane						
		AvgRF	CCRF	%Dev			
55	Dibromomethane						
56 C	1,2-Dichloropropane						
57	Bromodichloromethane						

6.7.8

6



# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate			NA			
59	1,4-Dioxane			NA			
60	2-Chloroethyl vinyl ether			NA			
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene			NA			
62 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	11.01
63 S	Toluene-d8	1.426	1.445	-1.3	101	0.00	9.44
64 C	Toluene			NA			
		Amount	Calc.	%Drift			
65	2-Nitropropane			NA			
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone			NA			
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene			NA			
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene			NA			
		Amount	Calc.	%Drift			
69	Ethyl methacrylate			NA			
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane			NA			
71	Dibromochloromethane			NA			
72	1,3-Dichloropropene			NA			
73	1,2-Dibromoethane			NA			
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol			NA			
75	2-hexanone			NA			
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane			NA			
77 C	Ethylbenzene			NA			
78 P	Chlorobenzene			NA			
79	1,1,1,2-Tetrachloroethane			NA			
80	m,p-Xylene			NA			
81	o-Xylene			NA			
		Amount	Calc.	%Drift			
82	Styrene			NA			
		AvgRF	CCRF	%Dev			
83 P	Bromoform			NA			
84	Isopropylbenzene			NA			
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.848	-0.7	103	0.00	12.22
87	cis-1,4-Dichloro-2-butene			NA			
88	n-Propylbenzene			NA			
89	Bromobenzene			NA			
90 P	1,1,2,2-Tetrachloroethane			NA			
91	1,3,5-Trimethylbenzene			NA			
92	2-Chlorotoluene			NA			

6.7.8

6

# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

	Amount	Calc.	%Drift
93	trans-1,4-Dichloro-2-Bute		NA
	AvgRF	CCRF	%Dev
94	1,2,3-Trichloropropane		NA
95	Cyclohexanone		NA
96	4-Chlorotoluene		NA
97	tert-Butylbenzene		NA
98	1,2,4-Trimethylbenzene		NA
99	Pentachloroethane		NA
	Amount	Calc.	%Drift
100	sec-Butylbenzene		NA
	AvgRF	CCRF	%Dev
101	4-Isopropyltoluene		NA
102	1,3-Dichlorobenzene		NA
103	1,2,3-Trimethylbenzene		NA
104	1,4-Dichlorobenzene		NA
105	n-Butylbenzene		NA
	Amount	Calc.	%Drift
106	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
107	1,2-Dichlorobenzene		NA
108	1,2-Dibromo-3-Chloropropa		NA
109	Hexachlorobutadiene		NA
110	1,2,4-Trichlorobenzene		NA
111	Naphthalene		NA
112	1,2,3-Trichlorobenzene		NA

(#) = Out of Range  
 I757264.D VI-2023-06-15.m

SPCC's out = 4 CCC's out = 6  
 Thu Jun 15 14:51:38 2023

## Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2958-CC2948  
 Lab FileID: I757567.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-29\I757567.D Vial: 2  
 Acq On : 29 Jun 2023 11:27 am Operator: adelardl  
 Sample : CC2948-5 Inst : MSVOA16  
 Misc : MS54274,VI2958,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	83	0.00	7.85
2	Dichlorodifluoromethane			NA			
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane			NA			
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride			NA			
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene	40.000	32.267	19.3	77	0.00	2.79
6	Bromomethane			NA			
7	Chloroethane			NA			
8	Trichlorofluoromethane			NA			
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether	0.155	0.148	4.5	80	0.00	4.01
10	1,2-Dichlorotrifluoroetha	0.206	0.210	-1.9	96	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.283	-4.4	96	0.00	4.27
	----- Amount	Calc.	%Drift	-----			
12	Ethanol	800.000	700.833	12.4	83	0.00	4.21
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113	0.169	0.176	-4.1	100	0.00	4.32
14	Carbon Disulfide	0.557	0.531	4.7	91	0.00	4.33
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane	40.000	28.470	28.8#	55	0.00	4.46
16	Acrolein	200.000	153.394	23.3#	67	0.00	4.68
17	Allyl chloride	40.000	36.979	7.6	84	0.00	4.85
18	Methylene Chloride	40.000	43.923	-9.8	95	0.00	4.98
19	Acetone	200.000	189.436	5.3	84	0.00	5.02
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate	0.282	0.293	-3.9	85	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.286	-0.4	89	0.00	5.18
22	Hexane	0.140	0.143	-2.1	97	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.563	6.3	79	0.00	5.29
24	Tert butyl alcohol	0.082	0.078	4.9	78	0.00	5.38
	----- Amount	Calc.	%Drift	-----			

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-CC2948  
**Lab FileID:** I757567.D

25	Acetonitrile	400.000	351.912	12.0	82	0.00	5.56
	----- AvgRF	CCRF	%Dev	-----			
26	Di-isopropyl ether	0.629	0.588	6.5	79	0.00	5.73
	----- Amount	Calc.	%Drift	-----			
27	Chloroprene	40.000	40.640	-1.6	94	0.00	5.86
	----- AvgRF	CCRF	%Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.367	1.9	86	0.00	5.88
29	Acrylonitrile	0.137	0.137	0.0	82	0.00	5.92
30	ETBE	0.606	0.566	6.6	79	0.00	6.13
	----- Amount	Calc.	%Drift	-----			
31	Vinyl acetate	200.000	191.215	4.4	80	0.00	6.13
	----- AvgRF	CCRF	%Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.215	4.4	82	0.00	6.50
33	2,2-Dichloropropane	0.285	0.284	0.4	90	0.00	6.62
34	Bromochloromethane	0.116	0.110	5.2	80	0.00	6.73
	----- Amount	Calc.	%Drift	-----			
35	Cyclohexane	40.000	40.232	-0.6	94	0.00	6.75
	----- AvgRF	CCRF	%Dev	-----			
36 C	Chloroform	0.390	0.376	3.6	85	0.00	6.79
	----- Amount	Calc.	%Drift	-----			
37	Ethyl acetate	200.000	201.435	-0.7	86	0.00	6.88
	----- AvgRF	CCRF	%Dev	-----			
38	Tetrahydrofuran	0.155	0.143	7.7	80	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.292	-2.8	85	0.00	6.99
40	Carbon Tetrachloride	0.274	0.289	-5.5	97	0.00	6.97
41	1,1,1-Trichloroethane	0.323	0.330	-2.2	92	0.00	7.04
	----- Amount	Calc.	%Drift	-----			
42	2-Butanone	200.000	185.442	7.3	79	0.00	7.10
	----- AvgRF	CCRF	%Dev	-----			
43	1,1-Dichloropropene	0.255	0.260	-2.0	91	0.00	7.17
44	tert-Butyl Formate	0.156	0.142	9.0	74	0.00	7.25
45	Propionitrile	0.069	0.063	8.7	82	0.00	7.41
46	Methacrylonitrile	0.201	0.180	10.4	83	0.00	7.43
47	Benzene	0.780	0.746	4.4	84	0.00	7.43
48	TAME	0.586	0.532	9.2	77	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.268	-3.9	88	0.00	7.56
50	Isobutyl alcohol	0.018	0.017	5.6	88	0.00	7.59
51	1,2-Dichloroethane	0.271	0.256	5.5	82	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.063	7.4	76	0.00	7.70
53	Trichloroethene	0.218	0.209	4.1	88	0.00	8.04
	----- Amount	Calc.	%Drift	-----			
54	Methylcyclohexane	40.000	39.935	0.2	94	0.00	8.05
	----- AvgRF	CCRF	%Dev	-----			
55	Dibromomethane	0.139	0.134	3.6	80	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.192	4.5	81	0.00	8.57
57	Bromodichloromethane	0.277	0.266	4.0	80	0.00	8.62

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-CC2948  
**Lab FileID:** I757567.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate	40.000	36.944	7.6	77	0.00	8.74
59	1,4-Dioxane	800.000	622.839	22.1#	66	0.00	8.81
60	2-Chloroethyl vinyl ether	200.000	180.590	9.7	74	0.00	9.15
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene	0.313	0.303	3.2	80	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	78	0.00	11.01
63 S	Toluene-d8	1.426	1.488	-4.3	80	0.00	9.45
64 C	Toluene	1.141	1.152	-1.0	82	0.00	9.50
		Amount	Calc.	%Drift			
65	2-Nitropropane	200.000	223.469	-11.7	88	0.00	9.70
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.494	0.492	0.4	79	0.00	9.82
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene	40.000	40.550	-1.4	79	0.00	9.90
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene	0.345	0.385	-11.6	94	0.00	9.91
		Amount	Calc.	%Drift			
69	Ethyl methacrylate	40.000	41.270	-3.2	83	0.00	10.01
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.233	0.235	-0.9	79	0.00	10.05
71	Dibromochloromethane	0.322	0.344	-6.8	82	0.00	10.26
72	1,3-Dichloropropane	0.405	0.421	-4.0	78	0.00	10.34
73	1,2-Dibromoethane	0.300	0.311	-3.7	80	0.00	10.51
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	2000.000	2282.085	-14.1	90	0.00	10.62
75	2-hexanone	200.000	194.073	3.0	78	0.00	10.65
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane	0.323	0.344	-6.5	92	0.00	10.96
77 C	Ethylbenzene	1.232	1.255	-1.9	84	0.00	11.02
78 P	Chlorobenzene	0.754	0.781	-3.6	83	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.300	-2.7	82	0.00	11.07
80	m,p-Xylene	0.925	0.966	-4.4	84	0.00	11.16
81	o-Xylene	0.994	0.987	0.7	81	0.00	11.60
		Amount	Calc.	%Drift			
82	Styrene	40.000	40.577	-1.4	80	0.00	11.65
		AvgRF	CCRF	%Dev			
83 P	Bromoform	0.271	0.291	-7.4	80	0.00	11.71
84	Isopropylbenzene	1.170	1.208	-3.2	85	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	81	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.832	1.2	79	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.178	0.6	79	0.00	12.26
88	n-Propylbenzene	2.201	2.249	-2.2	88	0.00	12.33
89	Bromobenzene	0.564	0.566	-0.4	83	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.755	1.8	81	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.575	0.1	84	0.00	12.51
92	2-Chlorotoluene	1.501	1.512	-0.7	85	0.00	12.52

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-CC2948  
**Lab FileID:** I757567.D

	Amount	Calc.	%Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	36.400	9.0	77	0.00 12.57
	AvgRF	CCRF	%Dev			
94	1,2,3-Trichloropropane	0.238	0.237	0.4	81	0.00 12.54
95	Cyclohexanone	0.053	0.043	18.9	71	0.00 12.60
96	4-Chlorotoluene	1.351	1.332	1.4	81	0.00 12.68
97	tert-Butylbenzene	0.838	0.834	0.5	86	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.548	0.4	83	0.00 12.92
99	Pentachloroethane	0.345	0.381	-10.4	94	0.00 12.90
	Amount	Calc.	%Drift			
100	sec-Butylbenzene	40.000	41.403	-3.5	90	0.00 13.04
	AvgRF	CCRF	%Dev			
101	4-Isopropyltoluene	1.571	1.619	-3.1	87	0.00 13.17
102	1,3-Dichlorobenzene	0.972	0.998	-2.7	83	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.601	1.7	82	0.00 13.38
104	1,4-Dichlorobenzene	1.045	1.039	0.6	84	0.00 13.39
105	n-Butylbenzene	0.773	0.824	-6.6	88	0.00 13.61
	Amount	Calc.	%Drift			
106	Benzyl Chloride	40.000	38.573	3.6	77	0.00 13.63
	AvgRF	CCRF	%Dev			
107	1,2-Dichlorobenzene	0.953	0.976	-2.4	84	0.00 13.82
108	1,2-Dibromo-3-Chloropropa	0.194	0.195	-0.5	79	0.00 14.58
109	Hexachlorobutadiene	0.323	0.349	-8.0	96	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.700	0.6	81	0.00 15.19
111	Naphthalene	2.202	2.172	1.4	77	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.701	0.1	82	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 1  
 Thu Jun 29 12:46:11 2023



## Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2958-CC2948  
 Lab FileID: I757568.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-29\I757568.D Vial: 3  
 Acq On : 29 Jun 2023 12:04 pm Operator: adelardl  
 Sample : CC2948-5 (gasesonly) Inst : MSVOA16  
 Misc : MS54274,VI2958,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	83	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.200	9.1	85	0.00	2.35
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane	40.000	36.349	9.1	79	0.00	2.64
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride	0.223	0.213	4.5	86	0.00	2.77
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene			NA			
6	Bromomethane	40.000	36.752	8.1	80	0.00	3.23
7	Chloroethane	40.000	53.216	-33.0#	117	0.00	3.40
8	Trichlorofluoromethane	40.000	42.205	-5.5	94	0.01	3.61
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether			NA			
10	1,2-Dichlorotrifluoroetha			NA			
11 C	1,1-Dichloroethene			NA			
	----- Amount	Calc.	%Drift	-----			
12	Ethanol			NA			
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113			NA			
14	Carbon Disulfide			NA			
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane			NA			
16	Acrolein			NA			
17	Allyl chloride			NA			
18	Methylene Chloride			NA			
19	Acetone			NA			
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert butyl alcohol			NA			
	----- Amount	Calc.	%Drift	-----			



# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-CC2948  
**Lab FileID:** I757568.D

	Amount	Calc.	%Drift				
58	Methyl methacrylate		NA				
59	1,4-Dioxane		NA				
60	2-Chloroethyl vinyl ether		NA				
	AvgRF	CCRF	%Dev				
61	cis-1,3-Dichloropropene		NA				
62 I	Chlorobenzene-d5	1.000	1.000	0.0	79	0.00	11.01
63 S	Toluene-d8	1.426	1.421	0.4	77	0.00	9.44
64 C	Toluene		NA				
	Amount	Calc.	%Drift				
65	2-Nitropropane		NA				
	AvgRF	CCRF	%Dev				
66	4-Methyl-2-pentanone		NA				
	Amount	Calc.	%Drift				
67	trans-1,3-Dichloropropene		NA				
	AvgRF	CCRF	%Dev				
68	Tetrachloroethene		NA				
	Amount	Calc.	%Drift				
69	Ethyl methacrylate		NA				
	AvgRF	CCRF	%Dev				
70	1,1,2-Trichloroethane		NA				
71	Dibromochloromethane		NA				
72	1,3-Dichloropropane		NA				
73	1,2-Dibromoethane		NA				
	Amount	Calc.	%Drift				
74	3,3-dimethyl-1-butanol		NA				
75	2-hexanone		NA				
	AvgRF	CCRF	%Dev				
76	1-Chlorohexane		NA				
77 C	Ethylbenzene		NA				
78 P	Chlorobenzene		NA				
79	1,1,1,2-Tetrachloroethane		NA				
80	m,p-Xylene		NA				
81	o-Xylene		NA				
	Amount	Calc.	%Drift				
82	Styrene		NA				
	AvgRF	CCRF	%Dev				
83 P	Bromoform		NA				
84	Isopropylbenzene		NA				
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	74	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.822	2.4	71	0.00	12.22
87	cis-1,4-Dichloro-2-butene		NA				
88	n-Propylbenzene		NA				
89	Bromobenzene		NA				
90 P	1,1,2,2-Tetrachloroethane		NA				
91	1,3,5-Trimethylbenzene		NA				
92	2-Chlorotoluene		NA				

6.7.10  
6

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-CC2948  
**Lab FileID:** I757568.D

	Amount	Calc.	%Drift
93	trans-1,4-Dichloro-2-Bute		NA
	AvgRF	CCRF	%Dev
94	1,2,3-Trichloropropane		NA
95	Cyclohexanone		NA
96	4-Chlorotoluene		NA
97	tert-Butylbenzene		NA
98	1,2,4-Trimethylbenzene		NA
99	Pentachloroethane		NA
	Amount	Calc.	%Drift
100	sec-Butylbenzene		NA
	AvgRF	CCRF	%Dev
101	4-Isopropyltoluene		NA
102	1,3-Dichlorobenzene		NA
103	1,2,3-Trimethylbenzene		NA
104	1,4-Dichlorobenzene		NA
105	n-Butylbenzene		NA
	Amount	Calc.	%Drift
106	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
107	1,2-Dichlorobenzene		NA
108	1,2-Dibromo-3-Chloropropa		NA
109	Hexachlorobutadiene		NA
110	1,2,4-Trichlorobenzene		NA
111	Naphthalene		NA
112	1,2,3-Trichlorobenzene		NA

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 4 CCC's out = 5  
 Thu Jun 29 12:59:02 2023

6.7.10  
 6

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-CC2948  
**Lab FileID:** I757569.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-29\I757569.D      Vial: 4  
 Acq On : 29 Jun 2023 12:34 pm      Operator: adelardl  
 Sample : CC2948-5 (gasesonly)      Inst : MSVOA16  
 Misc : MS54274,VI2958,,,,,      Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000    Min. Rel. Area : 50%    Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20%    Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	84	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.223	-1.4	95	0.00	2.35
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane	40.000	38.846	2.9	85	0.00	2.64
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride	0.223	0.223	0.0	91	0.00	2.76
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene			NA			
6	Bromomethane	40.000	45.497	-13.7	100	0.00	3.23
7	Chloroethane	40.000	57.616	-44.0#	127	0.00	3.40
8	Trichlorofluoromethane	40.000	46.722	-16.8	104	0.00	3.60
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether			NA			
10	1,2-Dichlorotrifluoroetha			NA			
11 C	1,1-Dichloroethene			NA			
	----- Amount	Calc.	%Drift	-----			
12	Ethanol			NA			
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113			NA			
14	Carbon Disulfide			NA			
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane			NA			
16	Acrolein			NA			
17	Allyl chloride			NA			
18	Methylene Chloride			NA			
19	Acetone			NA			
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert butyl alcohol			NA			
	----- Amount	Calc.	%Drift	-----			

6.7.11  
6





# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-CC2948  
**Lab FileID:** I757569.D

	Amount	Calc.	%Drift				
58	Methyl methacrylate		NA				
59	1,4-Dioxane		NA				
60	2-Chloroethyl vinyl ether		NA				
	AvgRF	CCRF	%Dev				
61	cis-1,3-Dichloropropene		NA				
62 I	Chlorobenzene-d5	1.000	1.000	0.0	80	0.00	11.01
63 S	Toluene-d8	1.426	1.423	0.2	78	0.00	9.44
64 C	Toluene		NA				
	Amount	Calc.	%Drift				
65	2-Nitropropane		NA				
	AvgRF	CCRF	%Dev				
66	4-Methyl-2-pentanone		NA				
	Amount	Calc.	%Drift				
67	trans-1,3-Dichloropropene		NA				
	AvgRF	CCRF	%Dev				
68	Tetrachloroethene		NA				
	Amount	Calc.	%Drift				
69	Ethyl methacrylate		NA				
	AvgRF	CCRF	%Dev				
70	1,1,2-Trichloroethane		NA				
71	Dibromochloromethane		NA				
72	1,3-Dichloropropene		NA				
73	1,2-Dibromoethane		NA				
	Amount	Calc.	%Drift				
74	3,3-dimethyl-1-butanol		NA				
75	2-hexanone		NA				
	AvgRF	CCRF	%Dev				
76	1-Chlorohexane		NA				
77 C	Ethylbenzene		NA				
78 P	Chlorobenzene		NA				
79	1,1,1,2-Tetrachloroethane		NA				
80	m,p-Xylene		NA				
81	o-Xylene		NA				
	Amount	Calc.	%Drift				
82	Styrene		NA				
	AvgRF	CCRF	%Dev				
83 P	Bromoform		NA				
84	Isopropylbenzene		NA				
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	75	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.828	1.7	72	0.00	12.22
87	cis-1,4-Dichloro-2-butene		NA				
88	n-Propylbenzene		NA				
89	Bromobenzene		NA				
90 P	1,1,2,2-Tetrachloroethane		NA				
91	1,3,5-Trimethylbenzene		NA				
92	2-Chlorotoluene		NA				

6.7.11  
6

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-CC2948  
**Lab FileID:** I757569.D

	Amount	Calc.	%Drift
93	trans-1,4-Dichloro-2-Bute		NA
	AvgRF	CCRF	%Dev
94	1,2,3-Trichloropropane		NA
95	Cyclohexanone		NA
96	4-Chlorotoluene		NA
97	tert-Butylbenzene		NA
98	1,2,4-Trimethylbenzene		NA
99	Pentachloroethane		NA
	Amount	Calc.	%Drift
100	sec-Butylbenzene		NA
	AvgRF	CCRF	%Dev
101	4-Isopropyltoluene		NA
102	1,3-Dichlorobenzene		NA
103	1,2,3-Trimethylbenzene		NA
104	1,4-Dichlorobenzene		NA
105	n-Butylbenzene		NA
	Amount	Calc.	%Drift
106	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
107	1,2-Dichlorobenzene		NA
108	1,2-Dibromo-3-Chloropropa		NA
109	Hexachlorobutadiene		NA
110	1,2,4-Trichlorobenzene		NA
111	Naphthalene		NA
112	1,2,3-Trichlorobenzene		NA

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 4 CCC's out = 5  
 Thu Jun 29 12:59:05 2023

## Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2958-ECC2948  
 Lab FileID: I757594.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\Je...2023\VI2958\I757594.d Vial: 29  
 Acq On : 29 Jun 2023 10:34 pm Operator: adelardl  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	83	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.201	8.6	86	0.00	2.35
	----- True	Calc.	% Drift	-----			
3 P	Chloromethane	40.000	36.870	7.8	80	0.00	2.64
	----- AvgRF	CCRF	% Dev	-----			
4 C	Vinyl Chloride	0.223	0.215	3.6	88	0.00	2.76
	----- True	Calc.	% Drift	-----			
5	1,3-Butadiene	40.000	36.565	8.6	88	0.00	2.79
6	Bromomethane	40.000	51.371	-28.4	113	0.00	3.23
7	Chloroethane	40.000	40.263	-0.7	89	0.00	3.39
8	Trichlorofluoromethane	40.000	41.163	-2.9	91	0.00	3.60
	----- AvgRF	CCRF	% Dev	-----			
9	Ethyl Ether	0.155	0.149	3.9	81	0.00	4.01
10	1,2-Dichlorotrifluoroetha	0.206	0.206	0.0	94	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.277	-2.2	94	0.00	4.27
	----- True	Calc.	% Drift	-----			
12	Ethanol	800.000	572.866	28.4	69	-0.01	4.20
	----- AvgRF	CCRF	% Dev	-----			
13	Freon 113	0.169	0.173	-2.4	99	-0.01	4.31
14	Carbon Disulfide	0.557	0.512	8.1	87	0.00	4.32
	----- True	Calc.	% Drift	-----			
15	Iodomethane	40.000	59.699	-49.2	123	0.00	4.46
16	Acrolein	200.000	138.601	30.7	61	0.00	4.68
17	Allyl chloride	40.000	34.792	13.0	79	0.00	4.85
18	Methylene Chloride	40.000	43.697	-9.2	95	0.00	4.98
19	Acetone	200.000	175.131	12.4	77	0.00	5.02
	----- AvgRF	CCRF	% Dev	-----			
20	Methyl acetate	0.282	0.286	-1.4	83	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.277	2.8	86	0.00	5.18
22	Hexane	0.140	0.131	6.4	88	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.551	8.3	77	0.00	5.29
24	Tert butyl alcohol	0.082	0.071	13.4	71	0.00	5.38
	----- True	Calc.	% Drift	-----			

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-ECC2948  
**Lab FileID:** I757594.D

25	Acetonitrile	400.000	322.182	19.5	76	0.00	5.56
	----- AvgRF	CCRF	% Dev	-----			
26	Di-isopropyl ether	0.629	0.582	7.5	78	0.00	5.72
	----- True	Calc.	% Drift	-----			
27	Chloroprene	40.000	39.733	0.7	92	0.00	5.87
	----- AvgRF	CCRF	% Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.362	3.2	85	0.00	5.88
29	Acrylonitrile	0.137	0.131	4.4	78	0.00	5.92
30	ETBE	0.606	0.557	8.1	78	0.00	6.13
	----- True	Calc.	% Drift	-----			
31	Vinyl acetate	200.000	182.218	8.9	76	0.00	6.13
	----- AvgRF	CCRF	% Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.211	6.2	80	0.00	6.50
33	2,2-Dichloropropane	0.285	0.240	15.8	76	0.00	6.62
34	Bromochloromethane	0.116	0.106	8.6	77	0.00	6.73
	----- True	Calc.	% Drift	-----			
35	Cyclohexane	40.000	39.677	0.8	93	0.00	6.76
	----- AvgRF	CCRF	% Dev	-----			
36 C	Chloroform	0.390	0.367	5.9	83	0.00	6.79
	----- True	Calc.	% Drift	-----			
37	Ethyl acetate	200.000	197.087	1.5	84	0.00	6.88
	----- AvgRF	CCRF	% Dev	-----			
38	Tetrahydrofuran	0.155	0.139	10.3	78	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.288	-1.4	84	0.00	6.99
40	Carbon Tetrachloride	0.274	0.282	-2.9	95	0.00	6.97
41	1,1,1-Trichloroethane	0.323	0.322	0.3	90	0.00	7.04
	----- True	Calc.	% Drift	-----			
42	2-Butanone	200.000	179.232	10.4	76	0.00	7.10
	----- AvgRF	CCRF	% Dev	-----			
43	1,1-Dichloropropene	0.255	0.254	0.4	89	0.00	7.17
44	tert-Butyl Formate	0.156	0.136	12.8	72	0.00	7.25
45	Propionitrile	0.069	0.061	11.6	79	0.00	7.41
46	Methacrylonitrile	0.201	0.176	12.4	81	0.00	7.43
47	Benzene	0.780	0.731	6.3	82	0.00	7.43
48	TAME	0.586	0.524	10.6	76	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.263	-1.9	87	0.00	7.56
50	Isobutyl alcohol	0.018	0.015	16.7	77	0.00	7.59
51	1,2-Dichloroethane	0.271	0.255	5.9	82	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.057	16.2	70	0.00	7.70
53	Trichloroethene	0.218	0.206	5.5	86	0.00	8.04
	----- True	Calc.	% Drift	-----			
54	Methylcyclohexane	40.000	38.861	2.8	92	0.00	8.05
	----- AvgRF	CCRF	% Dev	-----			
55	Dibromomethane	0.139	0.129	7.2	78	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.187	7.0	79	0.00	8.57
57	Bromodichloromethane	0.277	0.259	6.5	78	0.00	8.62

6.7.12  
6

# Continuing Calibration Summary

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2958-ECC2948  
 Lab FileID: I757594.D

		True	Calc.	% Drift			
58	Methyl methacrylate	40.000	37.757	5.6	79	0.00	8.74
59	1,4-Dioxane	800.000	520.032	35.0	55	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	153.760	23.1	63	0.00	9.16
		AvgRF	CCRF	% Dev			
61	cis-1,3-Dichloropropene	0.313	0.289	7.7	76	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	79	0.00	11.01
63 S	Toluene-d8	1.426	1.477	-3.6	80	0.00	9.44
64 C	Toluene	1.141	1.144	-0.3	83	0.00	9.50
		True	Calc.	% Drift			
65	2-Nitropropane	200.000	217.039	-8.5	87	0.00	9.69
		AvgRF	CCRF	% Dev			
66	4-Methyl-2-pentanone	0.494	0.481	2.6	78	0.00	9.83
		True	Calc.	% Drift			
67	trans-1,3-Dichloropropene	40.000	38.119	4.7	75	0.00	9.90
		AvgRF	CCRF	% Dev			
68	Tetrachloroethene	0.345	0.393	-13.9	97	0.00	9.91
		True	Calc.	% Drift			
69	Ethyl methacrylate	40.000	40.053	-0.1	81	0.00	10.01
		AvgRF	CCRF	% Dev			
70	1,1,2-Trichloroethane	0.233	0.231	0.9	79	0.00	10.05
71	Dibromochloromethane	0.322	0.329	-2.2	79	0.00	10.26
72	1,3-Dichloropropane	0.405	0.416	-2.7	78	0.00	10.34
73	1,2-Dibromoethane	0.300	0.306	-2.0	79	0.00	10.51
		True	Calc.	% Drift			
74	3,3-dimethyl-1-butanol	2000.000	2140.674	-7.0	85	0.00	10.61
75	2-hexanone	200.000	186.900	6.5	76	0.00	10.65
		AvgRF	CCRF	% Dev			
76	1-Chlorohexane	0.323	0.322	0.3	87	0.00	10.96
77 C	Ethylbenzene	1.232	1.225	0.6	83	0.00	11.02
78 P	Chlorobenzene	0.754	0.758	-0.5	82	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.293	-0.3	81	0.00	11.07
80	m,p-Xylene	0.925	0.940	-1.6	82	0.00	11.16
81	o-Xylene	0.994	0.968	2.6	80	0.00	11.60
		True	Calc.	% Drift			
82	Styrene	40.000	39.579	1.1	79	0.00	11.65
		AvgRF	CCRF	% Dev			
83 P	Bromoform	0.271	0.272	-0.4	75	0.00	11.71
84	Isopropylbenzene	1.170	1.177	-0.6	84	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	79	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.844	-0.2	78	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.134	25.1	58	0.00	12.26
88	n-Propylbenzene	2.201	2.234	-1.5	85	0.00	12.33
89	Bromobenzene	0.564	0.562	0.4	80	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.763	0.8	80	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.578	-0.1	83	0.00	12.51
92	2-Chlorotoluene	1.501	1.517	-1.1	84	0.00	12.52

6.7.12  
6

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2958-ECC2948  
**Lab FileID:** I757594.D

	True	Calc.	% Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	28.676	28.3	59	0.00 12.57
	AvgRF	CCRF	% Dev			
94	1,2,3-Trichloropropane	0.238	0.236	0.8	79	0.00 12.54
95	Cyclohexanone	0.053	0.039	26.4	62	0.00 12.60
96	4-Chlorotoluene	1.351	1.350	0.1	80	0.00 12.68
97	tert-Butylbenzene	0.838	0.844	-0.7	85	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.550	0.3	81	0.00 12.92
99	Pentachloroethane	0.345	0.345	0.0	83	0.00 12.90
	True	Calc.	% Drift			
100	sec-Butylbenzene	40.000	41.417	-3.5	88	0.00 13.04
	AvgRF	CCRF	% Dev			
101	4-Isopropyltoluene	1.571	1.605	-2.2	85	0.00 13.17
102	1,3-Dichlorobenzene	0.972	1.008	-3.7	82	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.635	-0.4	83	0.00 13.38
104	1,4-Dichlorobenzene	1.045	1.040	0.5	82	0.00 13.39
105	n-Butylbenzene	0.773	0.786	-1.7	82	0.00 13.61
	True	Calc.	% Drift			
106	Benzyl Chloride	40.000	30.261	24.3	58	0.00 13.63
	AvgRF	CCRF	% Dev			
107	1,2-Dichlorobenzene	0.953	0.961	-0.8	81	0.00 13.82
108	1,2-Dibromo-3-Chloropropa	0.194	0.188	3.1	75	0.00 14.58
109	Hexachlorobutadiene	0.323	0.332	-2.8	89	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.692	1.7	78	0.00 15.19
111	Naphthalene	2.202	2.173	1.3	76	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.703	-0.1	80	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Fri Jun 30 01:05:33 2023

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 6



**Run Sequence Report**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> V202981	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMS20
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<b>Lab Sample ID</b>	<b>Lab File ID</b>	<b>Date/Time Analyzed</b>	<b>Prep QC Batch</b>	<b>Client Sample ID</b>
V202981-BFB	2076618.D	06/07/23 09:26	n/a	BFB Tune
V202981-IC2981	2076622.D	06/07/23 11:22	n/a	Initial cal 4
V202981-ICC2981	2076623.D	06/07/23 11:47	n/a	Initial cal 5
V202981-IC2981	2076624.D	06/07/23 12:13	n/a	Initial cal 6
V202981-IC2981	2076625.D	06/07/23 12:38	n/a	Initial cal 7
V202981-IC2981	2076627.D	06/07/23 13:55	n/a	Initial cal 1
V202981-IC2981	2076628.D	06/07/23 14:20	n/a	Initial cal 2
V202981-IC2981	2076629.D	06/07/23 14:46	n/a	Initial cal 3
V202981-ICV2981	2076631.D	06/07/23 15:37	n/a	Initial cal verification 5
V202981-ICV2981	2076632.D	06/07/23 16:02	n/a	Initial cal verification 4

## Run Sequence Report

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot; NY

Run ID: V203013	Method: SW846 8260D	Instrument ID: GCMS20
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V203013-BFB	2O77326.D	06/30/23 08:41	n/a	BFB Tune
V203013-CC2981	2O77327.D	06/30/23 09:10	n/a	Continuing cal 4
V203013-BS	2O77328.D	06/30/23 09:42	n/a	Blank Spike
V203013-MB	2O77330.D	06/30/23 10:33	n/a	Method Blank
ZZZZZZ	2O77331.D	06/30/23 10:59	n/a	(unrelated sample)
FC7322-9	2O77332.D	06/30/23 11:25	n/a	TRIP BLANK
ZZZZZZ	2O77333.D	06/30/23 11:50	n/a	(unrelated sample)
ZZZZZZ	2O77334.D	06/30/23 12:16	n/a	(unrelated sample)
ZZZZZZ	2O77335.D	06/30/23 12:42	n/a	(unrelated sample)
ZZZZZZ	2O77336.D	06/30/23 13:08	n/a	(unrelated sample)
ZZZZZZ	2O77337.D	06/30/23 13:33	n/a	(unrelated sample)
ZZZZZZ	2O77338.D	06/30/23 13:59	n/a	(unrelated sample)
FC7351-1	2O77339.D	06/30/23 14:24	n/a	(used for QC only; not part of job FC7322)
ZZZZZZ	2O77340.D	06/30/23 14:50	n/a	(unrelated sample)
ZZZZZZ	2O77341.D	06/30/23 15:16	n/a	(unrelated sample)
ZZZZZZ	2O77342.D	06/30/23 15:41	n/a	(unrelated sample)
ZZZZZZ	2O77343.D	06/30/23 16:07	n/a	(unrelated sample)
ZZZZZZ	2O77344.D	06/30/23 16:33	n/a	(unrelated sample)
ZZZZZZ	2O77345.D	06/30/23 16:58	n/a	(unrelated sample)
ZZZZZZ	2O77346.D	06/30/23 17:24	n/a	(unrelated sample)
ZZZZZZ	2O77347.D	06/30/23 17:50	n/a	(unrelated sample)
ZZZZZZ	2O77348.D	06/30/23 18:15	n/a	(unrelated sample)
ZZZZZZ	2O77350.D	06/30/23 19:07	n/a	(unrelated sample)
FC7351-1MS	2O77351.D	06/30/23 19:32	n/a	Matrix Spike
FC7351-1MSD	2O77352.D	06/30/23 19:58	n/a	Matrix Spike Duplicate
V203013-ECC2981	2O77353.D	06/30/23 20:24	n/a	Ending cal 4

## Run Sequence Report

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot; NY

Run ID: VI2948	Method: SW846 8260D	Instrument ID: GCMSI
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VI2948-BFB	I757260.D	06/15/23 10:08	n/a	BFB Tune
VI2948-IC2948	I757261.D	06/15/23 10:43	n/a	Initial cal 1
VI2948-IC2948	I757262.D	06/15/23 11:16	n/a	Initial cal 2
VI2948-IC2948	I757263.D	06/15/23 11:40	n/a	Initial cal 3
VI2948-IC2948	I757264.D	06/15/23 12:04	n/a	Initial cal 4
VI2948-ICC2948	I757265.D	06/15/23 12:28	n/a	Initial cal 5
VI2948-IC2948	I757266.D	06/15/23 12:52	n/a	Initial cal 6
VI2948-IC2948	I757267.D	06/15/23 13:15	n/a	Initial cal 7
VI2948-CC2948	I757269A.D	06/15/23 14:04	n/a	Continuing cal 5
VI2948-ICV2948	I757269.D	06/15/23 14:04	n/a	Initial cal verification 5
VI2948-BS	I757270A.D	06/15/23 14:27	n/a	Blank Spike
VI2948-ICV2948	I757270.D	06/15/23 14:27	n/a	Initial cal verification 4
VI2948-BSD	I757271.D	06/15/23 14:51	n/a	Blank Spike Duplicate
VI2948-MB	I757273.D	06/15/23 15:39	n/a	Method Blank
ZZZZZZ	I757274.D	06/15/23 16:03	n/a	(unrelated sample)
ZZZZZZ	I757275.D	06/15/23 16:27	n/a	(unrelated sample)
ZZZZZZ	I757276.D	06/15/23 16:51	n/a	(unrelated sample)
ZZZZZZ	I757277.D	06/15/23 17:15	n/a	(unrelated sample)
ZZZZZZ	I757278.D	06/15/23 17:39	n/a	(unrelated sample)
ZZZZZZ	I757279.D	06/15/23 18:03	n/a	(unrelated sample)
ZZZZZZ	I757280.D	06/15/23 18:27	n/a	(unrelated sample)
ZZZZZZ	I757281.D	06/15/23 18:51	n/a	(unrelated sample)
ZZZZZZ	I757282.D	06/15/23 19:15	n/a	(unrelated sample)
ZZZZZZ	I757283.D	06/15/23 19:39	n/a	(unrelated sample)
ZZZZZZ	I757284.D	06/15/23 20:03	n/a	(unrelated sample)
ZZZZZZ	I757285.D	06/15/23 20:27	n/a	(unrelated sample)
VI2948-ECC2948	I757286.D	06/15/23 20:51	n/a	Ending cal 5

## Run Sequence Report

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> VI2958	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMSI
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VI2958-BFB	I757566.D	06/29/23 10:58	n/a	BFB Tune
VI2958-CC2948	I757567.D	06/29/23 11:27	n/a	Continuing cal 5
VI2958-CC2948	I757568.D	06/29/23 12:04	n/a	Continuing cal 5
VI2958-CC2948	I757569.D	06/29/23 12:34	n/a	Continuing cal 5
VI2958-BS	I757570.D	06/29/23 12:58	n/a	Blank Spike
VI2958-MB	I757571.D	06/29/23 13:22	n/a	Method Blank
ZZZZZZ	I757572.D	06/29/23 13:46	n/a	(unrelated sample)
FC7322-9	I757573.D	06/29/23 14:11	n/a	TRIP BLANK
ZZZZZZ	I757574.D	06/29/23 14:35	n/a	(unrelated sample)
FC7339-5	I757575.D	06/29/23 14:59	n/a	(used for QC only; not part of job FC7322)
FC7322-5	I757576.D	06/29/23 15:23	n/a	SEAD-AL-MWT-25-20230627
FC7322-1	I757577.D	06/29/23 15:47	n/a	SEAD-AL-MWT-23-20230627
FC7322-2	I757578.D	06/29/23 16:11	n/a	SEAD-AL-MWT-22-20230627
FC7322-3	I757579.D	06/29/23 16:35	n/a	SEAD-AL-MW-56R-20230627
FC7322-4	I757580.D	06/29/23 16:59	n/a	SEAD-AL-PT-18A-20230627
FC7322-6	I757581.D	06/29/23 17:23	n/a	SEAD-AL-PT-17-20230627
FC7322-8	I757582.D	06/29/23 17:47	n/a	SEAD-AL-MWT-24-20230627
FC7322-10	I757583.D	06/29/23 18:11	n/a	DUP-01-20230627
ZZZZZZ	I757584.D	06/29/23 18:35	n/a	(unrelated sample)
ZZZZZZ	I757585.D	06/29/23 18:59	n/a	(unrelated sample)
ZZZZZZ	I757586.D	06/29/23 19:23	n/a	(unrelated sample)
ZZZZZZ	I757587.D	06/29/23 19:47	n/a	(unrelated sample)
ZZZZZZ	I757588.D	06/29/23 20:11	n/a	(unrelated sample)
ZZZZZZ	I757589.D	06/29/23 20:34	n/a	(unrelated sample)
FC7322-5MS	I757590.D	06/29/23 20:58	n/a	Matrix Spike
FC7322-5MSD	I757591.D	06/29/23 21:22	n/a	Matrix Spike Duplicate
FC7339-5MS	I757592.D	06/29/23 21:46	n/a	Matrix Spike
FC7339-5MSD	I757593.D	06/29/23 22:10	n/a	Matrix Spike Duplicate
VI2958-ECC2948	I757594.D	06/29/23 22:34	n/a	Ending cal 5

MS Volatiles

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Raw Data

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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
Data File : I757577.D  
Acq On : 29 Jun 2023 3:47 pm  
Operator : adelardl  
Sample : FC7322-1  
Misc : MS54331,VI2958,,,,,  
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 29 16:14:48 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.860	96	950307	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	673586	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	378006	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	267461	49.58	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.16%	
49) 1,2-Dichloroethane-d4	7.561	65	254203	51.83	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.66%	
63) Toluene-d8	9.445	98	949184	49.42	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.84%	
86) 4-Bromofluorobenzene	12.225	174	316770	49.77	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.54%	
Target Compounds						
						Qvalue
4) Vinyl Chloride	2.769	62	3061	0.72	ug/L	71
6) Bromomethane	3.239	94	1722	1.20	ug/L	81
18) Methylene Chloride	4.982	49	2624	0.49	ug/L	84
19) Acetone	5.062	43	3246	1.27	ug/L	80
21) trans-1,2-Dichloroethene	5.220	61	1177	0.22	ug/L	78
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

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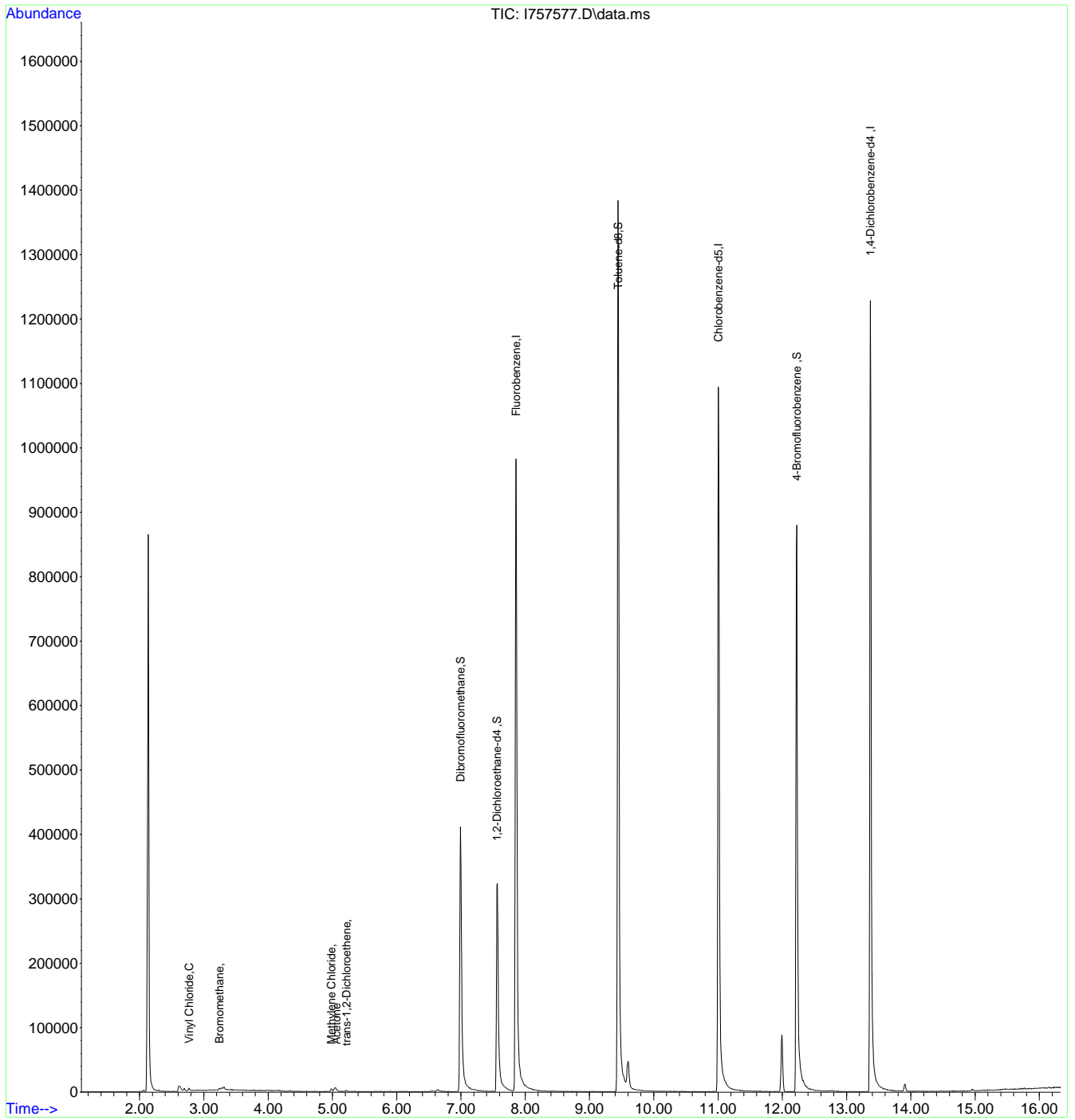


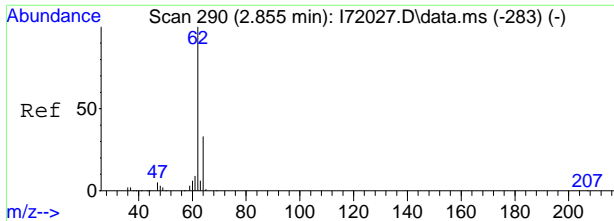


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
Data File : I757577.D  
Acq On : 29 Jun 2023 3:47 pm  
Operator : adelardl  
Sample : FC7322-1  
Misc : MS54331,VI2958,,,,,  
ALS Vial : 12 Sample Multiplier: 1

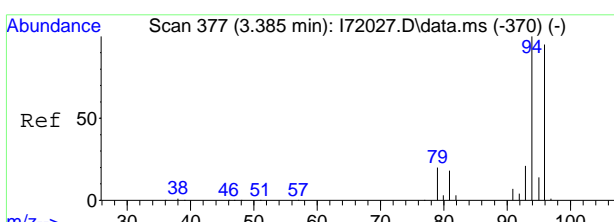
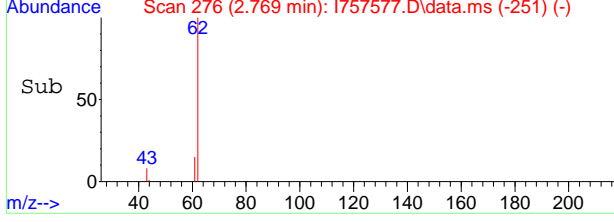
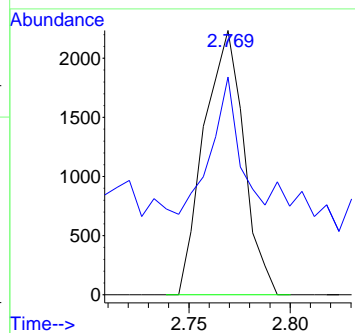
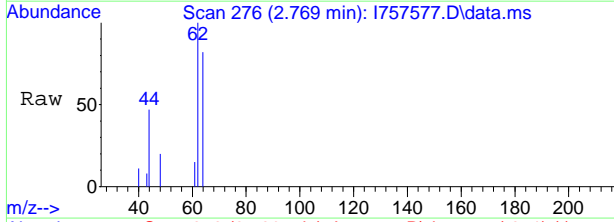
Quant Time: Jun 29 16:14:48 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration





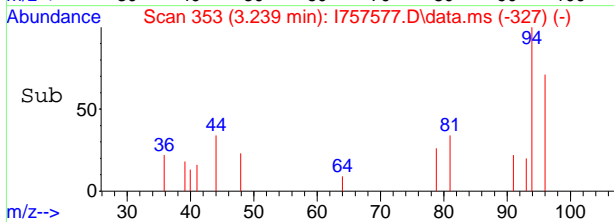
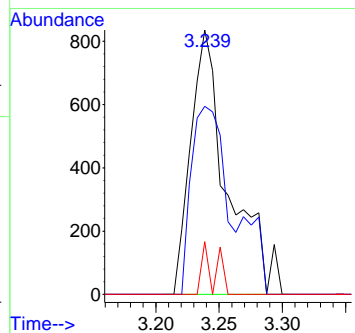
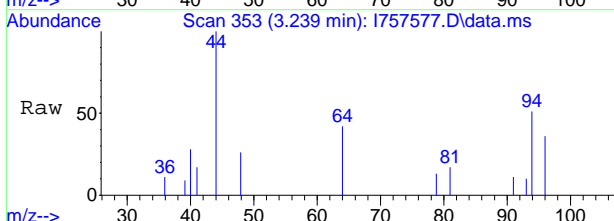
#4  
 Vinyl Chloride  
 Concen: 0.72 ug/L  
 RT: 2.769 min Scan# 276  
 Delta R.T. 0.000 min  
 Lab File: I757577.D  
 Acq: 29 Jun 2023 3:47 pm

Tgt Ion	Ratio	Lower	Upper
62	100		
64	49.9	3.6	63.6

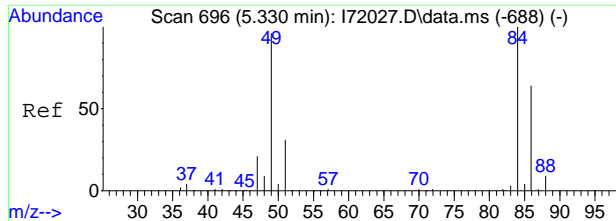


#6  
 Bromomethane  
 Concen: 1.20 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757577.D  
 Acq: 29 Jun 2023 3:47 pm

Tgt Ion	Ratio	Lower	Upper
94	100		
96	71.2	63.7	123.7
93	20.0	0.0	50.9

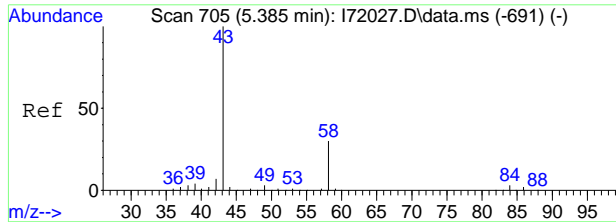
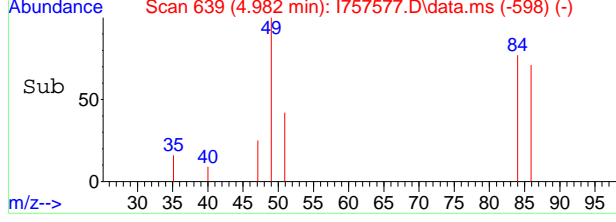
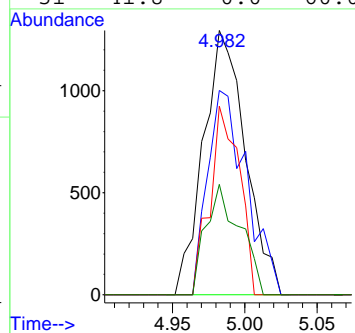
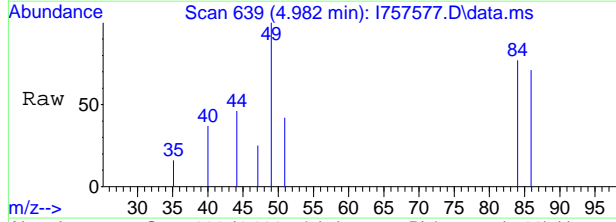


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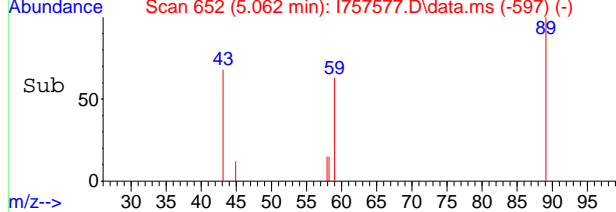
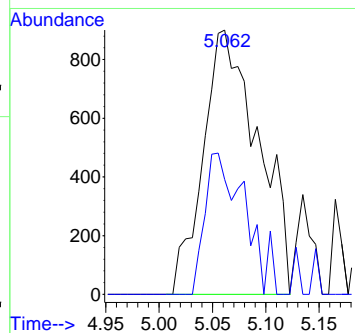
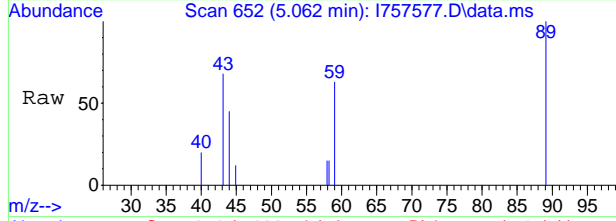
#18  
 Methylene Chloride  
 Concen: 0.49 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757577.D  
 Acq: 29 Jun 2023 3:47 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	77.3	51.5	111.5
86	71.3	19.4	79.4
51	41.8	0.0	60.0



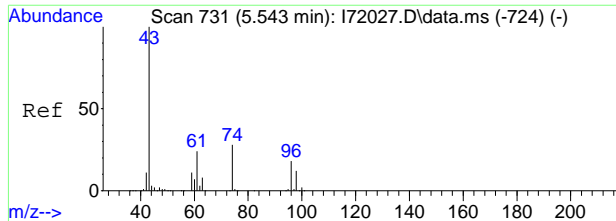
#19  
 Acetone  
 Concen: 1.27 ug/L  
 RT: 5.062 min Scan# 652  
 Delta R.T. 0.037 min  
 Lab File: I757577.D  
 Acq: 29 Jun 2023 3:47 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	43.5	2.3	62.3

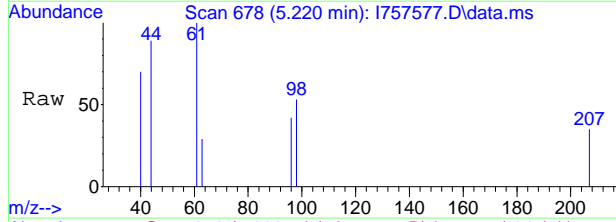


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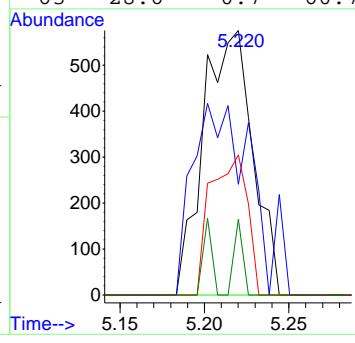
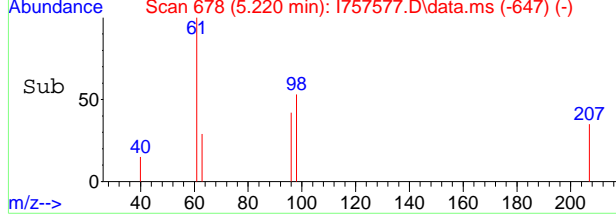




#21  
 trans-1,2-Dichloroethene  
 Concen: 0.22 ug/L  
 RT: 5.220 min Scan# 678  
 Delta R.T. 0.036 min  
 Lab File: I757577.D  
 Acq: 29 Jun 2023 3:47 pm



Tgt Ion	Ratio	Lower	Upper
61	100		
96	41.8	41.3	101.3
98	53.0	15.3	75.3
63	28.6	0.7	60.7



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
Data File : I757578.D  
Acq On : 29 Jun 2023 4:11 pm  
Operator : adelardl  
Sample : FC7322-2  
Misc : MS54331,VI2958,,,,,  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 29 16:28:27 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	942833	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	676529	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	381795	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	271752	50.78	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.56%	
49) 1,2-Dichloroethane-d4	7.561	65	260166	53.47	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	106.94%	
63) Toluene-d8	9.445	98	950716	49.28	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.56%	
86) 4-Bromofluorobenzene	12.225	174	322485	50.17	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.34%	
Target Compounds						
						Qvalue
4) Vinyl Chloride	2.763	62	398008	94.57	ug/L	99
6) Bromomethane	3.227	94	1778	1.25	ug/L	74
18) Methylene Chloride	4.970	49	2603	0.49	ug/L	80
19) Acetone	5.037	43	2201	0.87	ug/L	93
21) trans-1,2-Dichloroethene	5.196	61	6717	1.25	ug/L	98
24) Tert butyl alcohol	5.391	59	1137	0.73	ug/L	58
32) cis-1,2-Dichloroethene	6.519	96	32830	7.75	ug/L	96
-----						

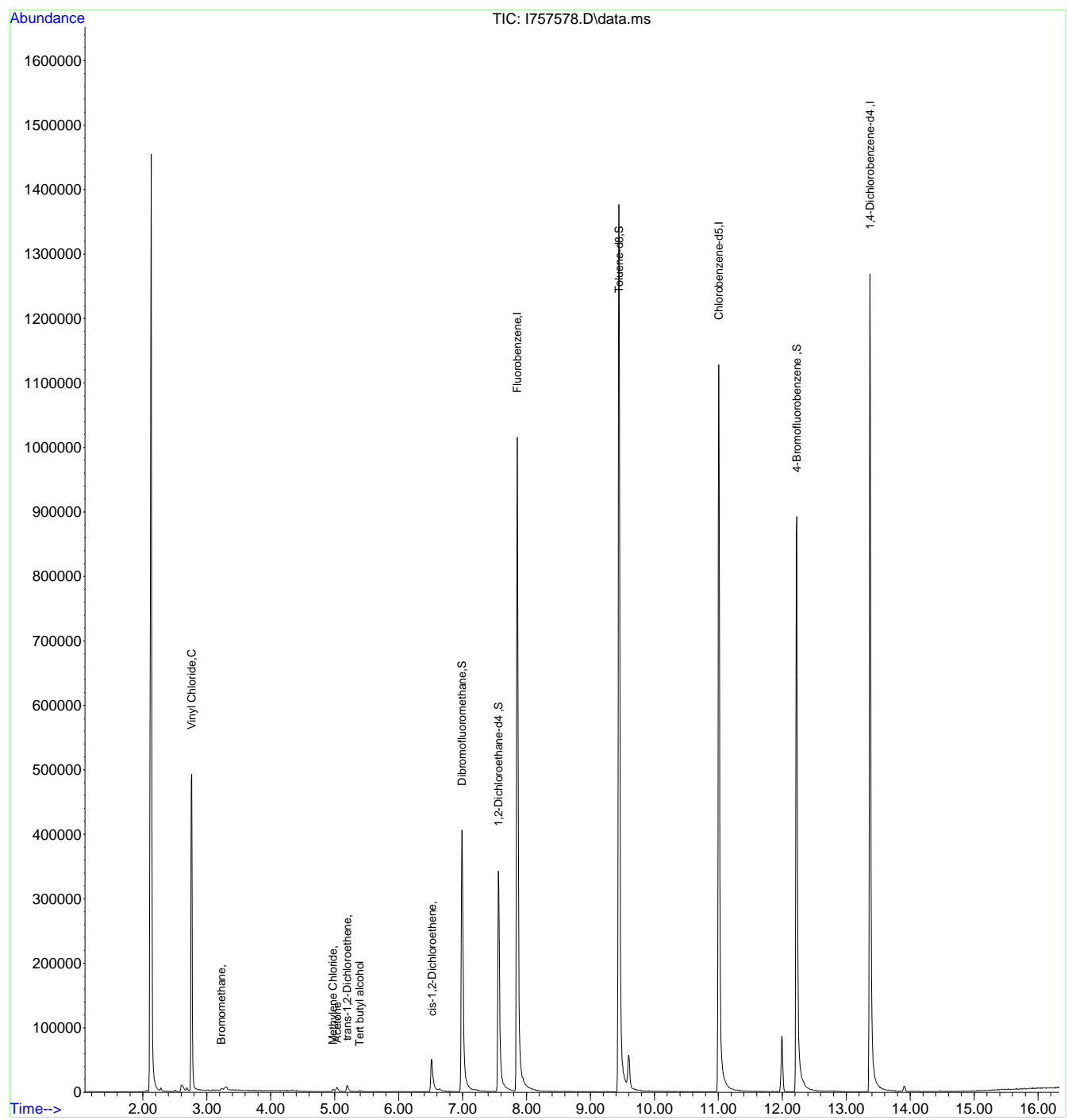
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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7

Quantitation Report (QT Reviewed)

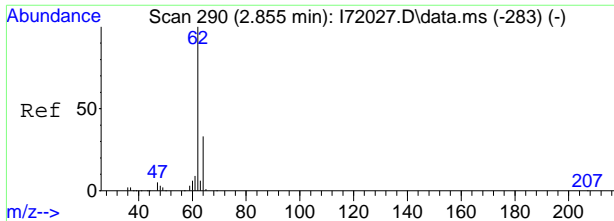
Data Path : C:\msdchem\1\data\2023-06-29\  
Data File : I757578.D  
Acq On : 29 Jun 2023 4:11 pm  
Operator : adelardl  
Sample : FC7322-2  
Misc : MS54331,VI2958,,,,,  
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 29 16:28:27 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration



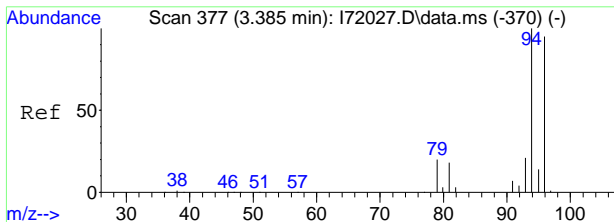
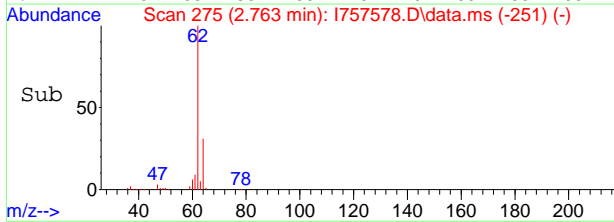
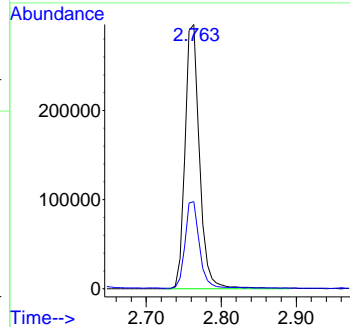
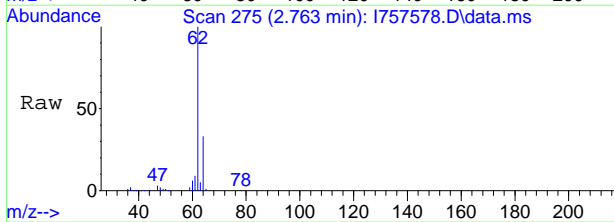
7.1.2  
7





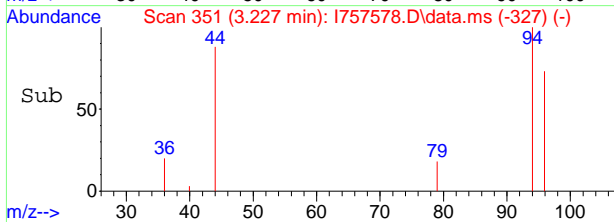
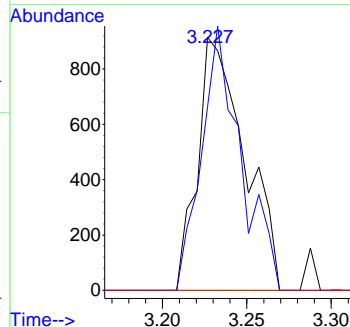
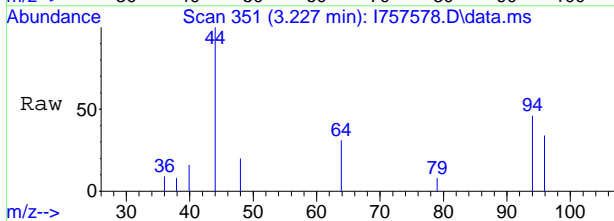
#4  
 Vinyl Chloride  
 Concen: 94.57 ug/L  
 RT: 2.763 min Scan# 275  
 Delta R.T. -0.006 min  
 Lab File: I757578.D  
 Acq: 29 Jun 2023 4:11 pm

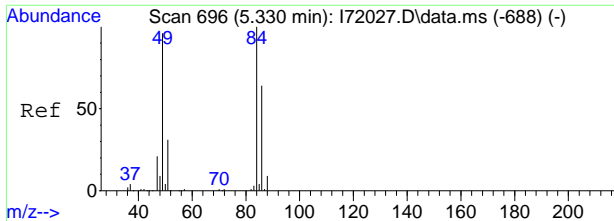
Tgt Ion	Resp	Lower	Upper
62	398008		
64	32.8	3.6	63.6



#6  
 Bromomethane  
 Concen: 1.25 ug/L  
 RT: 3.227 min Scan# 351  
 Delta R.T. -0.006 min  
 Lab File: I757578.D  
 Acq: 29 Jun 2023 4:11 pm

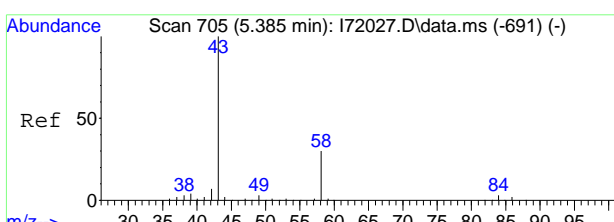
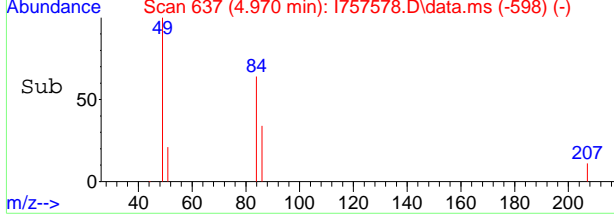
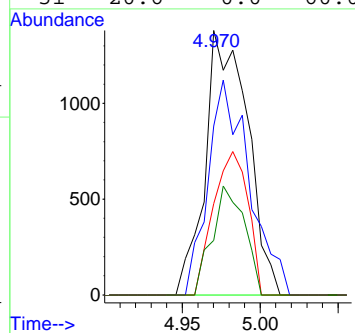
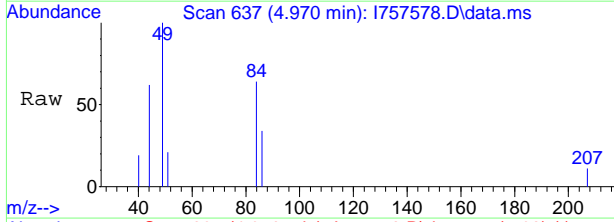
Tgt Ion	Resp	Lower	Upper
94	1778		
96	72.6	63.7	123.7
93	0.0	0.0	50.9





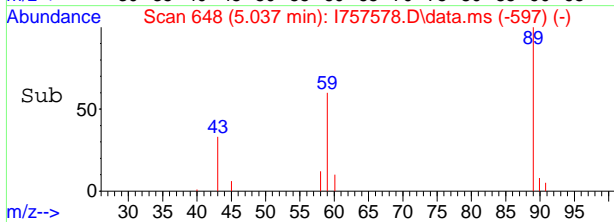
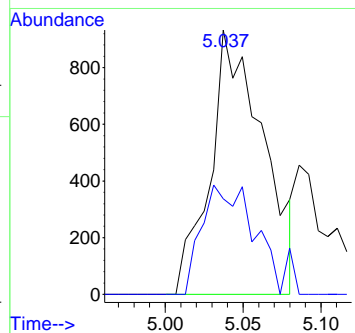
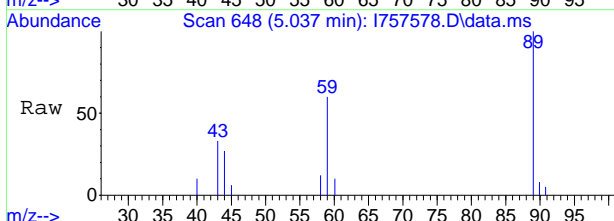
#18  
 Methylene Chloride  
 Concen: 0.49 ug/L  
 RT: 4.970 min Scan# 637  
 Delta R.T. -0.012 min  
 Lab File: I757578.D  
 Acq: 29 Jun 2023 4:11 pm

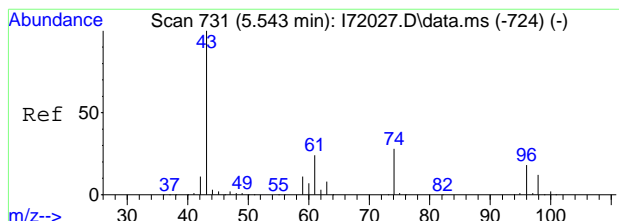
Tgt Ion	Ratio	Lower	Upper
49	100		
84	63.9	51.5	111.5
86	34.5	19.4	79.4
51	20.6	0.0	60.0



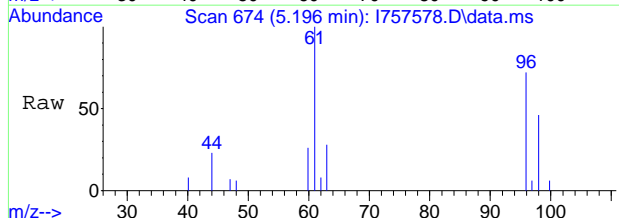
#19  
 Acetone  
 Concen: 0.87 ug/L  
 RT: 5.037 min Scan# 648  
 Delta R.T. 0.012 min  
 Lab File: I757578.D  
 Acq: 29 Jun 2023 4:11 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	36.1	2.3	62.3

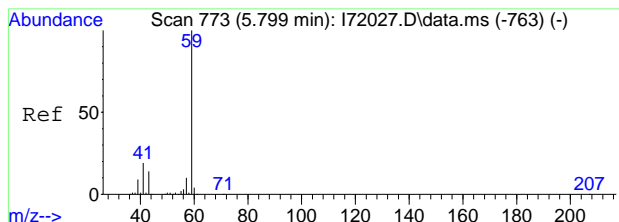
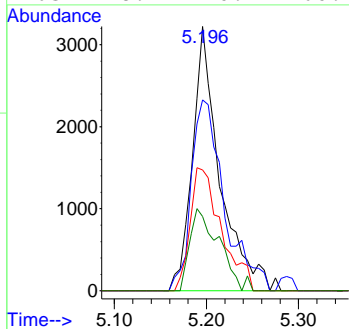
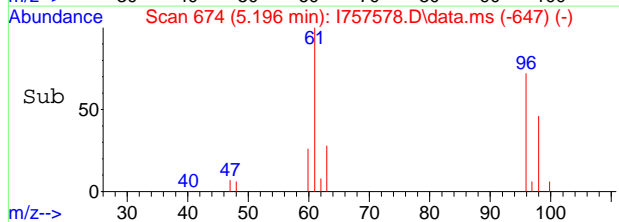




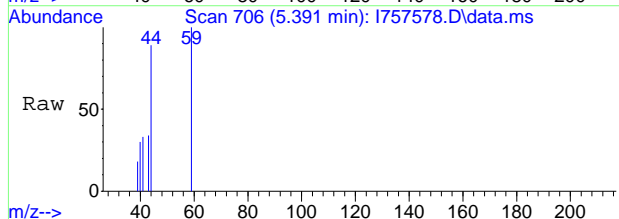
#21  
 trans-1,2-Dichloroethene  
 Concen: 1.25 ug/L  
 RT: 5.196 min Scan# 674  
 Delta R.T. 0.012 min  
 Lab File: I757578.D  
 Acq: 29 Jun 2023 4:11 pm



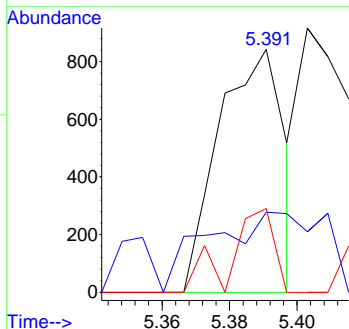
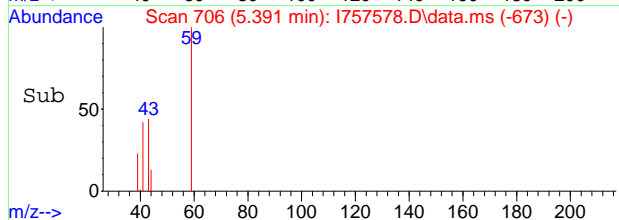
Tgt Ion	Ratio	Lower	Upper
61	100		
96	72.2	41.3	101.3
98	45.7	15.3	75.3
63	28.1	0.7	60.7



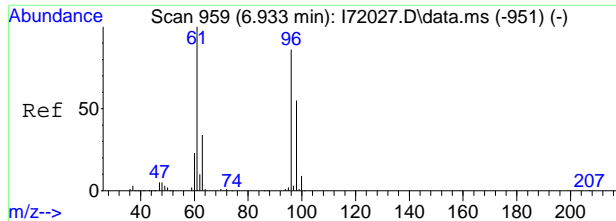
#24  
 Tert butyl alcohol  
 Concen: 0.73 ug/L  
 RT: 5.391 min Scan# 706  
 Delta R.T. -0.000 min  
 Lab File: I757578.D  
 Acq: 29 Jun 2023 4:11 pm



Tgt Ion	Ratio	Lower	Upper
59	100		
41	33.0	0.0	47.2
43	34.4	0.0	44.0

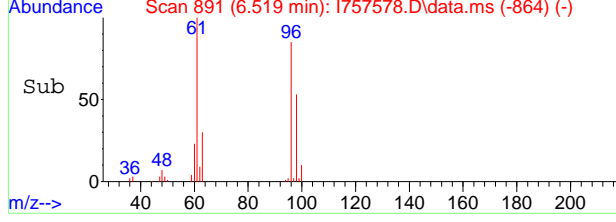
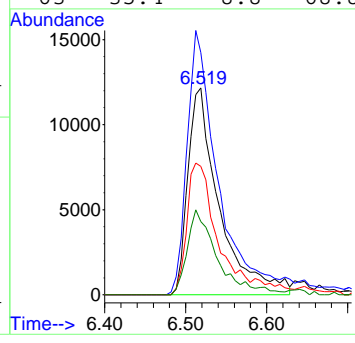
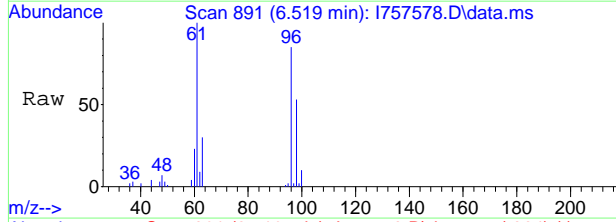


7.12  
7



#32  
 cis-1,2-Dichloroethene  
 Concen: 7.75 ug/L  
 RT: 6.519 min Scan# 891  
 Delta R.T. 0.012 min  
 Lab File: I757578.D  
 Acq: 29 Jun 2023 4:11 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	117.1	92.6	152.6
98	62.1	33.8	93.8
63	35.4	8.8	68.8



7.12  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757579.d  
 Acq On : 29 Jun 2023 4:35 pm  
 Operator : adelardl  
 Sample : FC7322-3 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:49:52 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

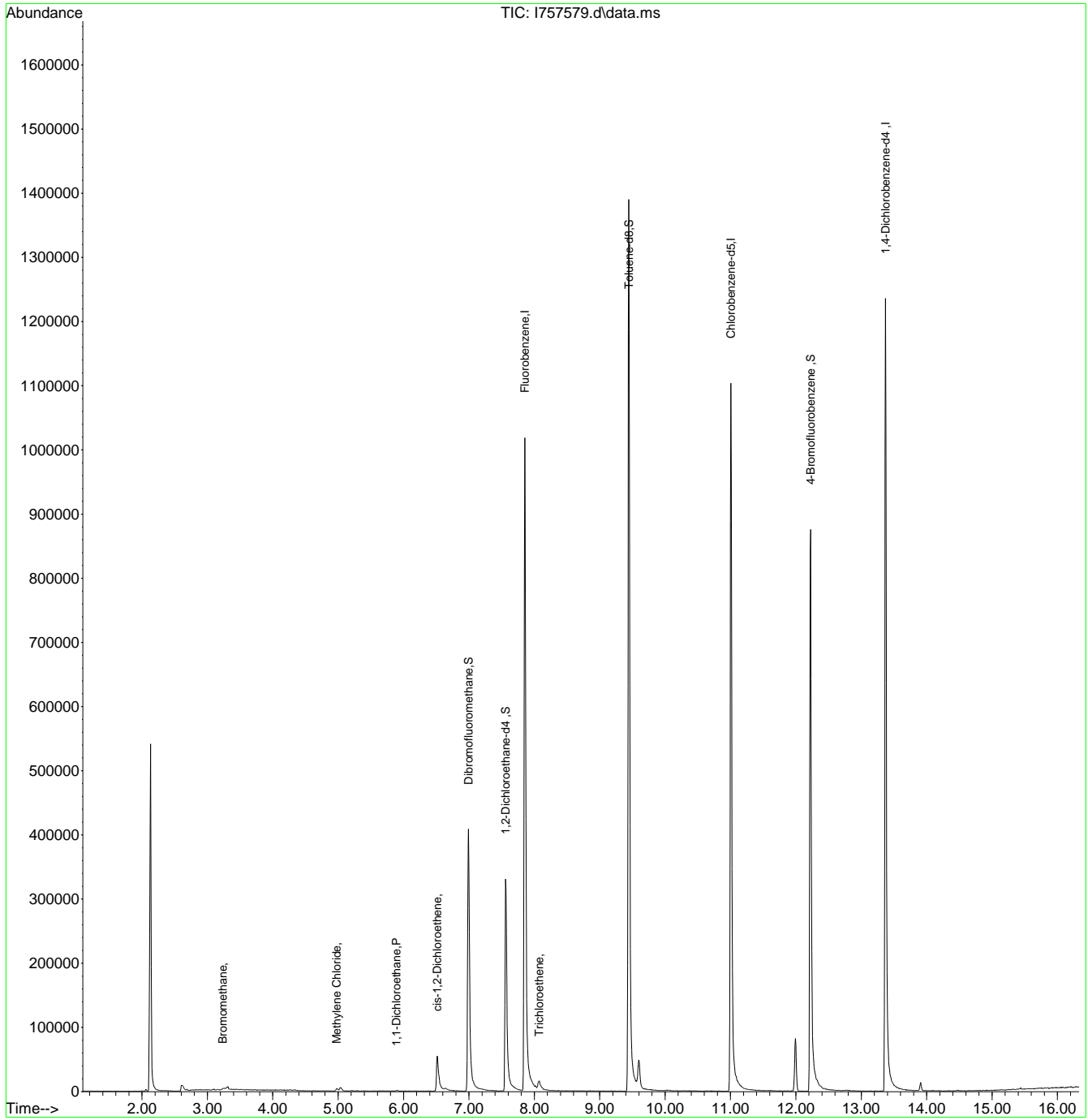
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	954052	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	675878	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	380187	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.994	113	269539	49.77	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.54%		
49) 1,2-Dichloroethane-d4	7.561	65	256485	52.09	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	104.18%		
63) Toluene-d8	9.445	98	952160	49.40	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.80%		
86) 4-Bromofluorobenzene	12.225	174	316314	49.41	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.82%		
Target Compounds							
							Qvalue
6) Bromomethane	3.233	94	1582	1.10	ug/L		80
18) Methylene Chloride	4.976	49	2709	0.51	ug/L		89
28) 1,1-Dichloroethane	5.891	63	1556	0.22	ug/L		80
32) cis-1,2-Dichloroethene	6.513	96	35328	8.24	ug/L		97
53) Trichloroethene	8.073	95	7668m	1.84	ug/L		
-----							

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
Data File : I757579.d  
Acq On : 29 Jun 2023 4:35 pm  
Operator : adelardl  
Sample : FC7322-3 Inst : MSVOA16  
Misc : MS54331,VI2958,,,,,  
ALS Vial : 14 Sample Multiplier: 1

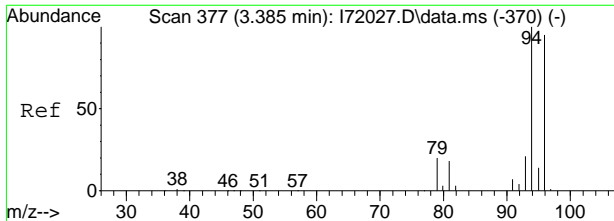
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jun 30 00:49:52 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration



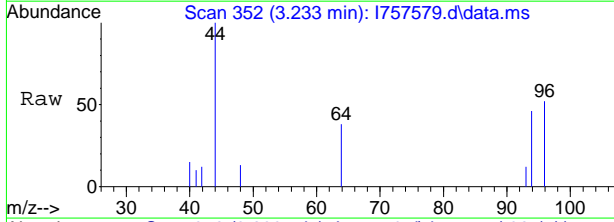
7.13  
7





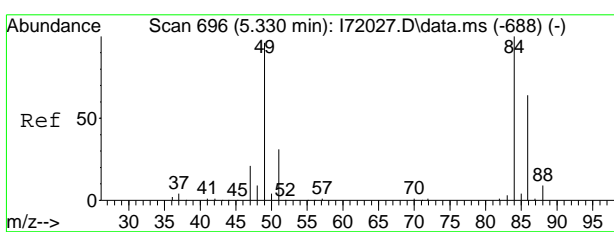
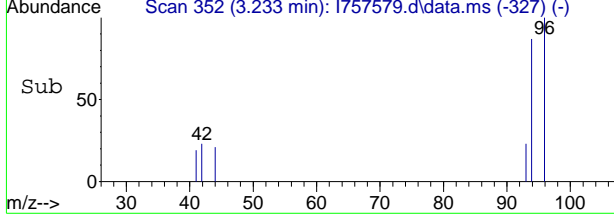
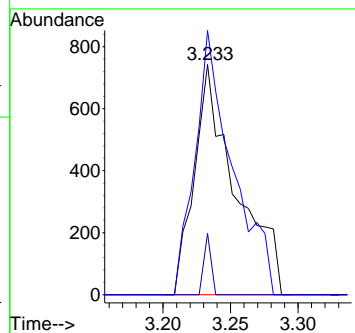


#6  
 Bromomethane  
 Concen: 1.10 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757579.d  
 Acq: 29 Jun 2023 4:35 pm

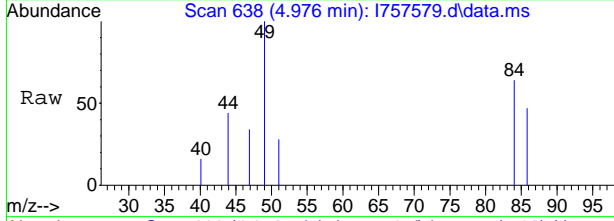


Tgt Ion: 94 Resp: 1582

Ion	Ratio	Lower	Upper
94	100		
96	114.8	63.7	123.7
93	26.6	0.0	50.9

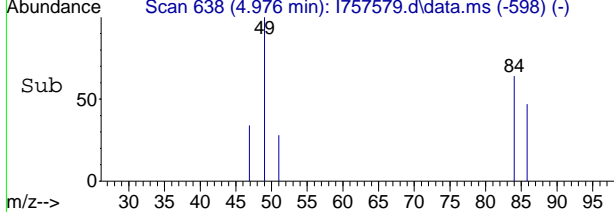
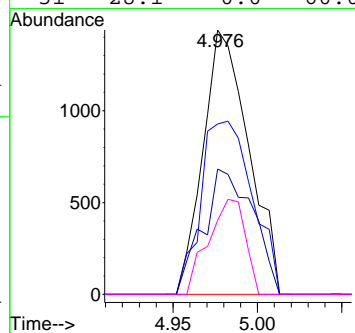


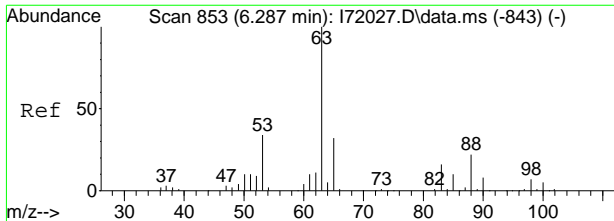
#18  
 Methylene Chloride  
 Concen: 0.51 ug/L  
 RT: 4.976 min Scan# 638  
 Delta R.T. -0.006 min  
 Lab File: I757579.d  
 Acq: 29 Jun 2023 4:35 pm



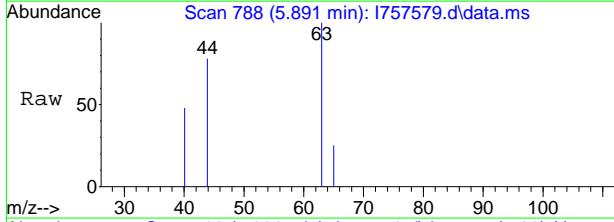
Tgt Ion: 49 Resp: 2709

Ion	Ratio	Lower	Upper
49	100		
84	64.4	51.5	111.5
86	47.4	19.4	79.4
51	28.1	0.0	60.0



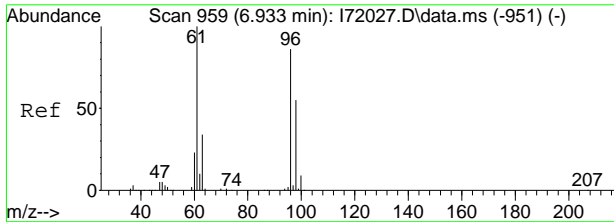
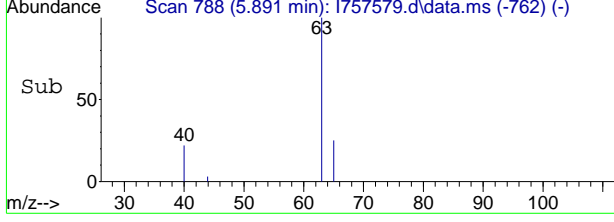
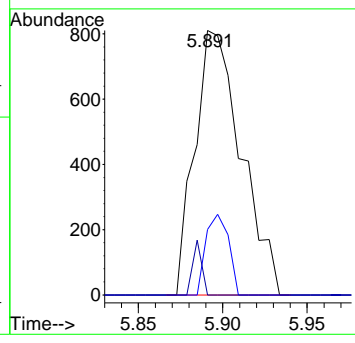


#28  
 1,1-Dichloroethane  
 Concen: 0.22 ug/L  
 RT: 5.891 min Scan# 788  
 Delta R.T. 0.006 min  
 Lab File: I757579.d  
 Acq: 29 Jun 2023 4:35 pm

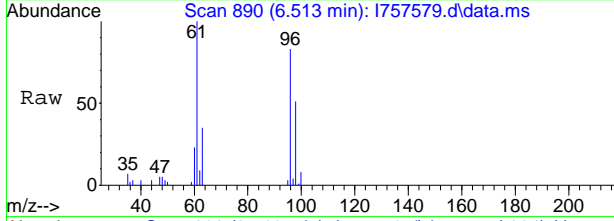


Tgt Ion: 63 Resp: 1556

Ion	Ratio	Lower	Upper
63	100		
65	24.8	2.0	62.0
83	0.0	0.0	44.2

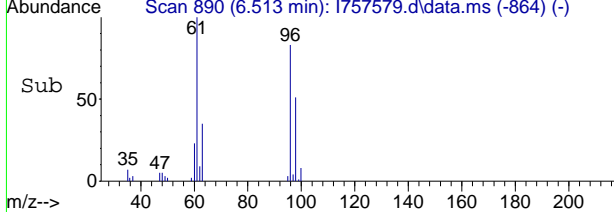
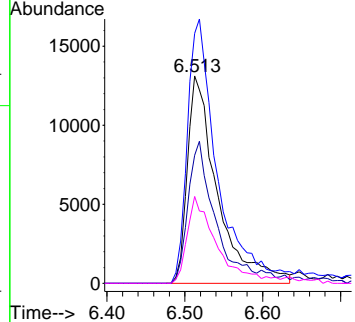


#32  
 cis-1,2-Dichloroethene  
 Concen: 8.24 ug/L  
 RT: 6.513 min Scan# 890  
 Delta R.T. 0.006 min  
 Lab File: I757579.d  
 Acq: 29 Jun 2023 4:35 pm

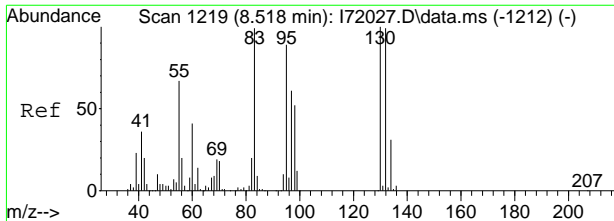


Tgt Ion: 96 Resp: 35328

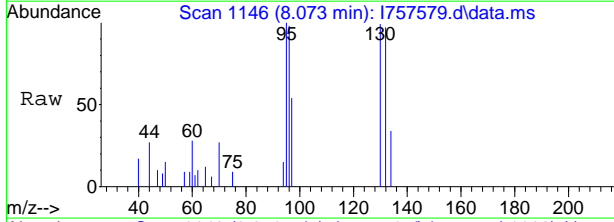
Ion	Ratio	Lower	Upper
96	100		
61	120.6	92.6	152.6
98	61.8	33.8	93.8
63	41.9	8.8	68.8



7.1.3  
7

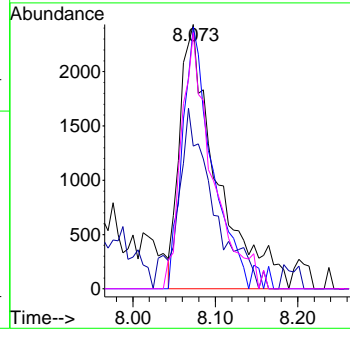
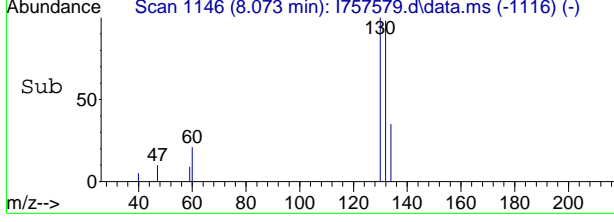


#53  
 Trichloroethene  
 Concen: 1.84 ug/L m  
 RT: 8.073 min Scan# 1146  
 Delta R.T. 0.030 min  
 Lab File: I757579.d  
 Acq: 29 Jun 2023 4:35 pm



Tgt Ion: 95 Resp: 7668

Ion	Ratio	Lower	Upper
95	100		
130	99.0	75.2	135.2
97	53.9	32.6	92.6
132	96.9	70.0	130.0



7.1.3  
7

# Manual Integration Approval Summary

**Sample Number:** FC7322-3                      **Method:** SW846 8260D  
**Lab FileID:** I757579.D                      **Analyst approved:** 06/30/23 05:20 Jennifer Ferreira  
**Injection Time:** 06/29/23 16:35              **Supervisor approved:** 06/30/23 13:52 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichloroethylene	79-01-6		8.07	Poor instrument integration

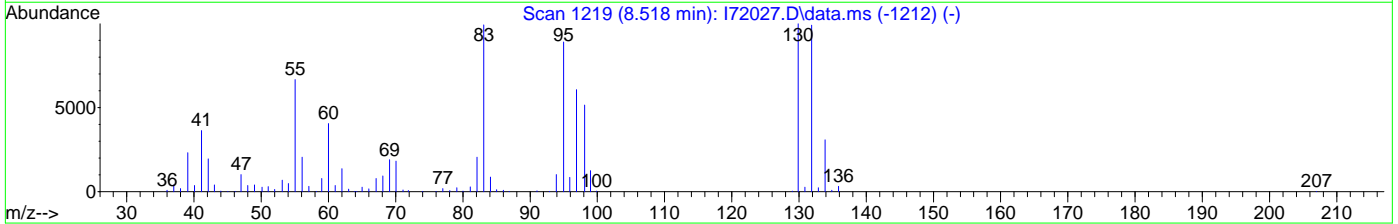
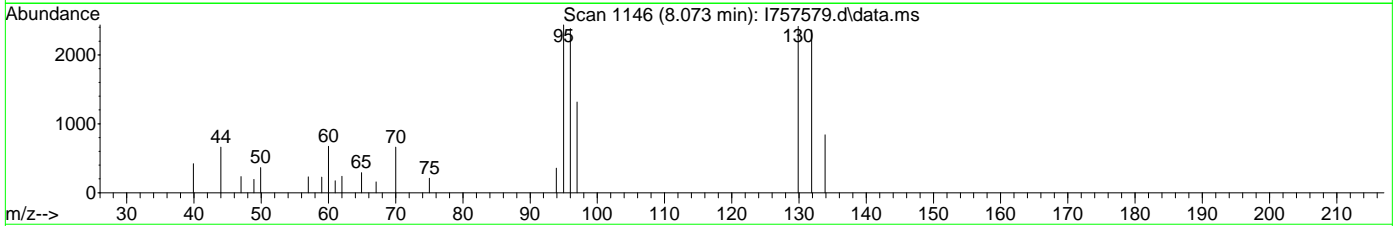
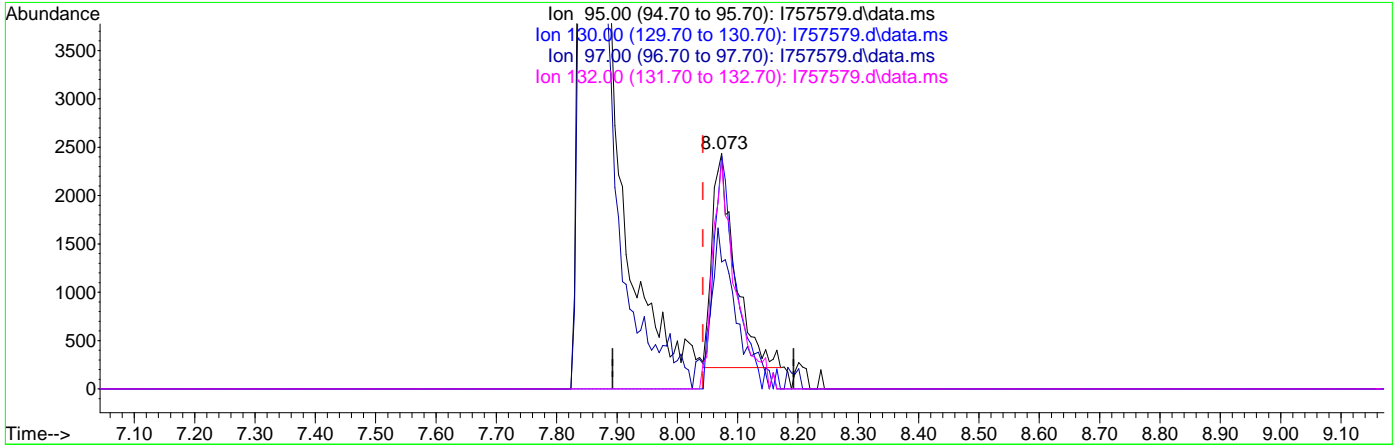
7.1.3.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
 Data File : I757579.d  
 Acq On : 29 Jun 2023 4:35 pm  
 Operator : adelardl  
 Sample : FC7322-3  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 14 Sample Multiplier: 1  
 Inst : MSVOA16

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:45:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



TIC: I757579.d\data.ms

(53) Trichloroethene ( )

8.073min (+0.030) 1.40ug/L

response 5823

Ion	Exp%	Act%
95.00	100	100
130.00	105.20	108.89
97.00	62.60	59.32
132.00	100.00	106.55

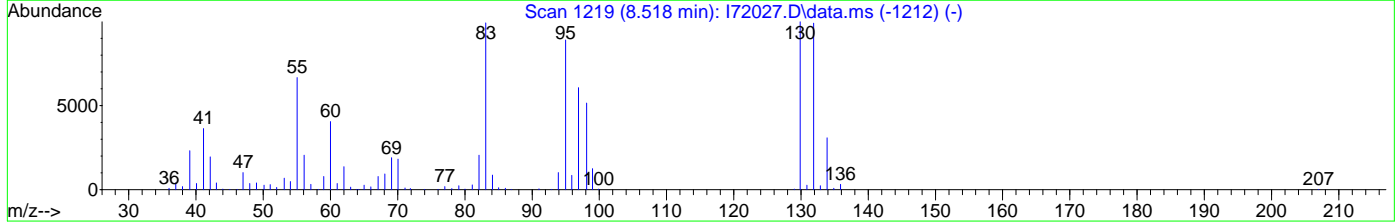
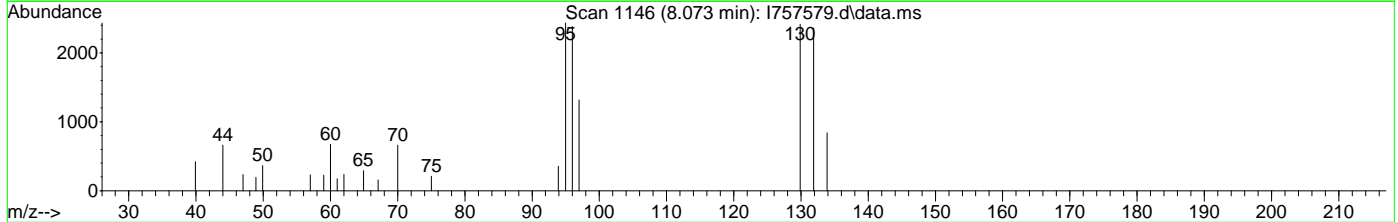
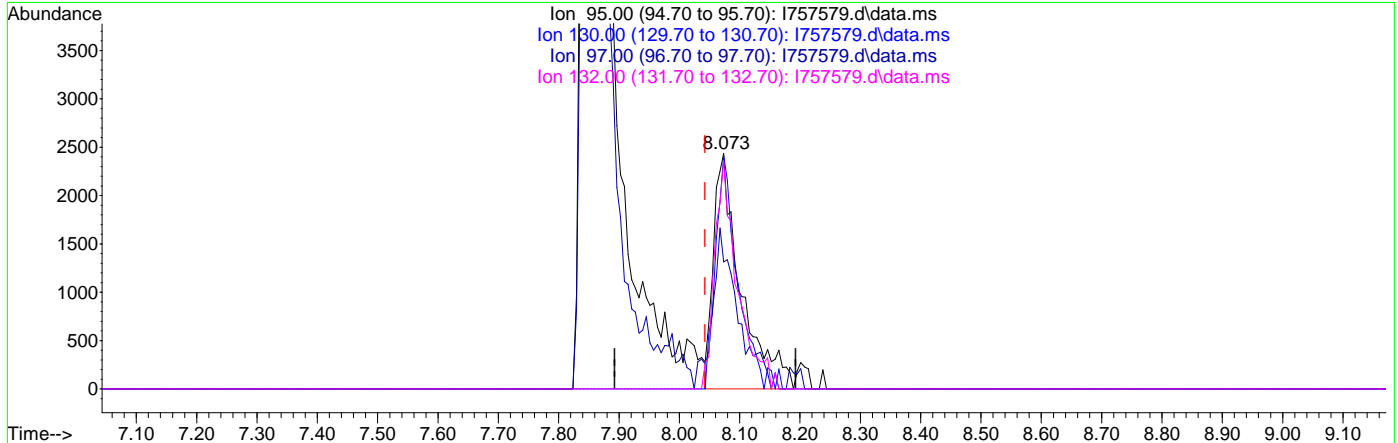
7.1.3.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
 Data File : I757579.d  
 Acq On : 29 Jun 2023 4:35 pm  
 Operator : adelardl  
 Sample : FC7322-3 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:45:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



TIC: I757579.d\data.ms

(53) Trichloroethene ( )

8.073min (+0.030) 1.84ug/L m

response 7668

Ion	Exp%	Act%
95.00	100	100
130.00	105.20	99.01
97.00	62.60	53.94
132.00	100.00	96.88

7.13.3  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757580.d  
 Acq On : 29 Jun 2023 4:59 pm  
 Operator : adelardl  
 Sample : FC7322-4 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,10  
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:50:45 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	956565	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	672453	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	382666	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.994	113	265258	48.85	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.70%		
49) 1,2-Dichloroethane-d4	7.561	65	259143	52.49	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	104.98%		
63) Toluene-d8	9.445	98	940436	49.04	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.08%		
86) 4-Bromofluorobenzene	12.225	174	320149	49.69	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.38%		
Target Compounds							
							Qvalue
4) Vinyl Chloride	2.769	62	1427	0.33	ug/L		80
6) Bromomethane	3.239	94	1785	1.24	ug/L		72
18) Methylene Chloride	4.982	49	41432	7.75	ug/L		96
19) Acetone	5.037	43	21658	8.41	ug/L		96
21) trans-1,2-Dichloroethene	5.202	61	1789	0.33	ug/L		75
32) cis-1,2-Dichloroethene	6.506	96	199344	46.40	ug/L		95
53) Trichloroethene	8.043	95	393729	94.27	ug/L		98
-----							

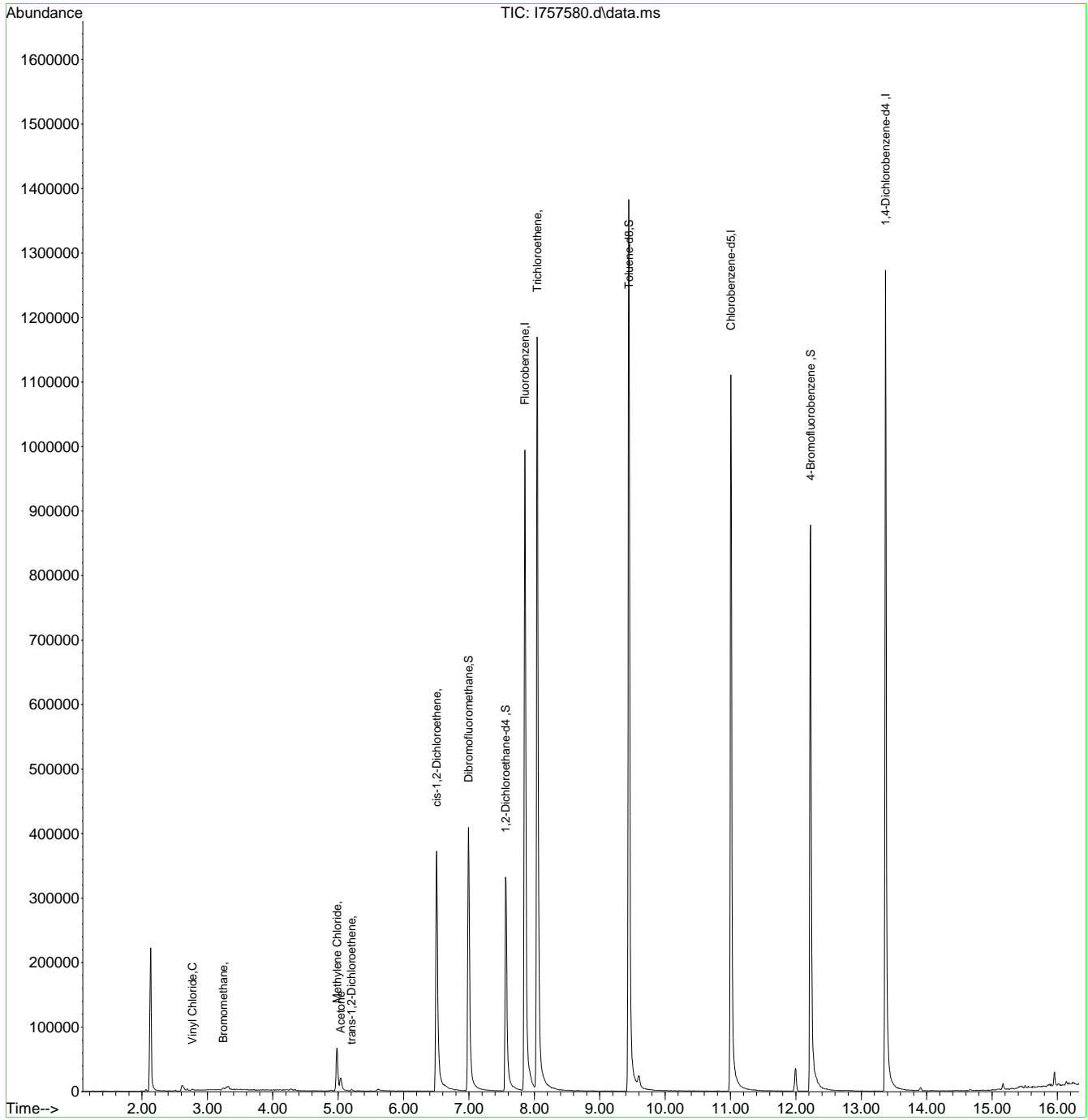
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.14  
7

Quantitation Report (QT Reviewed)

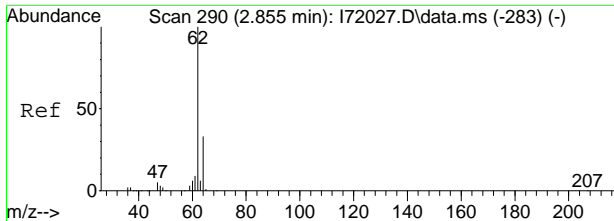
Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
Data File : I757580.d  
Acq On : 29 Jun 2023 4:59 pm  
Operator : adelardl  
Sample : FC7322-4 Inst : MSVOA16  
Misc : MS54331,VI2958,,,,,10  
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jun 30 00:50:45 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration



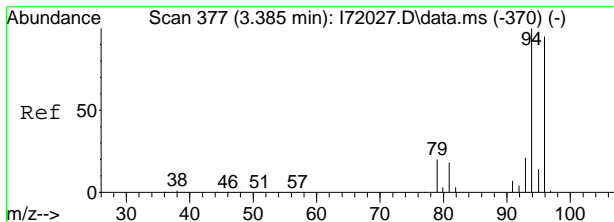
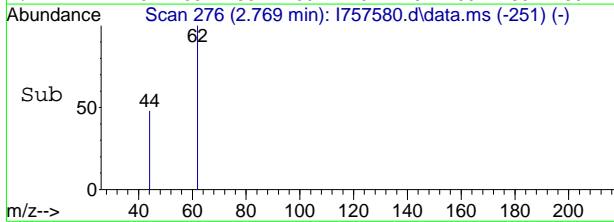
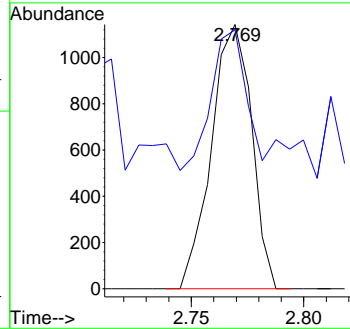
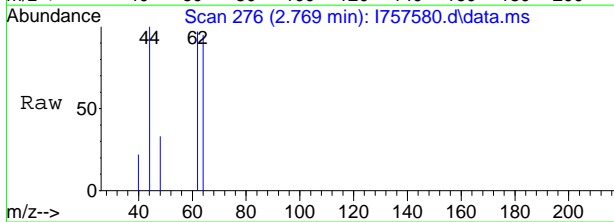
7.1.4  
7





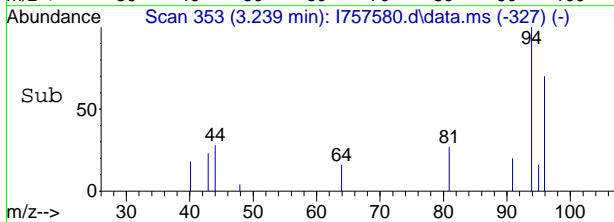
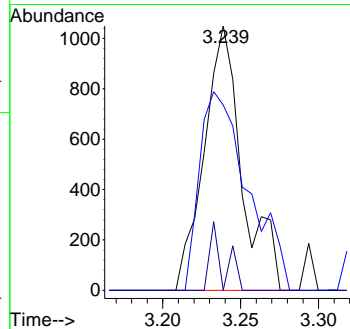
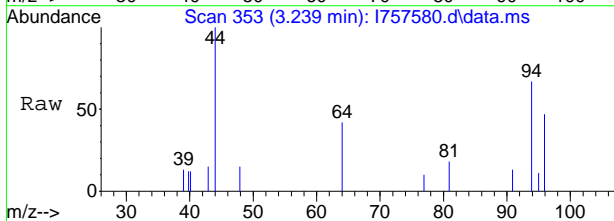
#4  
 Vinyl Chloride  
 Concen: 0.33 ug/L  
 RT: 2.769 min Scan# 276  
 Delta R.T. 0.000 min  
 Lab File: I757580.d  
 Acq: 29 Jun 2023 4:59 pm

Tgt Ion	Resp	Lower	Upper
62	1427		
64	45.1	3.6	63.6

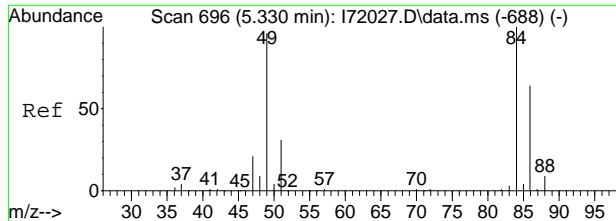


#6  
 Bromomethane  
 Concen: 1.24 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757580.d  
 Acq: 29 Jun 2023 4:59 pm

Tgt Ion	Resp	Lower	Upper
94	1785		
96	70.1	63.7	123.7
93	0.0	0.0	50.9

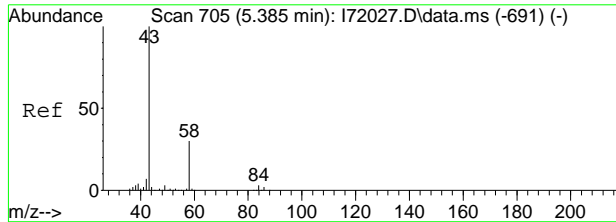
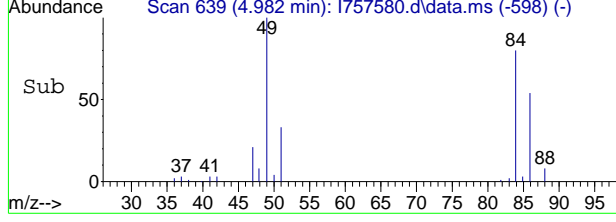
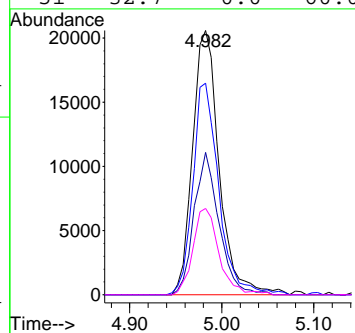
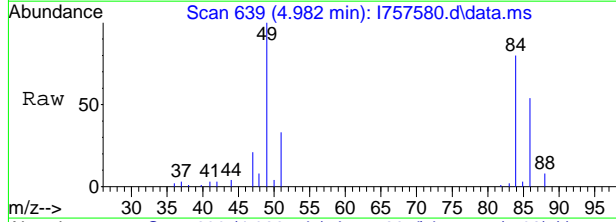


7.14  
7



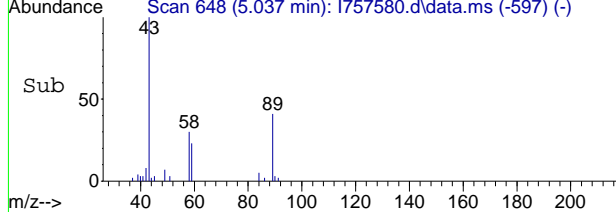
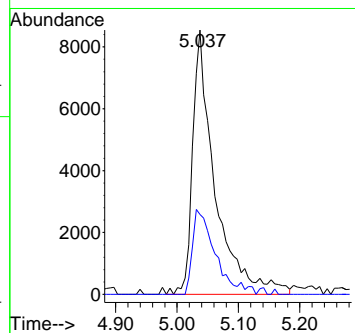
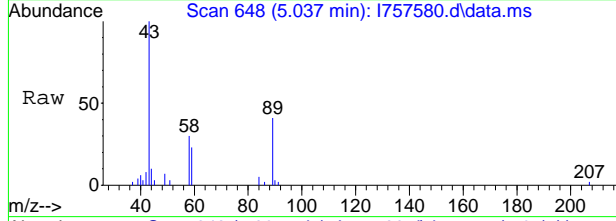
#18  
Methylene Chloride  
Concen: 7.75 ug/L  
RT: 4.982 min Scan# 639  
Delta R.T. 0.000 min  
Lab File: I757580.d  
Acq: 29 Jun 2023 4:59 pm

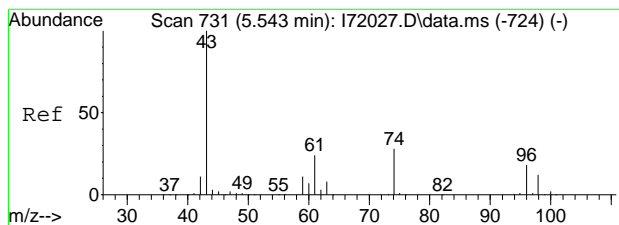
Tgt Ion	Ratio	Lower	Upper
49	100		
84	80.1	51.5	111.5
86	53.8	19.4	79.4
51	32.7	0.0	60.0



#19  
Acetone  
Concen: 8.41 ug/L  
RT: 5.037 min Scan# 648  
Delta R.T. 0.012 min  
Lab File: I757580.d  
Acq: 29 Jun 2023 4:59 pm

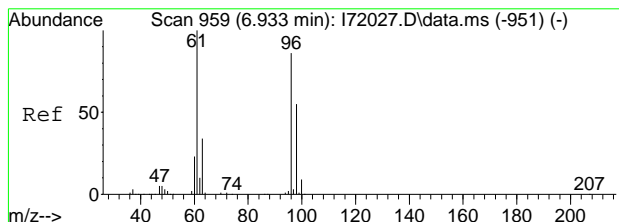
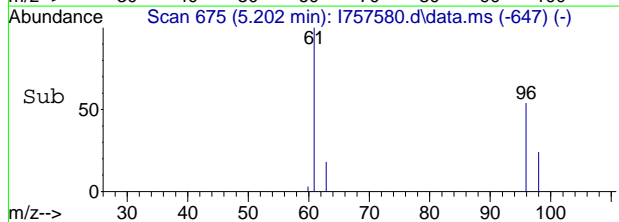
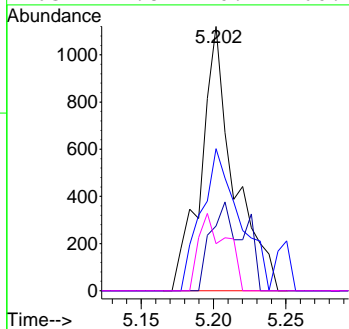
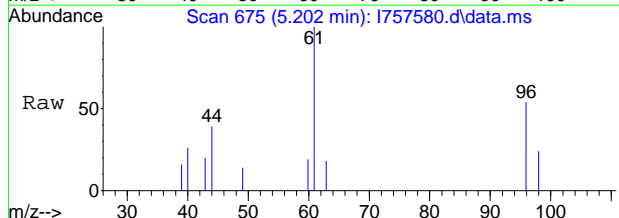
Tgt Ion	Ratio	Lower	Upper
43	100		
58	30.2	2.3	62.3





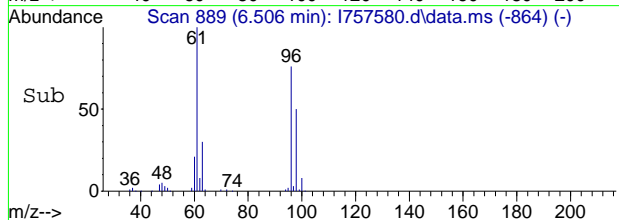
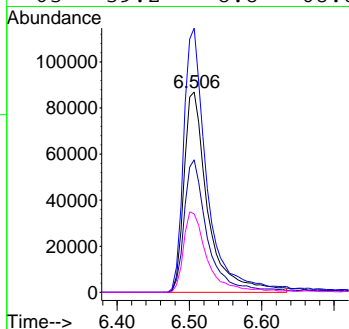
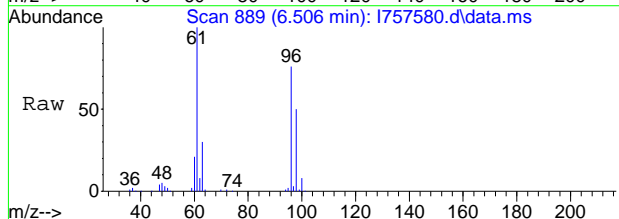
#21  
trans-1,2-Dichloroethene  
Concen: 0.33 ug/L  
RT: 5.202 min Scan# 675  
Delta R.T. 0.018 min  
Lab File: I757580.d  
Acq: 29 Jun 2023 4:59 pm

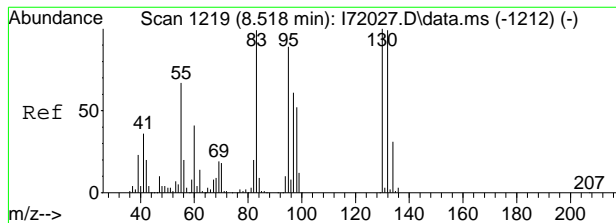
Tgt Ion	Resp	Lower	Upper
61	1789		
61	100		
96	53.7	41.3	101.3
98	24.4	15.3	75.3
63	17.8	0.7	60.7



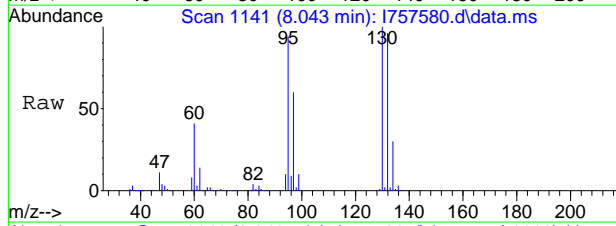
#32  
cis-1,2-Dichloroethene  
Concen: 46.40 ug/L  
RT: 6.506 min Scan# 889  
Delta R.T. -0.001 min  
Lab File: I757580.d  
Acq: 29 Jun 2023 4:59 pm

Tgt Ion	Resp	Lower	Upper
96	199344		
96	100		
61	131.9	92.6	152.6
98	66.1	33.8	93.8
63	39.2	8.8	68.8



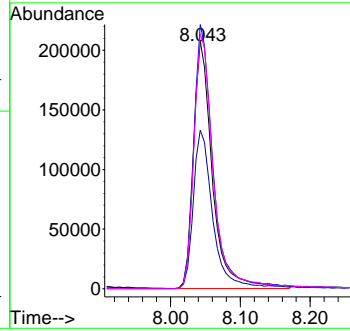
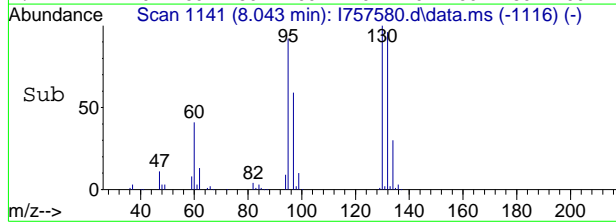


#53  
 Trichloroethene  
 Concen: 94.27 ug/L  
 RT: 8.043 min Scan# 1141  
 Delta R.T. -0.000 min  
 Lab File: I757580.d  
 Acq: 29 Jun 2023 4:59 pm



Tgt Ion: 95 Resp: 393729

Ion	Ratio	Lower	Upper
95	100		
130	107.0	75.2	135.2
97	64.1	32.6	92.6
132	103.2	70.0	130.0



7.14  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
Data File : I757576.D  
Acq On : 29 Jun 2023 3:23 pm  
Operator : adelardl  
Sample : FC7322-5  
Misc : MS54331,VI2958,,,,,2  
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 29 16:13:41 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	977580	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	683517	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	385435	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.994	113	271765	48.98	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.96%		
49) 1,2-Dichloroethane-d4	7.561	65	259144	51.36	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.72%		
63) Toluene-d8	9.445	98	958615	49.18	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.36%		
86) 4-Bromofluorobenzene	12.225	174	323469	49.84	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.68%		
Target Compounds							
							Qvalue
4) Vinyl Chloride	2.770	62	18257	4.18	ug/L		98
6) Bromomethane	3.239	94	2251	1.53	ug/L		95
11) 1,1-Dichloroethene	4.281	61	1113	0.21	ug/L		91
18) Methylene Chloride	4.983	49	48562	8.90	ug/L		96
19) Acetone	5.031	43	22592	8.59	ug/L		94
21) trans-1,2-Dichloroethene	5.202	61	7435	1.34	ug/L		94
25) Acetonitrile	5.604	41	6060	5.12	ug/L		94
32) cis-1,2-Dichloroethene	6.507	96	219989	50.10	ug/L		97
53) Trichloroethene	8.049	95	187168	43.85	ug/L		93
54) Methylcyclohexane	8.043	83	2177	0.45	ug/L #		1
-----							

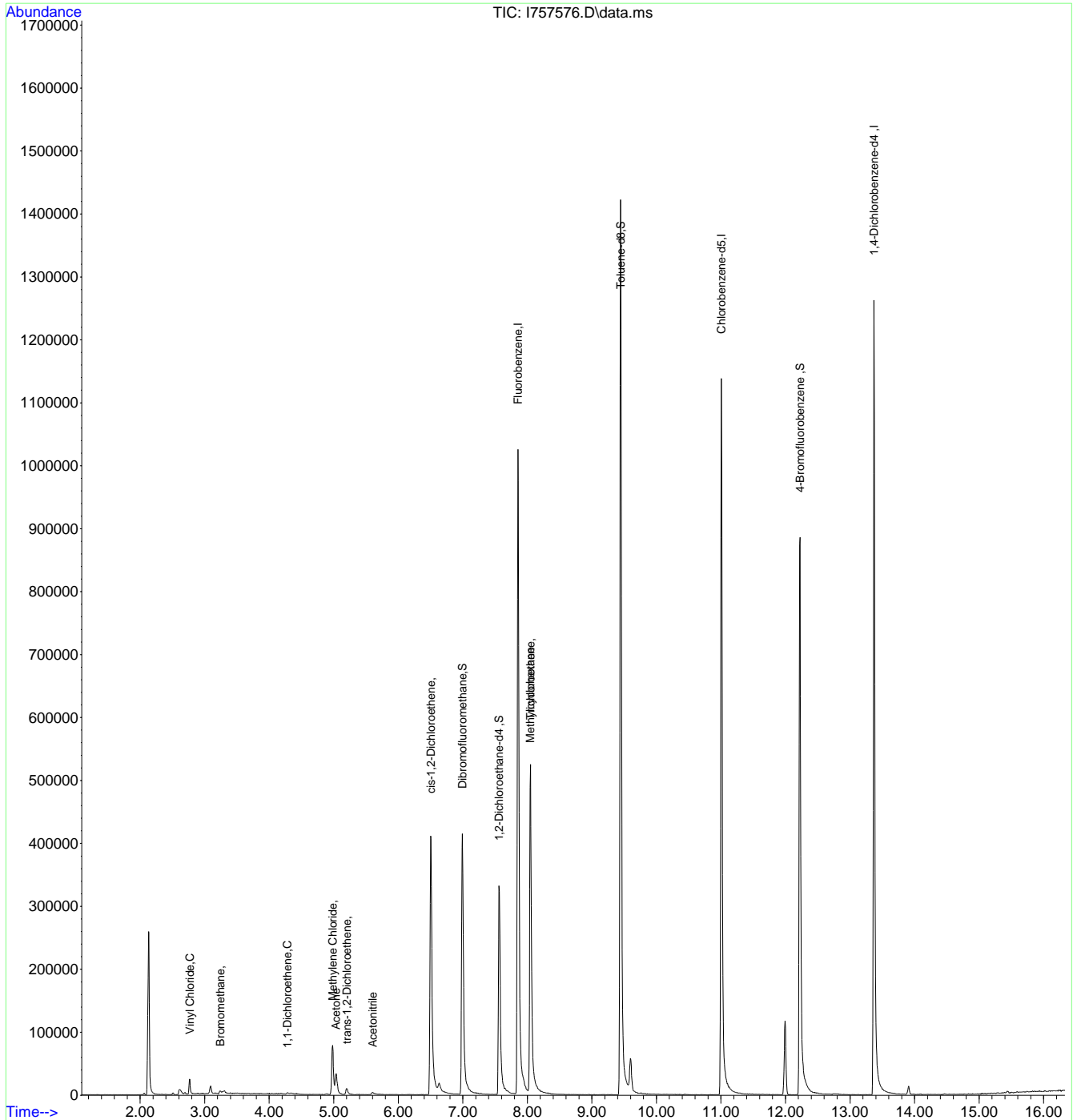
(#) = qualifier out of range (m) = manual integration (+) = signals summed

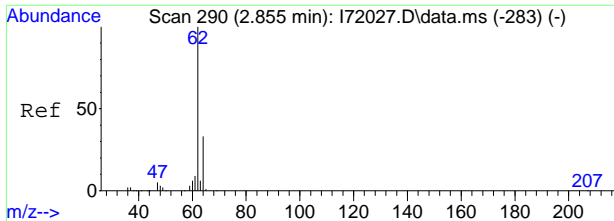
7.15  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757576.D  
 Acq On : 29 Jun 2023 3:23 pm  
 Operator : adelardl  
 Sample : FC7322-5  
 Misc : MS54331,VI2958,,,,,2  
 ALS Vial : 11 Sample Multiplier: 1

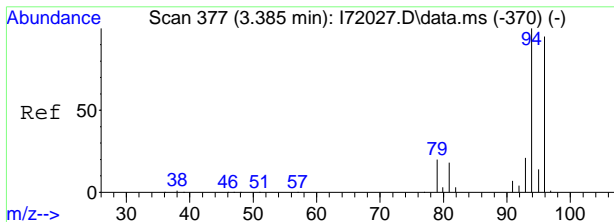
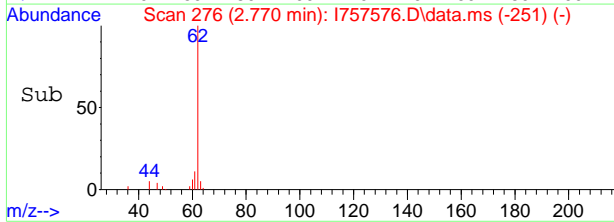
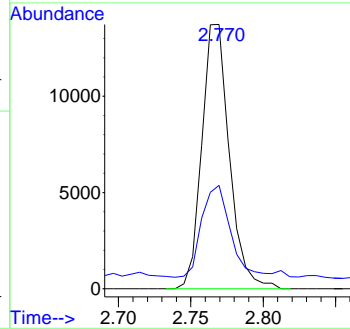
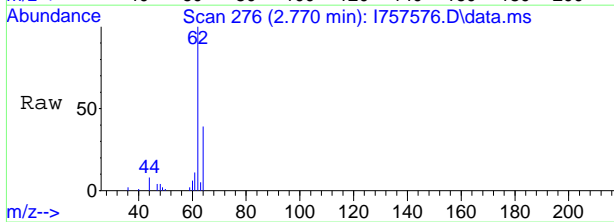
Quant Time: Jun 29 16:13:41 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration





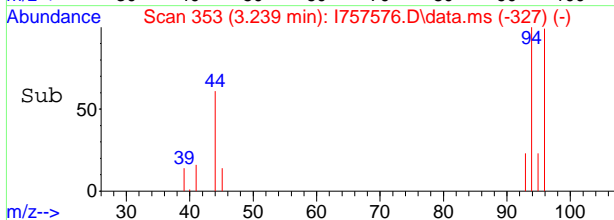
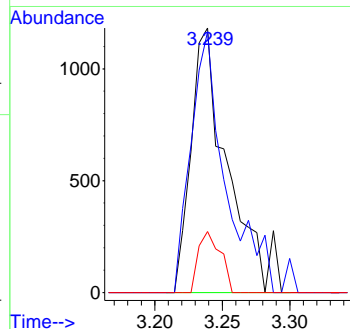
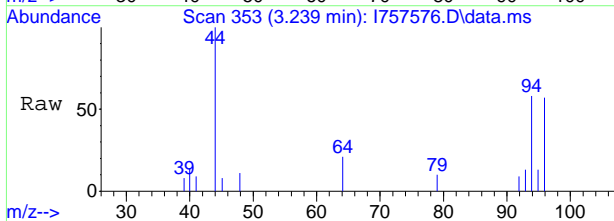
#4  
 Vinyl Chloride  
 Concen: 4.18 ug/L  
 RT: 2.770 min Scan# 276  
 Delta R.T. 0.001 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm

Tgt Ion	Resp	Lower	Upper
62	18257		
64	34.5	3.6	63.6

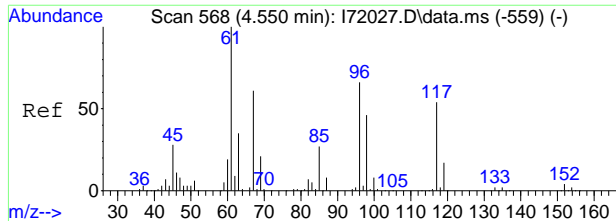


#6  
 Bromomethane  
 Concen: 1.53 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm

Tgt Ion	Resp	Lower	Upper
94	2251		
96	98.6	63.7	123.7
93	23.1	0.0	50.9

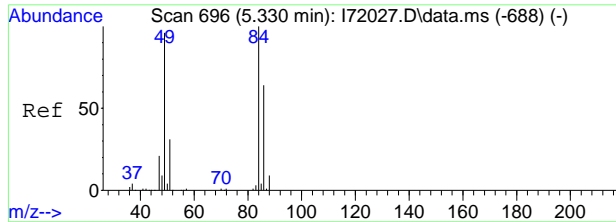
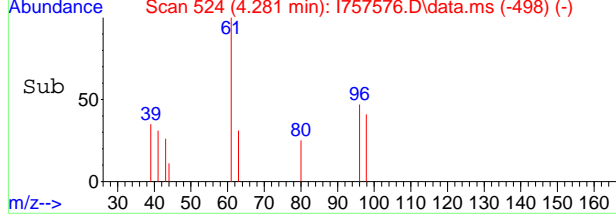
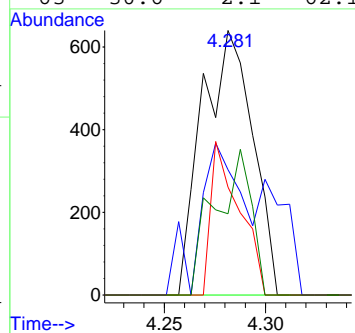
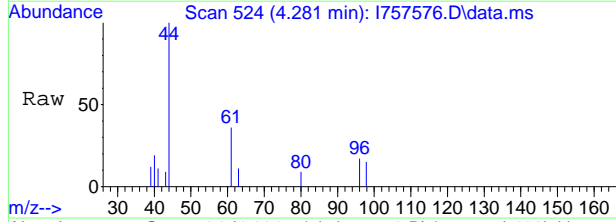


7.15  
7



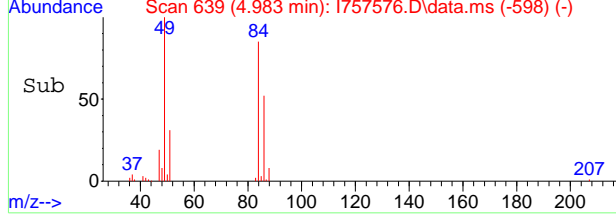
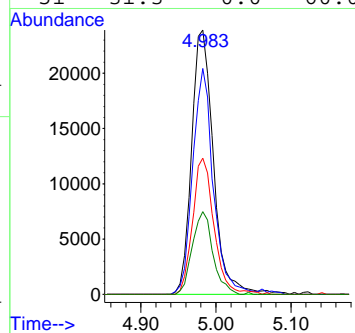
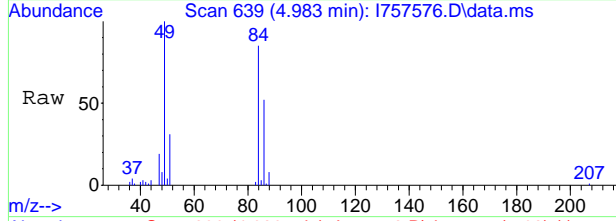
#11  
 1,1-Dichloroethene  
 Concen: 0.21 ug/L  
 RT: 4.281 min Scan# 524  
 Delta R.T. 0.006 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm

Tgt Ion	Resp	Lower	Upper
61	1113		
61	100		
96	47.3	30.9	90.9
98	40.8	9.4	69.4
63	30.6	2.1	62.1



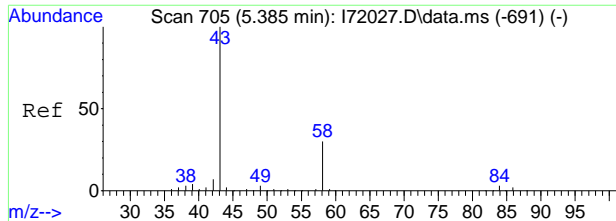
#18  
 Methylene Chloride  
 Concen: 8.90 ug/L  
 RT: 4.983 min Scan# 639  
 Delta R.T. 0.001 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm

Tgt Ion	Resp	Lower	Upper
49	48562		
49	100		
84	85.4	51.5	111.5
86	51.5	19.4	79.4
51	31.3	0.0	60.0

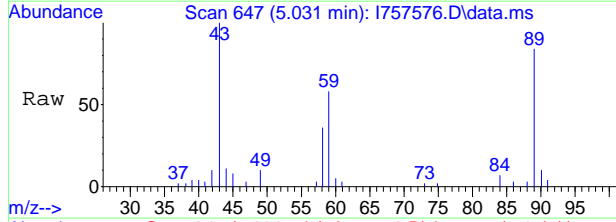


7.15  
7



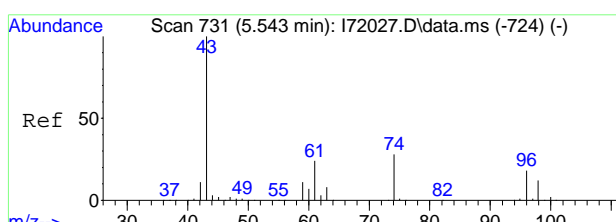
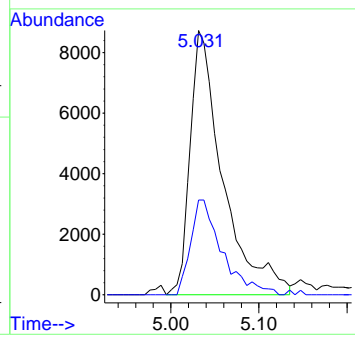
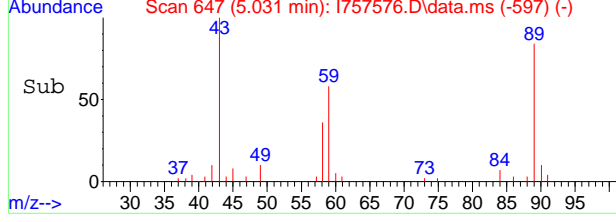


#19  
 Acetone  
 Concen: 8.59 ug/L  
 RT: 5.031 min Scan# 647  
 Delta R.T. 0.006 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm

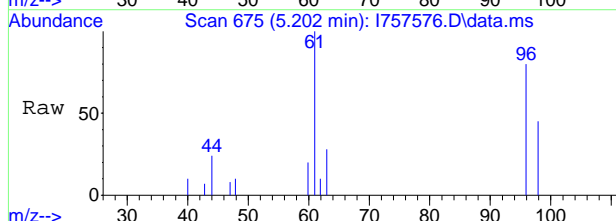


Tgt Ion: 43 Resp: 22592

Ion	Ratio	Lower	Upper
43	100		
58	35.8	2.3	62.3

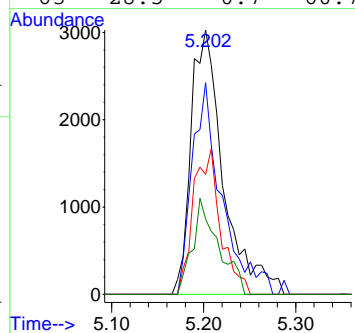
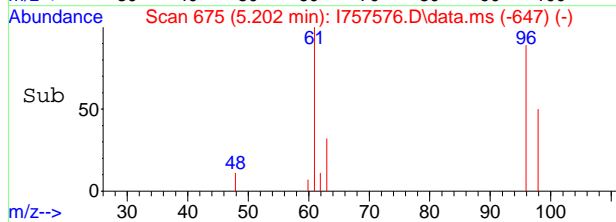


#21  
 trans-1,2-Dichloroethene  
 Concen: 1.34 ug/L  
 RT: 5.202 min Scan# 675  
 Delta R.T. 0.018 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm



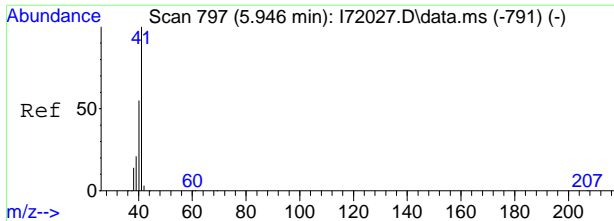
Tgt Ion: 61 Resp: 7435

Ion	Ratio	Lower	Upper
61	100		
96	80.0	41.3	101.3
98	45.3	15.3	75.3
63	28.5	0.7	60.7



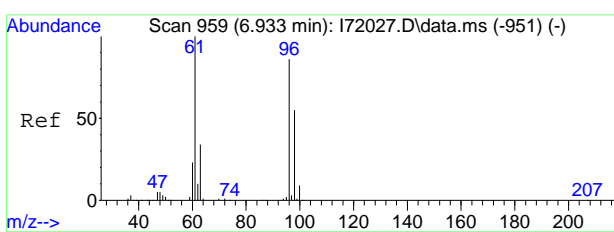
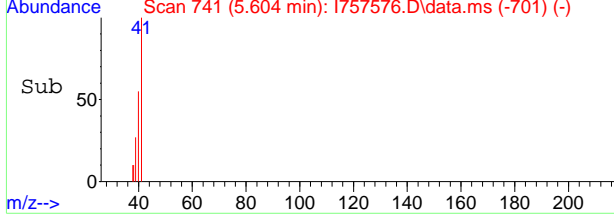
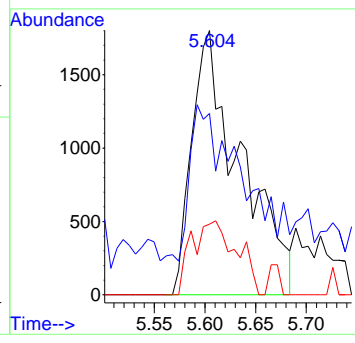
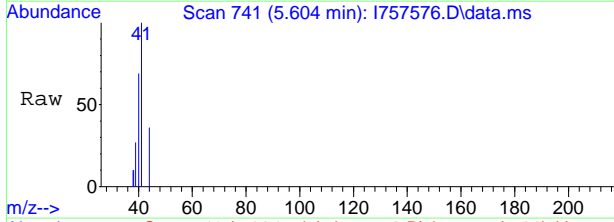
7.15  
7





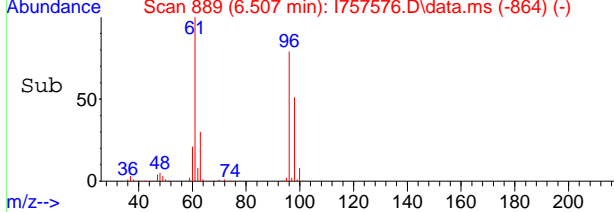
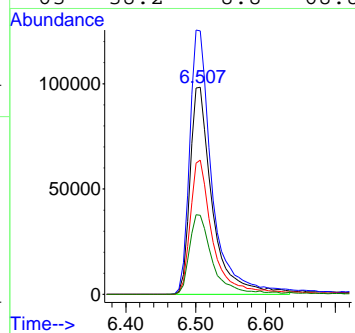
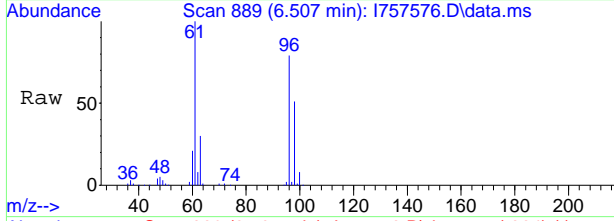
#25  
 Acetonitrile  
 Concen: 5.12 ug/L  
 RT: 5.604 min Scan# 741  
 Delta R.T. 0.042 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm

Tgt Ion	Resp	Lower	Upper
41	6060		
40	53.9	22.1	82.1
39	26.7	0.0	48.9

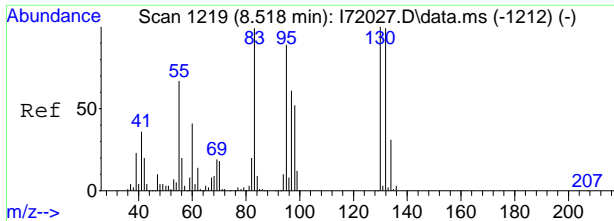


#32  
 cis-1,2-Dichloroethene  
 Concen: 50.10 ug/L  
 RT: 6.507 min Scan# 889  
 Delta R.T. -0.000 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm

Tgt Ion	Resp	Lower	Upper
96	219989		
61	127.2	92.6	152.6
98	64.8	33.8	93.8
63	38.2	8.8	68.8



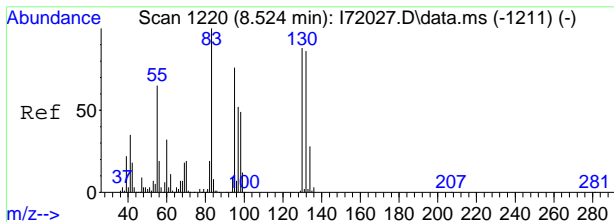
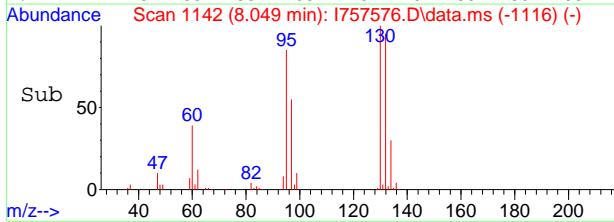
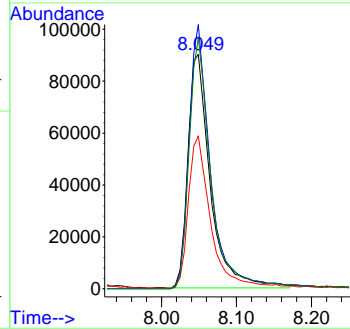
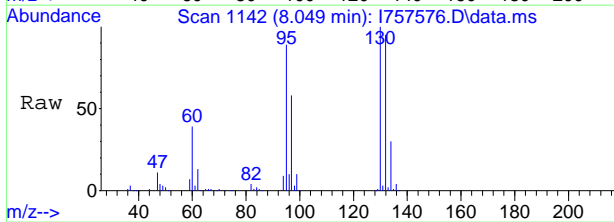




#53  
 Trichloroethene  
 Concen: 43.85 ug/L  
 RT: 8.049 min Scan# 1142  
 Delta R.T. 0.006 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm

Tgt Ion: 95 Resp: 187168

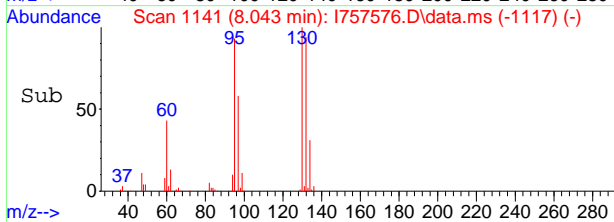
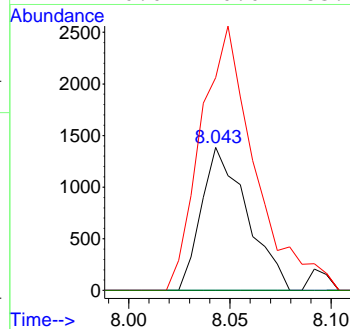
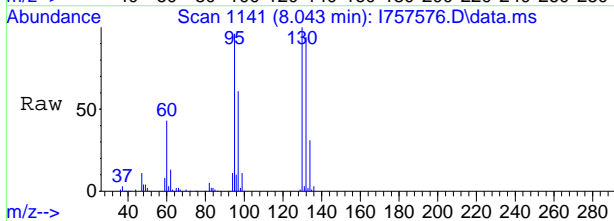
Ion	Ratio	Lower	Upper
95	100		
130	113.1	75.2	135.2
97	65.1	32.6	92.6
132	107.3	70.0	130.0



#54  
 Methylcyclohexane  
 Concen: 0.45 ug/L  
 RT: 8.043 min Scan# 1141  
 Delta R.T. -0.006 min  
 Lab File: I757576.D  
 Acq: 29 Jun 2023 3:23 pm

Tgt Ion: 83 Resp: 2177

Ion	Ratio	Lower	Upper
83	100		
55	0.0	50.3	110.3#
98	148.9	17.8	77.8#
42	0.0	0.0	53.5



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757581.d  
 Acq On : 29 Jun 2023 5:23 pm  
 Operator : adelardl  
 Sample : FC7322-6 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:51:21 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

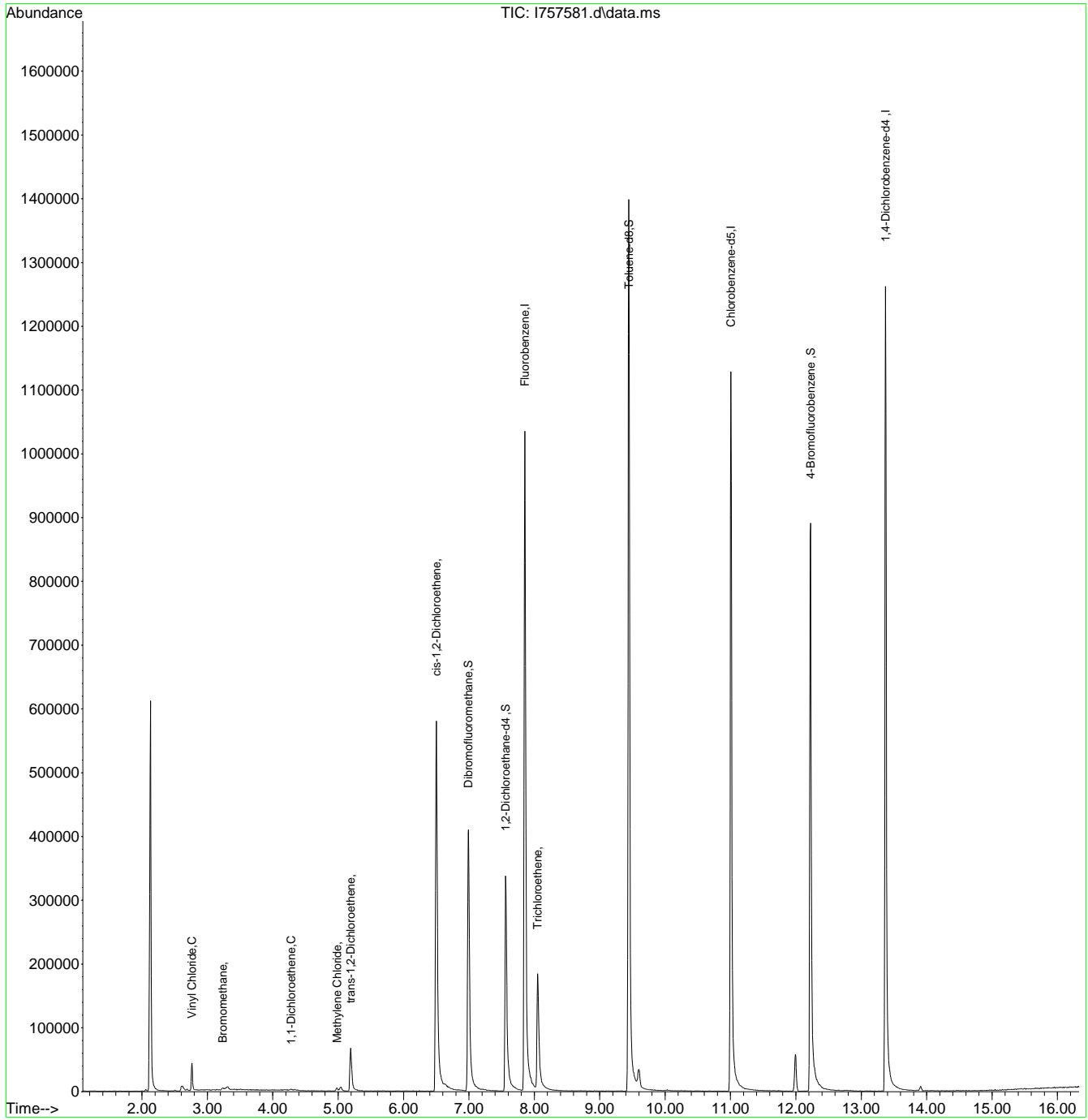
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	964810	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	684153	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	385972	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	269597	49.23	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.46%	
49) 1,2-Dichloroethane-d4	7.561	65	258803	51.97	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.94%	
63) Toluene-d8	9.445	98	957724	49.09	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.18%	
86) 4-Bromofluorobenzene	12.225	174	321370	49.45	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.90%	
Target Compounds						
						Qvalue
4) Vinyl Chloride	2.763	62	33568	7.79	ug/L	97
6) Bromomethane	3.233	94	2221	1.52	ug/L	81
11) 1,1-Dichloroethene	4.281	61	1144	0.22	ug/L #	76
18) Methylene Chloride	4.982	49	2960	0.55	ug/L	85
21) trans-1,2-Dichloroethene	5.190	61	45499	8.28	ug/L	99
32) cis-1,2-Dichloroethene	6.500	96	297284	68.60	ug/L	96
53) Trichloroethene	8.049	95	72670	17.25	ug/L	97
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

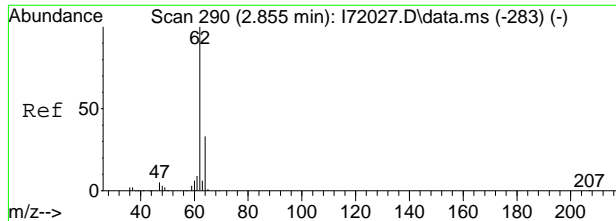
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
Data File : I757581.d  
Acq On : 29 Jun 2023 5:23 pm  
Operator : adelardl  
Sample : FC7322-6 Inst : MSVOA16  
Misc : MS54331,VI2958,,,,,  
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jun 30 00:51:21 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration

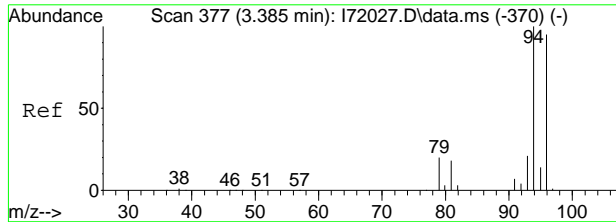
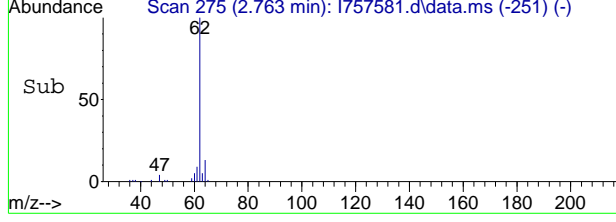
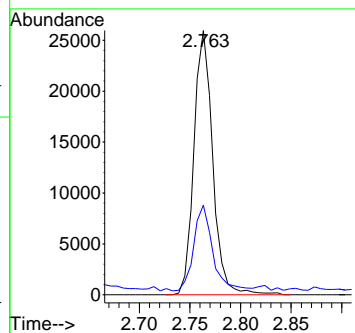
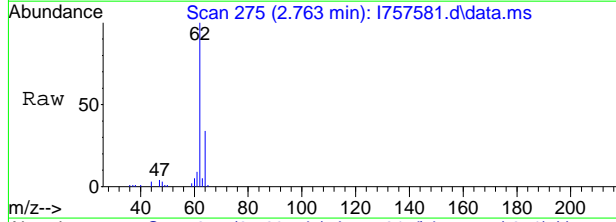


7  
9.1.7



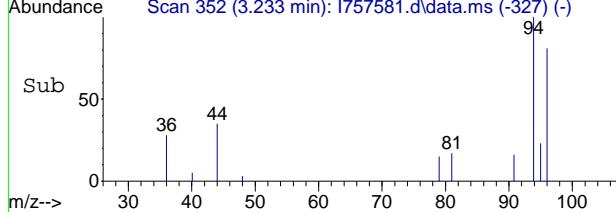
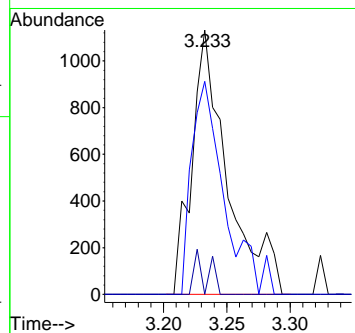
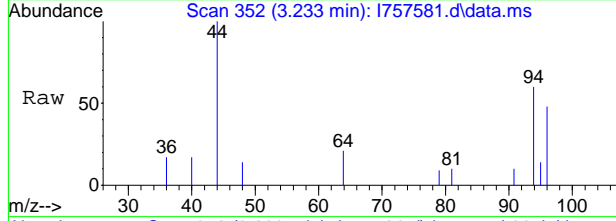
#4  
 Vinyl Chloride  
 Concen: 7.79 ug/L  
 RT: 2.763 min Scan# 275  
 Delta R.T. -0.006 min  
 Lab File: I757581.d  
 Acq: 29 Jun 2023 5:23 pm

Tgt Ion	Resp	Lower	Upper
62	33568		
64	31.7	3.6	63.6



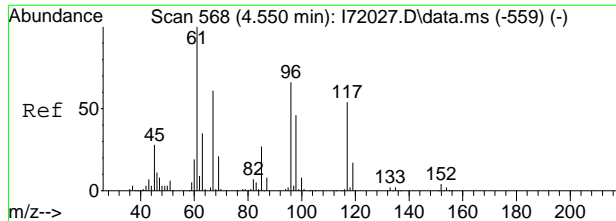
#6  
 Bromomethane  
 Concen: 1.52 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757581.d  
 Acq: 29 Jun 2023 5:23 pm

Tgt Ion	Resp	Lower	Upper
94	2221		
96	80.6	63.7	123.7
93	0.0	0.0	50.9



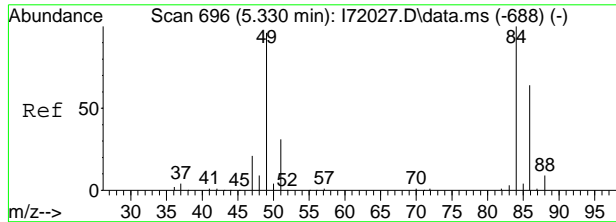
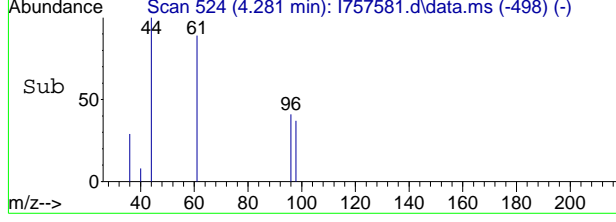
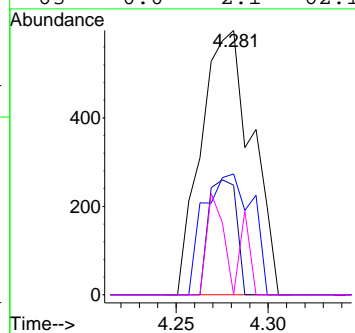
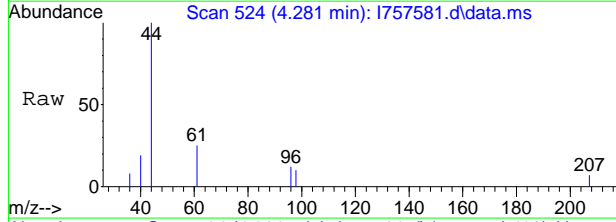
7.16  
7





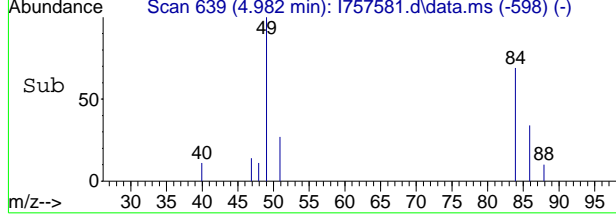
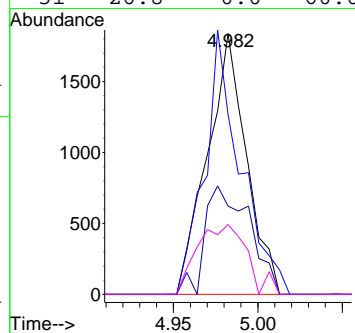
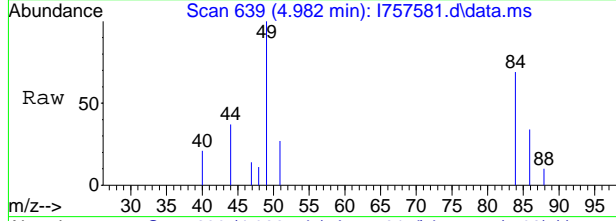
#11  
 1,1-Dichloroethene  
 Concen: 0.22 ug/L  
 RT: 4.281 min Scan# 524  
 Delta R.T. 0.006 min  
 Lab File: I757581.d  
 Acq: 29 Jun 2023 5:23 pm

Tgt Ion	Ratio	Lower	Upper
61	100		
96	45.7	30.9	90.9
98	41.5	9.4	69.4
63	0.0	2.1	62.1#



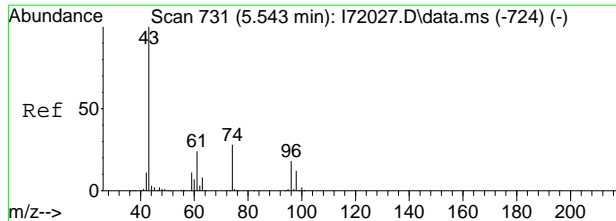
#18  
 Methylene Chloride  
 Concen: 0.55 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757581.d  
 Acq: 29 Jun 2023 5:23 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	69.1	51.5	111.5
86	33.9	19.4	79.4
51	26.8	0.0	60.0

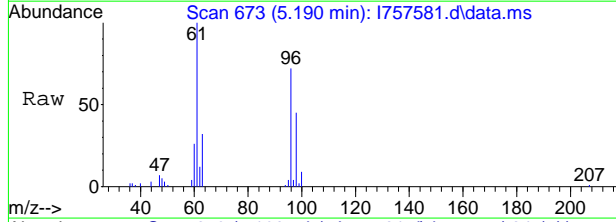


7.1.6  
7



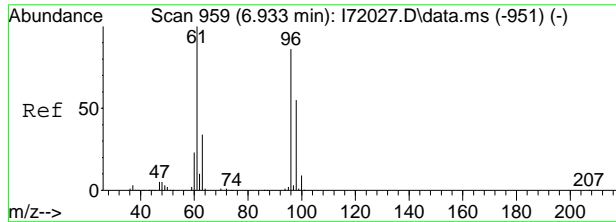
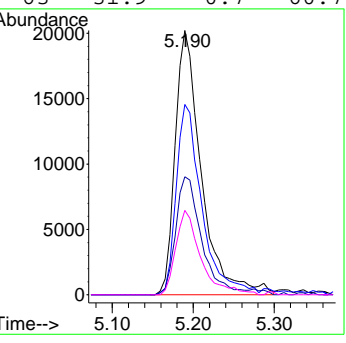
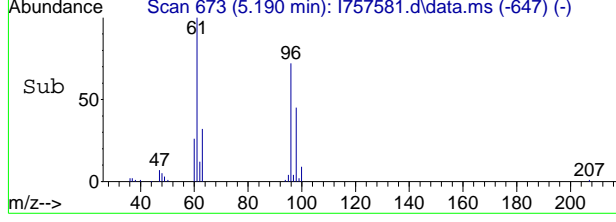


#21  
 trans-1,2-Dichloroethene  
 Concen: 8.28 ug/L  
 RT: 5.190 min Scan# 673  
 Delta R.T. 0.006 min  
 Lab File: I757581.d  
 Acq: 29 Jun 2023 5:23 pm

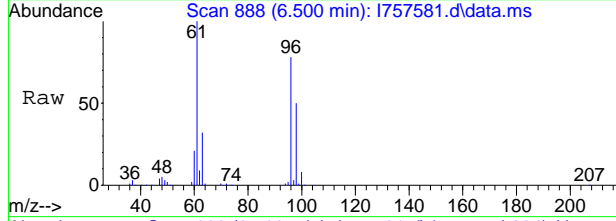


Tgt Ion: 61 Resp: 45499

Ion	Ratio	Lower	Upper
61	100		
96	71.9	41.3	101.3
98	44.6	15.3	75.3
63	31.9	0.7	60.7

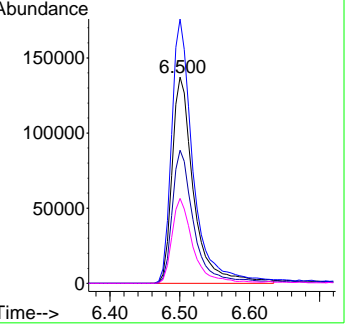
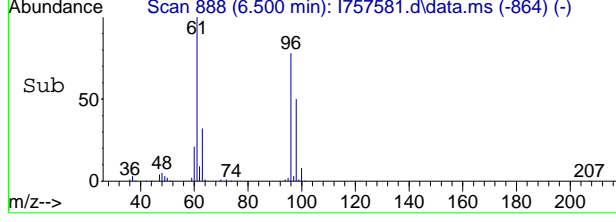


#32  
 cis-1,2-Dichloroethene  
 Concen: 68.60 ug/L  
 RT: 6.500 min Scan# 888  
 Delta R.T. -0.007 min  
 Lab File: I757581.d  
 Acq: 29 Jun 2023 5:23 pm



Tgt Ion: 96 Resp: 297284

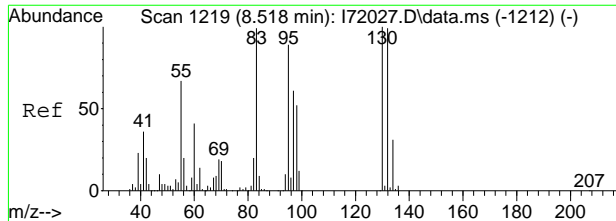
Ion	Ratio	Lower	Upper
96	100		
61	128.2	92.6	152.6
98	64.5	33.8	93.8
63	41.2	8.8	68.8



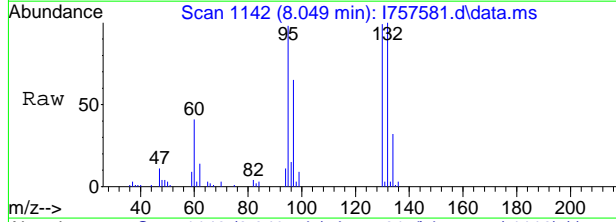
7.1.6  
7



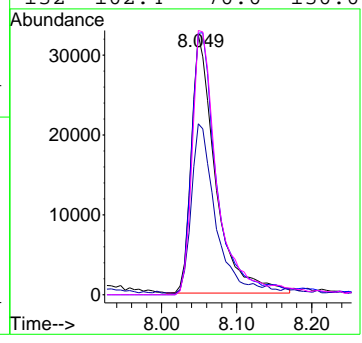
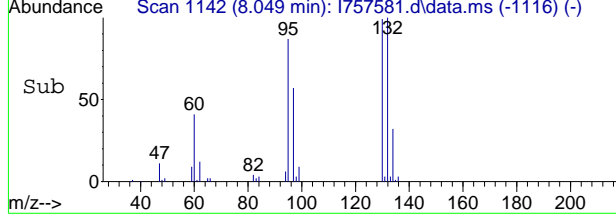




#53  
 Trichloroethene  
 Concen: 17.25 ug/L  
 RT: 8.049 min Scan# 1142  
 Delta R.T. 0.006 min  
 Lab File: I757581.d  
 Acq: 29 Jun 2023 5:23 pm



Tgt Ion	Ratio	Lower	Upper
95	100		
130	101.2	75.2	135.2
97	65.5	32.6	92.6
132	102.4	70.0	130.0



7.1.6  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757582.d  
 Acq On : 29 Jun 2023 5:47 pm  
 Operator : adelardl  
 Sample : FC7322-8 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:52:17 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

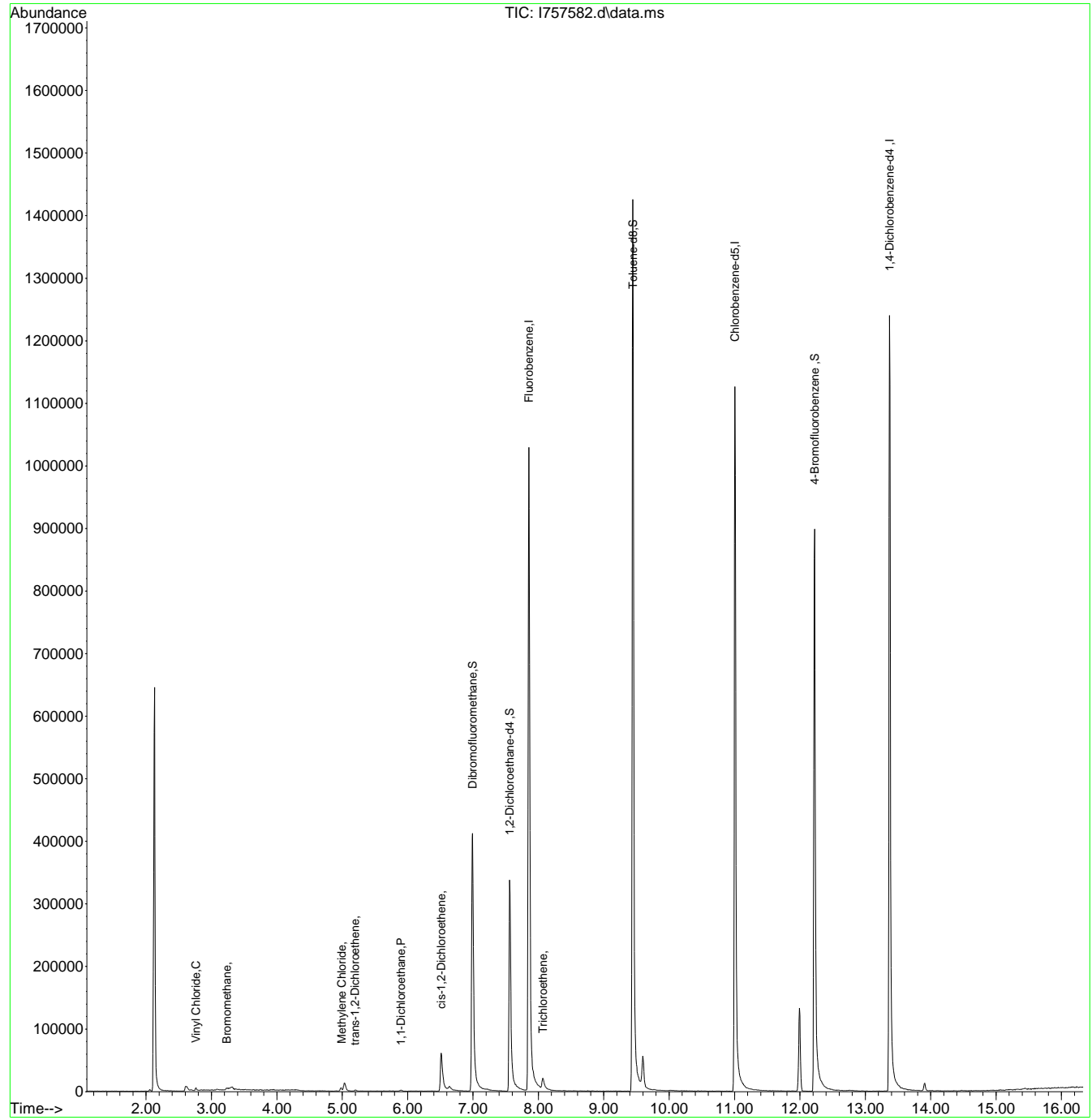
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	965210	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.005	117	680387	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	378240	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	272494	49.74	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.48%	
49) 1,2-Dichloroethane-d4	7.561	65	256303	51.45	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.90%	
63) Toluene-d8	9.445	98	960273	49.49	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.98%	
86) 4-Bromofluorobenzene	12.225	174	320407	50.31	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.62%	
Target Compounds						
						Qvalue
4) Vinyl Chloride	2.763	62	3692	0.86	ug/L	94
6) Bromomethane	3.233	94	1998	1.37	ug/L	80
18) Methylene Chloride	4.988	49	3201	0.59	ug/L	92
21) trans-1,2-Dichloroethene	5.196	61	1200	0.22	ug/L	89
28) 1,1-Dichloroethane	5.897	63	2348	0.33	ug/L	88
32) cis-1,2-Dichloroethene	6.512	96	40534	9.35	ug/L	99
53) Trichloroethene	8.067	95	8647m	2.05	ug/L	
-----						

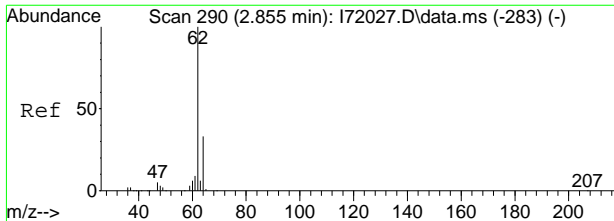
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
Data File : I757582.d  
Acq On : 29 Jun 2023 5:47 pm  
Operator : adelardl  
Sample : FC7322-8 Inst : MSVOA16  
Misc : MS54331,VI2958,,,,,  
ALS Vial : 17 Sample Multiplier: 1

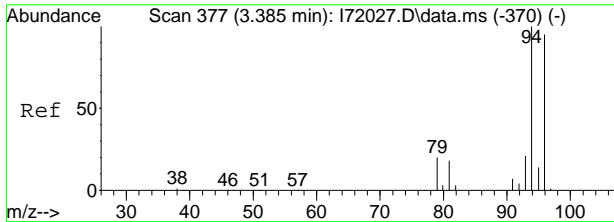
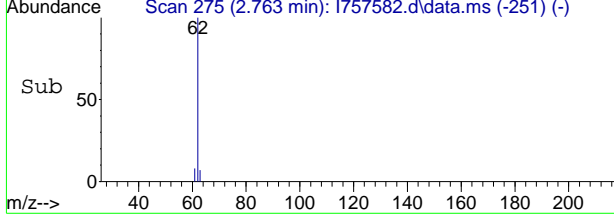
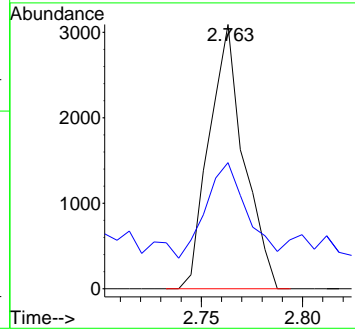
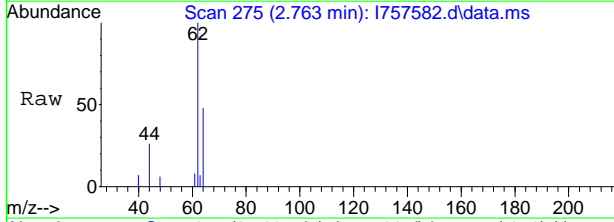
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jun 30 00:52:17 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration





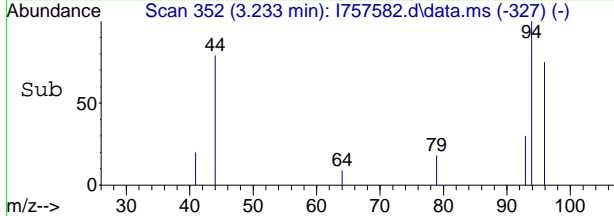
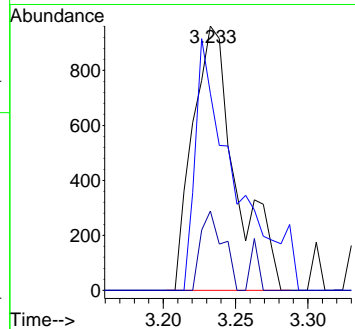
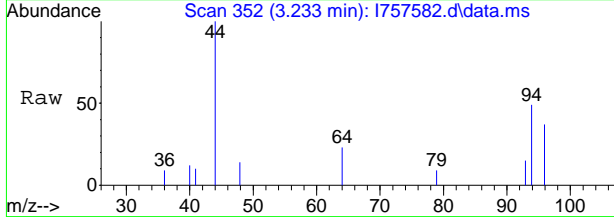
#4  
 Vinyl Chloride  
 Concen: 0.86 ug/L  
 RT: 2.763 min Scan# 275  
 Delta R.T. -0.006 min  
 Lab File: I757582.d  
 Acq: 29 Jun 2023 5:47 pm

Tgt Ion	Resp	Lower	Upper
62	3692	100	
64	30.3	3.6	63.6



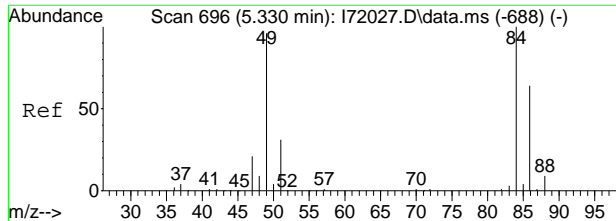
#6  
 Bromomethane  
 Concen: 1.37 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757582.d  
 Acq: 29 Jun 2023 5:47 pm

Tgt Ion	Resp	Lower	Upper
94	1998	100	
96	74.5	63.7	123.7
93	30.0	0.0	50.9



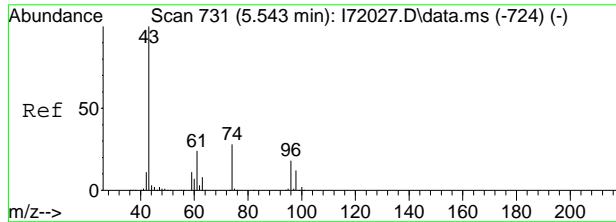
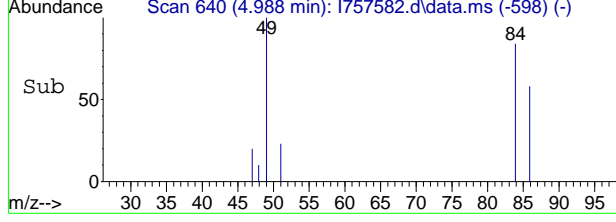
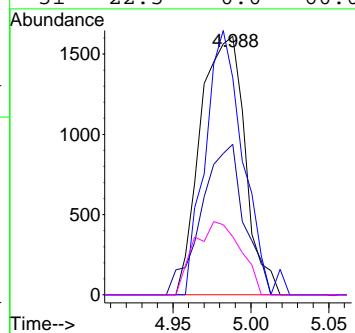
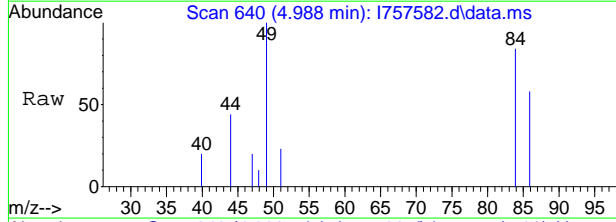
7.17  
7





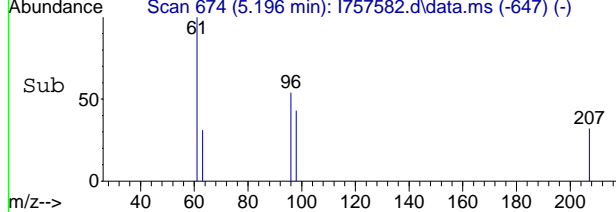
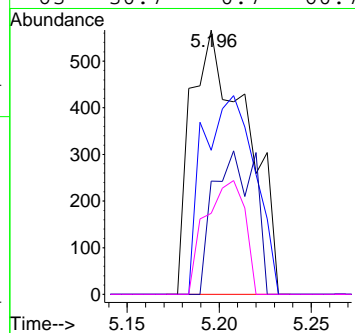
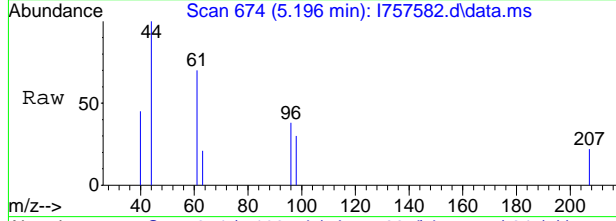
#18  
 Methylene Chloride  
 Concen: 0.59 ug/L  
 RT: 4.988 min Scan# 640  
 Delta R.T. 0.006 min  
 Lab File: I757582.d  
 Acq: 29 Jun 2023 5:47 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	84.0	51.5	111.5
86	58.3	19.4	79.4
51	22.5	0.0	60.0



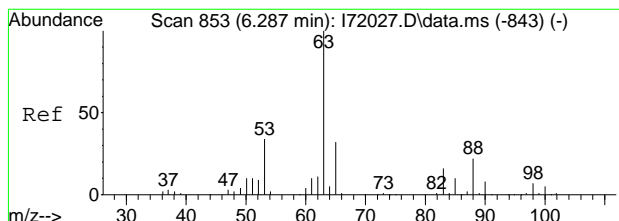
#21  
 trans-1,2-Dichloroethene  
 Concen: 0.22 ug/L  
 RT: 5.196 min Scan# 674  
 Delta R.T. 0.012 min  
 Lab File: I757582.d  
 Acq: 29 Jun 2023 5:47 pm

Tgt Ion	Ratio	Lower	Upper
61	100		
96	54.5	41.3	101.3
98	42.9	15.3	75.3
63	30.7	0.7	60.7



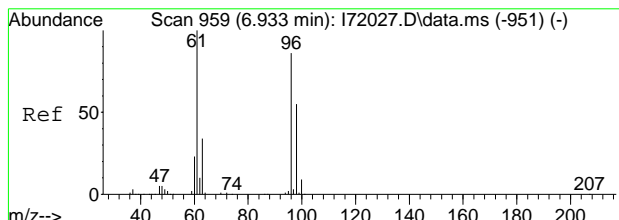
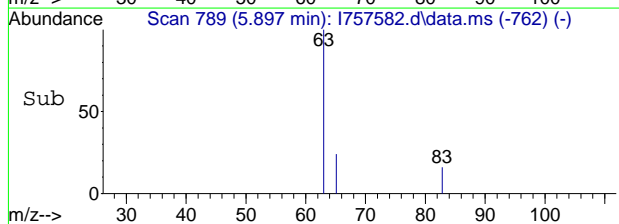
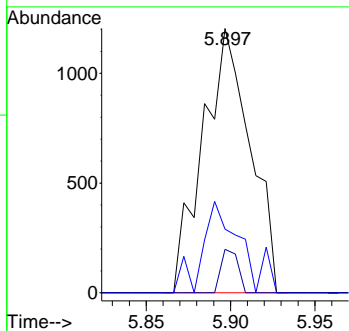
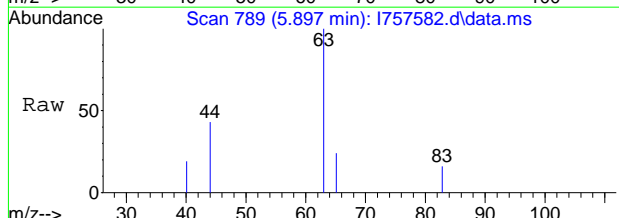
7.17





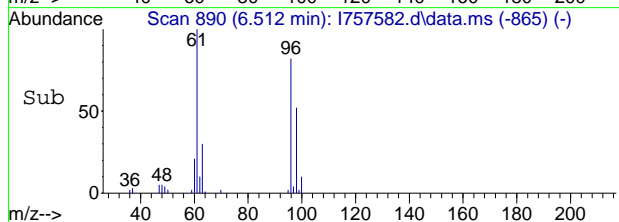
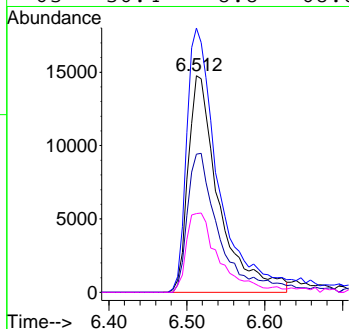
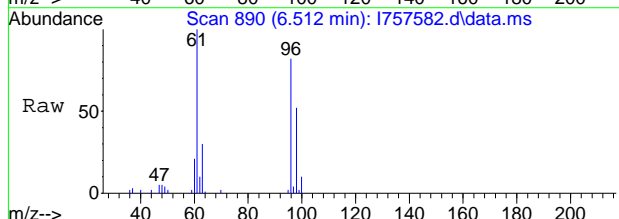
#28  
 1,1-Dichloroethane  
 Concen: 0.33 ug/L  
 RT: 5.897 min Scan# 789  
 Delta R.T. 0.012 min  
 Lab File: I757582.d  
 Acq: 29 Jun 2023 5:47 pm

Tgt Ion	Resp	Lower	Upper
63	2348		
65	24.1	2.0	62.0
83	16.4	0.0	44.2

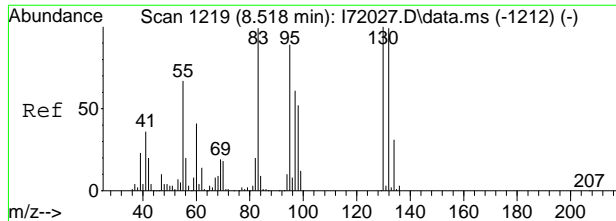


#32  
 cis-1,2-Dichloroethene  
 Concen: 9.35 ug/L  
 RT: 6.512 min Scan# 890  
 Delta R.T. 0.005 min  
 Lab File: I757582.d  
 Acq: 29 Jun 2023 5:47 pm

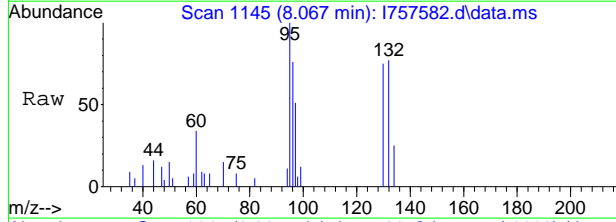
Tgt Ion	Resp	Lower	Upper
96	40534		
61	122.1	92.6	152.6
98	63.8	33.8	93.8
63	36.4	8.8	68.8



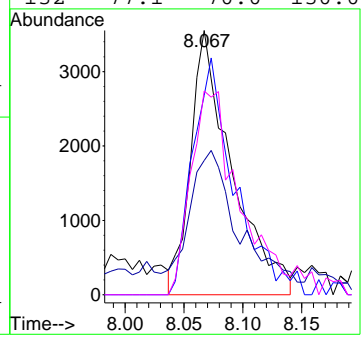
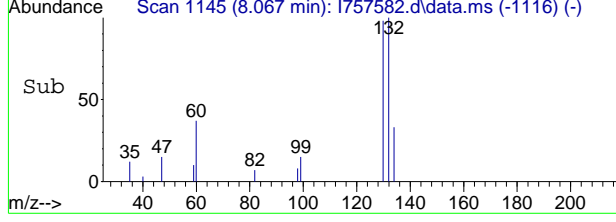




#53  
 Trichloroethene  
 Concen: 2.05 ug/L m  
 RT: 8.067 min Scan# 1145  
 Delta R.T. 0.024 min  
 Lab File: I757582.d  
 Acq: 29 Jun 2023 5:47 pm



Tgt Ion	Ratio	Lower	Upper
95	100		
130	75.4	75.2	135.2
97	50.8	32.6	92.6
132	77.1	70.0	130.0



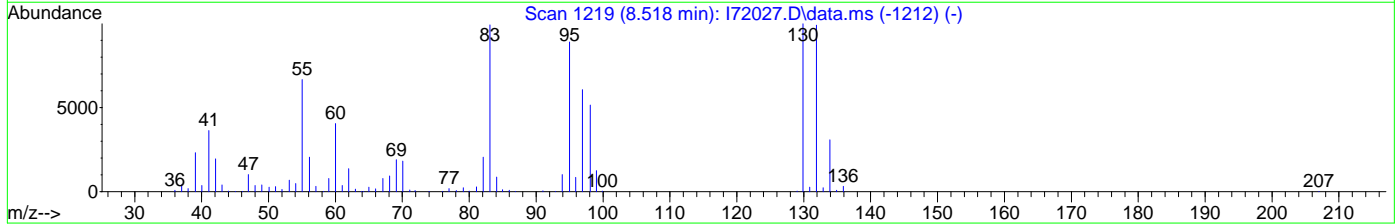
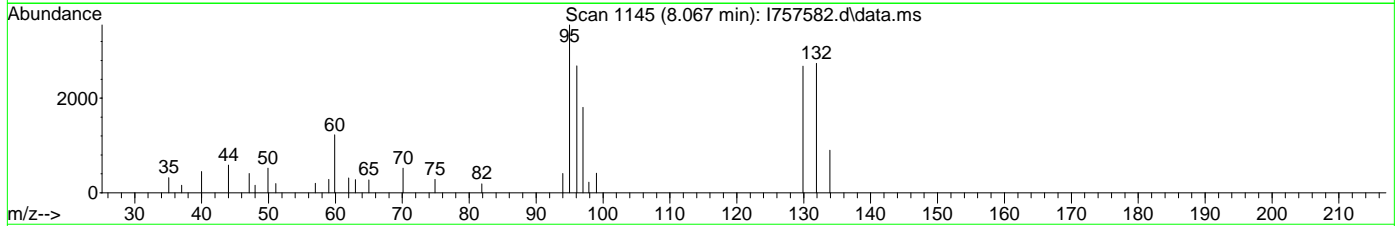
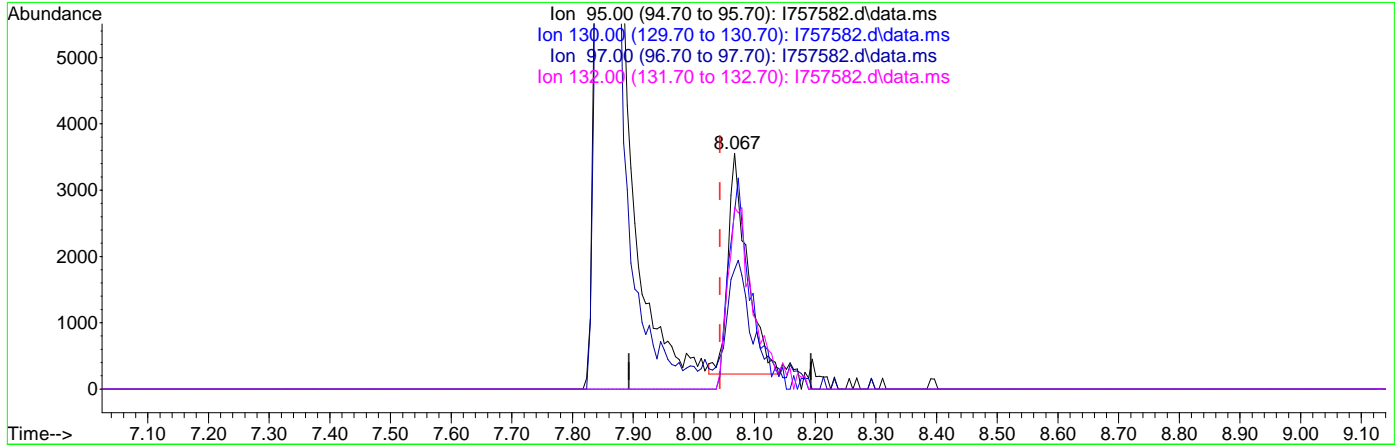
7.1.7  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
 Data File : I757582.d  
 Acq On : 29 Jun 2023 5:47 pm  
 Operator : adelardl  
 Sample : FC7322-8 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:45:22 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



TIC: I757582.d\data.ms

(53) Trichloroethene ( )

8.067min (+0.024) 1.74ug/L

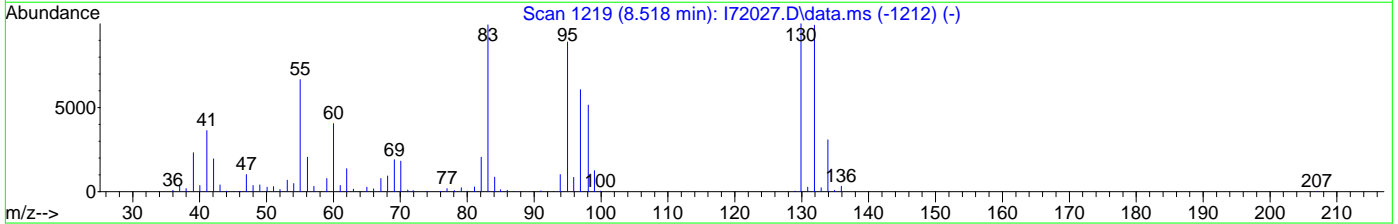
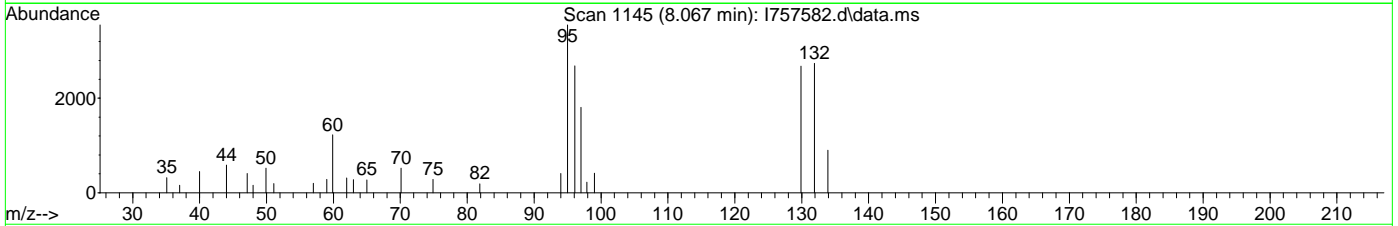
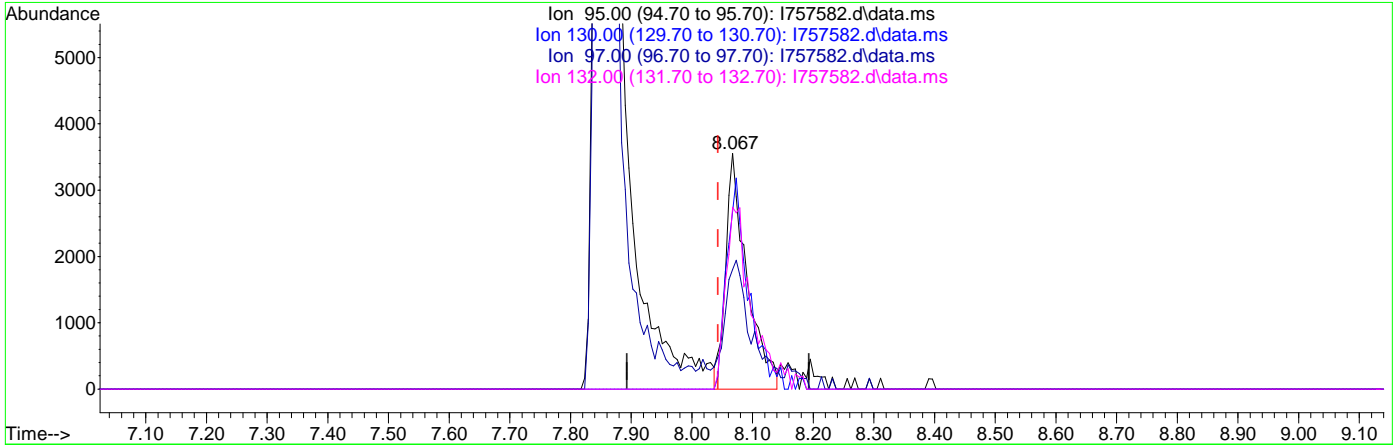
response 7336

Ion	Exp%	Act%
95.00	100	100
130.00	105.20	80.52
97.00	62.60	45.03
132.00	100.00	82.36

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
 Data File : I757582.d  
 Acq On : 29 Jun 2023 5:47 pm  
 Operator : adelardl  
 Sample : FC7322-8  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 17 Sample Multiplier: 1  
 Inst : MSVOA16

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:45:22 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



TIC: I757582.d\data.ms

(53) Trichloroethene ( )  
 8.067min (+0.024) 2.05ug/L m  
 response 8647

Ion	Exp%	Act%
95.00	100	100
130.00	105.20	75.38
97.00	62.60	50.79
132.00	100.00	77.10

7.1.7.3  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077332.D  
 Acq On : 30 Jun 2023 11:25 am  
 Operator : adelardl  
 Sample : FC7322-9 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jul 02 14:46:57 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	382820	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	266312	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	128613	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	107375	51.58	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	103.16%	
50) 1,2-Dichloroethane-d4	3.849	65	129706	52.49	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	104.98%	
63) Toluene-d8	4.976	98	365327	51.45	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	102.90%	
86) 4-Bromofluorobenzene	6.921	174	90604	48.21	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.42%	

Target Compounds Qvalue

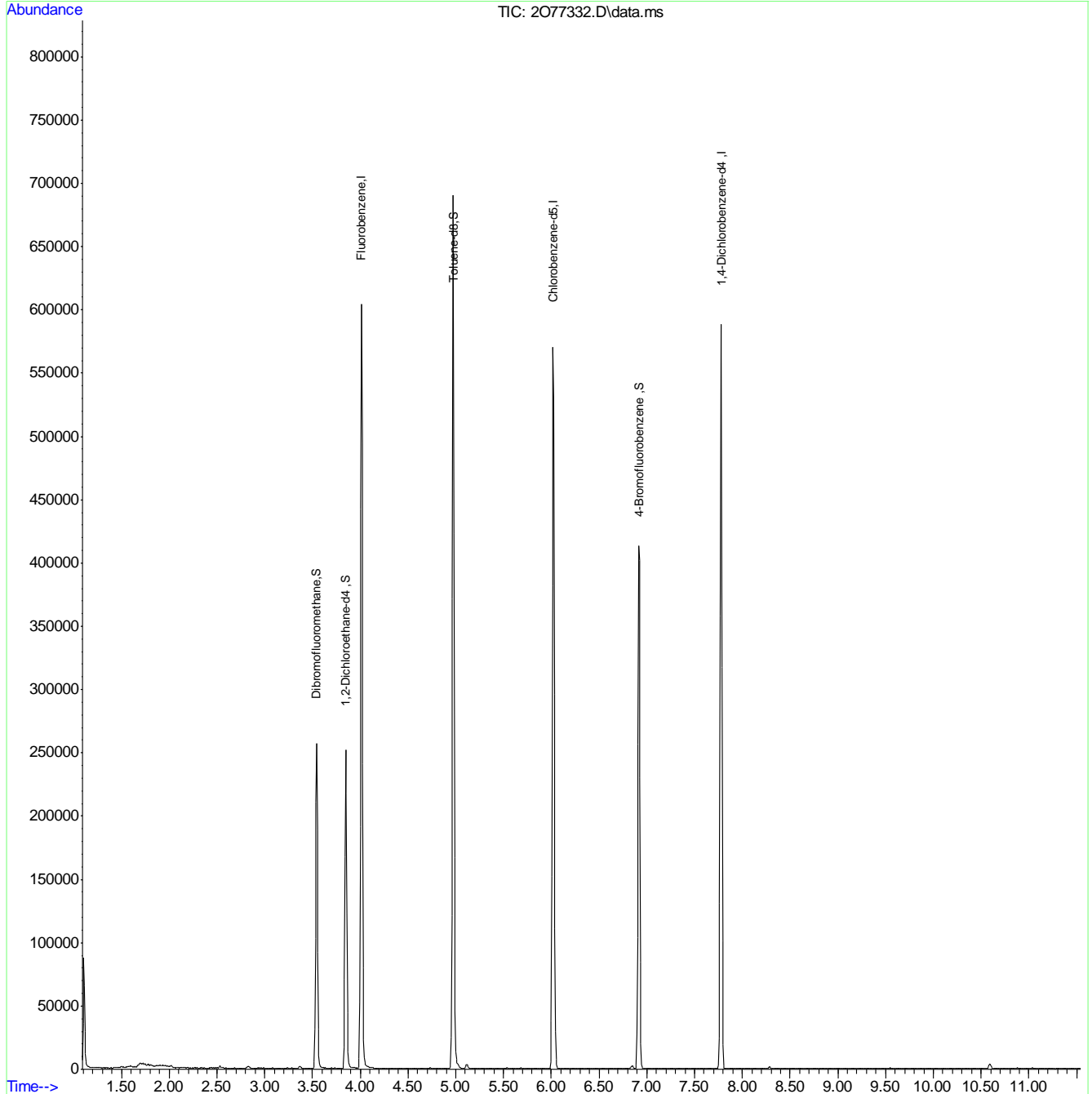
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
Data File : 2077332.D  
Acq On : 30 Jun 2023 11:25 am  
Operator : adelardl  
Sample : FC7322-9  
Misc : MS54337,V203013,,,,,  
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 02 14:46:57 2023  
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration





Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
Data File : I757573.D  
Acq On : 29 Jun 2023 2:11 pm  
Operator : adelardl  
Sample : FC7322-9  
Misc : MS54331,VI2958,,,,,  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 29 14:29:59 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	978482	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	696206	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	388552	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	272933	49.14	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.28%	
49) 1,2-Dichloroethane-d4	7.561	65	259565	51.40	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.80%	
63) Toluene-d8	9.445	98	978036	49.26	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.52%	
86) 4-Bromofluorobenzene	12.225	174	327708	50.09	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.18%	
Target Compounds						
6) Bromomethane	3.233	94	3618	2.45	ug/L	96
15) Iodomethane	4.464	142	818	0.33	ug/L	67
18) Methylene Chloride	4.976	49	2063	0.38	ug/L	89
19) Acetone	5.049	43	1704	0.65	ug/L	96
36) Chloroform	6.811	83	1613	0.21	ug/L	88
-----						

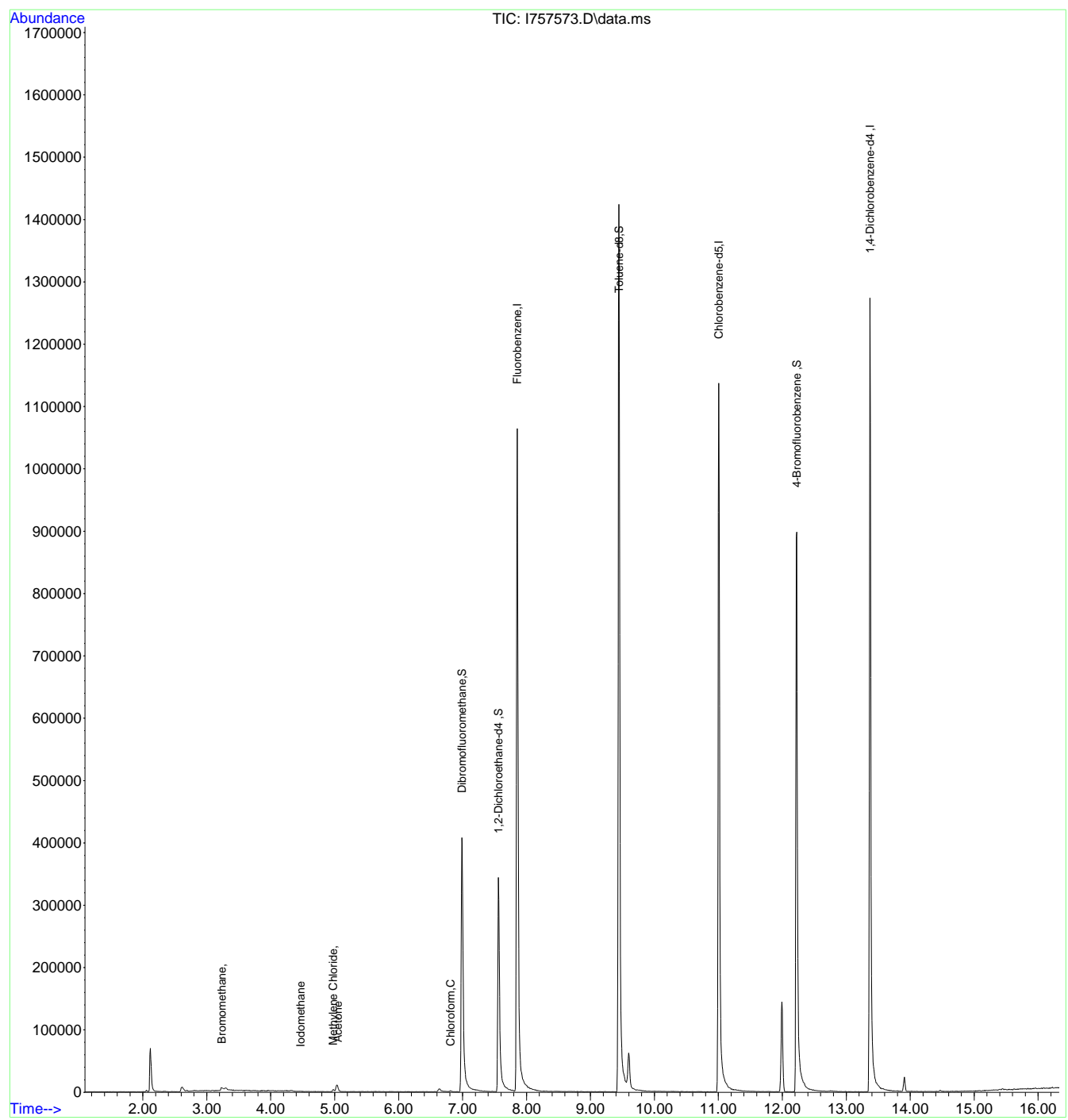
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.19  
7

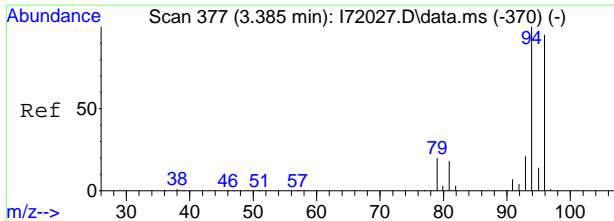
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
Data File : I757573.D  
Acq On : 29 Jun 2023 2:11 pm  
Operator : adelardl  
Sample : FC7322-9  
Misc : MS54331,VI2958,,,,,  
ALS Vial : 8 Sample Multiplier: 1

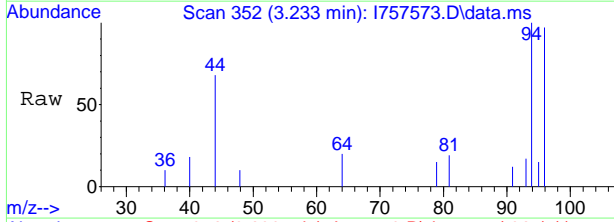
Quant Time: Jun 29 14:29:59 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration



6.1.7

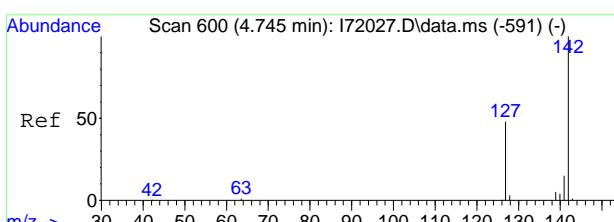
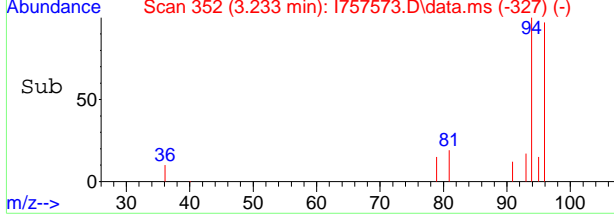
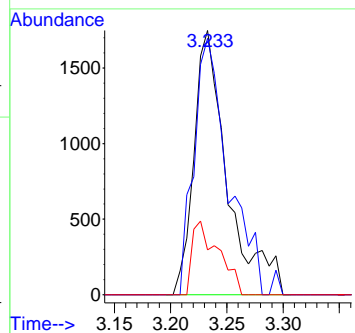


#6  
 Bromomethane  
 Concen: 2.45 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757573.D  
 Acq: 29 Jun 2023 2:11 pm

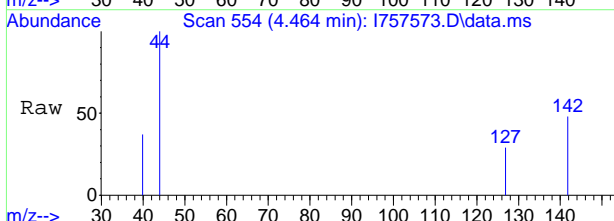


Tgt Ion: 94 Resp: 3618

Ion	Ratio	Lower	Upper
94	100		
96	97.0	63.7	123.7
93	17.0	0.0	50.9

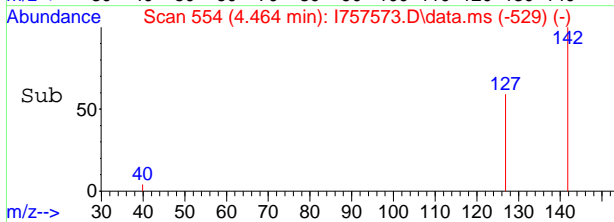
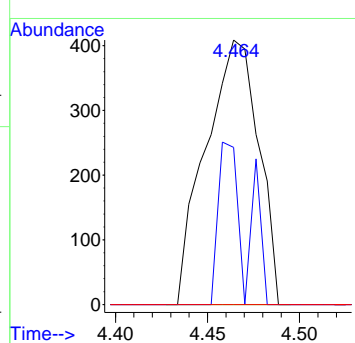


#15  
 Iodomethane  
 Concen: 0.33 ug/L  
 RT: 4.464 min Scan# 554  
 Delta R.T. 0.000 min  
 Lab File: I757573.D  
 Acq: 29 Jun 2023 2:11 pm

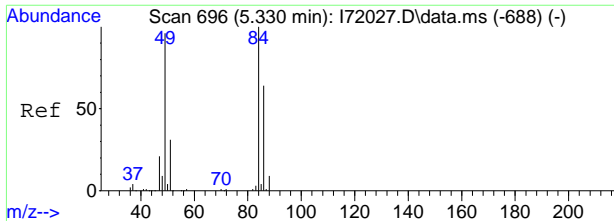


Tgt Ion: 142 Resp: 818

Ion	Ratio	Lower	Upper
142	100		
127	59.4	9.6	69.6
141	0.0	0.0	43.4

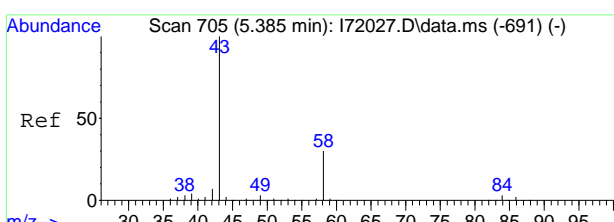
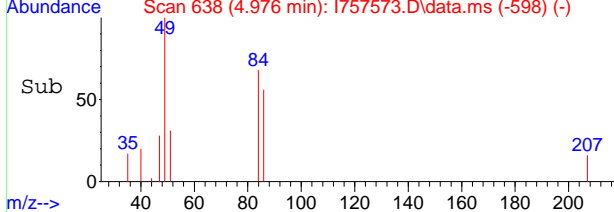
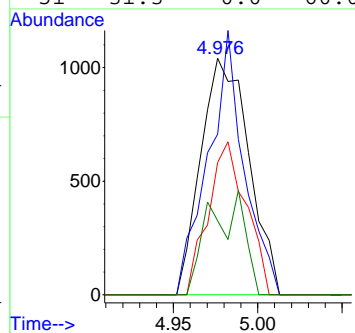
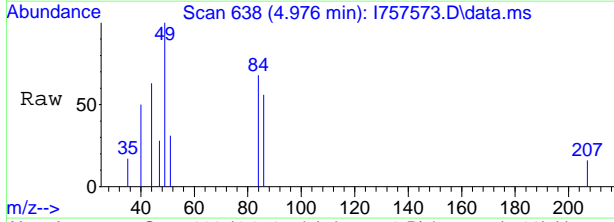


7.19  
7



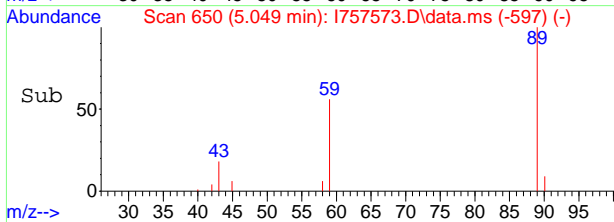
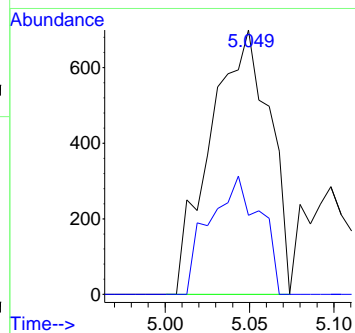
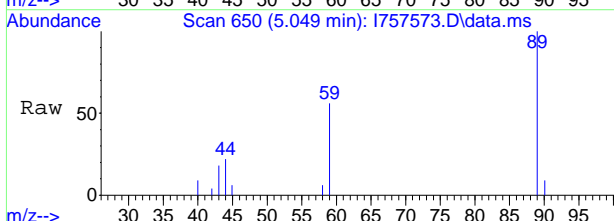
#18  
 Methylene Chloride  
 Concen: 0.38 ug/L  
 RT: 4.976 min Scan# 638  
 Delta R.T. -0.006 min  
 Lab File: I757573.D  
 Acq: 29 Jun 2023 2:11 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	67.9	51.5	111.5
86	56.0	19.4	79.4
51	31.3	0.0	60.0



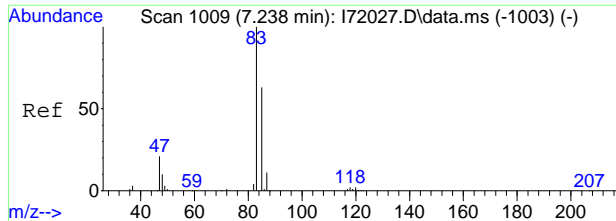
#19  
 Acetone  
 Concen: 0.65 ug/L  
 RT: 5.049 min Scan# 650  
 Delta R.T. 0.024 min  
 Lab File: I757573.D  
 Acq: 29 Jun 2023 2:11 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	29.9	2.3	62.3



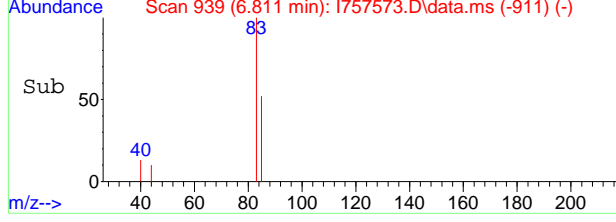
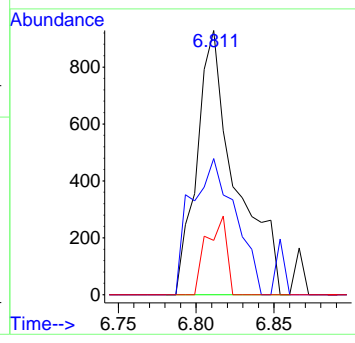
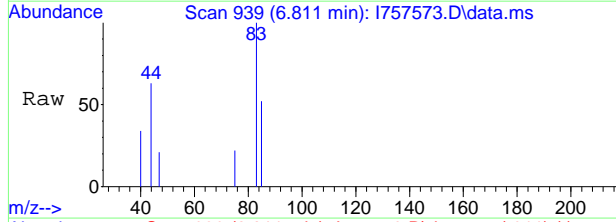
7.19  
7





#36  
 Chloroform  
 Concen: 0.21 ug/L  
 RT: 6.811 min Scan# 939  
 Delta R.T. 0.018 min  
 Lab File: I757573.D  
 Acq: 29 Jun 2023 2:11 pm

Tgt Ion	Ratio	Lower	Upper
83	100		
85	51.6	33.6	93.6
47	20.6	0.0	52.5



7.1.9  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757583.d  
 Acq On : 29 Jun 2023 6:11 pm  
 Operator : adelardl  
 Sample : FC7322-10 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,10  
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:52:52 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	952671	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	666130	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	374375	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.994	113	267019	49.38	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.76%		
49) 1,2-Dichloroethane-d4	7.561	65	248957	50.63	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	101.26%		
63) Toluene-d8	9.445	98	934075	49.17	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.34%		
86) 4-Bromofluorobenzene	12.225	174	311758	49.46	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.92%		
Target Compounds							
							Qvalue
4) Vinyl Chloride	2.763	62	1677	0.39	ug/L		87
6) Bromomethane	3.233	94	2050	1.43	ug/L		88
18) Methylene Chloride	4.976	49	39537	7.42	ug/L		96
19) Acetone	5.031	43	20707	8.08	ug/L		94
21) trans-1,2-Dichloroethene	5.208	61	1419	0.26	ug/L		83
25) Acetonitrile	5.592	41	5298	4.59	ug/L		95
32) cis-1,2-Dichloroethene	6.500	96	209464	48.95	ug/L		97
53) Trichloroethene	8.043	95	413728	99.46	ug/L		95
-----							

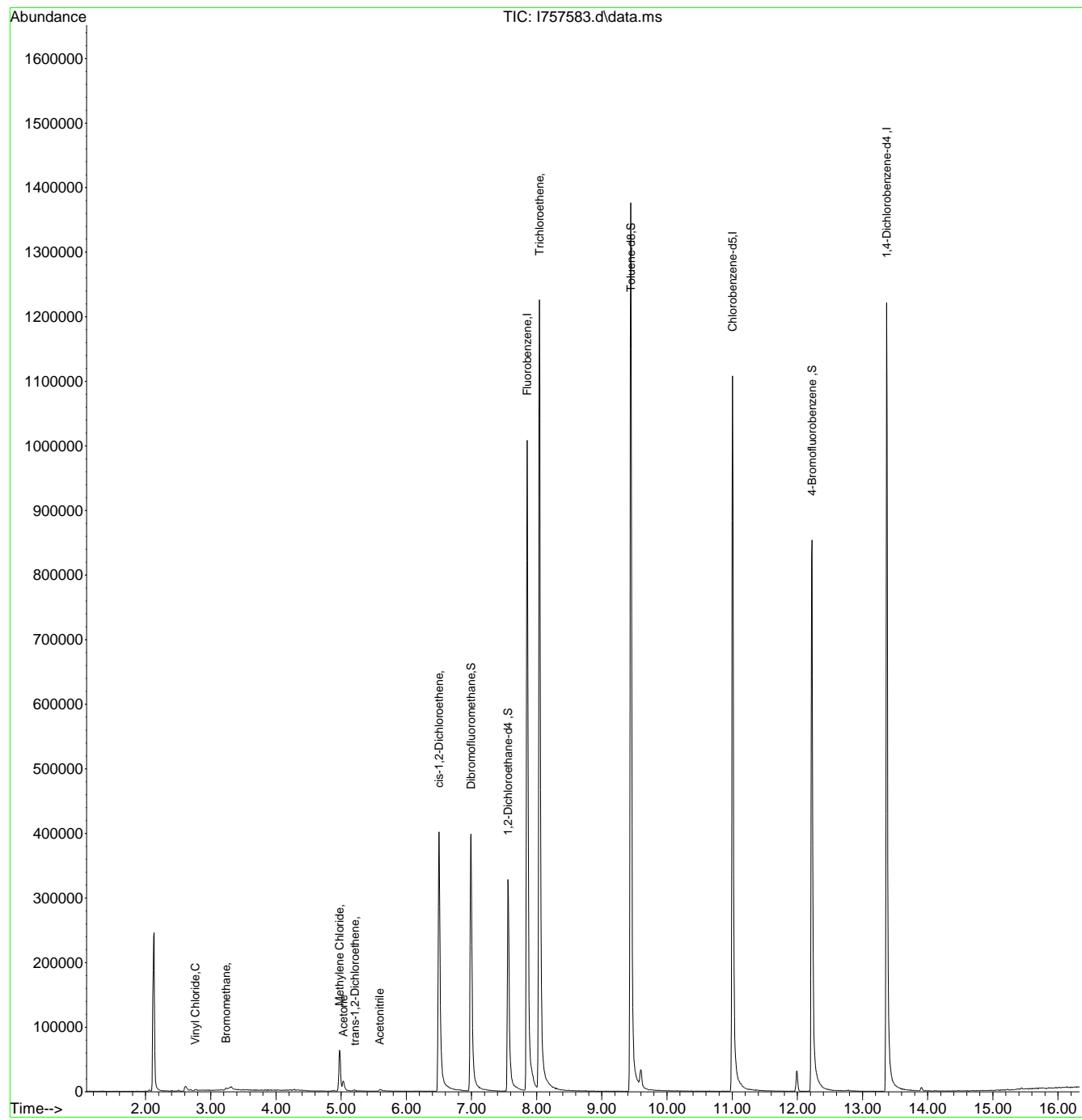
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

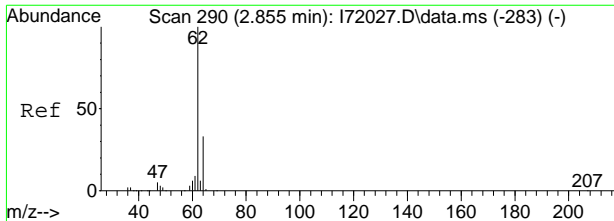
Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
Data File : I757583.d  
Acq On : 29 Jun 2023 6:11 pm  
Operator : adelardl  
Sample : FC7322-10 Inst : MSVOA16  
Misc : MS54331,VI2958,,,,,10  
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jun 30 00:52:52 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration



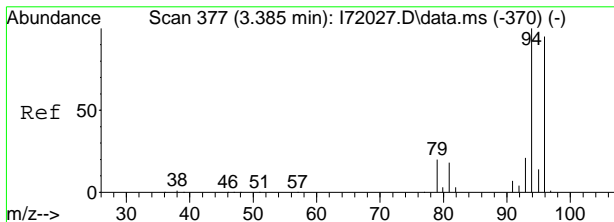
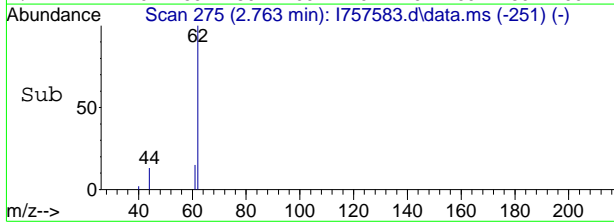
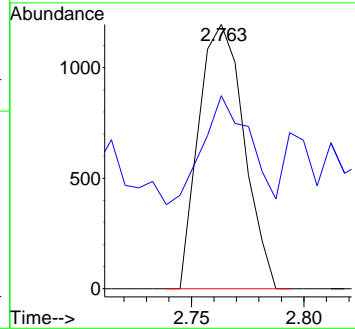
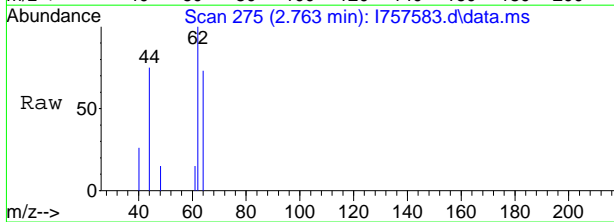
7.1.10  
7





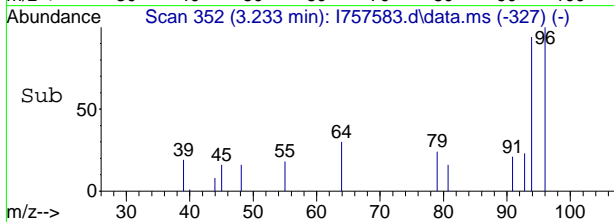
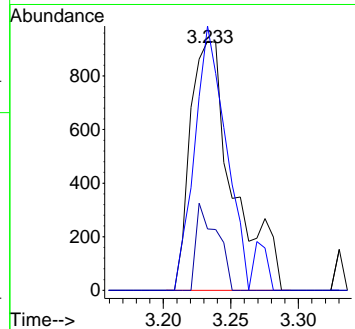
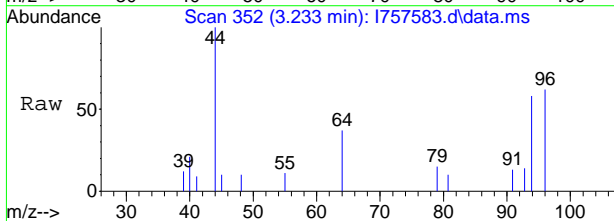
#4  
 Vinyl Chloride  
 Concen: 0.39 ug/L  
 RT: 2.763 min Scan# 275  
 Delta R.T. -0.006 min  
 Lab File: I757583.d  
 Acq: 29 Jun 2023 6:11 pm

Tgt Ion	Resp	Lower	Upper
62	1677		
64	41.2	3.6	63.6

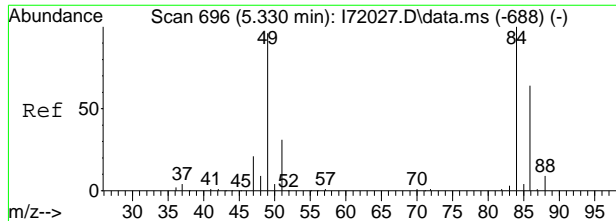


#6  
 Bromomethane  
 Concen: 1.43 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757583.d  
 Acq: 29 Jun 2023 6:11 pm

Tgt Ion	Resp	Lower	Upper
94	2050		
96	106.1	63.7	123.7
93	24.6	0.0	50.9

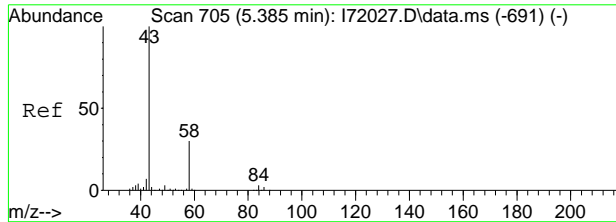
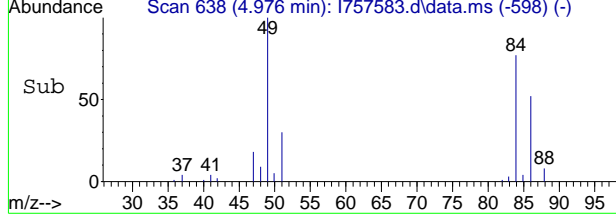
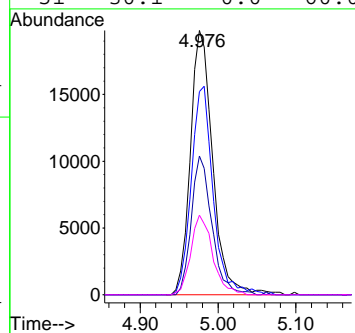
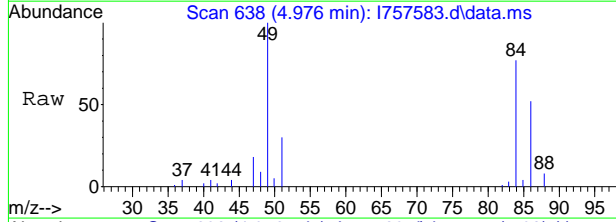


7.1.10  
7



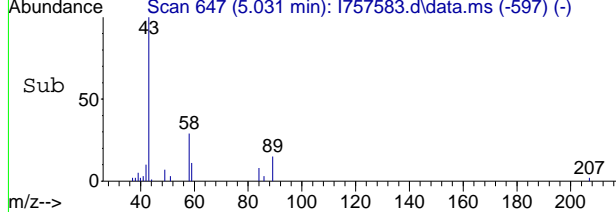
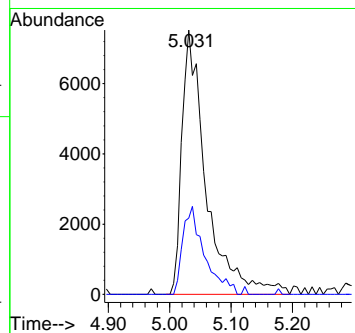
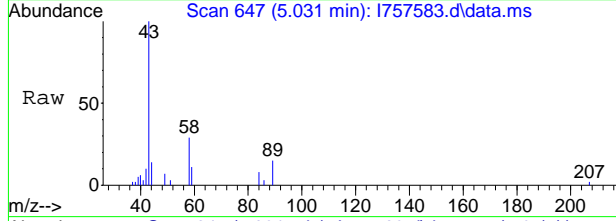
#18  
 Methylene Chloride  
 Concen: 7.42 ug/L  
 RT: 4.976 min Scan# 638  
 Delta R.T. -0.006 min  
 Lab File: I757583.d  
 Acq: 29 Jun 2023 6:11 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	76.8	51.5	111.5
86	52.5	19.4	79.4
51	30.1	0.0	60.0



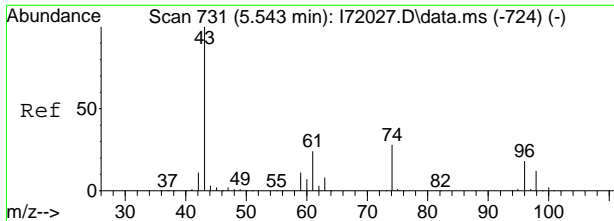
#19  
 Acetone  
 Concen: 8.08 ug/L  
 RT: 5.031 min Scan# 647  
 Delta R.T. 0.006 min  
 Lab File: I757583.d  
 Acq: 29 Jun 2023 6:11 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	28.9	2.3	62.3

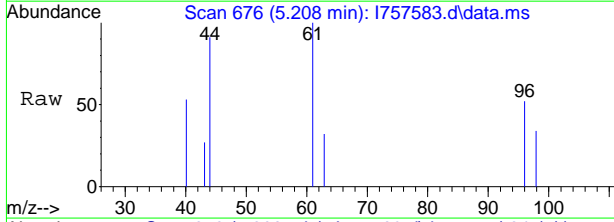


7.1.10  
7



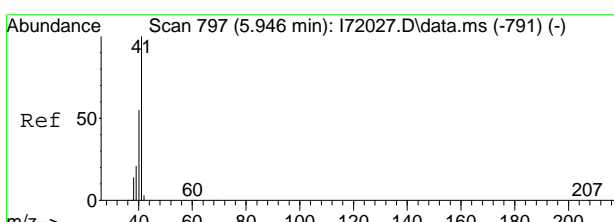
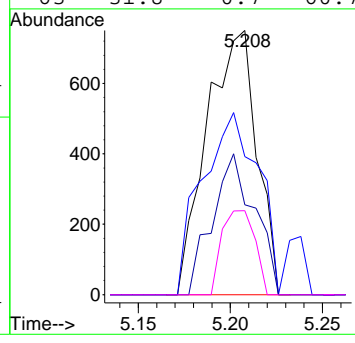
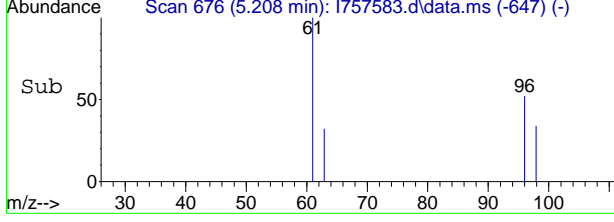


#21  
 trans-1,2-Dichloroethene  
 Concen: 0.26 ug/L  
 RT: 5.208 min Scan# 676  
 Delta R.T. 0.024 min  
 Lab File: I757583.d  
 Acq: 29 Jun 2023 6:11 pm

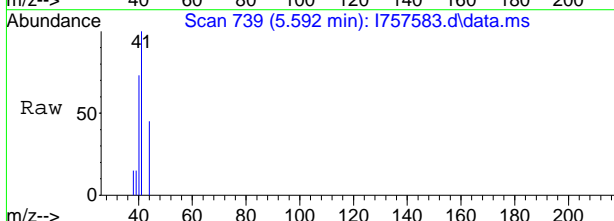


Tgt Ion: 61 Resp: 1419

Ion	Ratio	Lower	Upper
61	100		
96	52.2	41.3	101.3
98	34.0	15.3	75.3
63	31.8	0.7	60.7

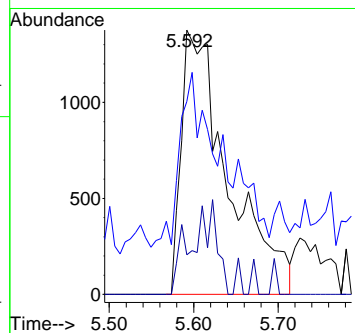
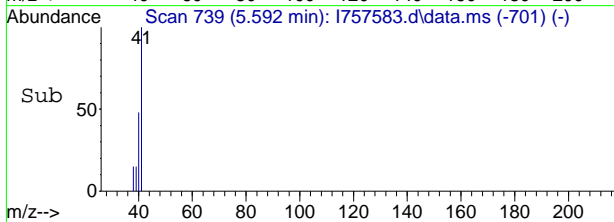


#25  
 Acetonitrile  
 Concen: 4.59 ug/L  
 RT: 5.592 min Scan# 739  
 Delta R.T. 0.030 min  
 Lab File: I757583.d  
 Acq: 29 Jun 2023 6:11 pm

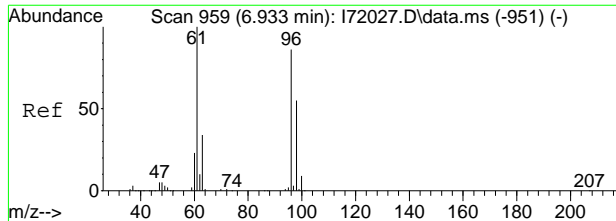


Tgt Ion: 41 Resp: 5298

Ion	Ratio	Lower	Upper
41	100		
40	49.7	22.1	82.1
39	15.0	0.0	48.9

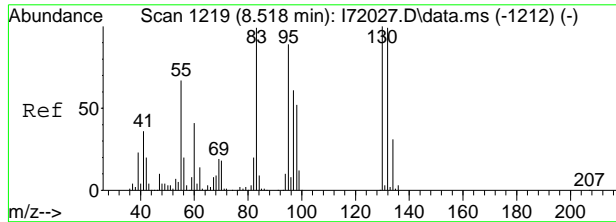
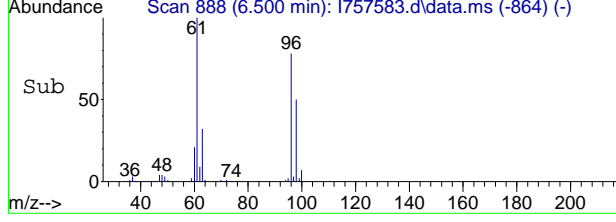
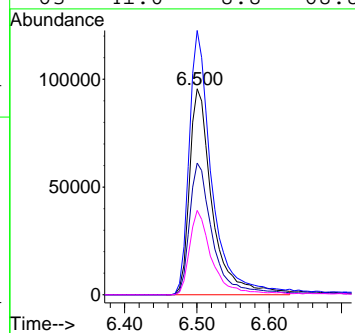
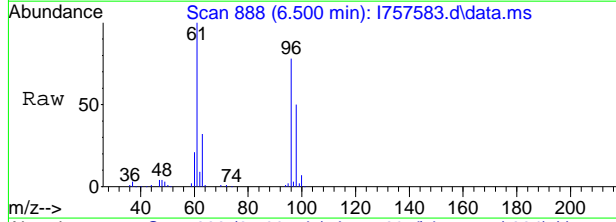


7.1.10  
7



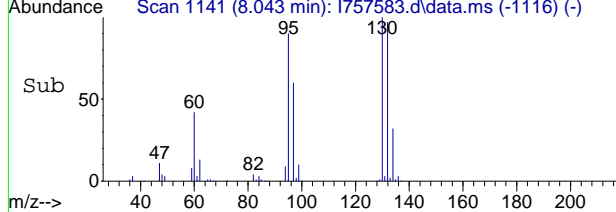
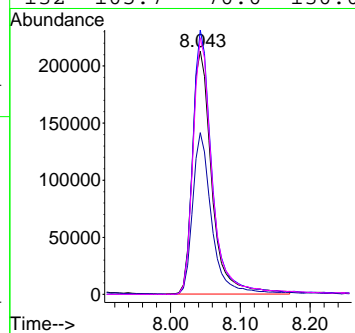
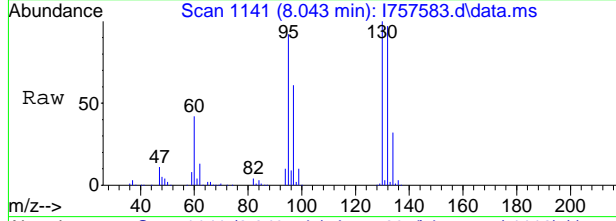
#32  
 cis-1,2-Dichloroethene  
 Concen: 48.95 ug/L  
 RT: 6.500 min Scan# 888  
 Delta R.T. -0.007 min  
 Lab File: I757583.d  
 Acq: 29 Jun 2023 6:11 pm

Tgt Ion	Resp	Lower	Upper
96	209464		
96	100		
61	128.3	92.6	152.6
98	64.0	33.8	93.8
63	41.0	8.8	68.8



#53  
 Trichloroethene  
 Concen: 99.46 ug/L  
 RT: 8.043 min Scan# 1141  
 Delta R.T. -0.000 min  
 Lab File: I757583.d  
 Acq: 29 Jun 2023 6:11 pm

Tgt Ion	Resp	Lower	Upper
95	413728		
95	100		
130	108.9	75.2	135.2
97	66.6	32.6	92.6
132	105.7	70.0	130.0



7.1.10  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757571.D  
 Acq On : 29 Jun 2023 1:22 pm  
 Operator : adelardl  
 Sample : MB  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 29 13:48:17 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	968159	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	695663	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	391168	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	271630	49.43	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.86%	
49) 1,2-Dichloroethane-d4	7.561	65	253963	50.83	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	101.66%	
63) Toluene-d8	9.445	98	971434	48.97	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.94%	
86) 4-Bromofluorobenzene	12.225	174	325173	49.37	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.74%	
Target Compounds						
6) Bromomethane	3.233	94	5771	3.95	ug/L	95
15) Iodomethane	4.464	142	2928	1.21	ug/L	92
18) Methylene Chloride	4.982	49	3336	0.61	ug/L	92
19) Acetone	5.037	43	10859	4.17	ug/L	76
74) 3,3-dimethyl-1-butanol	10.628	57	3713	3.21	ug/L #	84
109) Hexachlorobutadiene	15.151	225	749	0.30	ug/L #	64
-----						

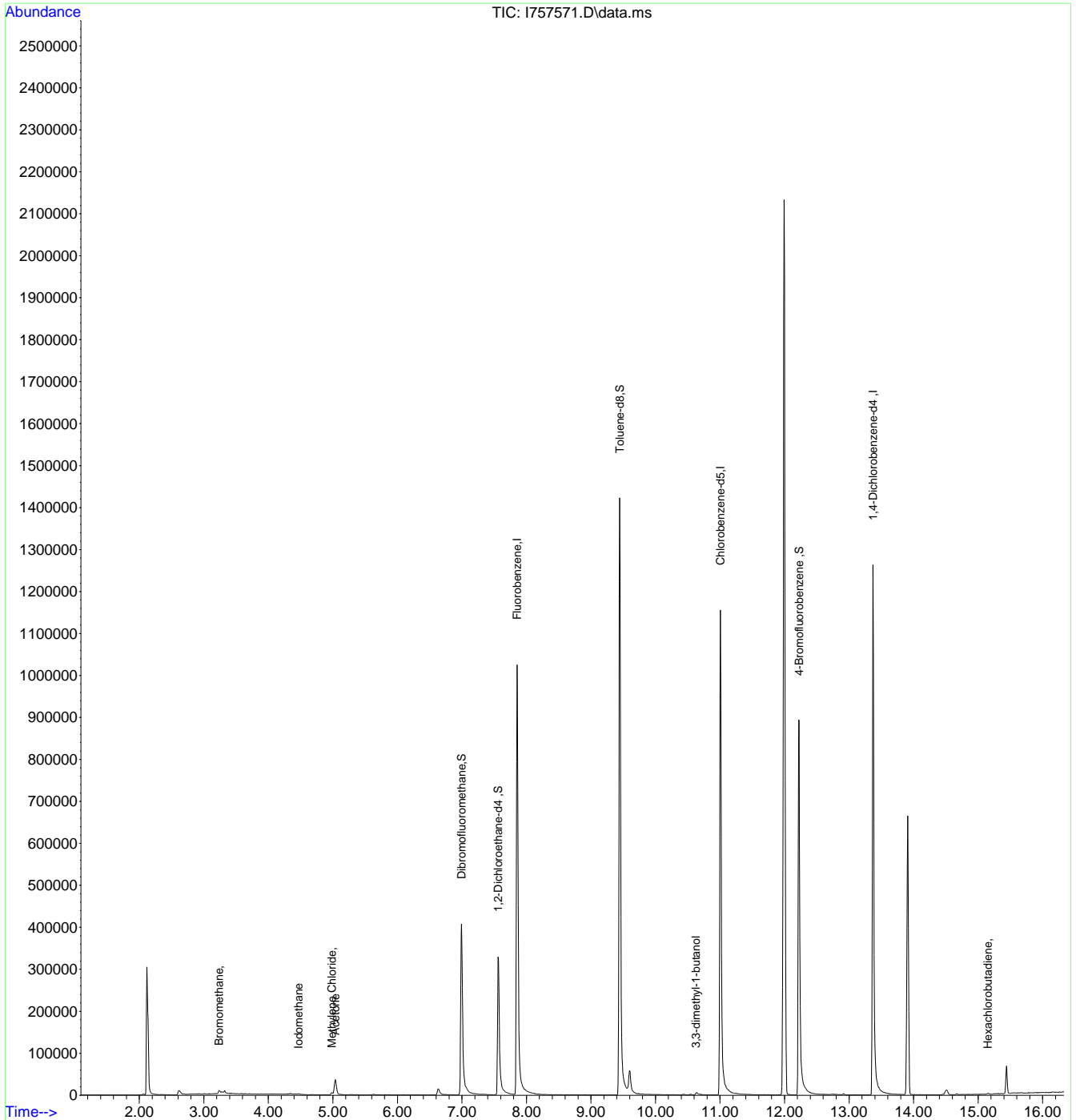
(#) = qualifier out of range (m) = manual integration (+) = signals summed



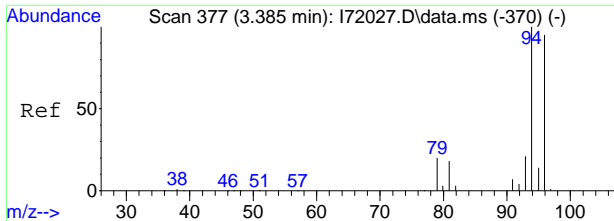
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757571.D  
 Acq On : 29 Jun 2023 1:22 pm  
 Operator : adelardl  
 Sample : MB  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 29 13:48:17 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

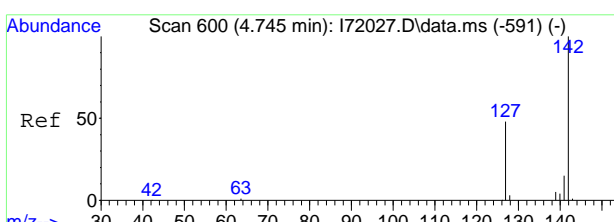
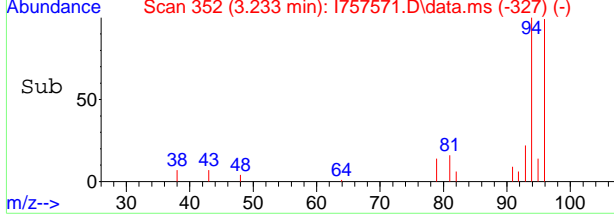
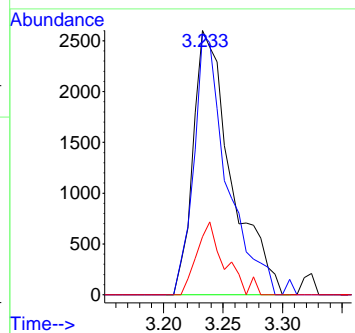
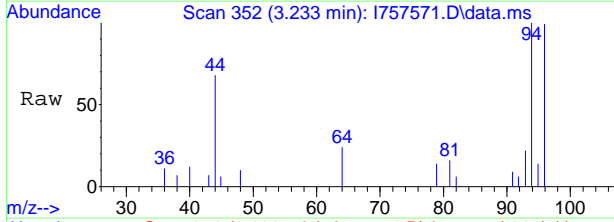


7.2.1  
7



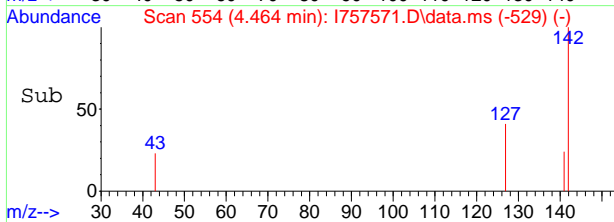
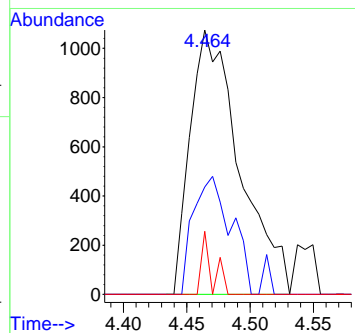
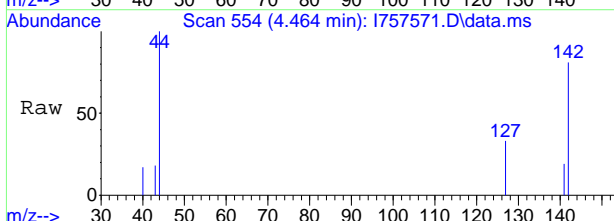
#6  
 Bromomethane  
 Concen: 3.95 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757571.D  
 Acq: 29 Jun 2023 1:22 pm

Tgt Ion	Resp	Lower	Upper
94	5771		
96	98.7	63.7	123.7
93	21.9	0.0	50.9

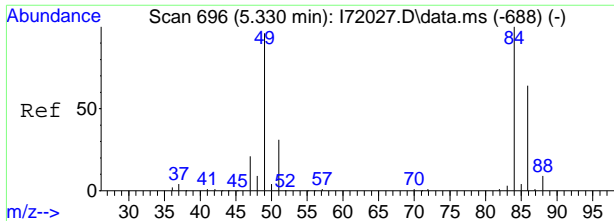


#15  
 Iodomethane  
 Concen: 1.21 ug/L  
 RT: 4.464 min Scan# 554  
 Delta R.T. 0.000 min  
 Lab File: I757571.D  
 Acq: 29 Jun 2023 1:22 pm

Tgt Ion	Resp	Lower	Upper
142	2928		
127	40.7	9.6	69.6
141	23.9	0.0	43.4

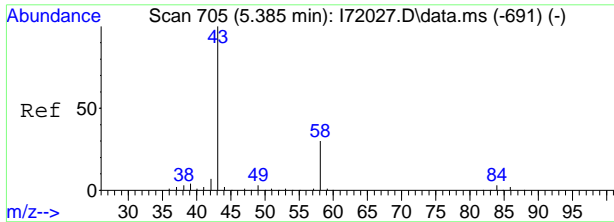
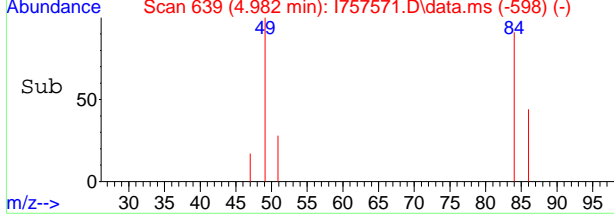
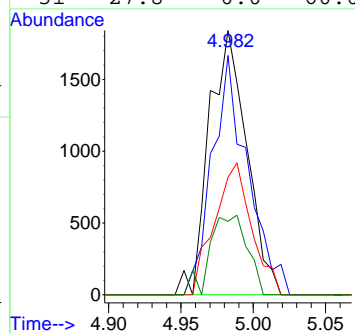
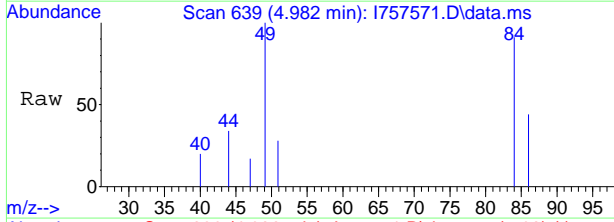


7.2.1  
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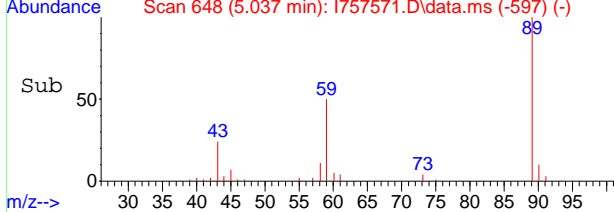
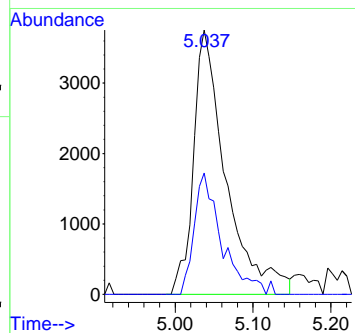
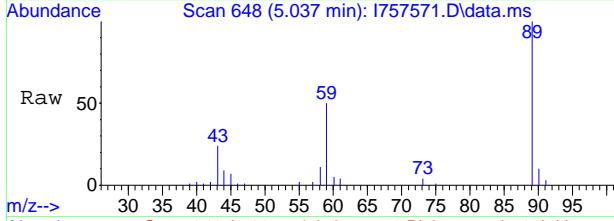
#18  
 Methylene Chloride  
 Concen: 0.61 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757571.D  
 Acq: 29 Jun 2023 1:22 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	90.6	51.5	111.5
86	44.5	19.4	79.4
51	27.8	0.0	60.0



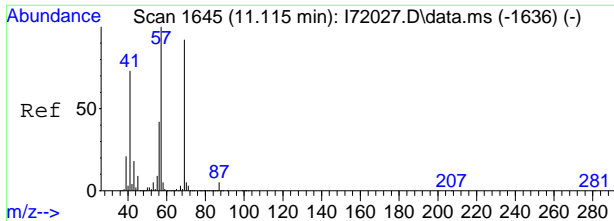
#19  
 Acetone  
 Concen: 4.17 ug/L  
 RT: 5.037 min Scan# 648  
 Delta R.T. 0.012 min  
 Lab File: I757571.D  
 Acq: 29 Jun 2023 1:22 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	45.9	2.3	62.3

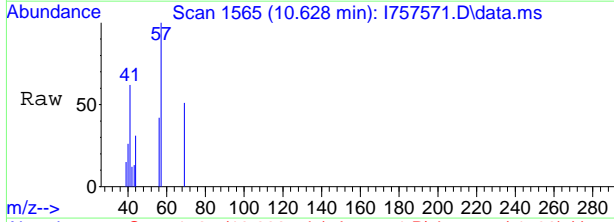


7.2.1  
7



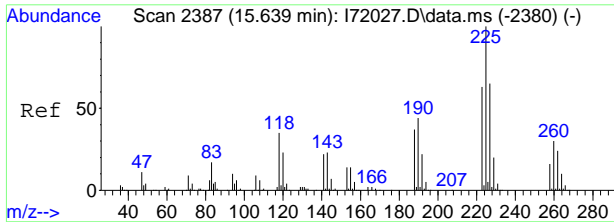
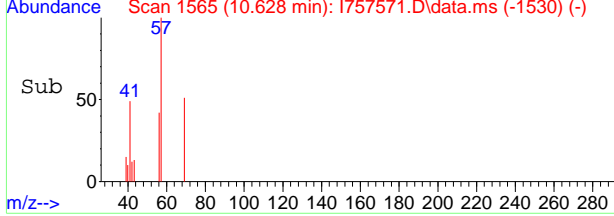
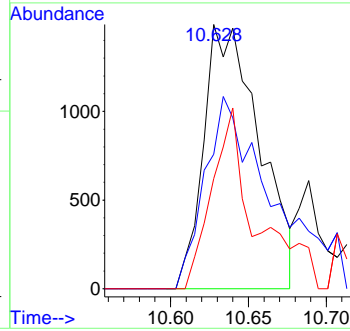


#74  
 3,3-dimethyl-1-butanol  
 Concen: 3.21 ug/L  
 RT: 10.628 min Scan# 1565  
 Delta R.T. 0.013 min  
 Lab File: I757571.D  
 Acq: 29 Jun 2023 1:22 pm

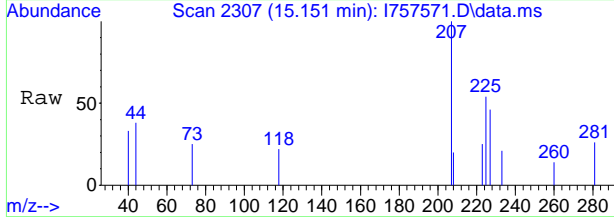


Tgt Ion: 57 Resp: 3713

Ion	Ratio	Lower	Upper
57	100		
69	50.8	51.2	91.2#
56	41.6	23.2	63.2

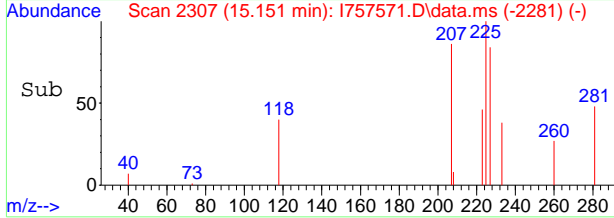
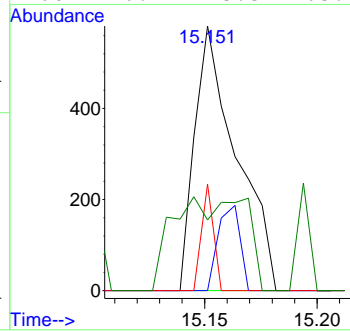


#109  
 Hexachlorobutadiene  
 Concen: 0.30 ug/L  
 RT: 15.151 min Scan# 2307  
 Delta R.T. 0.006 min  
 Lab File: I757571.D  
 Acq: 29 Jun 2023 1:22 pm



Tgt Ion: 225 Resp: 749

Ion	Ratio	Lower	Upper
225	100		
190	0.0	9.9	69.9#
118	40.3	0.0	59.1
260	26.7	5.3	65.3



7.2.1  
7

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077330.D  
 Acq On : 30 Jun 2023 10:33 am  
 Operator : adelardl  
 Sample : MB Inst : MSVOA12  
 Misc : MS54313,V203014,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 02 07:16:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	387235	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	272143	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	135540	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	107952	51.26	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	102.52%		
50) 1,2-Dichloroethane-d4	3.854	65	122971	49.19	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery =	98.38%		
63) Toluene-d8	4.976	98	373315	51.45	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery =	102.90%		
86) 4-Bromofluorobenzene	6.921	174	110708	55.90	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	111.80%		
Target Compounds						
14) Carbon Disulfide	2.202	76	524	0.12	ug/L #	1
18) Methylene Chloride	2.538	49	1523	0.70	ug/L	88
19) Acetone	2.556	43	7896	8.84	ug/L	89
20) Methyl acetate	2.556	43	7896	3.74	ug/L #	64
25) Acetonitrile	2.830	41	2970	8.53	ug/L	85
33) 2,2-Dichloropropane	3.373	77	243	0.12	ug/L #	53
53) Trichloroethene	4.013	95	33741	16.51	ug/L #	21
74) 3,3-dimethyl-1-butanol	5.775	57	344	1.17	ug/L #	18
77) Ethylbenzene	6.019	91	484	0.06	ug/L #	1
80) m,p-Xylene	6.019	91	484	0.08	ug/L #	36
88) n-Propylbenzene	6.921	91	437	0.05	ug/L	53
112) Naphthalene	9.372	128	324	0.04	ug/L	68

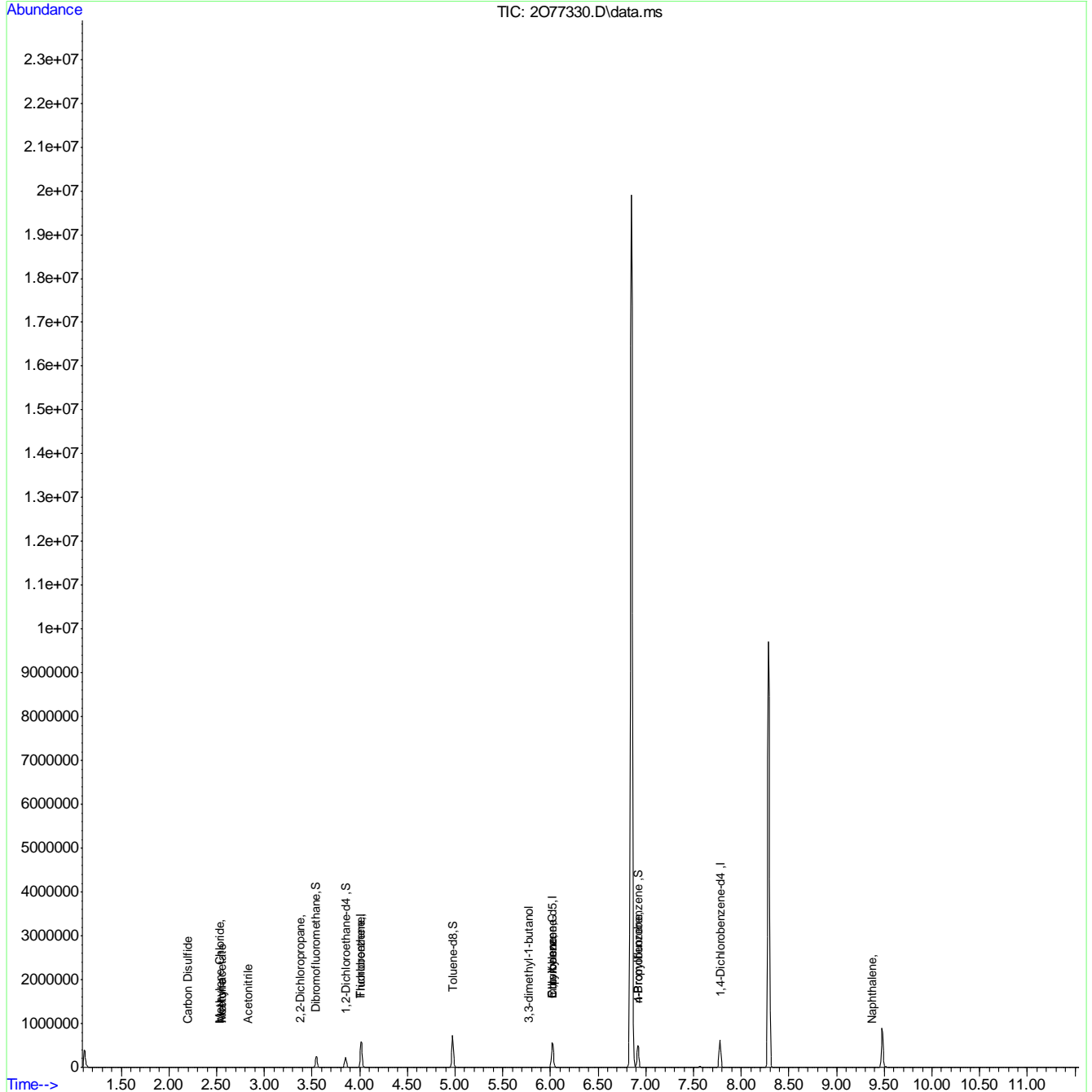
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.22  
7

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077330.D  
 Acq On : 30 Jun 2023 10:33 am  
 Operator : adelardl  
 Sample : MB Inst : MSVOA12  
 Misc : MS54313,V203014,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 02 07:16:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7.22  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757570.D  
 Acq On : 29 Jun 2023 12:58 pm  
 Operator : adelardl  
 Sample : BS  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 29 13:15:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	991842	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	690989	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	422900	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	290559	51.61	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery =	103.22%			
49) 1,2-Dichloroethane-d4	7.561	65	275643	53.85	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery =	107.70%			
63) Toluene-d8	9.445	98	1018842	51.71	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery =	103.42%			
86) 4-Bromofluorobenzene	12.219	174	352611	49.52	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery =	99.04%			
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	115245	26.44	ug/L		98
3) Chloromethane	2.641	50	112386	25.06	ug/L		97
4) Vinyl Chloride	2.763	62	107294	24.23	ug/L		100
5) 1,3-Butadiene	2.800	39	81075	21.26	ug/L		94
6) Bromomethane	3.233	94	59765	39.42	ug/L		97
7) Chloroethane	3.391	64	59320	31.95	ug/L		98
8) Trichlorofluoromethane	3.605	101	157283	26.84	ug/L		99
9) Ethyl Ether	4.013	59	76829	25.05	ug/L		97
10) 1,2-Dichlorotrifluoro...	4.245	67	112413	27.56	ug/L		97
11) 1,1-Dichloroethene	4.275	61	131872	24.50	ug/L		99
12) Ethanol	4.202	45	61508	401.16	ug/L		97
13) Freon 113	4.318	101	93366	27.92	ug/L		94
14) Carbon Disulfide	4.330	76	244233	22.09	ug/L		97
15) Iodomethane	4.458	142	54877	21.26	ug/L		94
16) Acrolein	4.677	56	159507	113.58	ug/L		95
17) Allyl chloride	4.854	41	120883	23.29	ug/L		98
18) Methylene Chloride	4.976	49	142873	26.11	ug/L		96
19) Acetone	5.025	43	296518	111.10	ug/L		99
20) Methyl acetate	5.165	43	636066	113.71	ug/L		99
21) trans-1,2-Dichloroethene	5.183	61	134127	23.75	ug/L		99
22) Hexane	5.275	56	69556	25.12	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	285979	23.97	ug/L		79
24) Tert butyl alcohol	5.385	59	369507	226.37	ug/L		98
25) Acetonitrile	5.561	41	249848	218.18	ug/L		100
26) Di-isopropyl ether	5.726	45	287440	23.03	ug/L		97
27) Chloroprene	5.872	53	108455	20.37	ug/L		98
28) 1,1-Dichloroethane	5.885	63	175326	23.65	ug/L		97
29) Acrylonitrile	5.921	53	338357	124.43	ug/L		99
30) ETBE	6.135	59	288049	23.98	ug/L		99
31) Vinyl acetate	6.141	43	1013818	128.55	ug/L		99
32) cis-1,2-Dichloroethene	6.506	96	104896	23.55	ug/L		96
33) 2,2-Dichloropropane	6.616	77	132949	23.53	ug/L		97
34) Bromochloromethane	6.732	128	55031	23.94	ug/L		95
35) Cyclohexane	6.756	56	148950	25.85	ug/L		98
36) Chloroform	6.793	83	190033	24.58	ug/L		99
37) Ethyl acetate	6.884	43	828211	128.02	ug/L		100
38) Tetrahydrofuran	6.982	42	68463	22.20	ug/L		95
40) Carbon Tetrachloride	6.976	117	138645	25.53	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	157570	24.63	ug/L		96
42) 2-Butanone	7.104	43	451714	112.52	ug/L		98
43) 1,1-Dichloropropene	7.171	75	129572	25.66	ug/L		99
44) tert-Butyl Formate	7.256	59	459434	148.12	ug/L		95



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757570.D  
 Acq On : 29 Jun 2023 12:58 pm  
 Operator : adelardl  
 Sample : BS  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 29 13:15:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	302538	222.00	ug/L	99
46) Methacrylonitrile	7.439	41	895517	224.12	ug/L	100
47) Benzene	7.433	78	374822	24.21	ug/L	100
48) TAME	7.524	73	267789	23.03	ug/L	97
50) Isobutyl alcohol	7.585	42	151966	421.04	ug/L	97
51) 1,2-Dichloroethane	7.640	62	132392	24.62	ug/L	97
52) Tert Amyl Alcohol	7.695	59	300615	224.38	ug/L	96
53) Trichloroethene	8.049	95	104699	24.18	ug/L	99
54) Methylcyclohexane	8.049	83	130193	25.04	ug/L	96
55) Dibromomethane	8.482	93	69261	25.05	ug/L	94
56) 1,2-Dichloropropane	8.567	63	99483	24.93	ug/L	98
57) Bromodichloromethane	8.628	83	130274	23.68	ug/L	99
58) Methyl methacrylate	8.744	41	92354	21.45	ug/L	96
59) 1,4-Dioxane	8.817	88	42325	340.97	ug/L	96
60) 2-Chloroethyl vinyl ether	9.158	63	255299	105.15	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	149745	24.15	ug/L	96
64) Toluene	9.500	91	400366	25.39	ug/L	96
65) 2-Nitropropane	9.695	41	203146	137.43	ug/L	94
66) 4-Methyl-2-pentanone	9.829	43	838389	122.68	ug/L	100
67) trans-1,3-Dichloropropene	9.902	75	124614	23.54	ug/L	90
68) Tetrachloroethene	9.908	166	128005	26.83	ug/L	96
69) Ethyl methacrylate	10.012	69	130567	25.94	ug/L	99
70) 1,1,2-Trichloroethane	10.054	83	81813	25.44	ug/L	97
71) Dibromochloromethane	10.256	129	120099	27.00	ug/L	99
72) 1,3-Dichloropropane	10.335	76	156919	28.00	ug/L	98
73) 1,2-Dibromoethane	10.518	107	109122	26.30	ug/L	100
74) 3,3-dimethyl-1-butanol	10.609	57	1608682	1316.36	ug/L	99
75) 2-hexanone	10.652	43	680351	124.15	ug/L	99
76) 1-Chlorohexane	10.963	91	109081	24.45	ug/L	97
77) Ethylbenzene	11.024	91	428506	25.17	ug/L	99
78) Chlorobenzene	11.024	112	267187	25.65	ug/L	98
79) 1,1,1,2-Tetrachloroethane	11.073	131	104050	25.81	ug/L	97
80) m,p-Xylene	11.164	91	653148	51.11	ug/L	99
81) o-Xylene	11.603	91	327086	23.80	ug/L	100
82) Styrene	11.658	104	246425	25.58	ug/L	98
83) Bromoform	11.713	173	96910	25.85	ug/L	99
84) Isopropylbenzene	11.908	105	402000	24.86	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.261	53	35708	23.54	ug/L	87
88) n-Propylbenzene	12.335	91	460595	24.74	ug/L	98
89) Bromobenzene	12.347	156	128918	27.01	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.389	83	168712	25.93	ug/L	97
91) 1,3,5-Trimethylbenzene	12.517	105	337041	25.26	ug/L	99
92) 2-Chlorotoluene	12.517	91	319808	25.18	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.572	53	32804	19.59	ug/L	88
94) 1,2,3-Trimethylpropane	12.548	110	57299	28.48	ug/L	92
95) Cyclohexanone	12.609	55	67076	149.17	ug/L	97
96) 4-Chlorotoluene	12.682	91	283596	24.81	ug/L	99
97) tert-Butylbenzene	12.853	91	174755	24.64	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	332849	25.33	ug/L	99
99) Pentachloroethane	12.901	167	70830	24.28	ug/L	98
100) sec-Butylbenzene	13.036	105	371119	24.81	ug/L	99
101) 4-Isopropyltoluene	13.170	119	325115	24.46	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	210024	25.53	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	343810	24.97	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	221995	25.11	ug/L	99
105) n-Butylbenzene	13.615	92	169877	26.00	ug/L #	83
106) Benzyl Chloride	13.627	126	47073	20.72	ug/L #	74
107) 1,2-Dichlorobenzene	13.828	146	210044	26.06	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757570.D  
 Acq On : 29 Jun 2023 12:58 pm  
 Operator : adelardl  
 Sample : BS  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 29 13:15:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

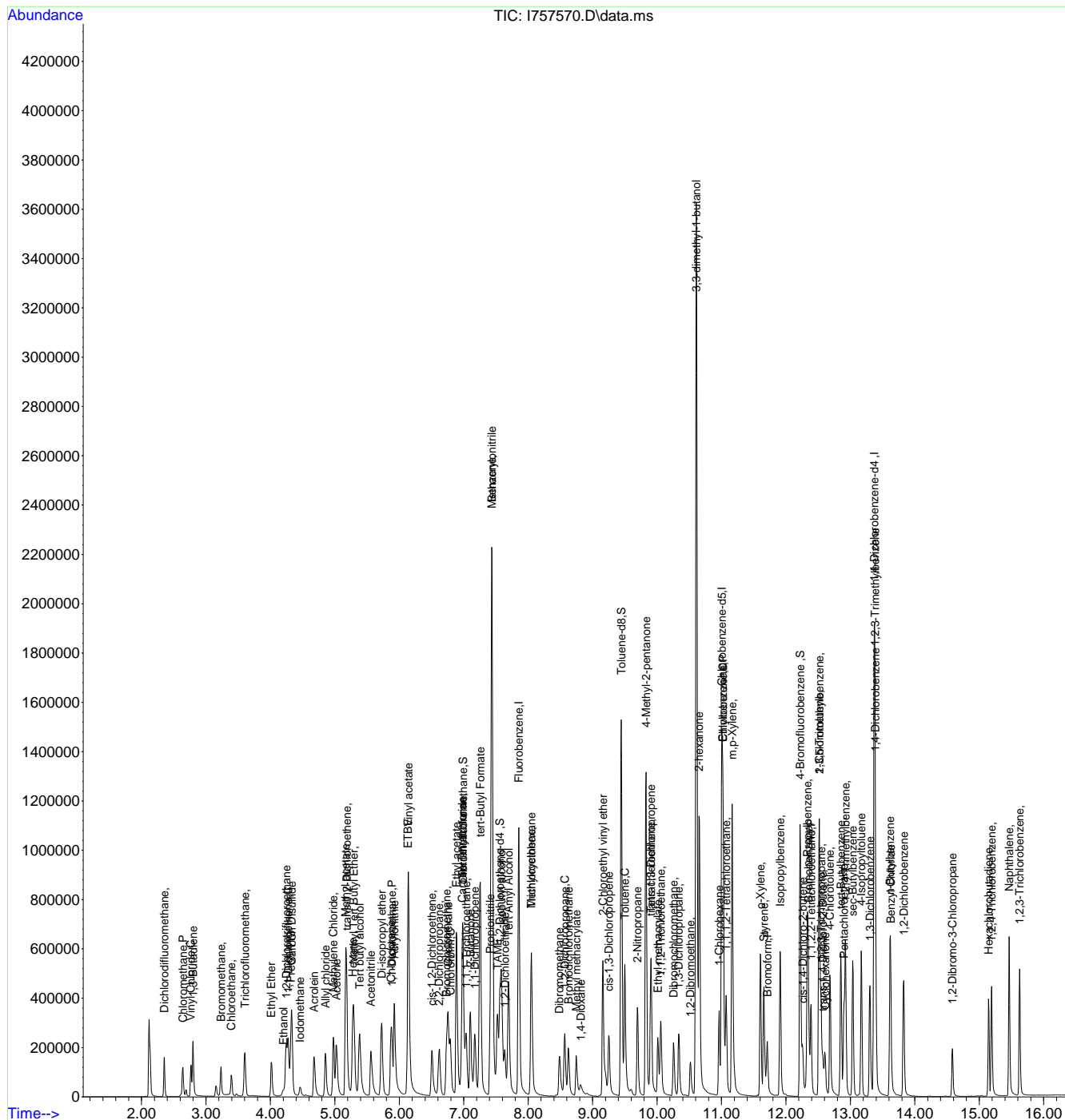
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	42115	25.61	ug/L	90
109) Hexachlorobutadiene	15.145	225	69833	25.57	ug/L	98
110) 1,2,4-Trichlorobenzene	15.194	180	146356	24.58	ug/L	96
111) Naphthalene	15.462	128	445226	23.90	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	149800	25.22	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757570.D  
 Acq On : 29 Jun 2023 12:58 pm  
 Operator : adelardl  
 Sample : BS  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 29 13:15:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.3.1  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077328.D  
 Acq On : 30 Jun 2023 9:42 am  
 Operator : adelardl  
 Sample : BS Inst : MSVOA12  
 Misc : MS54313,V203014,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 30 09:54:54 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	435133	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	318173	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.775	152	160910	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	116637	49.29	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.58%	
50) 1,2-Dichloroethane-d4	3.848	65	137281	48.87	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	97.74%	
63) Toluene-d8	4.976	98	417093	49.17	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.34%	
86) 4-Bromofluorobenzene	6.915	174	112005	47.63	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	95.26%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	55559	34.59	ug/L	95
3) Chloromethane	1.379	50	48393	29.55	ug/L	99
4) 1,3-butadiene	1.446	39	40506	21.60	ug/L	100
5) Vinyl Chloride	1.434	62	48711	28.83	ug/L	97
6) Bromomethane	1.666	94	27325	20.86	ug/L	96
7) Chloroethane	1.751	64	29555	25.09	ug/L	96
8) Trichlorofluoromethane	1.855	101	81666	25.62	ug/L	98
9) Ethyl Ether	2.056	59	38605	25.71	ug/L	99
10) Ethanol	2.154	45	17211	508.27	ug/L	93
11) 1,2-Dichlorotrifluoro...	2.178	67	62389	29.32	ug/L	93
12) 1,1-Dichloroethene	2.178	61	67497	25.25	ug/L	99
13) Freon 113	2.209	101	55709	29.66	ug/L	98
14) Carbon Disulfide	2.202	76	145806	29.32	ug/L	96
15) Iodomethane	2.269	142	36434	22.20	ug/L	98
16) Acrolein	2.385	56	69596	143.33	ug/L	99
17) Allyl chloride	2.471	41	57187	29.35	ug/L	95
18) Methylene Chloride	2.532	49	79339	33.00	ug/L	98
19) Acetone	2.556	43	146224	145.65	ug/L	99
20) Methyl acetate	2.629	43	269455	113.67	ug/L	99
21) trans-1,2-Dichloroethene	2.629	61	68154	25.23	ug/L	98
22) Hexane	2.678	56	38583	28.09	ug/L	97
23) Methyl Tert Butyl Ether	2.690	73	131923	24.28	ug/L	98
24) Tert Butyl Alcohol	2.739	59	78985	234.83	ug/L	96
25) Acetonitrile	2.830	41	103024	263.32	ug/L	99
26) Di-isopropyl ether	2.910	45	128569	24.05	ug/L	98
27) Chloroprene	2.971	53	56189	21.16	ug/L	97
28) 1,1-Dichloroethane	2.983	63	87709	24.99	ug/L	99
29) Acrylonitrile	3.007	52	114026	117.64	ug/L	99
30) ETBE	3.117	59	129505	25.47	ug/L	100
31) Vinyl acetate	3.117	43	508964	133.59	ug/L	98
32) cis-1,2-Dichloroethene	3.288	96	52549	22.85	ug/L	98
33) 2,2-Dichloropropane	3.355	77	69108	29.46	ug/L	98
34) Bromochloromethane	3.403	128	27612	24.67	ug/L	98
35) Cyclohexane	3.410	56	70666	26.38	ug/L	93

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077328.D  
 Acq On : 30 Jun 2023 9:42 am  
 Operator : adelardl  
 Sample : BS Inst : MSVOA12  
 Misc : MS54313,V203014,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 30 09:54:54 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	99255	25.03	ug/L	98
37) Ethyl acetate	3.501	43	338326	118.64	ug/L	99
38) Tetrahydrofuran	3.531	42	23934	23.42	ug/L	95
40) Carbon Tetrachloride	3.531	117	68965	26.99	ug/L	95
41) 1,1,1-Trichloroethane	3.568	97	78704	25.16	ug/L	97
42) 2-Butanone	3.611	43	188288	121.32	ug/L	100
43) 1,1-Dichloropropene	3.635	75	69774	26.60	ug/L	96
44) tert-Butyl formate	3.690	59	136481	195.18	ug/L	96
45) Propionitrile	3.781	54	120617	250.89	ug/L	97
46) Methacrylonitrile	3.794	41	432882	258.94	ug/L	95
47) Benzene	3.775	78	207334	26.19	ug/L	89
48) TAME	3.836	73	120069	24.90	ug/L	96
49) Isobutyl alcohol	3.873	43	69765m	489.58	ug/L	
51) 1,2-Dichloroethane	3.891	62	73853	22.67	ug/L	97
52) Tert Amyl Alcohol	3.934	59	61143	239.11	ug/L	96
53) Trichloroethene	4.117	95	55616	24.21	ug/L	97
54) Methylcyclohexane	4.117	83	71688	25.42	ug/L	98
55) Dibromomethane	4.367	93	36609	23.40	ug/L	98
56) 1,2-Dichloropropane	4.428	63	49880	26.33	ug/L	99
57) Bromodichloromethane	4.458	83	65475	24.68	ug/L	98
58) Methyl methacrylate	4.543	41	42957	21.36	ug/L	94
59) 1,4-Dioxane	4.580	88	16086	433.15	ug/L	92
60) 2-Chloroethyl vinyl ether	4.806	63	187901	121.29	ug/L	99
61) cis-1,3-Dichloropropene	4.854	75	75825	26.44	ug/L	95
64) Toluene	5.007	91	211926	24.93	ug/L	98
65) 2-Nitropropane	5.147	41	72852	121.90	ug/L	95
66) 4-Methyl-2-pentanone	5.238	43	326656	123.66	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	71365	24.87	ug/L	92
68) Tetrachloroethene	5.263	166	54876	24.84	ug/L	98
69) Ethyl methacrylate	5.366	69	59318	24.16	ug/L	92
70) 1,1,2-Trichloroethane	5.379	83	43314	24.25	ug/L	97
71) Dibromochloromethane	5.501	129	52239	26.01	ug/L	97
72) 1,3-Dichloropropane	5.568	76	86676	25.43	ug/L	96
73) 1,2-Dibromoethane	5.671	107	53385	22.94	ug/L	99
74) 3,3-dimethyl-1-butanol	5.781	57	464947	1273.76	ug/L	97
75) 2-hexanone	5.805	43	341968	128.26	ug/L	95
76) 1-Chlorohexane	6.013	91	56242m	21.60	ug/L	
77) Ethylbenzene	6.049	91	234884	25.29	ug/L	98
78) Chlorobenzene	6.031	112	142969	24.19	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.074	131	48683	25.74	ug/L	95
80) m,p-Xylene	6.153	91	360993	49.19	ug/L	99
81) o-Xylene	6.470	91	166004	22.52	ug/L	98
82) Styrene	6.506	104	134752	23.98	ug/L	98
83) Bromoform	6.525	173	30288	24.79	ug/L	96
84) Isopropylbenzene	6.702	105	198494	23.38	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.964	53	14666	23.33	ug/L	99
88) n-Propylbenzene	7.019	91	245726	24.87	ug/L	98
89) Bromobenzene	7.000	156	56544	25.50	ug/L	98
90) 1,1,2,2-Tetrachloroethane	7.067	83	80482	25.10	ug/L	98
91) 1,3,5-Trimethylbenzene	7.171	105	178399	25.26	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077328.D  
 Acq On : 30 Jun 2023 9:42 am  
 Operator : adelardl  
 Sample : BS Inst : MSVOA12  
 Misc : MS54313,V203014,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 30 09:54:54 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	171910	24.84	ug/L	99
93) trans-1,4-Dichloro-2-B...	7.201	53	12617	21.79	ug/L	94
94) 1,2,3-Trichloropropane	7.177	110	26398	25.70	ug/L	97
95) Cyclohexanone	7.208	55	19120	175.13	ug/L	96
96) 4-Chlorotoluene	7.269	91	162884	24.74	ug/L	96
97) tert-Butylbenzene	7.421	91	92687	24.17	ug/L	98
99) 1,2,4-Trimethylbenzene	7.476	105	177593	25.11	ug/L	100
100) Pentachloroethane	7.439	167	26889	26.69	ug/L #	71
101) sec-Butylbenzene	7.561	105	193654	23.91	ug/L	99
102) 4-Isopropyltoluene	7.665	119	166494	24.07	ug/L	98
103) 1,3-Dichlorobenzene	7.720	146	104604	23.75	ug/L	97
104) 1,2,3-Trimethylbenzene	7.805	105	196692	26.17	ug/L	99
105) 1,4-Dichlorobenzene	7.787	146	110738	25.18	ug/L	95
106) n-Butylbenzene	7.982	92	95614	26.98	ug/L	89
107) Benzyl Chloride	7.976	126	21885	29.31	ug/L #	72
108) 1,2-Dichlorobenzene	8.098	146	100146	23.76	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.671	75	16973	26.55	ug/L	87
110) Hexachlorobutadiene	9.134	225	20827	26.30	ug/L	95
111) 1,2,4-Trichlorobenzene	9.146	180	52274	21.71	ug/L	97
112) Naphthalene	9.372	128	182053	20.75	ug/L	99
113) 1,2,3-Trichlorobenzene	9.494	180	50982	21.31	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.32  
7





# Manual Integration Approval Summary

**Sample Number:** V2O3013-BS      **Method:** SW846 8260D  
**Lab FileID:** 2O77328.D      **Analyst approved:** 06/30/23 09:56 Adelard Lefebvre  
**Injection Time:** 06/30/23 09:42      **Supervisor approved:** 07/03/23 12:36 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

7.3.2.1

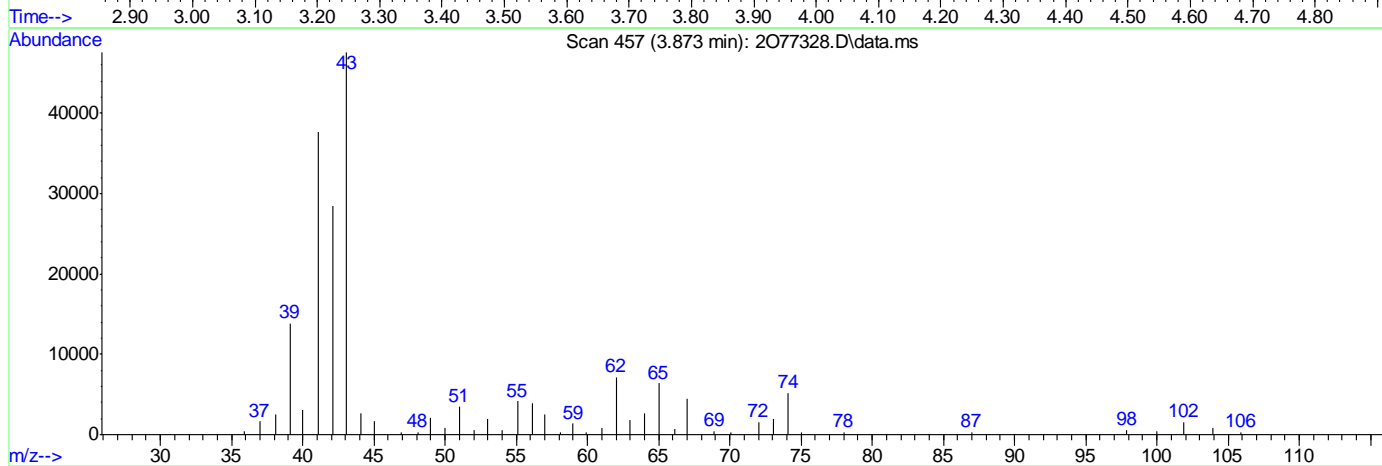
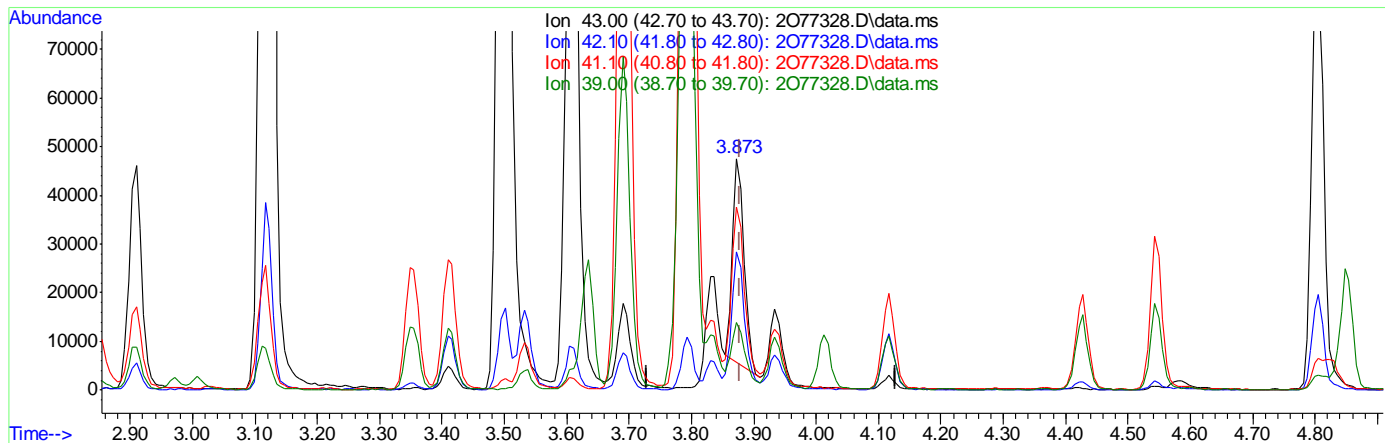
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077328.D  
 Acq On : 30 Jun 2023 9:42 am  
 Operator : adelardl  
 Sample : BS  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 30 09:54:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.873min (-0.006) 380.65ug/L  
 response 53778

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	59.64
41.10	77.50	76.38
39.00	31.30	27.26

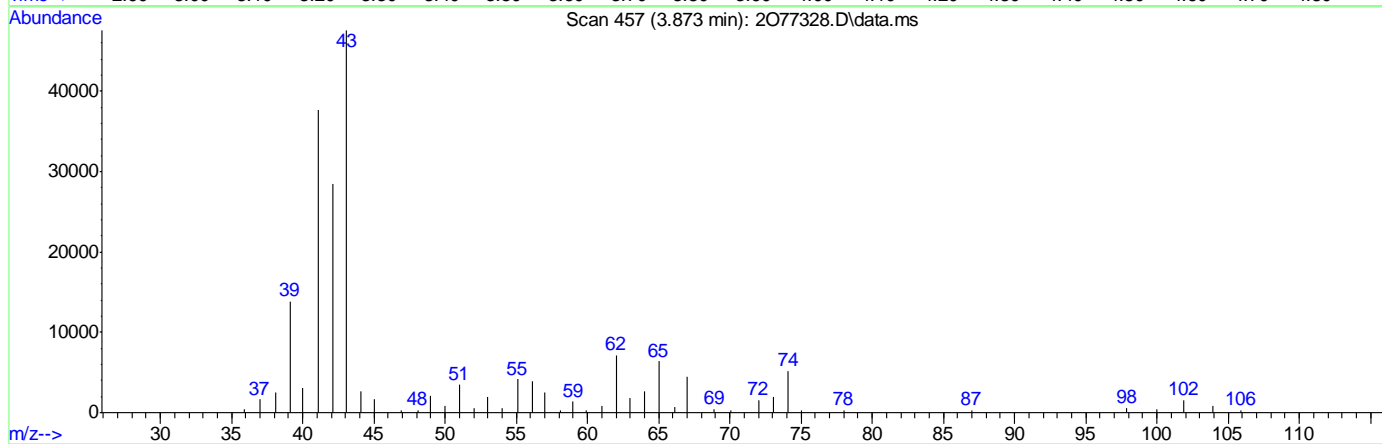
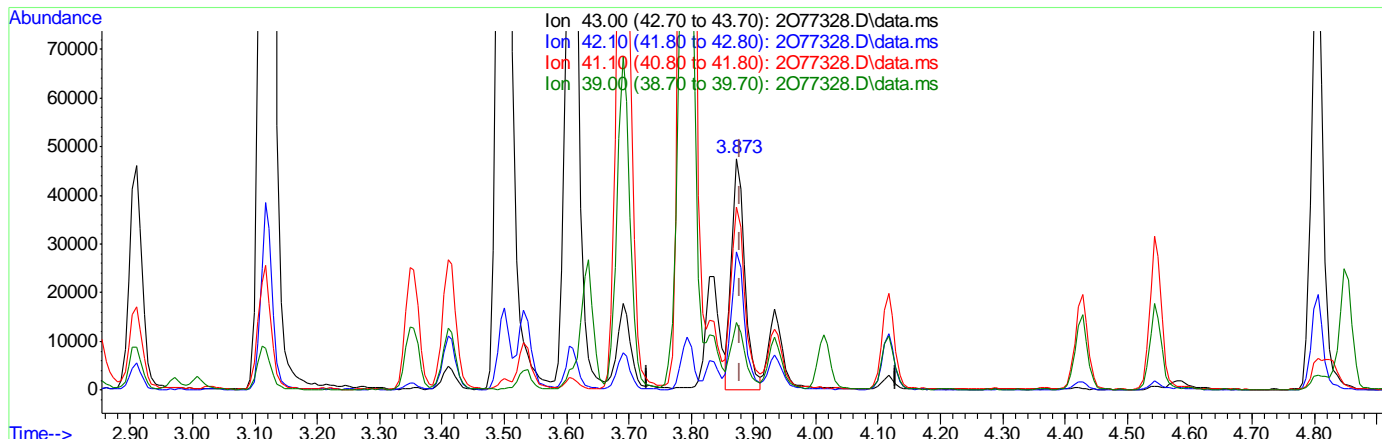
7.3.2.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077328.D  
 Acq On : 30 Jun 2023 9:42 am  
 Operator : adelardl  
 Sample : BS  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 30 09:54:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol

3.873min (-0.006) 489.58ug/L m

response 69765

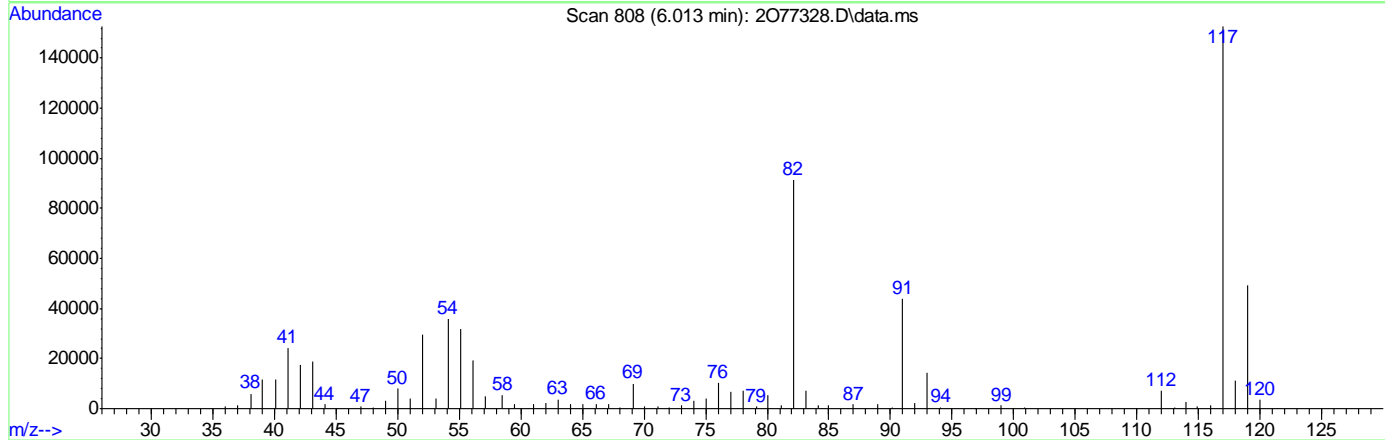
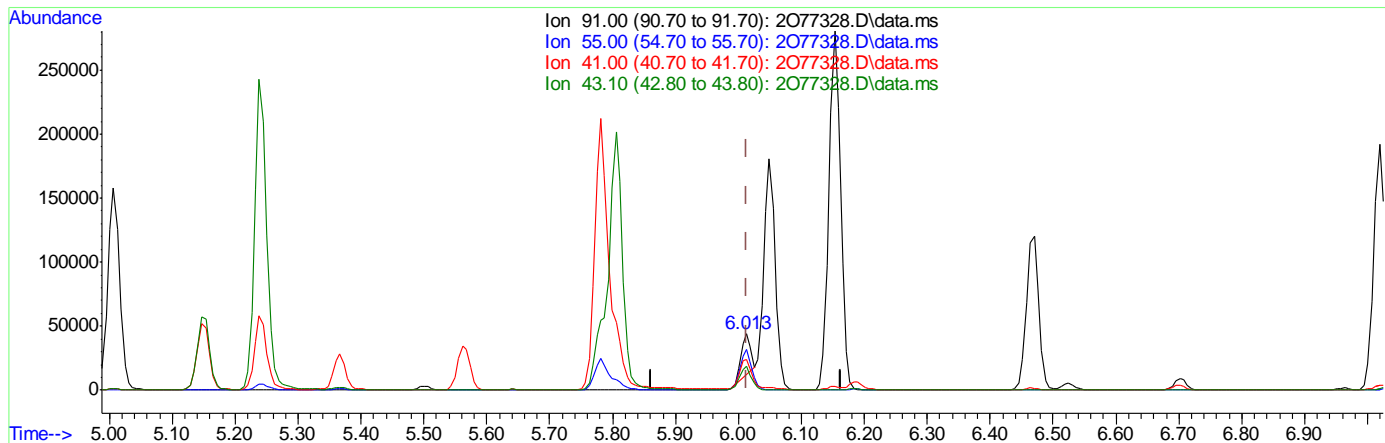
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	59.69
41.10	77.50	79.16
39.00	31.30	29.05

7.3.2.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077328.D  
 Acq On : 30 Jun 2023 9:42 am  
 Operator : adelardl  
 Sample : BS Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 30 09:54:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077328.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 13.88ug/L  
 response 36124

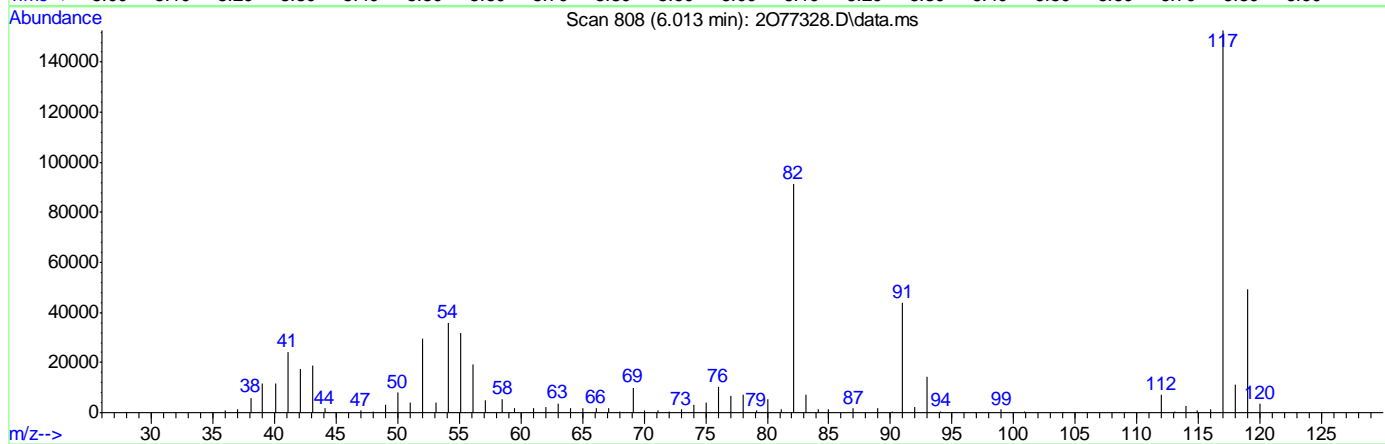
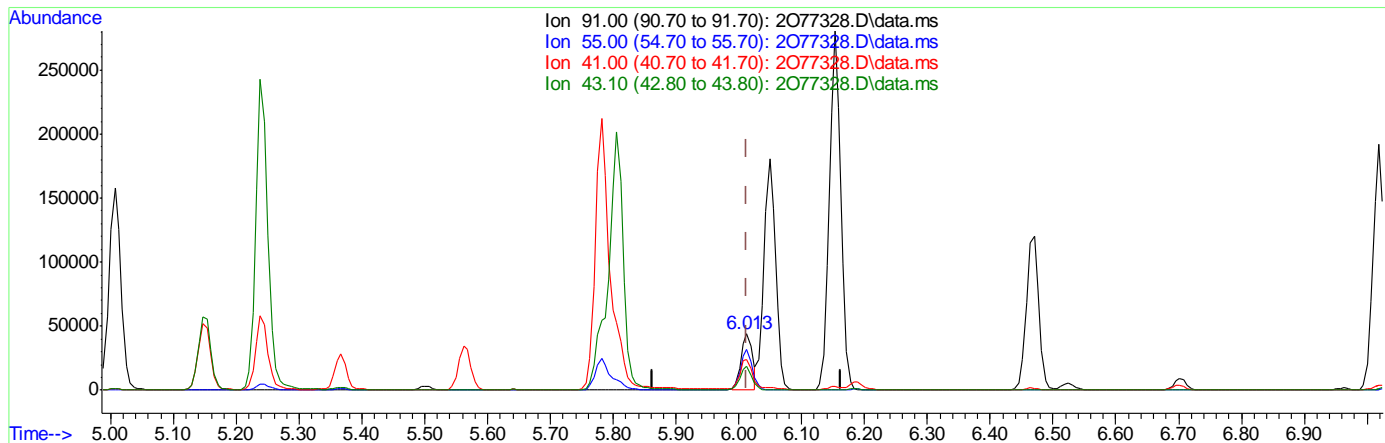
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	71.88
41.00	55.00	53.09
43.10	42.40	41.26

7.3.2.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077328.D  
 Acq On : 30 Jun 2023 9:42 am  
 Operator : adelardl  
 Sample : BS Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 30 09:54:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077328.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 21.60ug/L m  
 response 56242

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.67
41.00	55.00	55.62
43.10	42.40	43.11

7.3.2.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757590.d  
 Acq On : 29 Jun 2023 8:58 pm  
 Operator : adelardl  
 Sample : FC7322-5MS Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,2.5  
 ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:46:56 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.854	96	955767	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	661854	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	405914	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	280090	51.63	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	103.26%	
49) 1,2-Dichloroethane-d4	7.561	65	264081	53.54	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	107.08%	
63) Toluene-d8	9.445	98	973591	51.58	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	103.16%	
86) 4-Bromofluorobenzene	12.219	174	344371	50.39	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.78%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	109152	25.99	ug/L		100
3) Chloromethane	2.641	50	101217	23.42	ug/L		98
4) Vinyl Chloride	2.769	62	119451	28.00	ug/L		98
5) 1,3-Butadiene	2.800	39	92880	25.36	ug/L		96
6) Bromomethane	3.233	94	29733	20.48	ug/L		97
7) Chloroethane	3.397	64	60248	33.68	ug/L		96
8) Trichlorofluoromethane	3.605	101	150598	26.67	ug/L		100
9) Ethyl Ether	4.013	59	74441	25.19	ug/L		97
10) 1,2-Dichlorotrifluoro...	4.245	67	113863	28.96	ug/L		96
11) 1,1-Dichloroethene	4.275	61	136214	26.26	ug/L		99
12) Ethanol	4.196	45	46505	312.71	ug/L		83
13) Freon 113	4.318	101	98572	30.59	ug/L		98
14) Carbon Disulfide	4.330	76	262848	24.67	ug/L		97
15) Iodomethane	4.458	142	65379	26.05	ug/L		97
16) Acrolein	4.678	56	162428	119.81	ug/L		96
17) Allyl chloride	4.854	41	117429	23.48	ug/L		98
18) Methylene Chloride	4.976	49	187783	35.86	ug/L		98
19) Acetone	5.025	43	318932	124.01	ug/L		98
20) Methyl acetate	5.165	43	601643	111.61	ug/L		99
21) trans-1,2-Dichloroethene	5.184	61	143724	26.41	ug/L		98
22) Hexane	5.281	56	73070	27.39	ug/L		97
23) Methyl Tert Butyl Ether	5.299	73	275895	24.00	ug/L		89
24) Tert butyl alcohol	5.379	59	363224	230.92	ug/L		97
25) Acetonitrile	5.562	41	228350	206.37	ug/L		98
26) Di-isopropyl ether	5.726	45	275678	22.93	ug/L		98
27) Chloroprene	5.872	53	110034	21.41	ug/L		97
28) 1,1-Dichloroethane	5.885	63	171484	24.01	ug/L		99
29) Acrylonitrile	5.921	53	308408	117.70	ug/L		99
30) ETBE	6.135	59	281105	24.29	ug/L		98
31) Vinyl acetate	6.141	43	971535	127.87	ug/L		100
32) cis-1,2-Dichloroethene	6.500	96	287444	66.96	ug/L		96
33) 2,2-Dichloropropane	6.622	77	128428	23.59	ug/L		98
34) Bromochloromethane	6.732	128	52154	23.54	ug/L		97
35) Cyclohexane	6.756	56	149022	26.80	ug/L		93
36) Chloroform	6.793	83	184906	24.82	ug/L		99
37) Ethyl acetate	6.891	43	744949	119.82	ug/L		99
38) Tetrahydrofuran	6.982	42	65367	22.00	ug/L		95
40) Carbon Tetrachloride	6.976	117	139872	26.73	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	159644	25.90	ug/L		99
42) 2-Butanone	7.104	43	468766	120.80	ug/L		98
43) 1,1-Dichloropropene	7.171	75	127064	26.12	ug/L		98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757590.d  
 Acq On : 29 Jun 2023 8:58 pm  
 Operator : adelardl  
 Sample : FC7322-5MS Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,2.5  
 ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:46:56 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	239009	79.96	ug/L	90
45) Propionitrile	7.409	54	285857	217.67	ug/L	98
46) Methacrylonitrile	7.439	41	861905	223.85	ug/L	99
47) Benzene	7.433	78	369239	24.75	ug/L	97
48) TAME	7.525	73	256310	22.87	ug/L	95
50) Isobutyl alcohol	7.586	42	134263	386.03	ug/L	97
51) 1,2-Dichloroethane	7.640	62	127178	24.54	ug/L	99
52) Tert Amyl Alcohol	7.695	59	260290	201.61	ug/L	95
53) Trichloroethene	8.043	95	252147	60.42	ug/L	98
54) Methylcyclohexane	8.049	83	135083	26.86	ug/L	96
55) Dibromomethane	8.488	93	65656	24.64	ug/L	97
56) 1,2-Dichloropropane	8.567	63	96208	25.02	ug/L	96
57) Bromodichloromethane	8.628	83	125230	23.63	ug/L	99
58) Methyl methacrylate	8.750	41	86264	20.83	ug/L	95
59) 1,4-Dioxane	8.811	88	29723	250.20	ug/L	96
60) 2-Chloroethyl vinyl ether	9.262	63	637	0.28	ug/L #	61
61) cis-1,3-Dichloropropene	9.262	75	130597	21.86	ug/L	96
64) Toluene	9.500	91	384641	25.47	ug/L	99
65) 2-Nitropropane	9.695	41	193024	136.40	ug/L	94
66) 4-Methyl-2-pentanone	9.829	43	856064	130.79	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	111877	22.12	ug/L	92
68) Tetrachloroethene	9.908	166	123230	26.96	ug/L	97
69) Ethyl methacrylate	10.012	69	121563	25.24	ug/L	97
70) 1,1,2-Trichloroethane	10.061	83	77306	25.10	ug/L	97
71) Dibromochloromethane	10.256	129	111452	26.16	ug/L	97
72) 1,3-Dichloropropane	10.341	76	147923	27.56	ug/L	98
73) 1,2-Dibromoethane	10.518	107	100702	25.34	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	1526054	1304.42	ug/L	99
75) 2-hexanone	10.658	43	692268	131.68	ug/L	98
76) 1-Chlorohexane	10.963	91	105881	24.78	ug/L	93
77) Ethylbenzene	11.024	91	420168	25.77	ug/L	98
78) Chlorobenzene	11.024	112	256540	25.71	ug/L	97
79) 1,1,1,2-Tetrachloroethane	11.073	131	98991	25.63	ug/L	98
80) m,p-Xylene	11.164	91	635493	51.91	ug/L	99
81) o-Xylene	11.603	91	312402	23.73	ug/L	100
82) Styrene	11.658	104	233278	25.29	ug/L	98
83) Bromoform	11.713	173	88137	24.55	ug/L	98
84) Isopropylbenzene	11.914	105	383375	24.75	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.261	53	23476	16.13	ug/L	87
88) n-Propylbenzene	12.335	91	448859	25.12	ug/L	98
89) Bromobenzene	12.347	156	122086	26.65	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.389	83	161782	25.90	ug/L	98
91) 1,3,5-Trimethylbenzene	12.518	105	323189	25.24	ug/L	97
92) 2-Chlorotoluene	12.518	91	304724	25.00	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.578	53	22485	14.09	ug/L	94
94) 1,2,3-Trichloropropane	12.548	110	51890	26.87	ug/L	97
95) Cyclohexanone	12.609	55	34529	80.00	ug/L	98
96) 4-Chlorotoluene	12.682	91	267205	24.36	ug/L	98
97) tert-Butylbenzene	12.853	91	166501	24.46	ug/L	99
98) 1,2,4-Trimethylbenzene	12.926	105	314414	24.93	ug/L	98
99) Pentachloroethane	12.902	167	74304	26.53	ug/L	95
100) sec-Butylbenzene	13.036	105	354981	24.72	ug/L	99
101) 4-Isopropyltoluene	13.170	119	313584	24.58	ug/L	100
102) 1,3-Dichlorobenzene	13.304	146	197709	25.04	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	342657	25.93	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	213570	25.17	ug/L	98
105) n-Butylbenzene	13.615	92	159758	25.47	ug/L #	79



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757590.d  
 Acq On : 29 Jun 2023 8:58 pm  
 Operator : adelardl  
 Sample : FC7322-5MS Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,2.5  
 ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:46:56 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

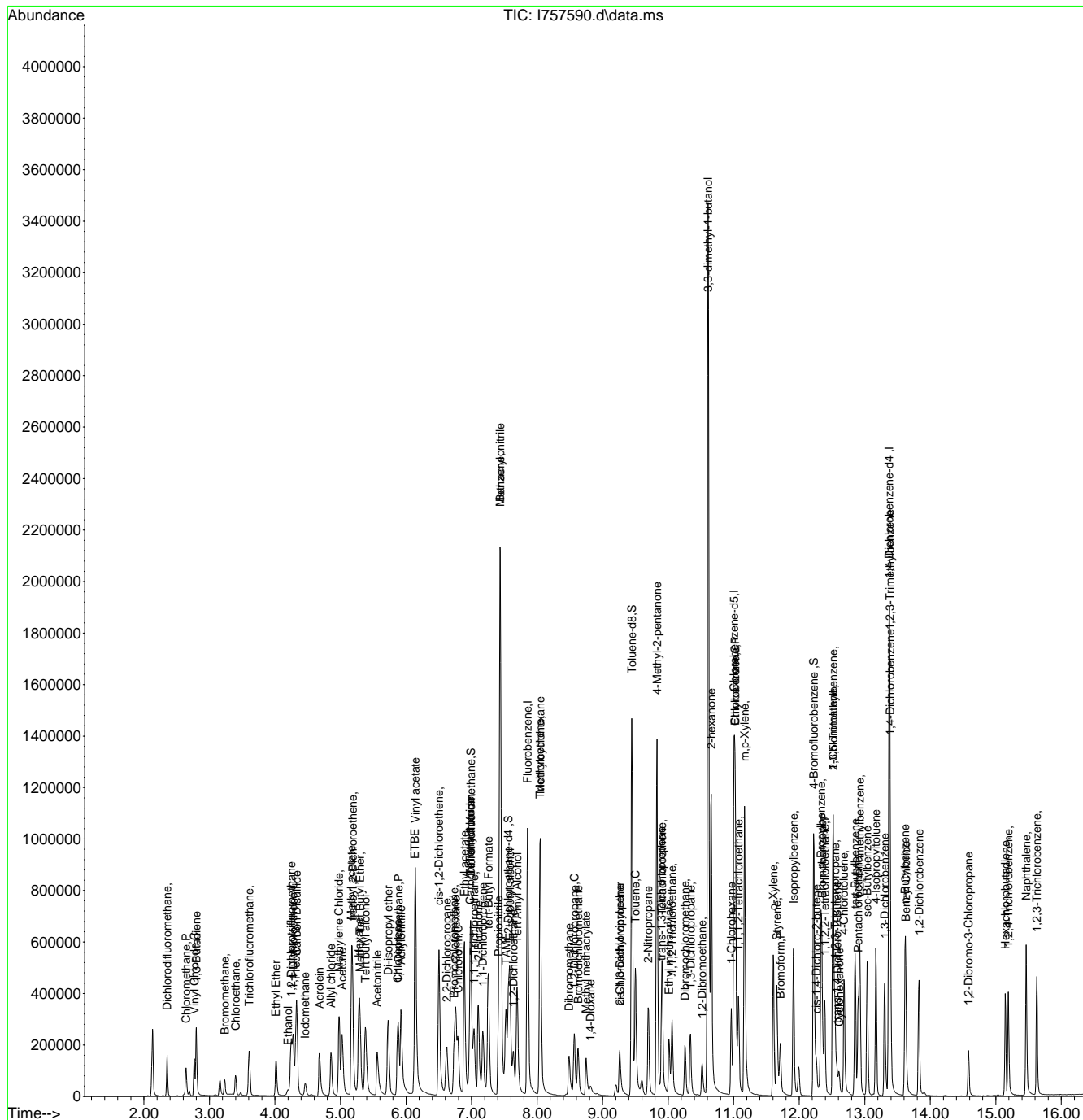
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	13.627	126	41560	19.13	ug/L #	39
107) 1,2-Dichlorobenzene	13.828	146	195777	25.31	ug/L	97
108) 1,2-Dibromo-3-Chloropr...	14.584	75	38354	24.29	ug/L	93
109) Hexachlorobutadiene	15.145	225	69116	26.37	ug/L	96
110) 1,2,4-Trichlorobenzene	15.194	180	134756	23.58	ug/L	96
111) Naphthalene	15.462	128	405245	22.67	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	137832	24.18	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
 Data File : I757590.d  
 Acq On : 29 Jun 2023 8:58 pm  
 Operator : adelardl  
 Sample : FC7322-5MS Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,2.5  
 ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:46:56 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.4.1  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757591.d  
 Acq On : 29 Jun 2023 9:22 pm  
 Operator : adelardl  
 Sample : FC7322-5MSD Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,2.5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:47:12 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.854	96	969721	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	668511	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	410815	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	277123	50.35	ug/L	0.00
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.70%
49) 1,2-Dichloroethane-d4	7.561	65	266266	53.20	ug/L	0.00
Spiked Amount	50.000	Range	79 - 125	Recovery	=	106.40%
63) Toluene-d8	9.445	98	979986	51.41	ug/L	0.00
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.82%
86) 4-Bromofluorobenzene	12.225	174	342244	49.48	ug/L	0.00
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.96%
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.355	85	109298	25.65	ug/L	97
3) Chloromethane	2.641	50	103535	23.61	ug/L	100
4) Vinyl Chloride	2.769	62	118099	27.28	ug/L	97
5) 1,3-Butadiene	2.800	39	90122	24.23	ug/L	94
6) Bromomethane	3.233	94	37093	25.14	ug/L	98
7) Chloroethane	3.397	64	57746	31.81	ug/L	97
8) Trichlorofluoromethane	3.611	101	152129	26.56	ug/L	96
9) Ethyl Ether	4.019	59	75875	25.30	ug/L	98
10) 1,2-Dichlorotrifluoro...	4.245	67	113843	28.54	ug/L	97
11) 1,1-Dichloroethene	4.275	61	136257	25.89	ug/L	98
12) Ethanol	4.196	45	48887	324.27	ug/L	84
13) Freon 113	4.324	101	99162	30.33	ug/L	95
14) Carbon Disulfide	4.336	76	261228	24.17	ug/L	99
15) Iodomethane	4.464	142	83924	32.57	ug/L	94
16) Acrolein	4.678	56	165633	120.39	ug/L	96
17) Allyl chloride	4.854	41	117173	23.09	ug/L	97
18) Methylene Chloride	4.982	49	192197	36.19	ug/L	98
19) Acetone	5.025	43	314572	120.55	ug/L	96
20) Methyl acetate	5.171	43	601005	109.89	ug/L	100
21) trans-1,2-Dichloroethene	5.184	61	141220	25.58	ug/L	99
22) Hexane	5.281	56	74007	27.34	ug/L	99
23) Methyl Tert Butyl Ether	5.299	73	274345	23.52	ug/L	84
24) Tert butyl alcohol	5.385	59	370835	232.37	ug/L	99
25) Acetonitrile	5.562	41	226683	201.70	ug/L	98
26) Di-isopropyl ether	5.726	45	276107	22.63	ug/L	97
27) Chloroprene	5.872	53	111541	21.39	ug/L	98
28) 1,1-Dichloroethane	5.885	63	169670	23.41	ug/L	99
29) Acrylonitrile	5.921	53	305825	115.03	ug/L	98
30) ETBE	6.141	59	280901	23.92	ug/L	99
31) Vinyl acetate	6.141	43	966493	125.47	ug/L	99
32) cis-1,2-Dichloroethene	6.500	96	288625	66.27	ug/L	97
33) 2,2-Dichloropropane	6.622	77	126502	22.90	ug/L	96
34) Bromochloromethane	6.732	128	52661	23.43	ug/L	95
35) Cyclohexane	6.756	56	151694	26.88	ug/L	97
36) Chloroform	6.793	83	181811	24.05	ug/L	99
37) Ethyl acetate	6.891	43	736992	116.95	ug/L	99
38) Tetrahydrofuran	6.982	42	65491	21.73	ug/L	96
40) Carbon Tetrachloride	6.976	117	137454	25.89	ug/L	98
41) 1,1,1-Trichloroethane	7.037	97	159827	25.55	ug/L	97
42) 2-Butanone	7.104	43	466360	118.55	ug/L	97
43) 1,1-Dichloropropene	7.171	75	127674	25.86	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757591.d  
 Acq On : 29 Jun 2023 9:22 pm  
 Operator : adelardl  
 Sample : FC7322-5MSD Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,2.5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:47:12 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	228819	75.45	ug/L	88
45) Propionitrile	7.409	54	277347	208.15	ug/L	98
46) Methacrylonitrile	7.439	41	848494	217.20	ug/L	99
47) Benzene	7.433	78	365215	24.13	ug/L	97
48) TAME	7.525	73	257048	22.61	ug/L	99
50) Isobutyl alcohol	7.586	42	133664	378.78	ug/L	96
51) 1,2-Dichloroethane	7.640	62	125649	23.90	ug/L	97
52) Tert Amyl Alcohol	7.695	59	263548	201.20	ug/L	96
53) Trichloroethene	8.049	95	252536	59.64	ug/L	95
54) Methylcyclohexane	8.049	83	135456	26.56	ug/L	93
55) Dibromomethane	8.488	93	66103	24.45	ug/L	98
56) 1,2-Dichloropropane	8.567	63	94258	24.16	ug/L	97
57) Bromodichloromethane	8.628	83	126136	23.45	ug/L	99
58) Methyl methacrylate	8.750	41	85318	20.33	ug/L	97
59) 1,4-Dioxane	8.817	88	34427	284.87	ug/L	95
60) 2-Chloroethyl vinyl ether	9.262	63	559	0.24	ug/L #	47
61) cis-1,3-Dichloropropene	9.262	75	127571	21.05	ug/L	97
64) Toluene	9.500	91	382844	25.10	ug/L	99
65) 2-Nitropropane	9.695	41	192102	134.54	ug/L	96
66) 4-Methyl-2-pentanone	9.829	43	841841	127.33	ug/L	99
67) trans-1,3-Dichloropropene	9.902	75	112965	22.11	ug/L	90
68) Tetrachloroethene	9.908	166	122284	26.49	ug/L	98
69) Ethyl methacrylate	10.012	69	121292	24.94	ug/L	98
70) 1,1,2-Trichloroethane	10.061	83	78607	25.27	ug/L	95
71) Dibromochloromethane	10.256	129	112742	26.20	ug/L	94
72) 1,3-Dichloropropane	10.341	76	145761	26.89	ug/L	98
73) 1,2-Dibromoethane	10.518	107	101939	25.40	ug/L	97
74) 3,3-dimethyl-1-butanol	10.609	57	1531216	1296.27	ug/L	100
75) 2-hexanone	10.658	43	682728	128.65	ug/L	99
76) 1-Chlorohexane	10.963	91	108388	25.11	ug/L	96
77) Ethylbenzene	11.024	91	414366	25.16	ug/L	98
78) Chlorobenzene	11.024	112	253162	25.12	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	98905	25.36	ug/L	97
80) m,p-Xylene	11.164	91	634940	51.35	ug/L	100
81) o-Xylene	11.603	91	314589	23.66	ug/L	100
82) Styrene	11.658	104	231122	24.83	ug/L	98
83) Bromoform	11.713	173	87537	24.14	ug/L	98
84) Isopropylbenzene	11.914	105	387799	24.79	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.261	53	26007	17.65	ug/L	95
88) n-Propylbenzene	12.335	91	449109	24.83	ug/L	99
89) Bromobenzene	12.347	156	118144	25.48	ug/L	93
90) 1,1,2,2-Tetrachloroethane	12.390	83	159155	25.18	ug/L	100
91) 1,3,5-Trimethylbenzene	12.518	105	325241	25.09	ug/L	100
92) 2-Chlorotoluene	12.518	91	301743	24.46	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.572	53	24519	15.16	ug/L #	80
94) 1,2,3-Trichloropropane	12.548	110	52014	26.61	ug/L	96
95) Cyclohexanone	12.609	55	35610	81.52	ug/L	97
96) 4-Chlorotoluene	12.688	91	268435	24.18	ug/L	98
97) tert-Butylbenzene	12.853	91	165844	24.08	ug/L	96
98) 1,2,4-Trimethylbenzene	12.926	105	311633	24.41	ug/L	99
99) Pentachloroethane	12.902	167	71662	25.28	ug/L	98
100) sec-Butylbenzene	13.036	105	360424	24.80	ug/L	98
101) 4-Isopropyltoluene	13.170	119	314596	24.37	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	195647	24.49	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	339220	25.36	ug/L	97
104) 1,4-Dichlorobenzene	13.389	146	211203	24.59	ug/L	99
105) n-Butylbenzene	13.615	92	161169	25.39	ug/L #	76

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757591.d  
 Acq On : 29 Jun 2023 9:22 pm  
 Operator : adelardl  
 Sample : FC7322-5MSD Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,2.5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:47:12 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	13.627	126	40561	18.47	ug/L #	37
107) 1,2-Dichlorobenzene	13.828	146	196206	25.06	ug/L	98
108) 1,2-Dibromo-3-Chloropr...	14.584	75	39855	24.94	ug/L	91
109) Hexachlorobutadiene	15.145	225	70032	26.40	ug/L	98
110) 1,2,4-Trichlorobenzene	15.194	180	134726	23.29	ug/L	97
111) Naphthalene	15.462	128	408662	22.59	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	136929	23.73	ug/L	97

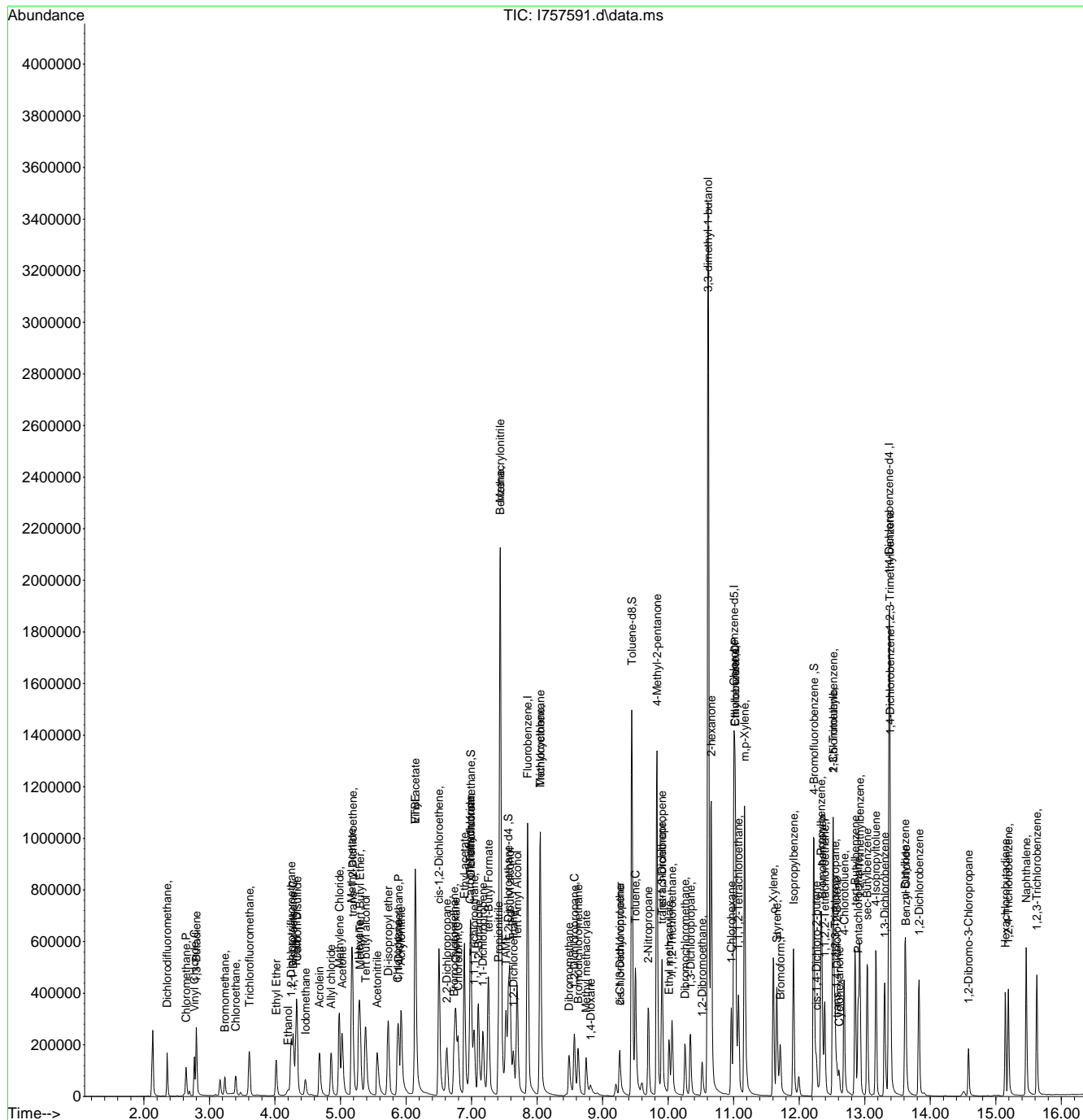
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\
Data File : I757591.d
Acq On : 29 Jun 2023 9:22 pm
Operator : adelardl
Sample : FC7322-5MSD
Misc : MS54331,VI2958,,,,,2.5
ALS Vial : 26 Sample Multiplier: 1

Inst : MSVOA16

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m
Quant Results File: VI-2023-06-15.RES
Quant Time: Jun 30 00:47:12 2023
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Thu Jun 15 14:39:51 2023
Response via : Initial Calibration



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 15:08:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	395499	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.025	117	289406	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.781	152	144989	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	109216	50.78	ug/L	0.00	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	101.56%	
50) 1,2-Dichloroethane-d4	3.854	65	125470	49.14	ug/L	0.00	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	98.28%	
63) Toluene-d8	4.976	98	375061	48.61	ug/L	0.00	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	97.22%	
86) 4-Bromofluorobenzene	6.921	174	99784	47.10	ug/L	0.00	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	94.20%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	53288	36.50	ug/L		95
3) Chloromethane	1.373	50	48501	32.58	ug/L		98
4) 1,3-butadiene	1.446	39	35720	20.92	ug/L		100
5) Vinyl Chloride	1.434	62	46750	30.44	ug/L		98
6) Bromomethane	1.666	94	19834	16.70	ug/L		97
7) Chloroethane	1.751	64	31199	32.26	ug/L		98
8) Trichlorofluoromethane	1.855	101	77344	26.70	ug/L		99
9) Ethyl Ether	2.056	59	34070	24.97	ug/L		99
10) Ethanol	2.147	45	12223	397.14	ug/L		98
11) 1,2-Dichlorotrifluoro...	2.178	67	57828	29.90	ug/L		94
12) 1,1-Dichloroethene	2.178	61	60469	24.89	ug/L		99
13) Freon 113	2.208	101	49263	28.85	ug/L		98
14) Carbon Disulfide	2.202	76	131090	29.01	ug/L		99
15) Iodomethane	2.269	142	25539	17.35	ug/L		98
16) Acrolein	2.385	56	61333	139.04	ug/L		100
17) Allyl chloride	2.471	41	51778	29.24	ug/L		92
18) Methylene Chloride	2.532	49	72071	32.98	ug/L		97
19) Acetone	2.556	43	112453	123.24	ug/L		99
20) Methyl acetate	2.629	43	249720	115.90	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	63141	25.72	ug/L		97
22) Hexane	2.678	56	34165	27.36	ug/L		97
23) Methyl Tert Butyl Ether	2.690	73	118245	23.95	ug/L		96
24) Tert Butyl Alcohol	2.739	59	71904	235.20	ug/L	#	65
25) Acetonitrile	2.830	41	97445	274.02	ug/L		99
26) Di-isopropyl ether	2.909	45	116349	23.94	ug/L		96
27) Chloroprene	2.970	53	52131	21.61	ug/L		97
28) 1,1-Dichloroethane	2.983	63	81007	25.39	ug/L		98
29) Acrylonitrile	3.007	52	109852	124.69	ug/L		98
30) ETBE	3.117	59	116294	25.17	ug/L		99
31) Vinyl acetate	3.117	43	486490	140.49	ug/L		98
32) cis-1,2-Dichloroethene	3.287	96	47009	22.49	ug/L		99
33) 2,2-Dichloropropane	3.355	77	55462	26.01	ug/L		97
34) Bromochloromethane	3.403	128	25713	25.27	ug/L		97
35) Cyclohexane	3.409	56	61823	25.39	ug/L		95



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 15:08:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	91951	25.51	ug/L	97
37) Ethyl acetate	3.501	43	321523	124.04	ug/L	99
38) Tetrahydrofuran	3.531	42	21303	22.94	ug/L	94
40) Carbon Tetrachloride	3.531	117	61412m	26.44	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	70859	24.92	ug/L	97
42) 2-Butanone	3.611	43	169729	120.32	ug/L	100
43) 1,1-Dichloropropene	3.635	75	62986	26.42	ug/L	96
44) tert-Butyl formate	3.690	59	74075	120.54	ug/L	95
45) Propionitrile	3.781	54	111932	256.16	ug/L	99
46) Methacrylonitrile	3.793	41	414683	272.91	ug/L	96
47) Benzene	3.775	78	193007	26.82	ug/L	89
48) TAME	3.836	73	107342	24.49	ug/L	94
49) Isobutyl alcohol	3.873	43	57983m	449.10	ug/L	
51) 1,2-Dichloroethane	3.891	62	69732	23.55	ug/L	100
52) Tert Amyl Alcohol	3.934	59	50998	220.53	ug/L	95
53) Trichloroethene	4.117	95	51742	24.78	ug/L	99
54) Methylcyclohexane	4.117	83	61933	24.16	ug/L	96
55) Dibromomethane	4.367	93	33612	23.63	ug/L	97
56) 1,2-Dichloropropane	4.427	63	45474	26.41	ug/L	98
57) Bromodichloromethane	4.458	83	59856	24.82	ug/L	97
58) Methyl methacrylate	4.543	41	39069	21.38	ug/L	91
59) 1,4-Dioxane	4.580	88	11540	344.12	ug/L	93
61) cis-1,3-Dichloropropene	4.854	75	62306	23.91	ug/L	96
64) Toluene	5.007	91	194023	25.09	ug/L	99
65) 2-Nitropropane	5.153	41	64610	119.10	ug/L	96
66) 4-Methyl-2-pentanone	5.244	43	307749	128.08	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	63917	24.49	ug/L	94
68) Tetrachloroethene	5.263	166	48489	24.13	ug/L	98
69) Ethyl methacrylate	5.366	69	52044	23.32	ug/L	94
70) 1,1,2-Trichloroethane	5.379	83	41245	25.39	ug/L	97
71) Dibromochloromethane	5.500	129	46412	25.40	ug/L	99
72) 1,3-Dichloropropane	5.568	76	79458	25.63	ug/L	99
73) 1,2-Dibromoethane	5.671	107	49376	23.32	ug/L	94
74) 3,3-dimethyl-1-butanol	5.781	57	386815	1170.67	ug/L	99
75) 2-hexanone	5.805	43	316285	130.42	ug/L	96
76) 1-Chlorohexane	6.013	91	54743m	23.12	ug/L	
77) Ethylbenzene	6.049	91	216453	25.62	ug/L	98
78) Chlorobenzene	6.037	112	132911	24.73	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.080	131	45003	26.16	ug/L	94
80) m,p-Xylene	6.153	91	330879	49.57	ug/L	100
81) o-Xylene	6.470	91	147796	22.04	ug/L	99
82) Styrene	6.506	104	124346	24.32	ug/L	99
83) Bromoform	6.525	173	26313	23.75	ug/L	97
84) Isopropylbenzene	6.701	105	176611	22.88	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	12062	21.29	ug/L	96
88) n-Propylbenzene	7.018	91	224446	25.21	ug/L	99
89) Bromobenzene	7.000	156	49851	24.95	ug/L	93
90) 1,1,2,2-Tetrachloroethane	7.067	83	77206	26.73	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	160047	25.15	ug/L	99
92) 2-Chlorotoluene	7.140	91	154770	24.81	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 15:08:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) trans-1,4-Dichloro-2-B...	7.207	53	9199	17.63	ug/L	94
94) 1,2,3-Trichloropropane	7.177	110	24983	26.99	ug/L	98
95) Cyclohexanone	7.207	55	10973	111.54	ug/L	94
96) 4-Chlorotoluene	7.274	91	144965	24.43	ug/L	99
97) tert-Butylbenzene	7.421	91	80701	23.35	ug/L	97
99) 1,2,4-Trimethylbenzene	7.476	105	157608	24.73	ug/L	100
100) Pentachloroethane	7.439	167	24698	27.19	ug/L	90
101) sec-Butylbenzene	7.561	105	168880	23.14	ug/L	99
102) 4-Isopropyltoluene	7.671	119	143453	23.02	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	95933	24.17	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	178384	26.34	ug/L	98
105) 1,4-Dichlorobenzene	7.793	146	100307	25.31	ug/L	99
106) n-Butylbenzene	7.982	92	82050	25.70	ug/L	92
107) Benzyl Chloride	7.976	126	16721	25.34	ug/L #	84
108) 1,2-Dichlorobenzene	8.104	146	90007	23.69	ug/L	99
109) 1,2-Dibromo-3-Chloropr...	8.671	75	15019	26.11	ug/L #	79
110) Hexachlorobutadiene	9.134	225	17446	24.43	ug/L	94
111) 1,2,4-Trichlorobenzene	9.152	180	44027	20.30	ug/L	98
112) Naphthalene	9.372	128	154572	19.56	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	44600	20.69	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed



# Manual Integration Approval Summary

**Sample Number:** FC7351-1MS      **Method:** SW846 8260D  
**Lab FileID:** 2077351.D      **Analyst approved:** 07/02/23 15:42 Jenifer Willis  
**Injection Time:** 06/30/23 19:32      **Supervisor approved:** 07/03/23 12:36 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

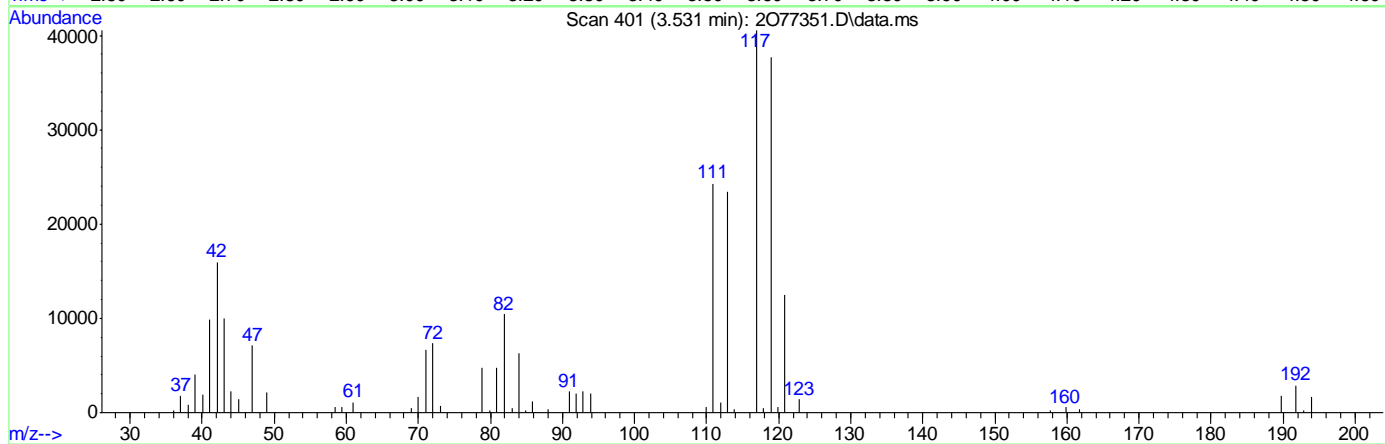
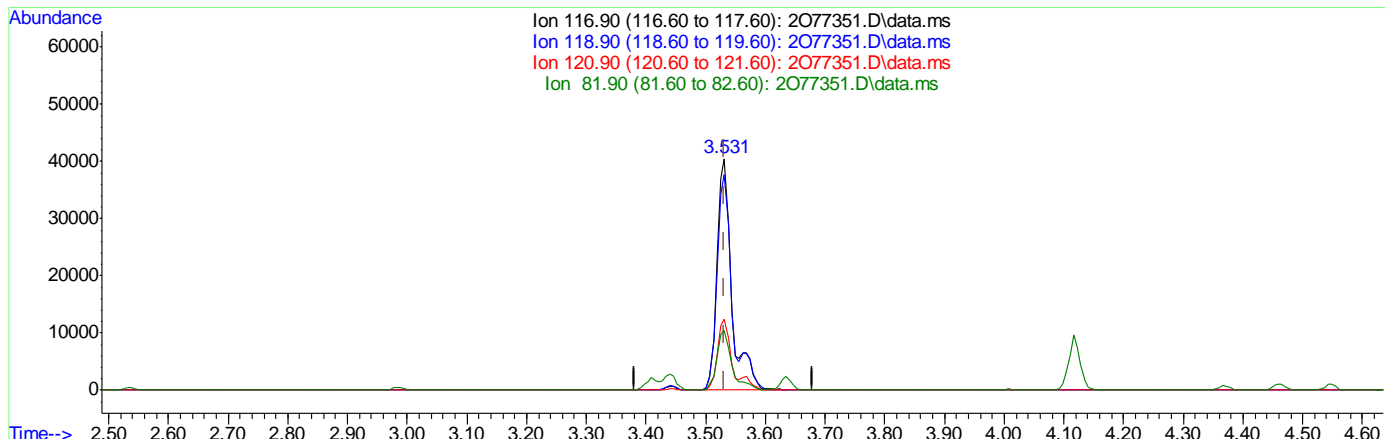
7.4.3.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 07:17:30 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077351.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (+0.000) 30.17ug/L

response 70073

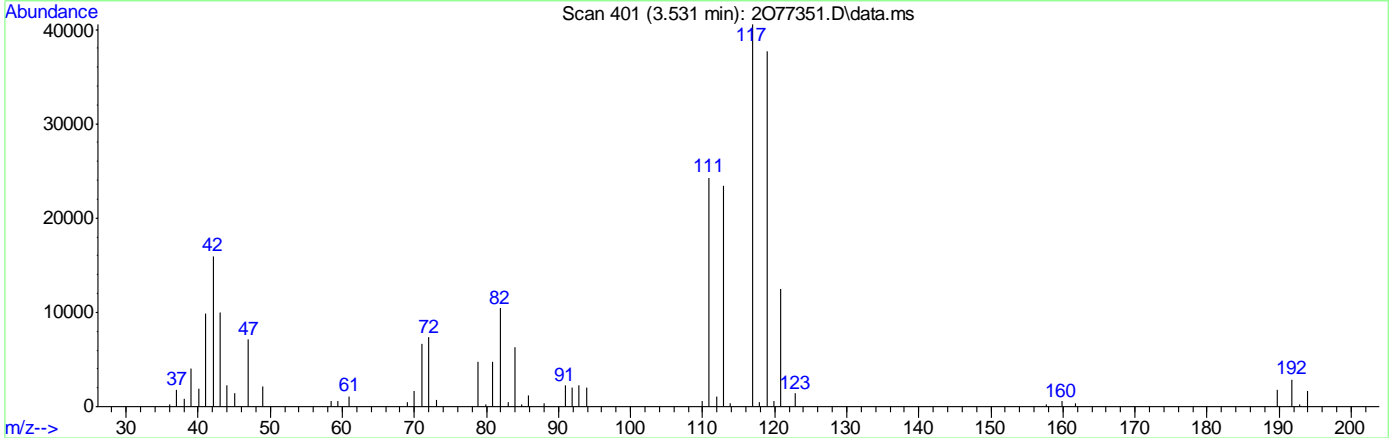
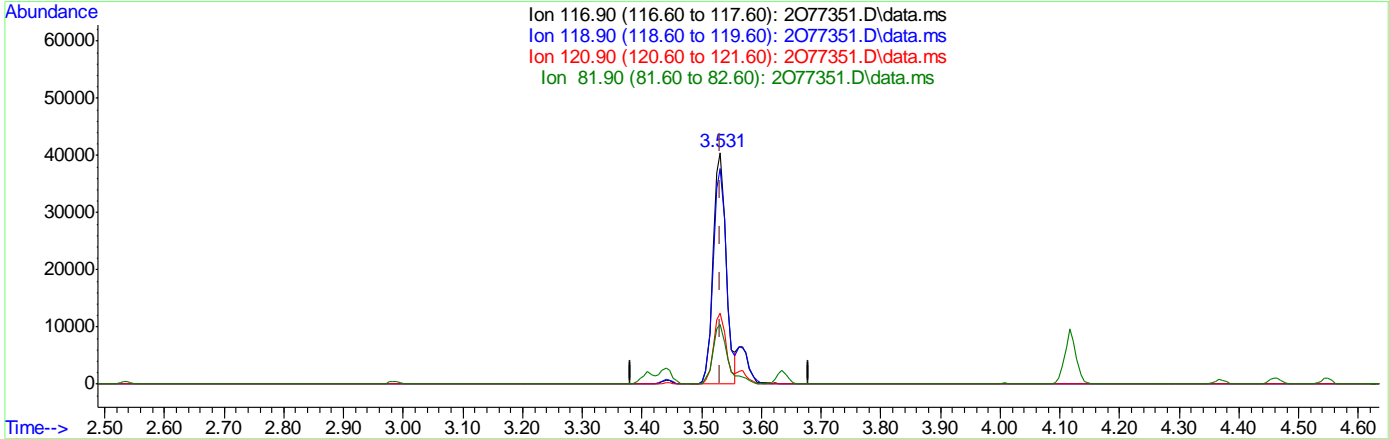
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	92.95
120.90	31.50	30.81
81.90	24.40	25.69

7.4.3.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 07:17:30 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



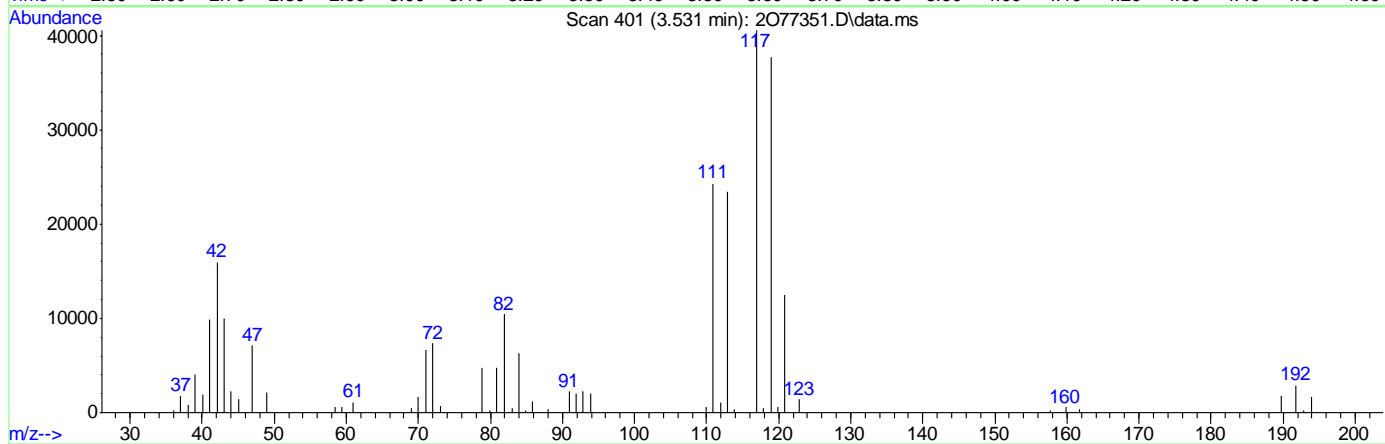
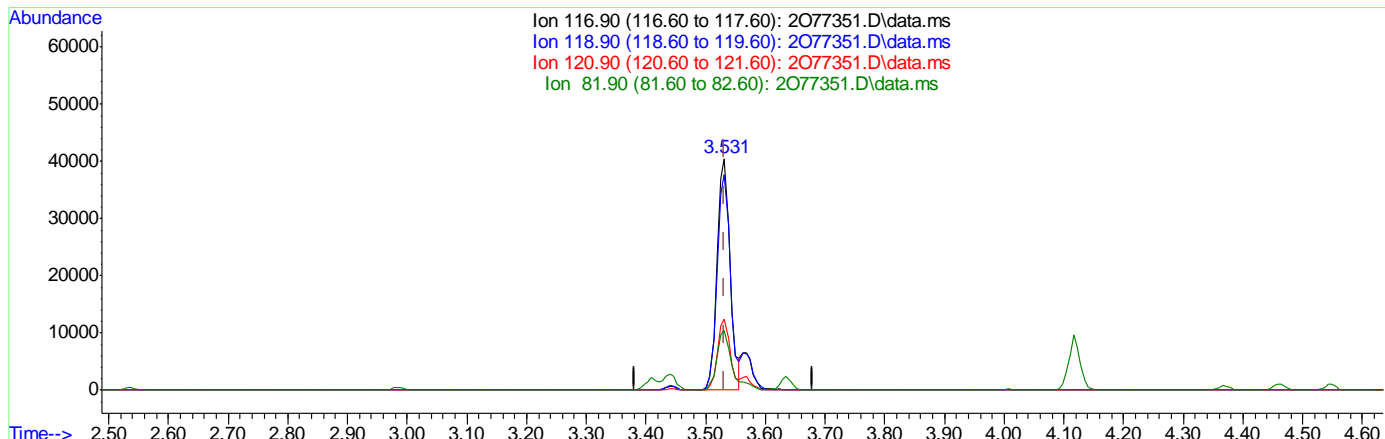
(40) Carbon Tetrachloride ( )  
 3.531min (+0.000) 26.44ug/L m  
 response 61412

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	92.95
120.90	31.50	30.81
81.90	24.40	25.69

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 07:17:30 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077351.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.531min (+0.000) 26.44ug/L m  
 response 61412

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	92.95
120.90	31.50	30.81
81.90	24.40	25.69

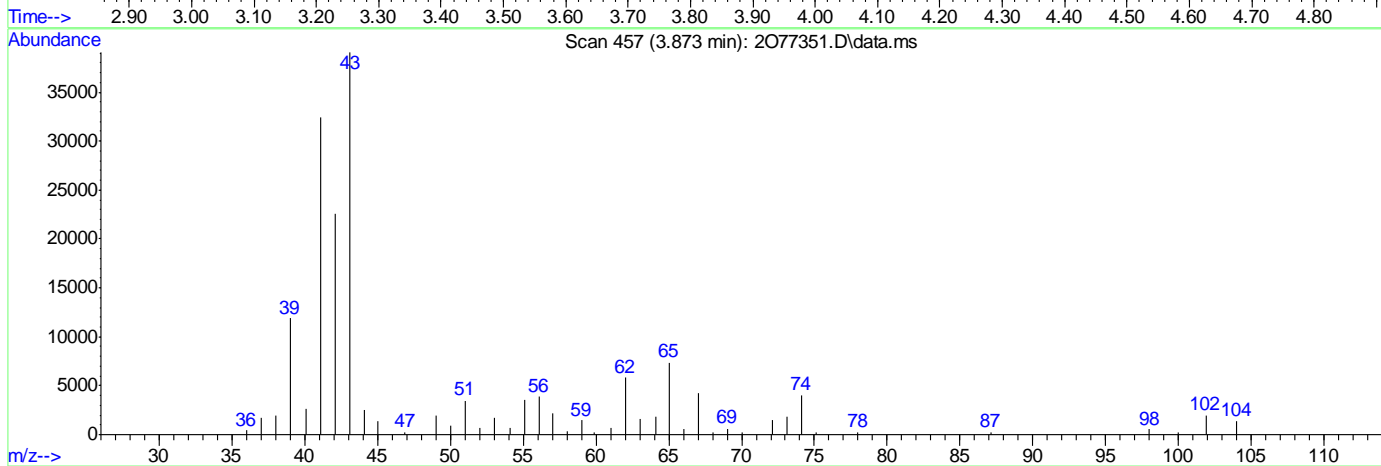
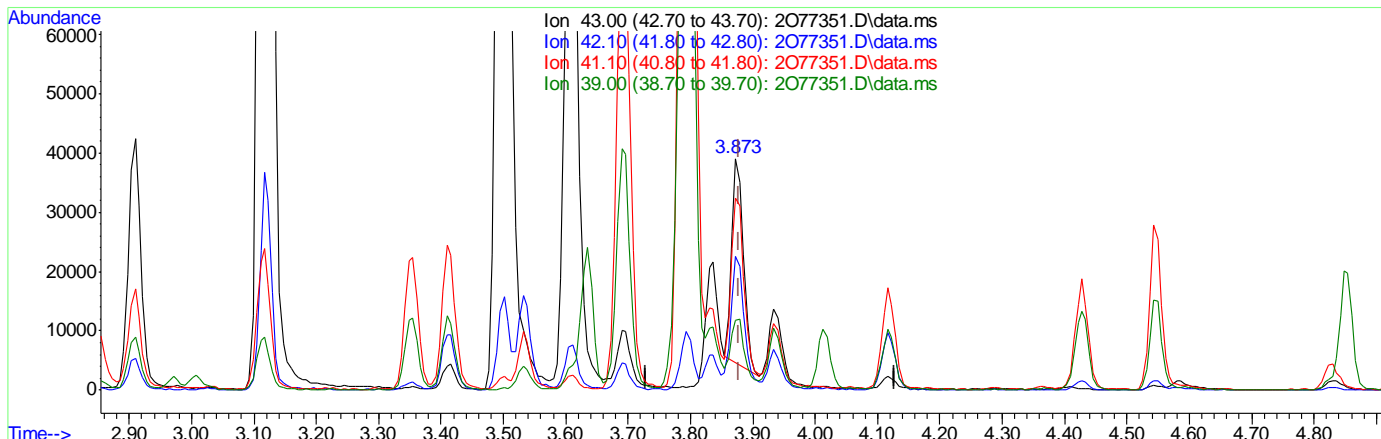
7.4.3.4  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 07:17:30 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077351.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 348.49ug/L  
 response 44636

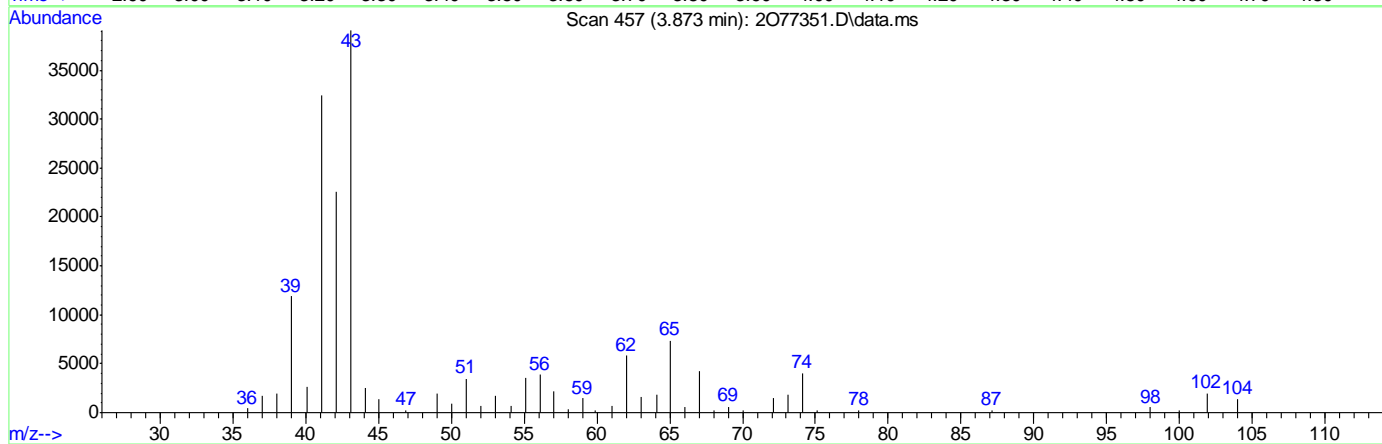
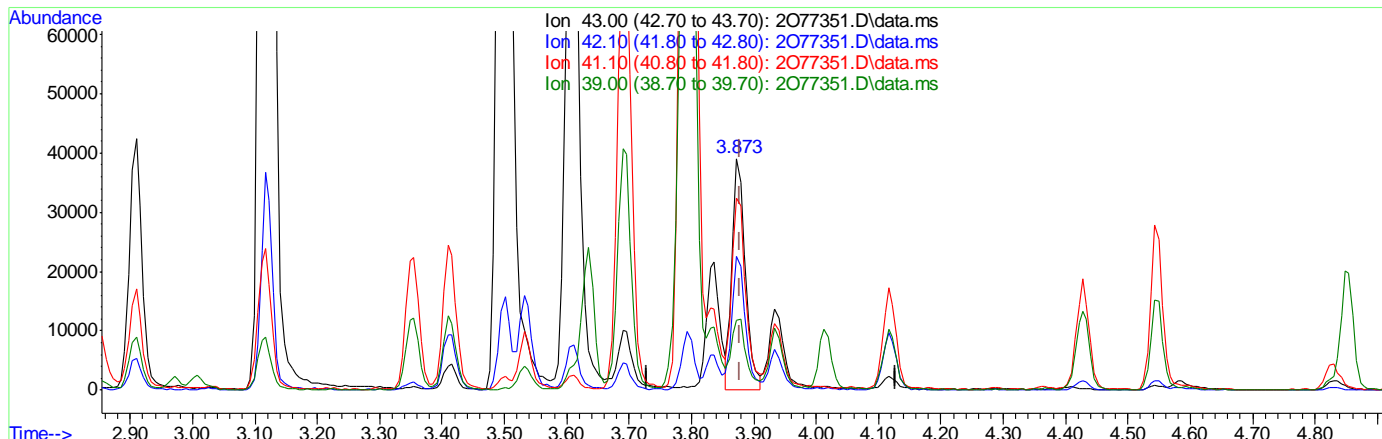
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.60
41.10	77.50	80.97
39.00	31.30	28.08

7.4.3.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 07:17:30 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077351.D\data.ms

(49) Isobutyl alcohol

3.873min (-0.006) 449.10ug/L m

response 57983

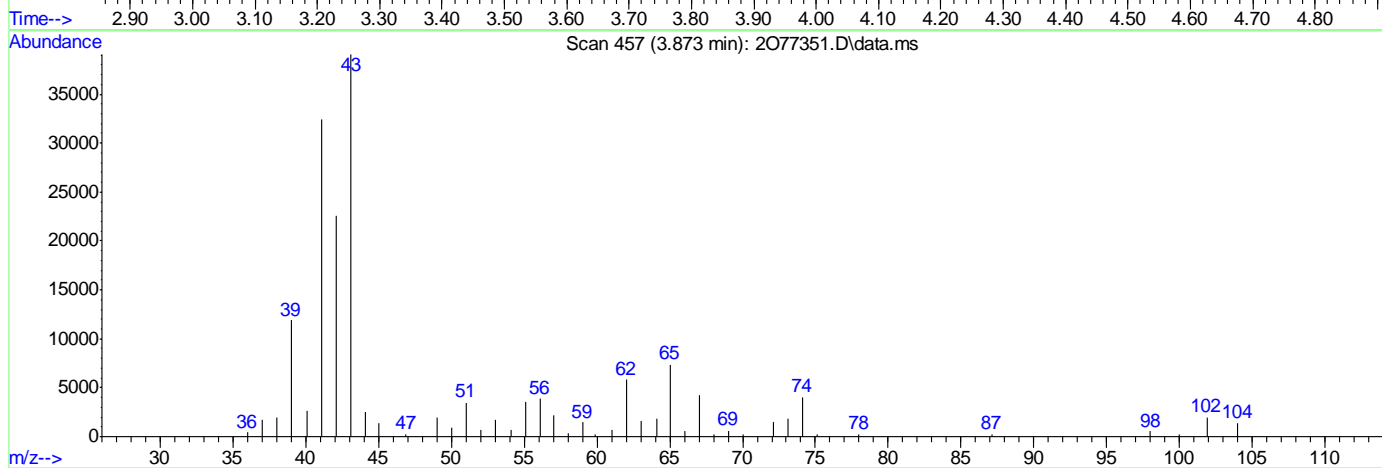
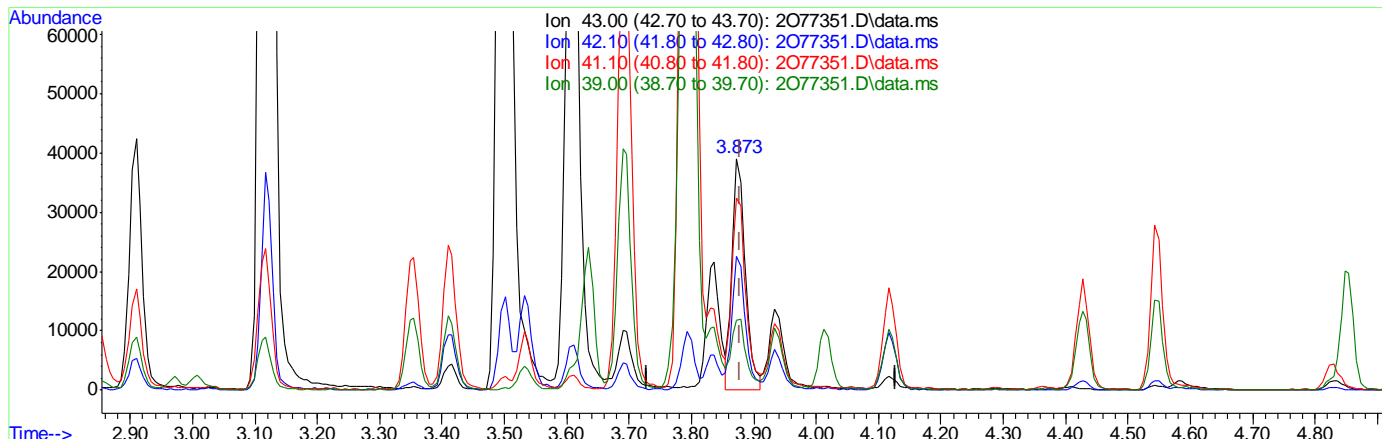
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.80
41.10	77.50	82.96
39.00	31.30	30.38

7.4.3.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 07:17:30 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077351.D\data.ms

(49) Isobutyl alcohol

3.873min (-0.006) 449.10ug/L m

response 57983

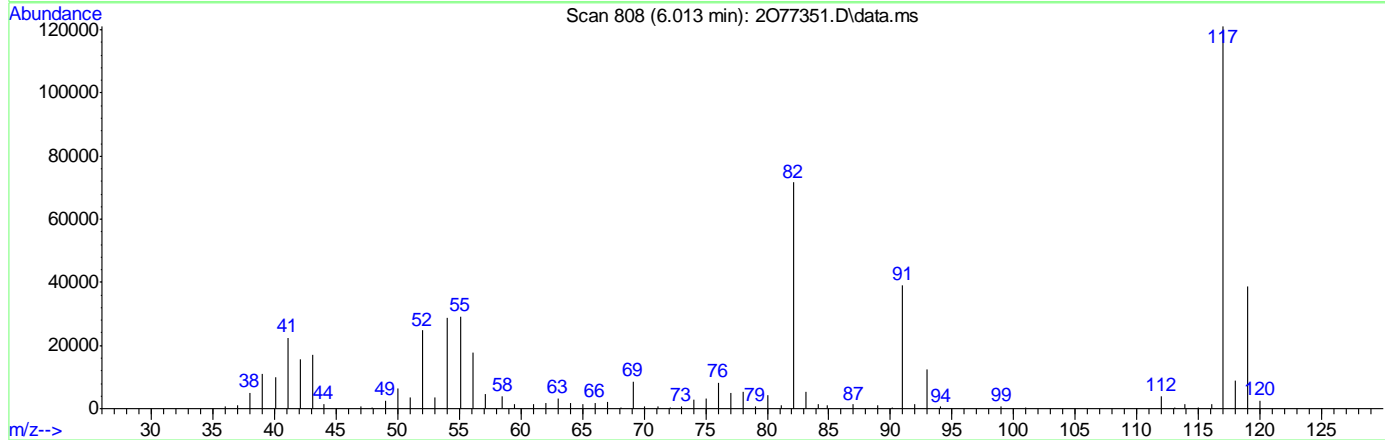
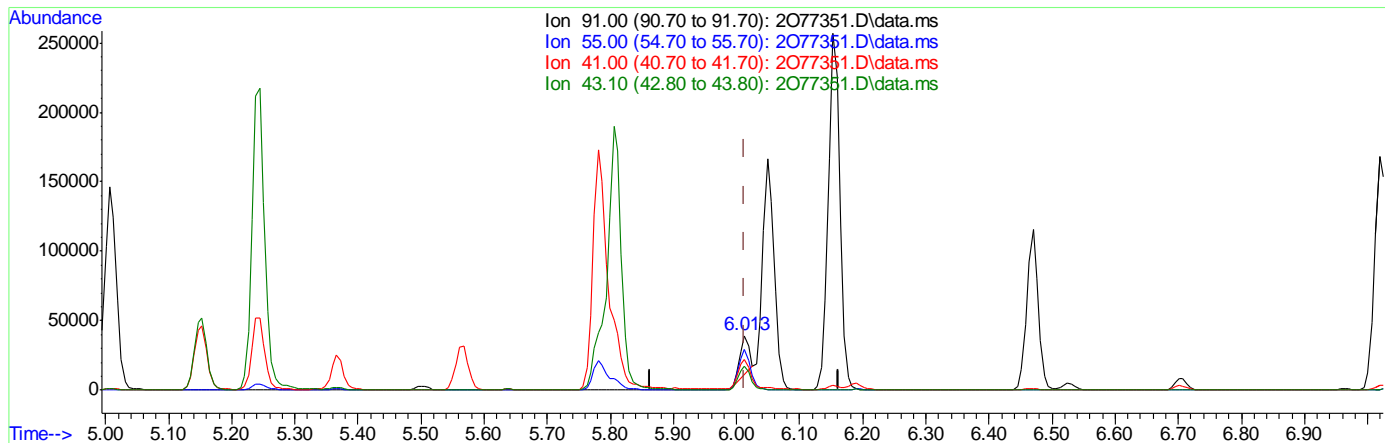
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.80
41.10	77.50	82.96
39.00	31.30	30.38

7.4.3.7  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 07:17:30 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077351.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.000) 12.44ug/L

response 29450

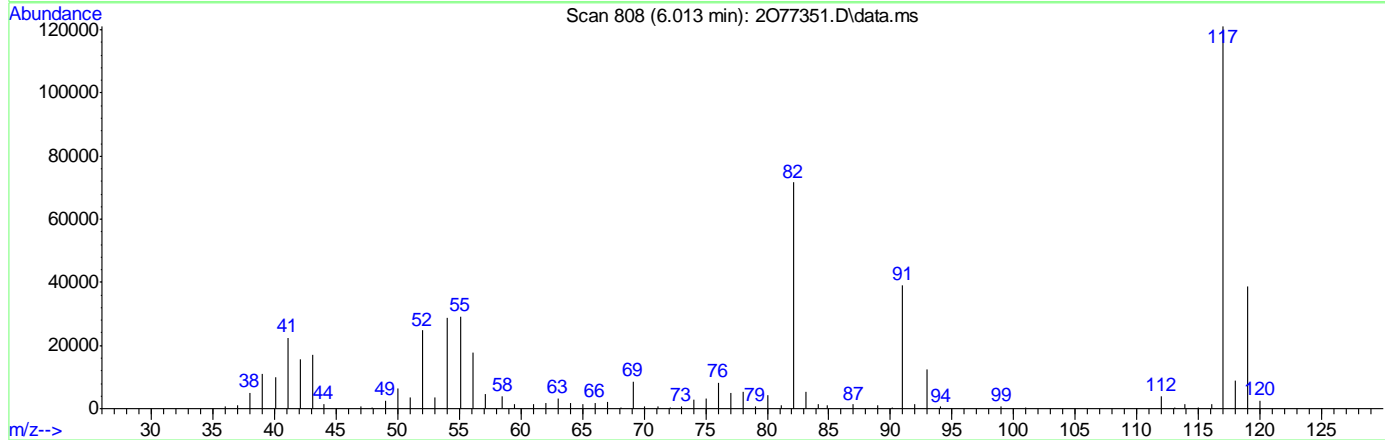
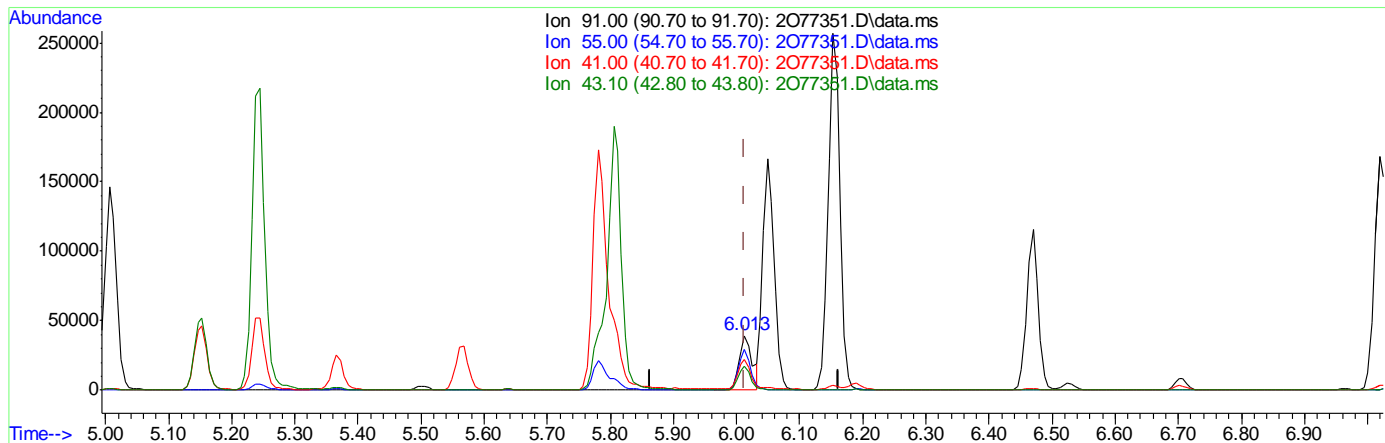
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.64
41.00	55.00	52.71
43.10	42.40	41.38

7.4.3.8  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077351.D  
 Acq On : 30 Jun 2023 7:32 pm  
 Operator : adelardl  
 Sample : FC7351-1MS Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 02 07:17:30 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077351.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 23.12ug/L m  
 response 54743

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	74.89
41.00	55.00	57.27
43.10	42.40	44.04

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077352.D  
 Acq On : 30 Jun 2023 7:58 pm  
 Operator : adelardl  
 Sample : FC7351-1MSD Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 02 15:08:40 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	419125	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.025	117	306924	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.781	152	155337	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	115324	50.60	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.20%		
50) 1,2-Dichloroethane-d4	3.855	65	132350	48.92	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	97.84%		
63) Toluene-d8	4.976	98	398909	48.75	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.50%		
86) 4-Bromofluorobenzene	6.921	174	108164	47.65	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	95.30%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	55331	35.76	ug/L		98
3) Chloromethane	1.379	50	49809	31.57	ug/L		96
4) 1,3-butadiene	1.453	39	38409	21.24	ug/L		95
5) Vinyl Chloride	1.434	62	47930	29.45	ug/L		97
6) Bromomethane	1.672	94	23575	18.71	ug/L		98
7) Chloroethane	1.757	64	29946	27.13	ug/L		95
8) Trichlorofluoromethane	1.855	101	79465	25.89	ug/L		100
9) Ethyl Ether	2.056	59	37325	25.81	ug/L		96
10) Ethanol	2.154	45	16333	500.76	ug/L		94
11) 1,2-Dichlorotrifluoro...	2.184	67	57922	28.26	ug/L		98
12) 1,1-Dichloroethene	2.184	61	62322	24.21	ug/L		92
13) Freon 113	2.209	101	50645	27.99	ug/L		98
14) Carbon Disulfide	2.202	76	130336	27.21	ug/L		98
15) Iodomethane	2.270	142	35040	22.17	ug/L		98
16) Acrolein	2.385	56	65479	140.06	ug/L		100
17) Allyl chloride	2.471	41	52929	28.20	ug/L		94
18) Methylene Chloride	2.532	49	74069	31.96	ug/L		99
19) Acetone	2.556	43	114574	118.49	ug/L		100
20) Methyl acetate	2.629	43	255164	111.75	ug/L		98
21) trans-1,2-Dichloroethene	2.629	61	64401	24.75	ug/L		98
22) Hexane	2.684	56	34570	26.13	ug/L		95
23) Methyl Tert Butyl Ether	2.690	73	126996	24.27	ug/L		95
24) Tert Butyl Alcohol	2.739	59	81108	250.35	ug/L		94
25) Acetonitrile	2.830	41	100515	266.72	ug/L		99
26) Di-isopropyl ether	2.910	45	119997	23.30	ug/L		97
27) Chloroprene	2.971	53	52359	20.45	ug/L		98
28) 1,1-Dichloroethane	2.983	63	82297	24.34	ug/L		99
29) Acrylonitrile	3.007	52	111357	119.27	ug/L		97
30) ETBE	3.117	59	120076	24.52	ug/L		98
31) Vinyl acetate	3.117	43	499757	136.18	ug/L		98
32) cis-1,2-Dichloroethene	3.288	96	49759	22.46	ug/L		100
33) 2,2-Dichloropropane	3.355	77	57176	25.30	ug/L		98
34) Bromochloromethane	3.403	128	25933	24.05	ug/L		98
35) Cyclohexane	3.416	56	64498	25.00	ug/L		95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077352.D  
 Acq On : 30 Jun 2023 7:58 pm  
 Operator : adelardl  
 Sample : FC7351-1MSD  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 02 15:08:40 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	92795	24.29	ug/L	98
37) Ethyl acetate	3.501	43	326342	118.81	ug/L	100
38) Tetrahydrofuran	3.531	42	23747	24.13	ug/L	98
40) Carbon Tetrachloride	3.531	117	63208m	25.68	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	74446	24.70	ug/L	98
42) 2-Butanone	3.611	43	173131	115.81	ug/L	100
43) 1,1-Dichloropropene	3.635	75	64715	25.61	ug/L	96
44) tert-Butyl formate	3.690	59	74611	114.86	ug/L	95
45) Propionitrile	3.781	54	110045	237.65	ug/L	99
46) Methacrylonitrile	3.794	41	415541	258.06	ug/L	97
47) Benzene	3.781	78	194708	25.53	ug/L	97
48) TAME	3.836	73	111379	23.98	ug/L	96
49) Isobutyl alcohol	3.873	43	64999m	474.13	ug/L	
51) 1,2-Dichloroethane	3.891	62	70547	22.48	ug/L	98
52) Tert Amyl Alcohol	3.934	59	55496	226.11	ug/L	97
53) Trichloroethene	4.117	95	52311	23.65	ug/L	96
54) Methylcyclohexane	4.117	83	63416	23.35	ug/L	95
55) Dibromomethane	4.367	93	34473	22.87	ug/L	98
56) 1,2-Dichloropropane	4.428	63	46671	25.58	ug/L	99
57) Bromodichloromethane	4.464	83	60771	23.78	ug/L	99
58) Methyl methacrylate	4.543	41	41013	21.18	ug/L	94
59) 1,4-Dioxane	4.586	88	14511	406.46	ug/L	97
60) 2-Chloroethyl vinyl ether	4.848	63	229	0.15	ug/L #	48
61) cis-1,3-Dichloropropene	4.854	75	65797	23.82	ug/L	96
64) Toluene	5.007	91	196334	23.94	ug/L	99
65) 2-Nitropropane	5.153	41	64372	112.45	ug/L	96
66) 4-Methyl-2-pentanone	5.238	43	313472	123.01	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	65457	23.65	ug/L	96
68) Tetrachloroethene	5.263	166	49724	23.33	ug/L	98
69) Ethyl methacrylate	5.366	69	55292	23.36	ug/L	94
70) 1,1,2-Trichloroethane	5.379	83	42530	24.69	ug/L	97
71) Dibromochloromethane	5.501	129	47919	24.73	ug/L	100
72) 1,3-Dichloropropane	5.568	76	82461	25.08	ug/L	98
73) 1,2-Dibromoethane	5.671	107	50452	22.47	ug/L	97
74) 3,3-dimethyl-1-butanol	5.781	57	418549	1193.16	ug/L	99
75) 2-hexanone	5.805	43	325135	126.41	ug/L	96
76) 1-Chlorohexane	6.013	91	56358m	22.44	ug/L	
77) Ethylbenzene	6.049	91	220961	24.66	ug/L	98
78) Chlorobenzene	6.037	112	135787	23.82	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.080	131	44669	24.49	ug/L	97
80) m,p-Xylene	6.153	91	338584	47.83	ug/L	99
81) o-Xylene	6.470	91	153320	21.56	ug/L	99
82) Styrene	6.507	104	125240	23.10	ug/L	99
83) Bromoform	6.531	173	26603	22.71	ug/L	96
84) Isopropylbenzene	6.702	105	182788	22.32	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.964	53	12442	20.50	ug/L	94
88) n-Propylbenzene	7.019	91	229658	24.07	ug/L	98
89) Bromobenzene	7.000	156	51092	23.87	ug/L	98
90) 1,1,2,2-Tetrachloroethane	7.067	83	78342	25.31	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	164981	24.20	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077352.D  
 Acq On : 30 Jun 2023 7:58 pm  
 Operator : adelardl  
 Sample : FC7351-1MSD  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 02 15:08:40 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	158047	23.65	ug/L	99
93) trans-1,4-Dichloro-2-B...	7.208	53	9772	17.48	ug/L	91
94) 1,2,3-Trichloropropane	7.177	110	25742	25.96	ug/L	96
95) Cyclohexanone	7.214	55	12697	120.47	ug/L	98
96) 4-Chlorotoluene	7.275	91	151678	23.86	ug/L	97
97) tert-Butylbenzene	7.421	91	83868	22.65	ug/L	97
99) 1,2,4-Trimethylbenzene	7.476	105	161752	23.69	ug/L	99
100) Pentachloroethane	7.439	167	26051	26.79	ug/L	88
101) sec-Butylbenzene	7.561	105	174607	22.33	ug/L	99
102) 4-Isopropyltoluene	7.671	119	149074	22.33	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	96924	22.80	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	182483	25.15	ug/L	98
105) 1,4-Dichlorobenzene	7.793	146	102777	24.20	ug/L	98
106) n-Butylbenzene	7.982	92	85761	25.07	ug/L	87
107) Benzyl Chloride	7.976	126	17786	25.18	ug/L #	67
108) 1,2-Dichlorobenzene	8.104	146	92503	22.73	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	15979	25.94	ug/L	93
110) Hexachlorobutadiene	9.134	225	17468	22.81	ug/L	98
111) 1,2,4-Trichlorobenzene	9.146	180	46762	20.12	ug/L	97
112) Naphthalene	9.372	128	166514	19.66	ug/L	99
113) 1,2,3-Trichlorobenzene	9.494	180	46332	20.06	ug/L	97

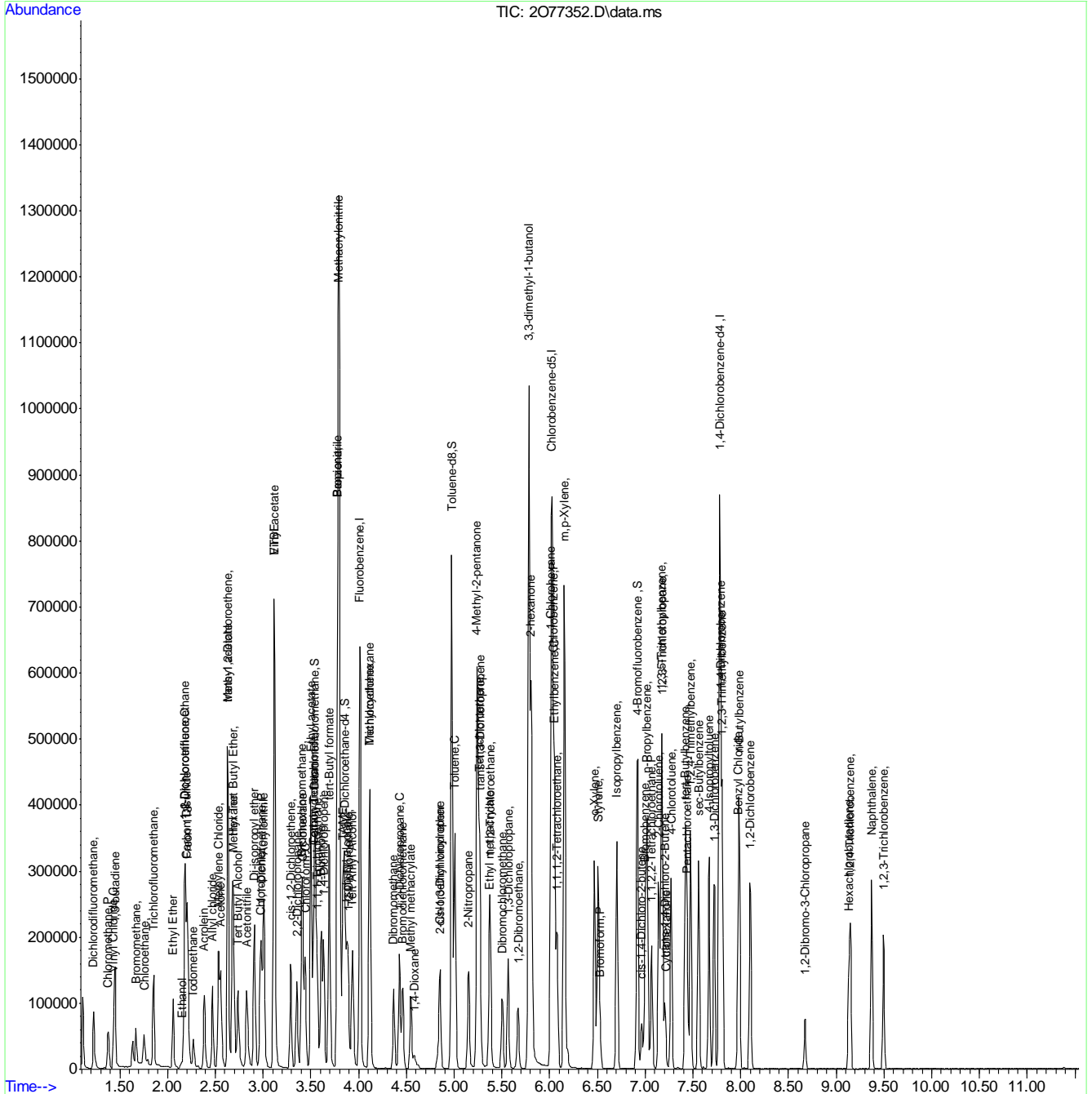
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
Data File : 2077352.D  
Acq On : 30 Jun 2023 7:58 pm  
Operator : adelardl  
Sample : FC7351-1MSD  
Misc : MS54337,V203013,,,,,5  
ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 02 15:08:40 2023  
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration



# Manual Integration Approval Summary

**Sample Number:** FC7351-1MSD      **Method:** SW846 8260D  
**Lab FileID:** 2077352.D      **Analyst approved:** 07/02/23 15:42 Jenifer Willis  
**Injection Time:** 06/30/23 19:58      **Supervisor approved:** 07/03/23 12:36 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

7.4.4.1

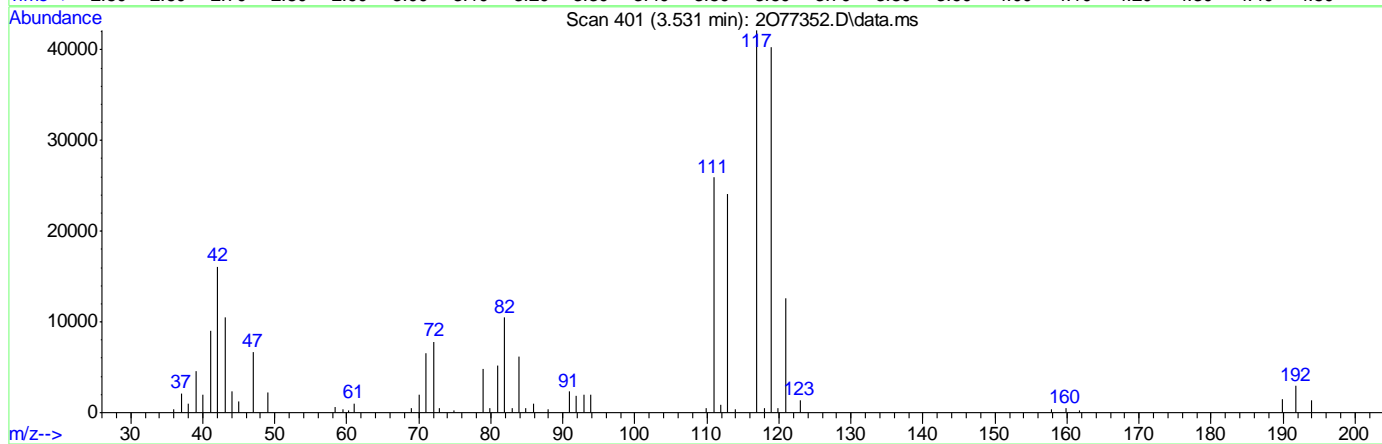
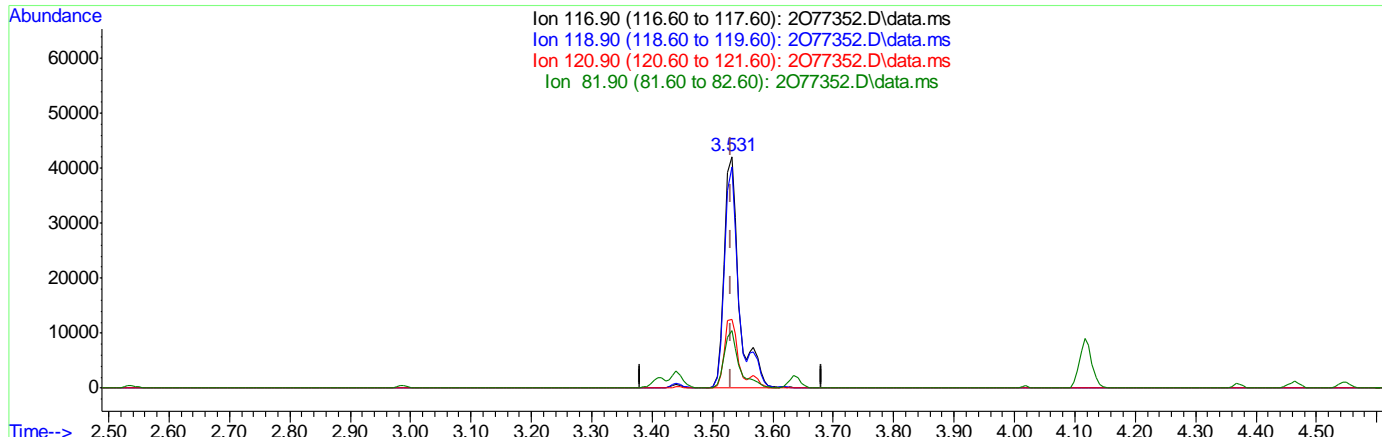
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077352.D  
 Acq On : 30 Jun 2023 7:58 pm  
 Operator : adelardl  
 Sample : FC7351-1MSD  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 02 07:17:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077352.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (+0.000) 29.40ug/L

response 72373

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	95.73
120.90	31.50	29.86
81.90	24.40	24.83

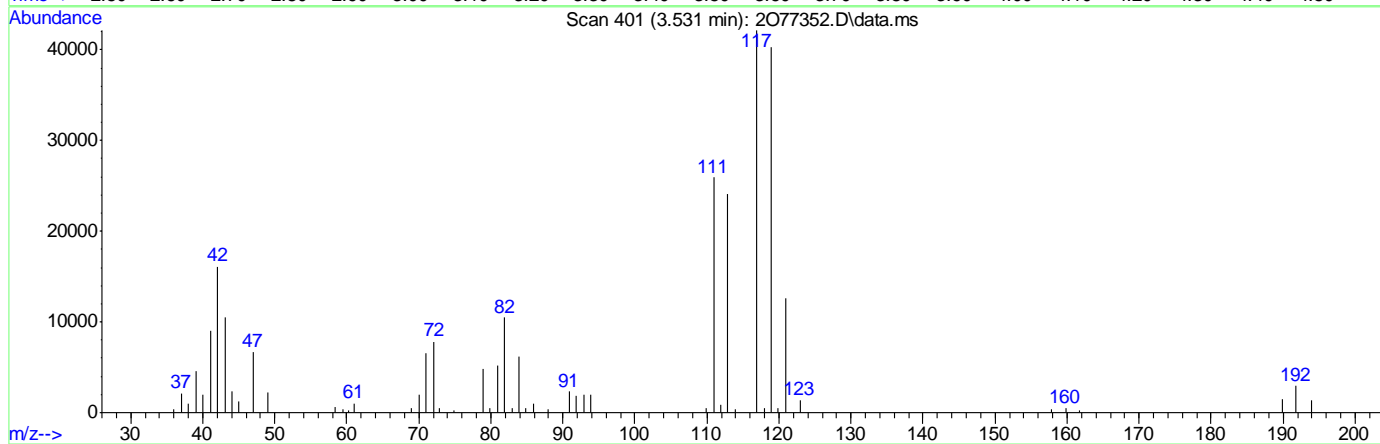
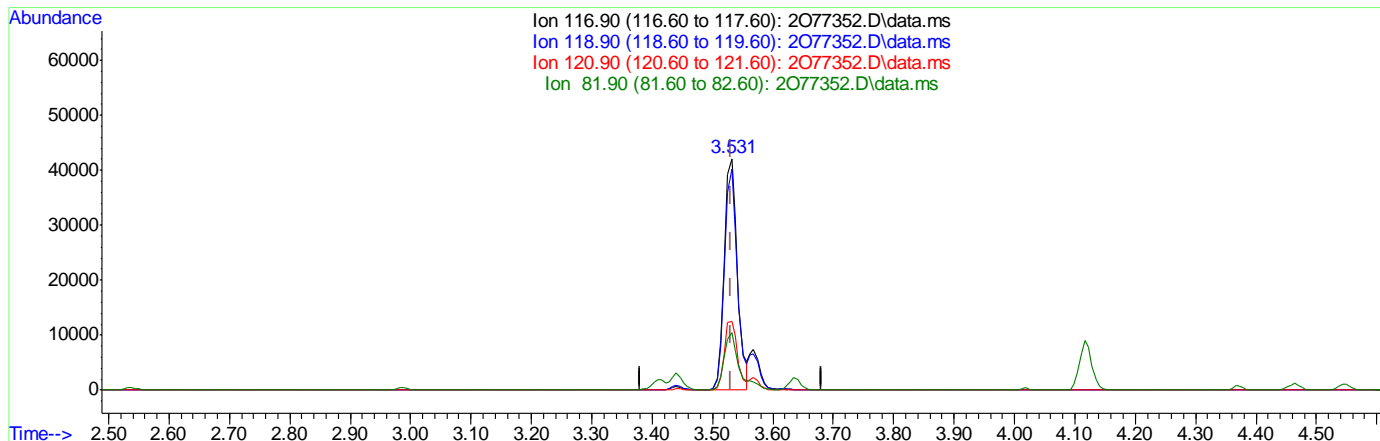
7.4.4.2  
7

## Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077352.D  
 Acq On : 30 Jun 2023 7:58 pm  
 Operator : adelardl  
 Sample : FC7351-1MSD  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 02 07:17:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077352.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (+0.000) 25.68ug/L m

response 63208

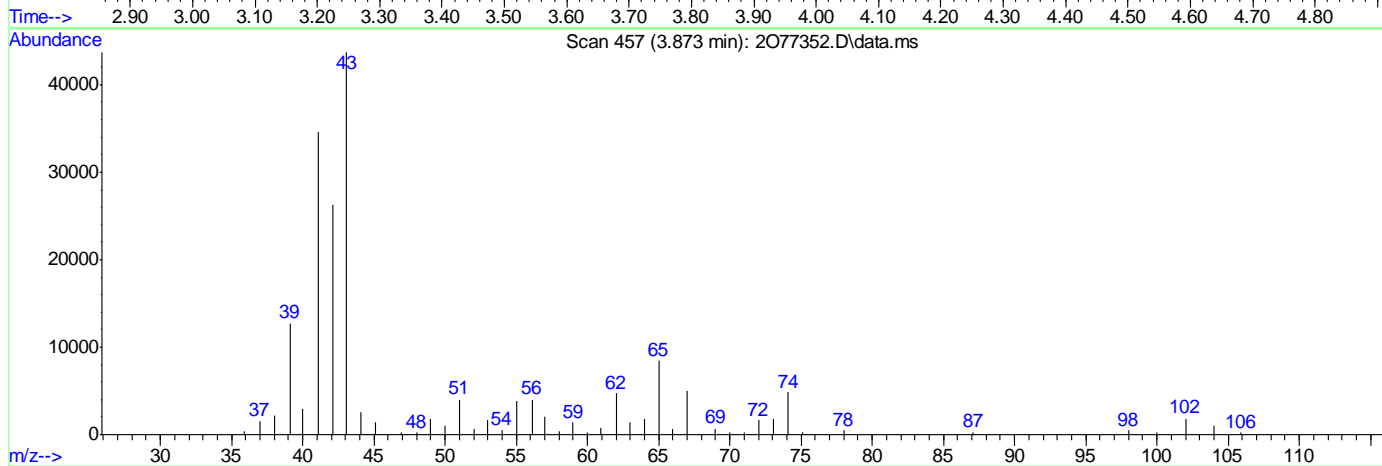
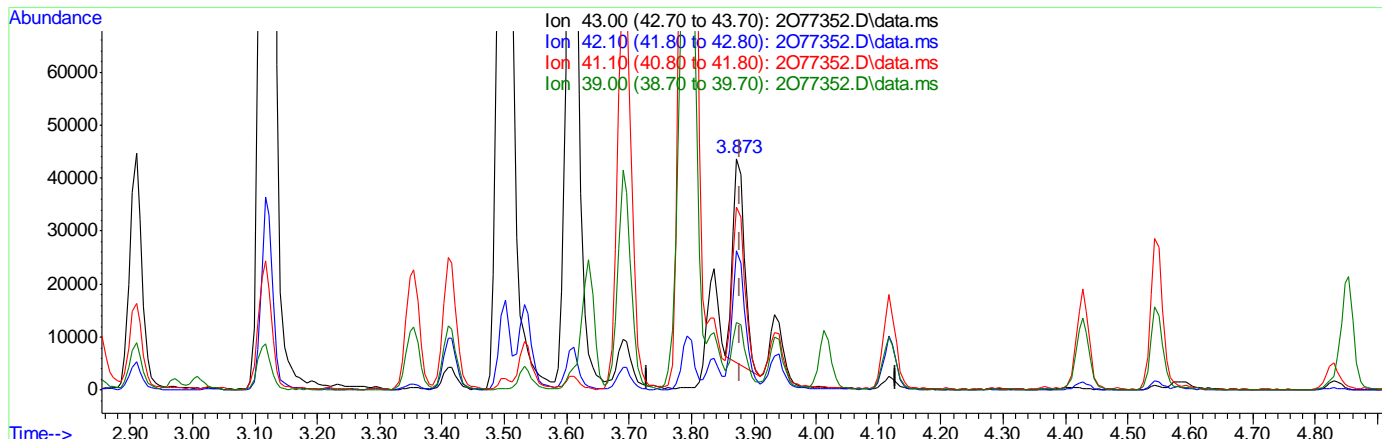
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	95.73
120.90	31.50	29.86
81.90	24.40	24.83

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077352.D  
 Acq On : 30 Jun 2023 7:58 pm  
 Operator : adelardl  
 Sample : FC7351-1MSD  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 02 07:17:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077352.D\data.ms

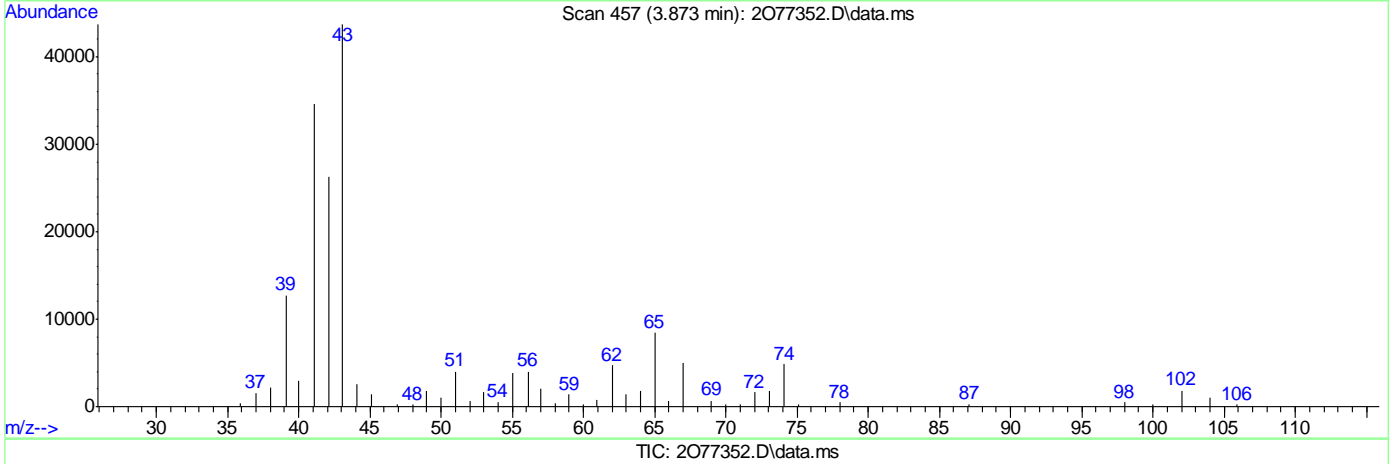
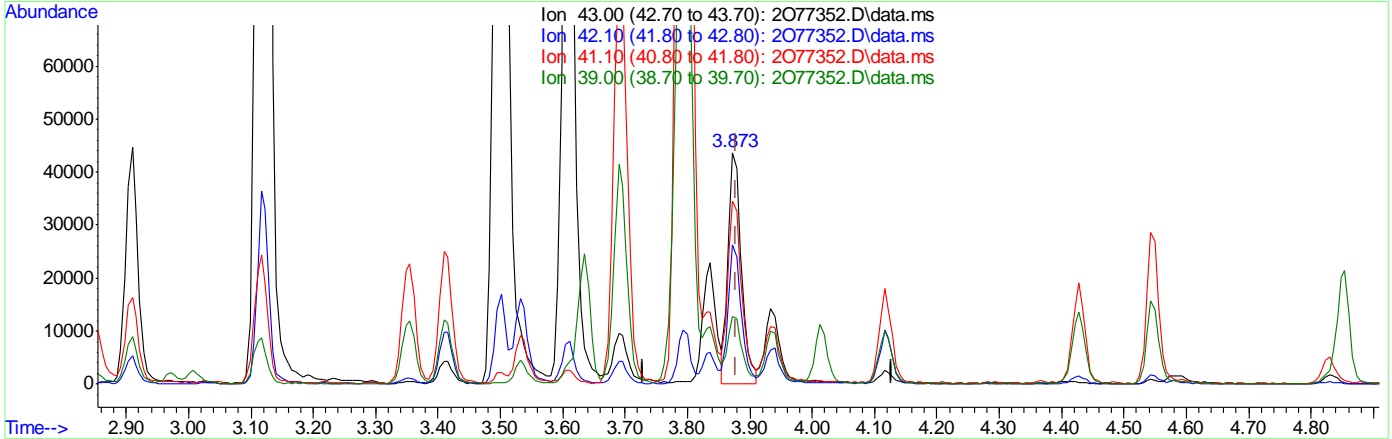
(49) Isobutyl alcohol  
 3.873min (-0.006) 367.95ug/L  
 response 50022

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	61.02
41.10	77.50	78.00
39.00	31.30	27.35

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077352.D  
 Acq On : 30 Jun 2023 7:58 pm  
 Operator : adelardl  
 Sample : FC7351-1MSD Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 02 07:17:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077352.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 474.13ug/L m  
 response 64999

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.23
41.10	77.50	79.18
39.00	31.30	29.10

7.4.4.5  
7

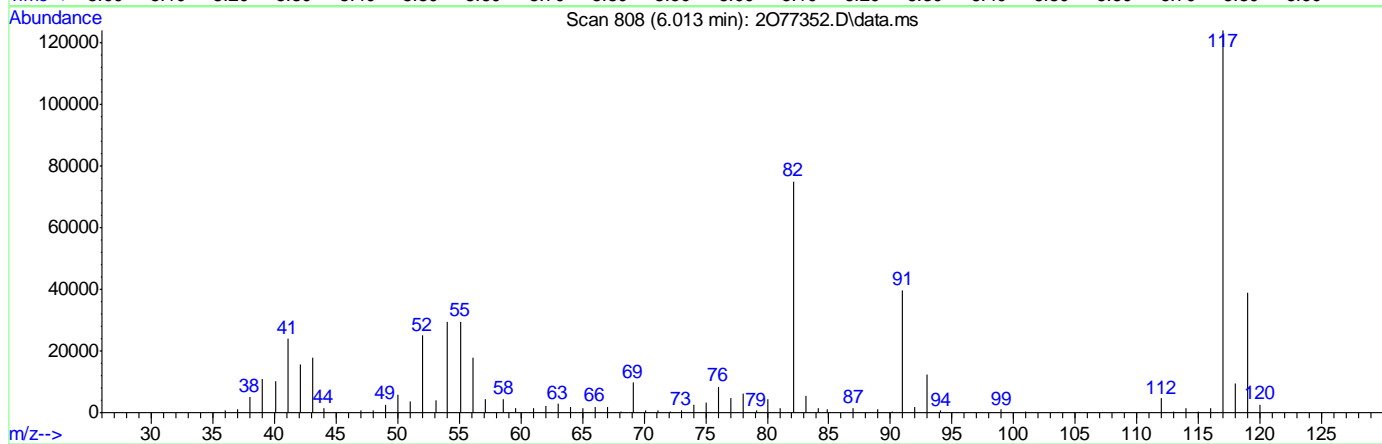
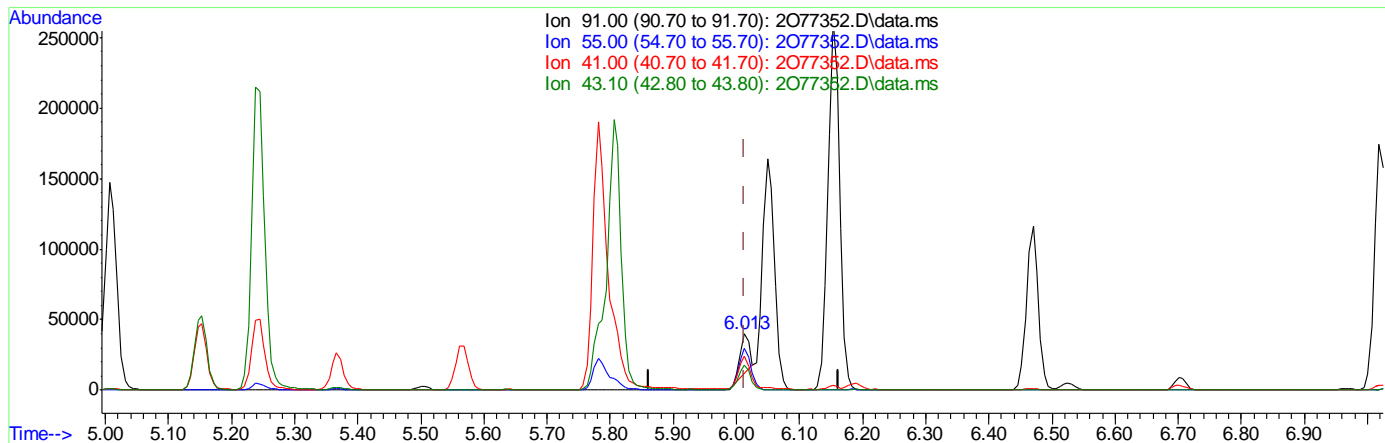


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077352.D  
 Acq On : 30 Jun 2023 7:58 pm  
 Operator : adelardl  
 Sample : FC7351-1MSD  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 27 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 02 07:17:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077352.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.000) 11.81ug/L

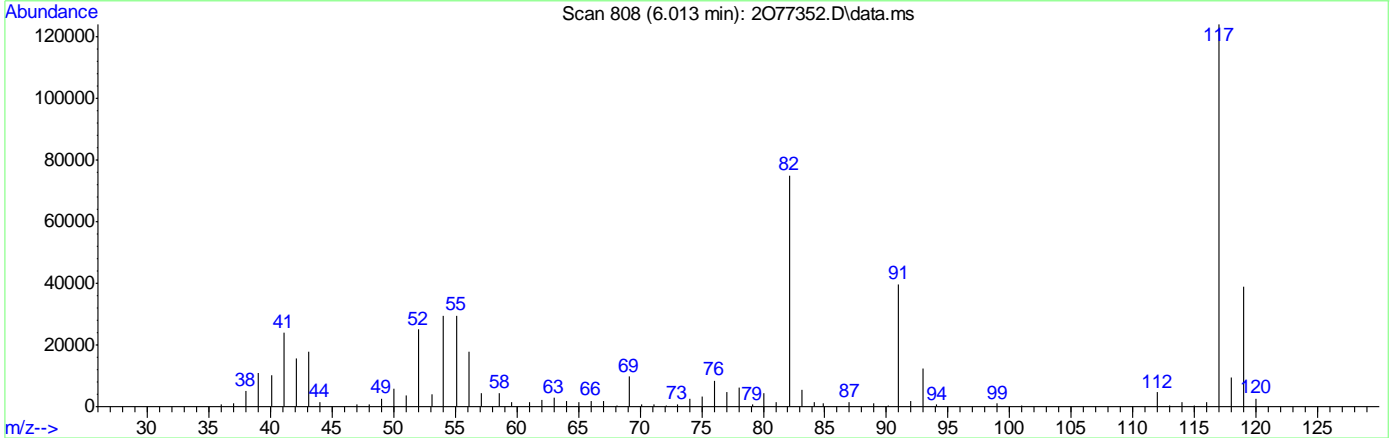
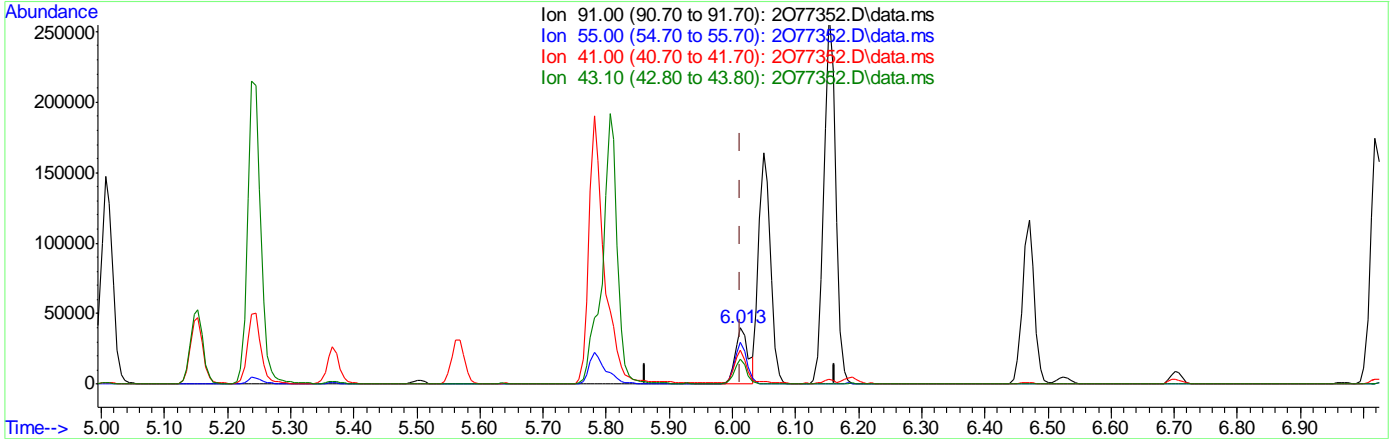
response 29647

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.74
41.00	55.00	56.47
43.10	42.40	42.48

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077352.D  
 Acq On : 30 Jun 2023 7:58 pm  
 Operator : adelardl  
 Sample : FC7351-1MSD Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,5  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 02 07:17:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077352.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 22.44ug/L m  
 response 56358

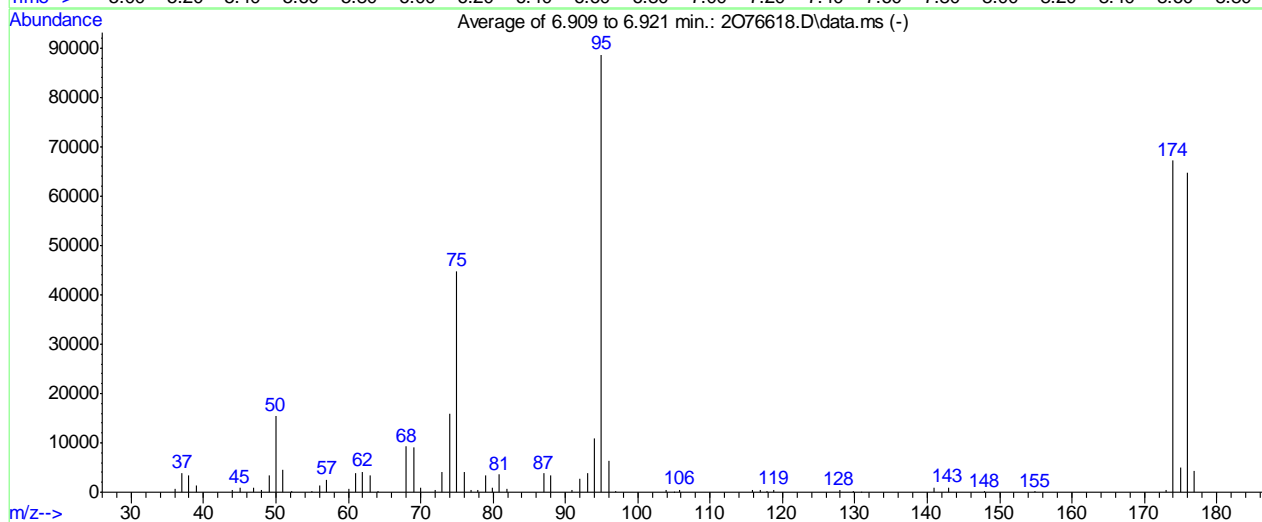
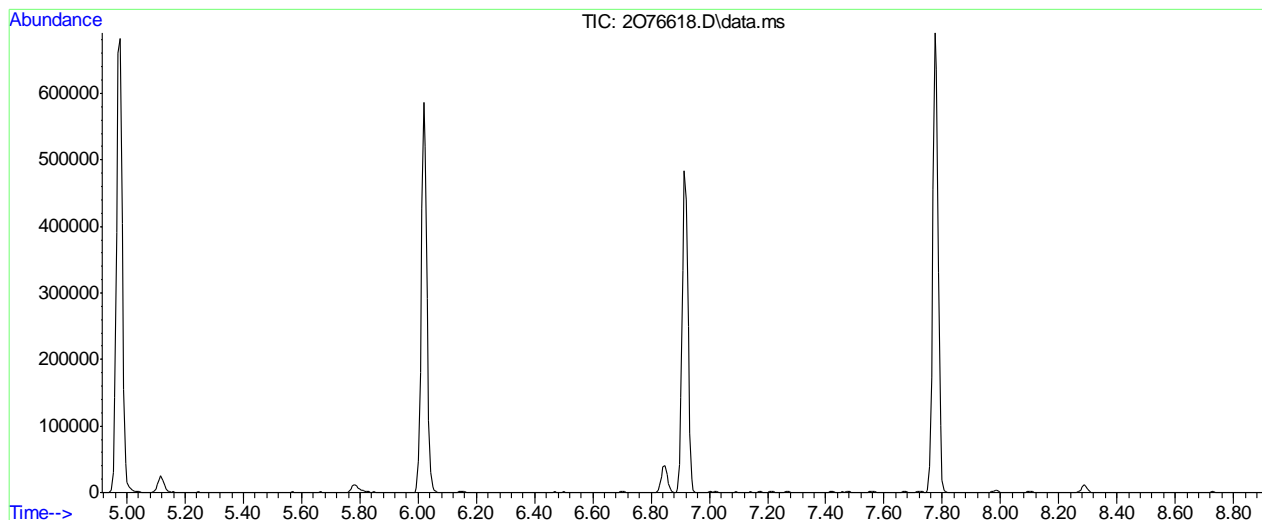
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	74.37
41.00	55.00	60.02
43.10	42.40	44.73

7.4.4.7  
7

Methods: SW-846 8260B

Data File : C:\msdchem\2\data\2023-06-07\2076618.D Vial: 1  
 Acq On : 7 Jun 2023 9:26 am Operator: joannel  
 Sample : BFB Inst : MSVOA12  
 Misc : MS54147,V2O2981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V2O\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



AutoFind: Scans 955, 956, 957; Background Corrected with Scan 949

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	15441	PASS
75	95	30	60	50.5	44797	PASS
95	95	100	100	100.0	88696	PASS
96	95	5	9	7.2	6368	PASS
173	174	0.00	2	0.8	520	PASS
174	95	50	100	75.7	67133	PASS
175	174	5	9	7.5	5047	PASS
176	174	95	101	96.3	64680	PASS
177	176	5	9	6.6	4269	PASS

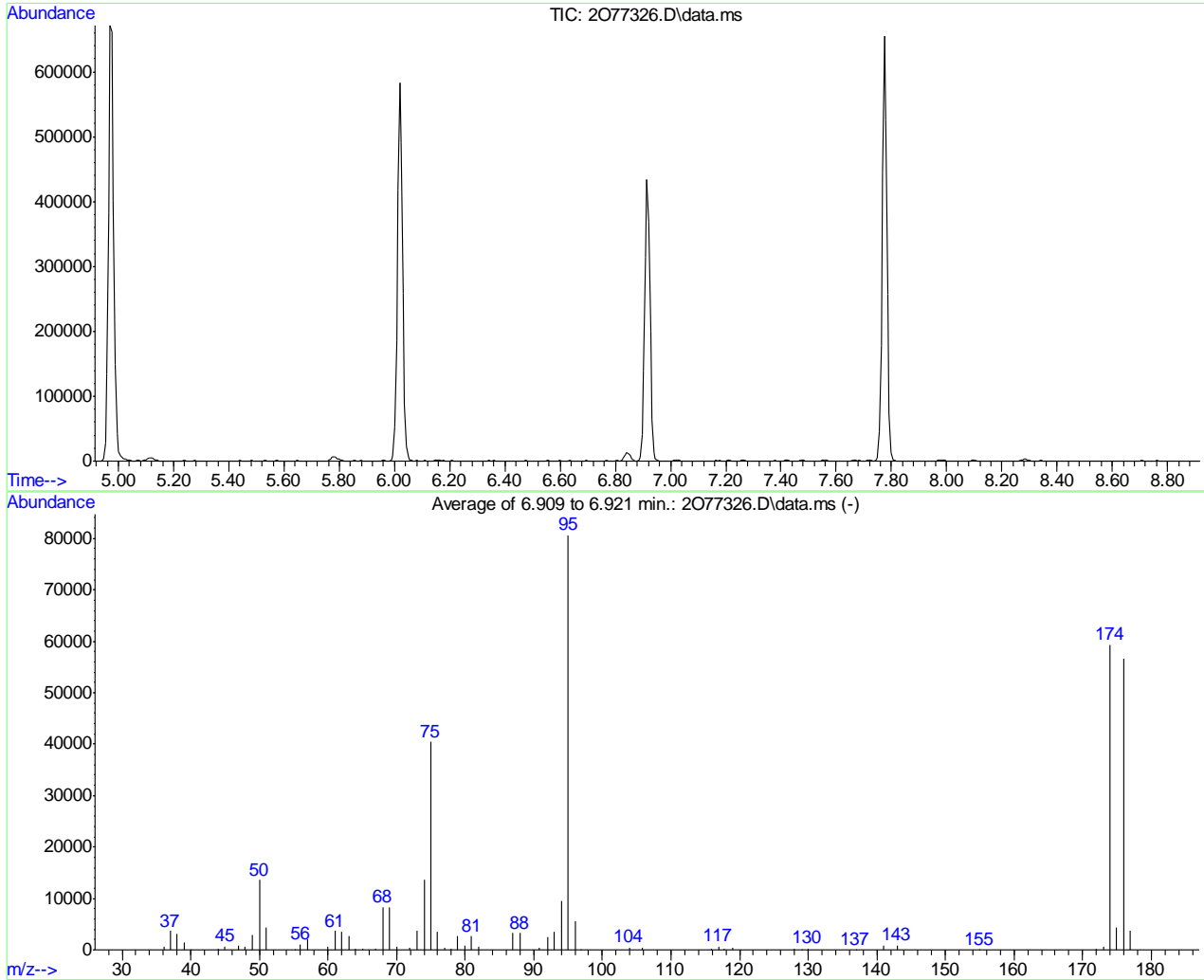
2076618.D V2O\_06-07-2023.M

Thu Jun 08 09:37:41 2023

Methods: SW-846 8260B

Data File : C:\msdchem\2\data\2023-06-30\2077326.D Vial: 1  
 Acq On : 30 Jun 2023 8:41 am Operator: adelardl  
 Sample : BFB Inst : MSVOA12  
 Misc : MS54313,V2O3013,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V2O\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



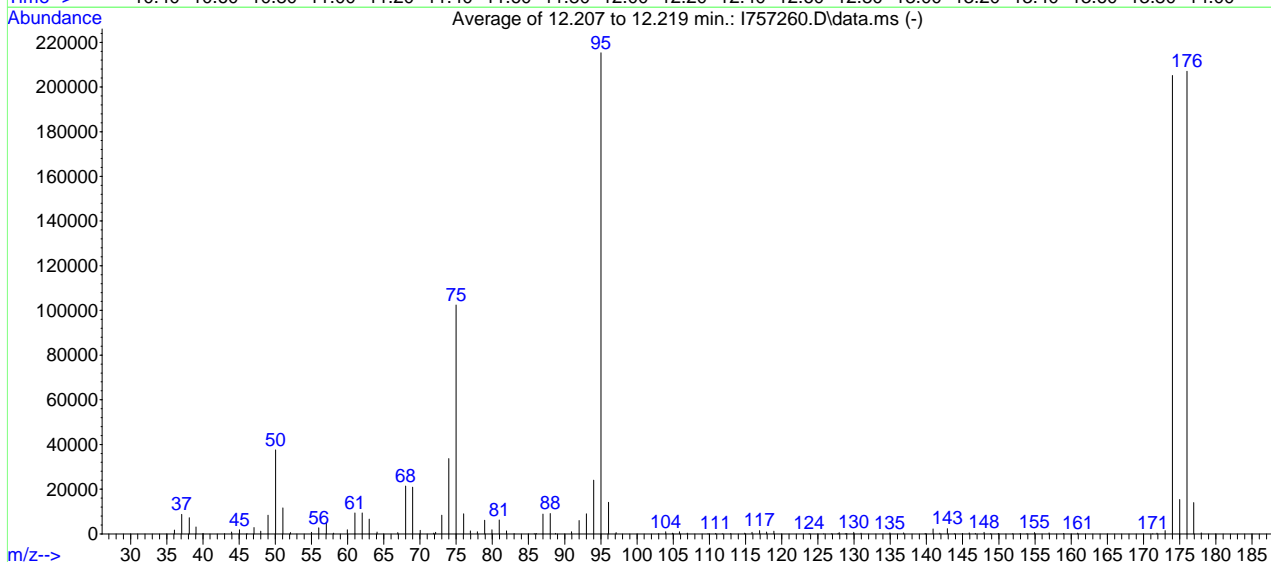
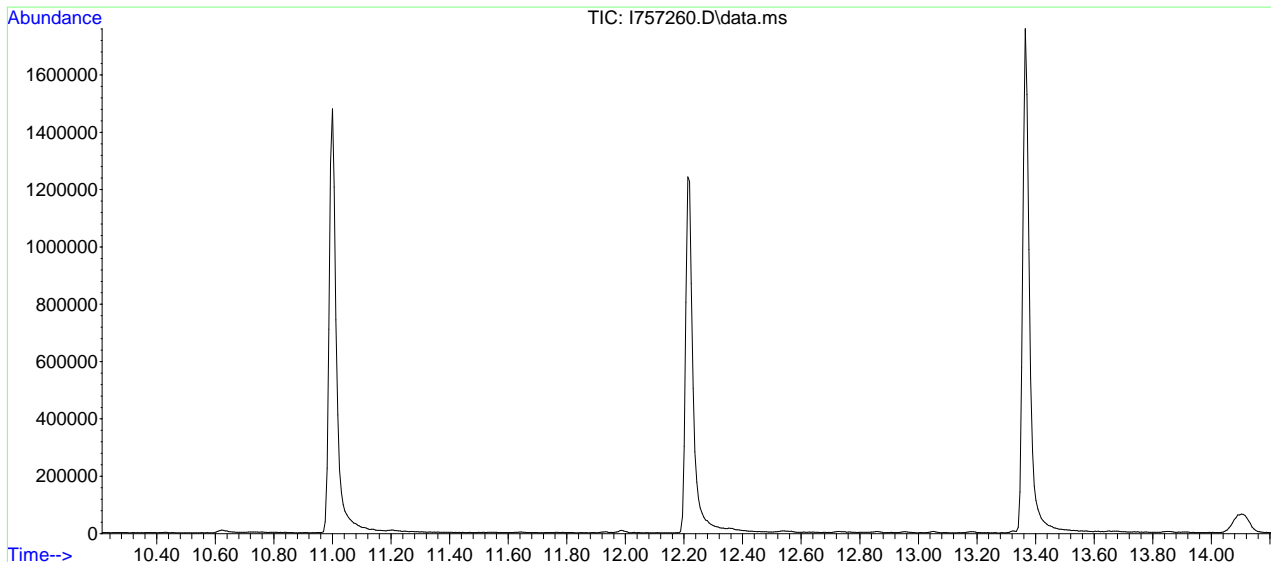
AutoFind: Scans 955, 956, 957; Background Corrected with Scan 948

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	13541	PASS
75	95	30	60	50.1	40400	PASS
95	95	100	100	100.0	80672	PASS
96	95	5	9	6.8	5521	PASS
173	174	0.00	2	0.9	536	PASS
174	95	50	100	73.5	59325	PASS
175	174	5	9	7.3	4327	PASS
176	174	95	101	95.3	56528	PASS
177	176	5	9	6.5	3688	PASS

2077326.D V2O\_06-07-2023.M Fri Jun 30 14:08:43 2023

Methods: SW-846 8260B  
 Data File : C:\msdchem\1\data\2023-06-15\I757260.D Vial: 1  
 Acq On : 15 Jun 2023 10:08 am Operator: joannel  
 Sample : BFB Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



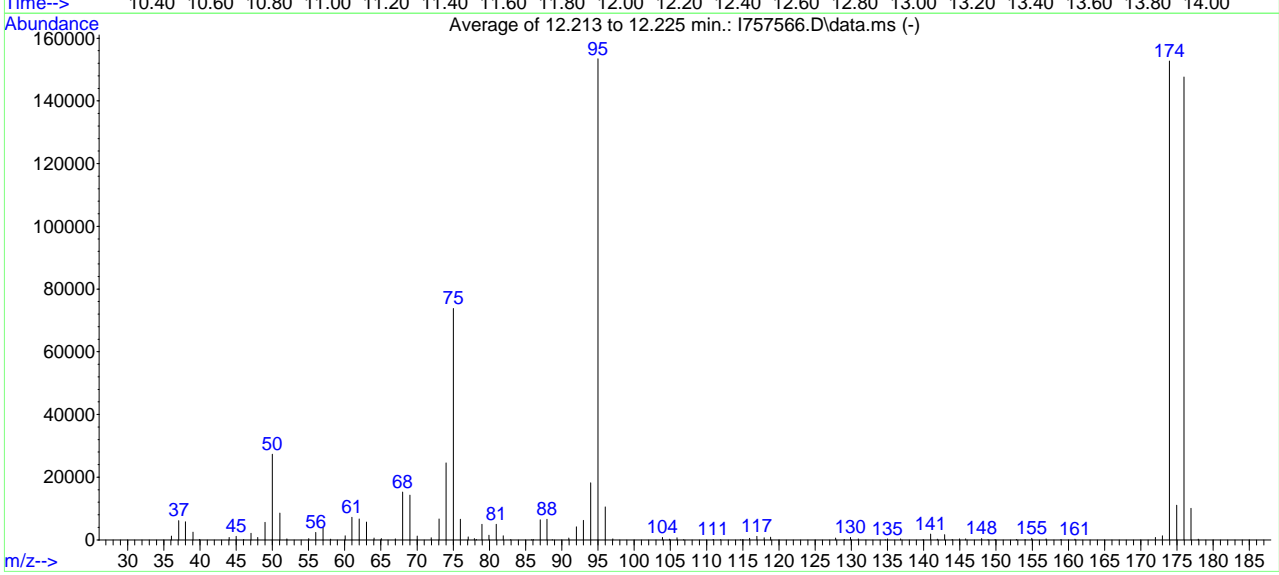
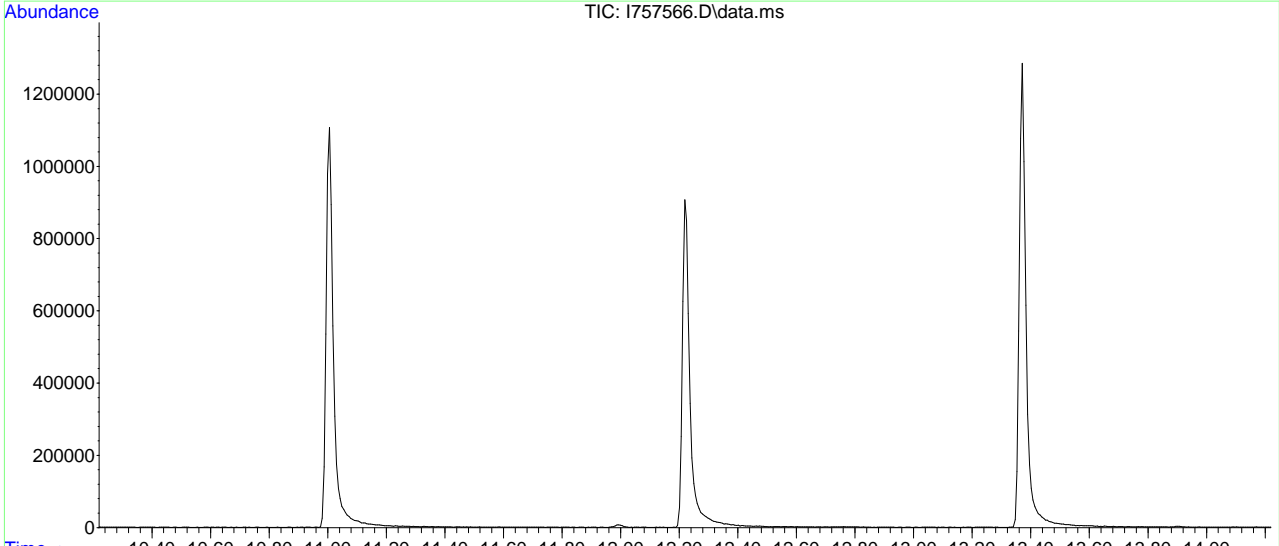
AutoFind: Scans 1824, 1825, 1826; Background Corrected with Scan 1818

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	37549	PASS
75	95	30	60	47.6	102373	PASS
95	95	100	100	100.0	215275	PASS
96	95	5	9	6.6	14176	PASS
173	174	0.00	2	0.7	1477	PASS
174	95	50	100	95.3	205205	PASS
175	174	5	9	7.5	15382	PASS
176	174	95	101	100.9	207019	PASS
177	176	5	9	6.7	13947	PASS

Methods: SW-846 8260B

Data File : C:\msdchem\1\data\2023-06-29\I757566.D Vial: 1  
 Acq On : 29 Jun 2023 10:58 am Operator: adelardl  
 Sample : BFB Inst : MSVOA16  
 Misc : MS54274,VI2958,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



AutoFind: Scans 1825, 1826, 1827; Background Corrected with Scan 1819

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	27309	PASS
75	95	30	60	48.1	73827	PASS
95	95	100	100	100.0	153424	PASS
96	95	5	9	6.8	10481	PASS
173	174	0.00	2	0.8	1273	PASS
174	95	50	100	99.6	152749	PASS
175	174	5	9	7.2	11010	PASS
176	174	95	101	96.6	147600	PASS
177	176	5	9	6.8	10067	PASS

7.5.4  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	411508	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	303637	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	160349	50.00	ug/L	-0.02
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	112234	49.21	ug/L	-0.01
Spiked Amount	50.000	Range 83	- 118	Recovery =	98.42%	
50) 1,2-Dichloroethane-d4	3.854	65	131197	54.12	ug/L	-0.01
Spiked Amount	50.000	Range 79	- 125	Recovery =	108.24%	
63) Toluene-d8	4.976	98	399385	48.23	ug/L	-0.01
Spiked Amount	50.000	Range 85	- 112	Recovery =	96.46%	
86) 4-Bromofluorobenzene	6.921	174	115732	47.30	ug/L	-0.02
Spiked Amount	50.000	Range 83	- 118	Recovery =	94.60%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	38994	23.26	ug/L	95
3) Chloromethane	1.373	50	37269	20.56	ug/L	97
4) 1,3-butadiene	1.446	39	45293	24.92	ug/L	92
5) Vinyl Chloride	1.434	62	39991	22.22	ug/L	97
6) Bromomethane	1.666	94	29963	21.74	ug/L	99
7) Chloroethane	1.751	64	28233	32.05	ug/L	98
8) Trichlorofluoromethane	1.849	101	78549	24.57	ug/L	97
9) Ethyl Ether	2.056	59	34624	24.42	ug/L	96
10) Ethanol	2.154	45	15818	426.52	ug/L	100
11) 1,2-Dichlorotrifluoro...	2.178	67	49983	23.68	ug/L	98
12) 1,1-Dichloroethene	2.178	61	63089	23.27	ug/L	99
13) Freon 113	2.208	101	45779	25.37	ug/L	98
14) Carbon Disulfide	2.202	76	115077	21.86	ug/L	96
15) Iodomethane	2.269	142	38298	13.60	ug/L	93
16) Acrolein	2.385	56	56093	108.73	ug/L	99
17) Allyl chloride	2.471	41	47627	22.69	ug/L	92
18) Methylene Chloride	2.532	49	55845	22.36	ug/L	98
19) Acetone	2.556	43	113944	110.08	ug/L	98
20) Methyl acetate	2.629	43	272095	114.32	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	62555	24.14	ug/L	97
22) Hexane	2.678	56	32375	23.65	ug/L	97
23) Methyl Tert Butyl Ether	2.690	73	123824	24.90	ug/L	89
24) Tert Butyl Alcohol	2.739	59	79255	204.00	ug/L	90
25) Acetonitrile	2.830	41	85863	220.28	ug/L	99
26) Di-isopropyl ether	2.910	45	123738	23.46	ug/L	96
27) Chloroprene	2.970	53	64253	25.91	ug/L	98
28) 1,1-Dichloroethane	2.983	63	80909	24.04	ug/L	99
29) Acrylonitrile	3.007	52	119356	119.06	ug/L	99
30) ETBE	3.117	59	118570	24.78	ug/L	98
31) Vinyl acetate	3.117	43	505207	131.33	ug/L	100
32) cis-1,2-Dichloroethene	3.287	96	51375	24.58	ug/L	98
33) 2,2-Dichloropropane	3.355	77	54158	23.96	ug/L	98
34) Bromochloromethane	3.403	128	27012	23.97	ug/L	98
35) Cyclohexane	3.416	56	65417	23.53	ug/L	96



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	93084	25.54	ug/L	98
37) Ethyl acetate	3.501	43	373906	123.71	ug/L	100
38) Tetrahydrofuran	3.537	42	23310	20.06	ug/L	98
40) Carbon Tetrachloride	3.531	117	60973	26.71	ug/L	99
41) 1,1,1-Trichloroethane	3.568	97	75228	25.43	ug/L	96
42) 2-Butanone	3.611	43	183385	106.81	ug/L	98
43) 1,1-Dichloropropene	3.635	75	61988	24.28	ug/L	98
44) tert-Butyl formate	3.696	59	74360	108.64	ug/L	98
45) Propionitrile	3.781	54	115924	227.52	ug/L	97
46) Methacrylonitrile	3.793	41	408203	236.70	ug/L	99
47) Benzene	3.781	78	183039	24.25	ug/L	84
48) TAME	3.836	73	111128	24.81	ug/L	97
49) Isobutyl alcohol	3.879	43	68115m	441.44	ug/L	
51) 1,2-Dichloroethane	3.891	62	74362	27.65	ug/L	97
52) Tert Amyl Alcohol	3.934	59	58406	190.60	ug/L	91
53) Trichloroethene	4.117	95	53300	24.50	ug/L	97
54) Methylcyclohexane	4.117	83	68228	23.96	ug/L	97
55) Dibromomethane	4.367	93	35521	25.96	ug/L	93
56) 1,2-Dichloropropane	4.428	63	43341	24.48	ug/L	96
57) Bromodichloromethane	4.464	83	62579	25.81	ug/L	98
58) Methyl methacrylate	4.549	41	47116	23.79	ug/L	97
59) 1,4-Dioxane	4.580	88	17127	454.51	ug/L	95
60) 2-Chloroethyl vinyl ether	4.805	63	183297	119.22	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	67468	24.31	ug/L	96
64) Toluene	5.007	91	196545	23.62	ug/L	99
65) 2-Nitropropane	5.153	41	72851	137.45	ug/L	99
66) 4-Methyl-2-pentanone	5.244	43	325265	109.40	ug/L	97
67) trans-1,3-Dichloropropene	5.269	75	68013	24.87	ug/L	95
68) Tetrachloroethene	5.263	166	52210	22.14	ug/L	96
69) Ethyl methacrylate	5.366	69	59216	24.49	ug/L	93
70) 1,1,2-Trichloroethane	5.379	83	42378	25.24	ug/L	97
71) Dibromochloromethane	5.507	129	48706	24.88	ug/L	99
72) 1,3-Dichloropropane	5.568	76	78704	25.59	ug/L	97
73) 1,2-Dibromoethane	5.671	107	52840	25.15	ug/L	97
74) 3,3-dimethyl-1-butanol	5.781	57	431695	1077.04	ug/L	99
75) 2-hexanone	5.811	43	327136	110.75	ug/L	94
76) 1-Chlorohexane	6.013	91	60017m	22.91	ug/L	
77) Ethylbenzene	6.049	91	217796	24.27	ug/L	97
78) Chlorobenzene	6.037	112	136215	24.22	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.080	131	46330	26.31	ug/L	98
80) m,p-Xylene	6.153	91	346730	49.64	ug/L	97
81) o-Xylene	6.470	91	175043	24.82	ug/L	97
82) Styrene	6.506	104	134964	24.36	ug/L	98
83) Bromoform	6.531	173	28902	23.20	ug/L	93
84) Isopropylbenzene	6.701	105	203447	23.93	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	14431	19.87	ug/L #	79
88) n-Propylbenzene	7.018	91	241207	24.26	ug/L	98
89) Bromobenzene	7.000	156	52433	23.77	ug/L	92
90) 1,1,2,2-Tetrachloroethane	7.067	83	77797	25.70	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	172688	24.61	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	170133	25.38	ug/L	95
93) trans-1,4-Dichloro-2-B...	7.207	53	13783	21.66	ug/L #	84
94) 1,2,3-Trichloropropane	7.177	110	24220	24.31	ug/L	97
95) Cyclohexanone	7.214	55	14856	107.54	ug/L	95
96) 4-Chlorotoluene	7.274	91	156888	25.43	ug/L	99
97) tert-Butylbenzene	7.421	91	93142	24.57	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	172851	24.93	ug/L	98
100) Pentachloroethane	7.439	167	25143	26.32	ug/L #	84
101) sec-Butylbenzene	7.561	105	200239	23.84	ug/L	98
102) 4-Isopropyltoluene	7.671	119	170775	23.30	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	104575	23.99	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	178723	24.63	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	105572	23.91	ug/L	97
106) n-Butylbenzene	7.988	92	86734	23.55	ug/L	89
107) Benzyl Chloride	7.976	126	17727	21.51	ug/L #	45
108) 1,2-Dichlorobenzene	8.104	146	99217	24.12	ug/L	99
109) 1,2-Dibromo-3-Chloropr...	8.677	75	15955	25.36	ug/L	82
110) Hexachlorobutadiene	9.134	225	19122	21.48	ug/L	95
111) 1,2,4-Trichlorobenzene	9.152	180	58507	23.43	ug/L	99
112) Naphthalene	9.372	128	212372	24.04	ug/L	100
113) 1,2,3-Trichlorobenzene	9.500	180	55697	23.49	ug/L	94

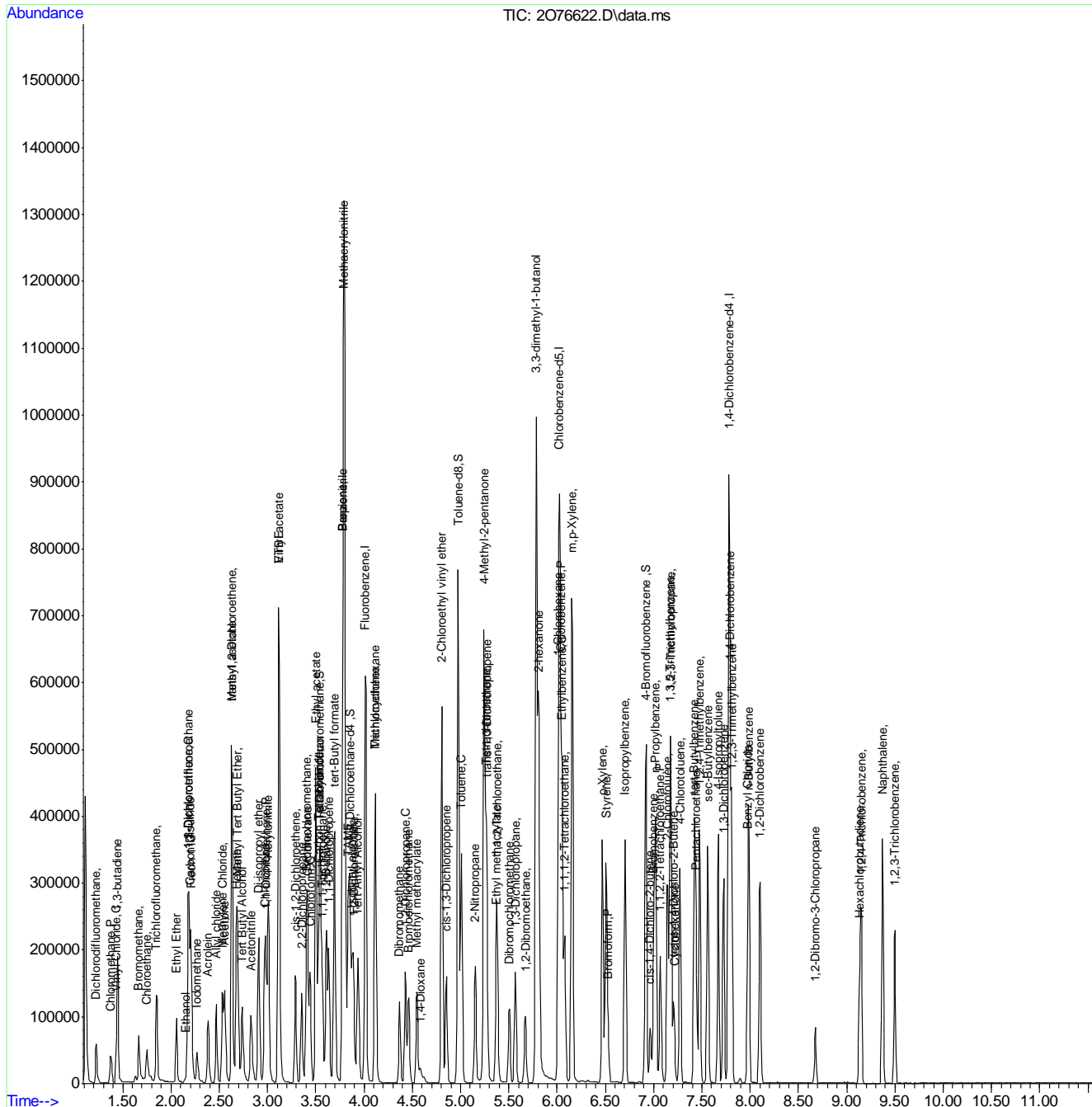
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



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# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76622.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 11:22      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

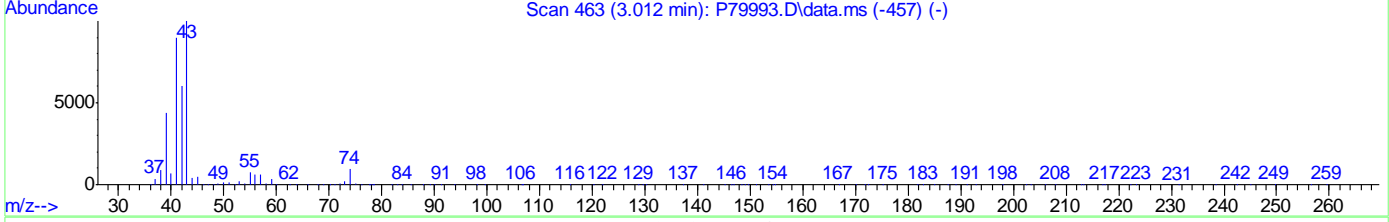
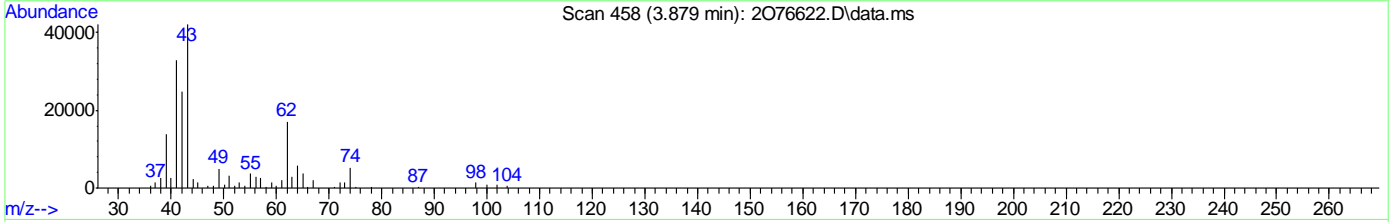
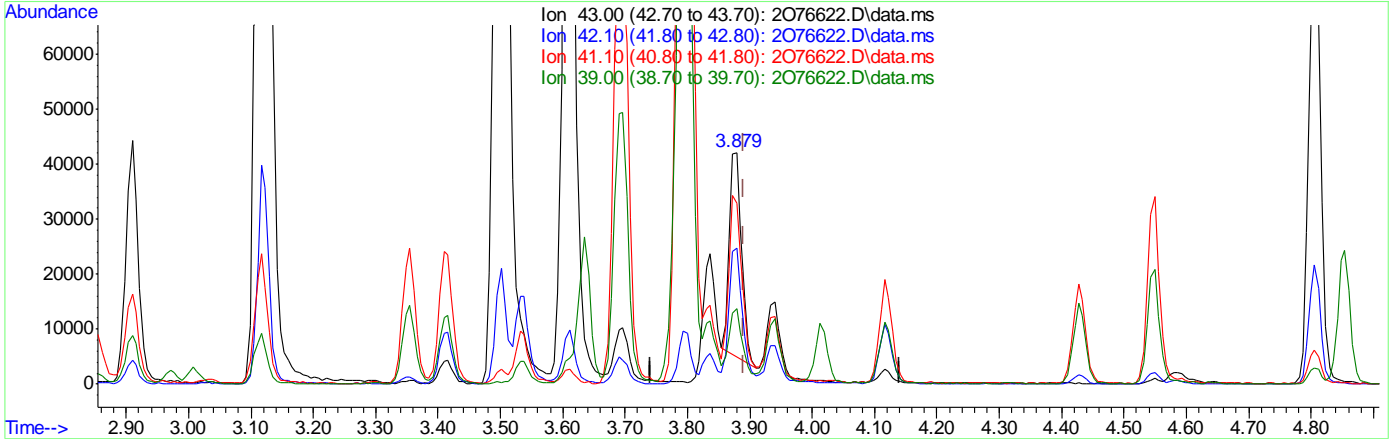
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

7.6.1.1  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V2O\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 328.80ug/L  
 response 49985

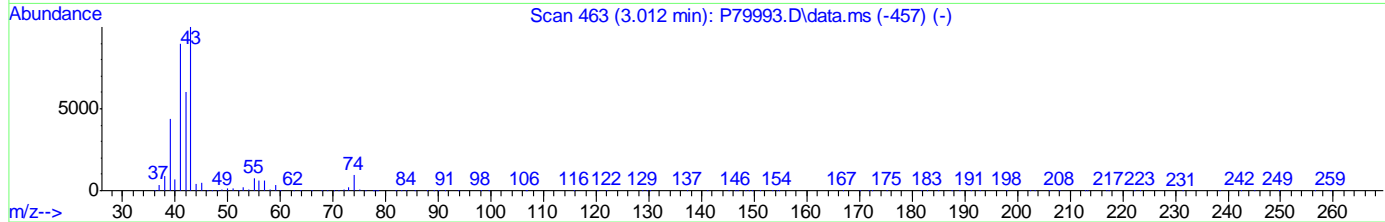
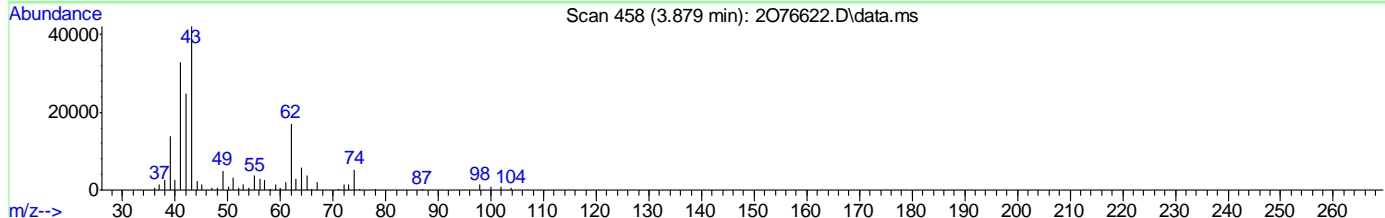
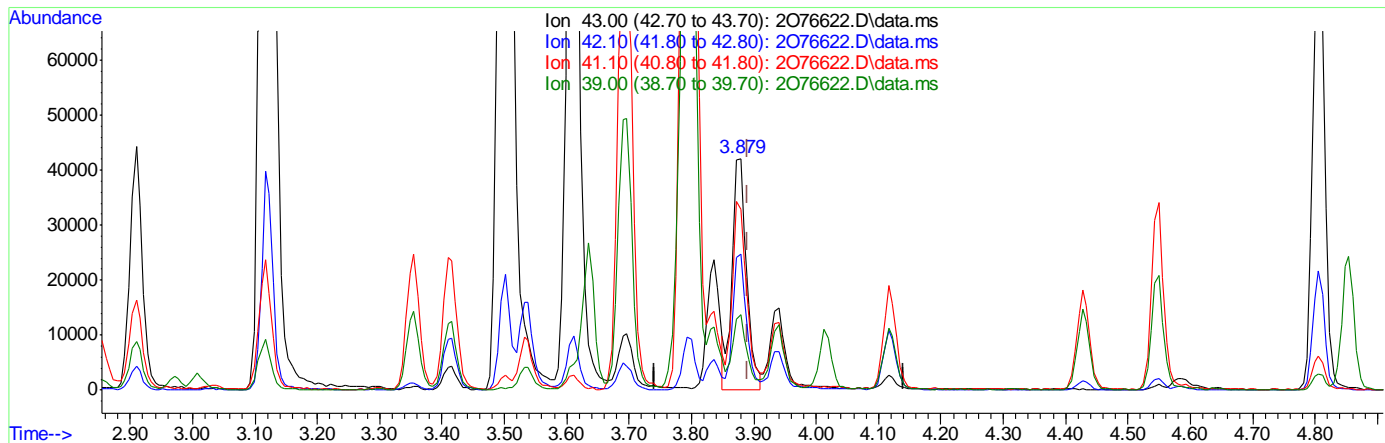
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	59.52
41.10	73.50	75.72
39.00	30.20	30.39

7.6.1.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.879min (-0.012) 441.44ug/L m  
 response 68115

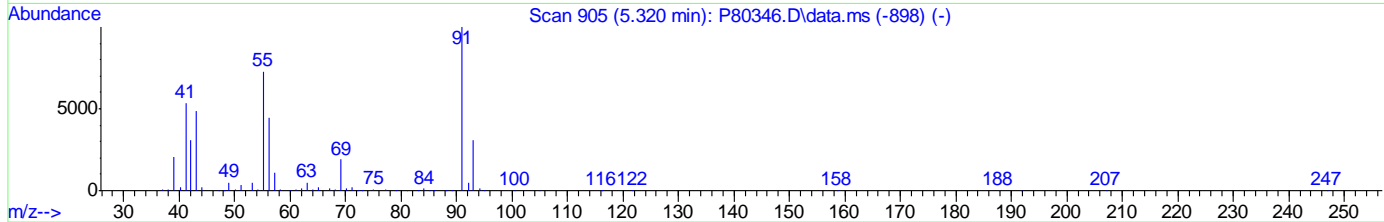
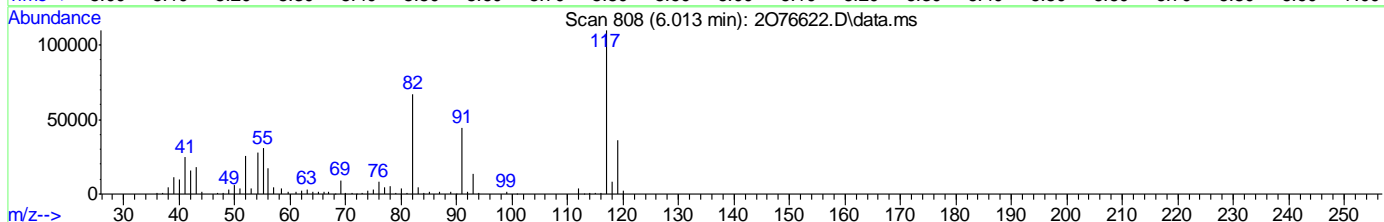
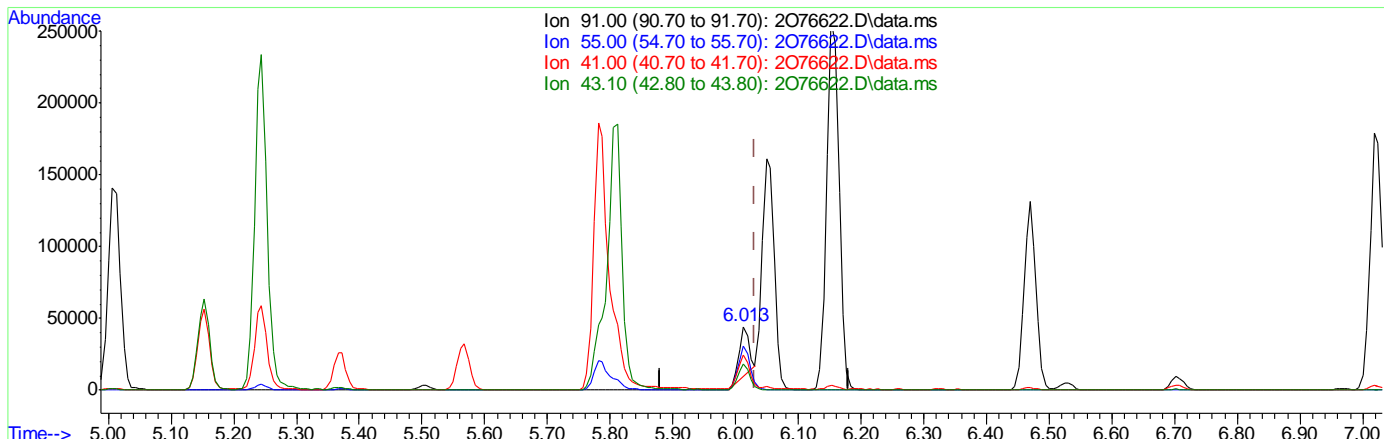
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.75
41.10	73.50	78.06
39.00	30.20	32.70

7.6.1.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 14.59ug/L  
 response 38213

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	69.16
41.00	53.70	53.18
43.10	42.30	40.30

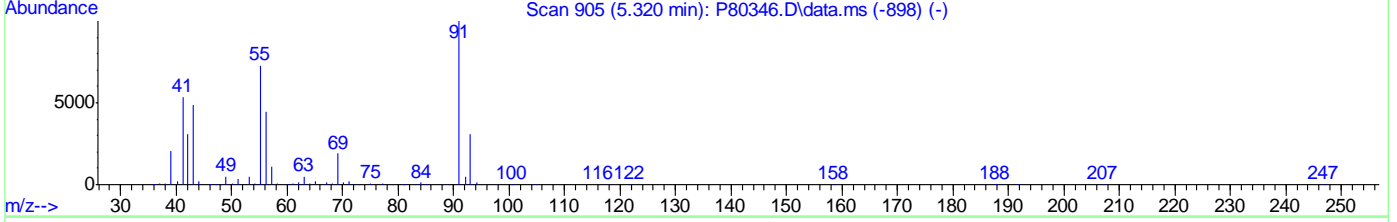
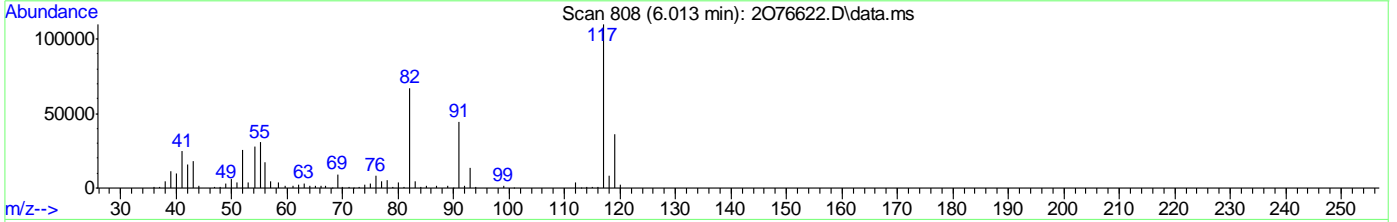
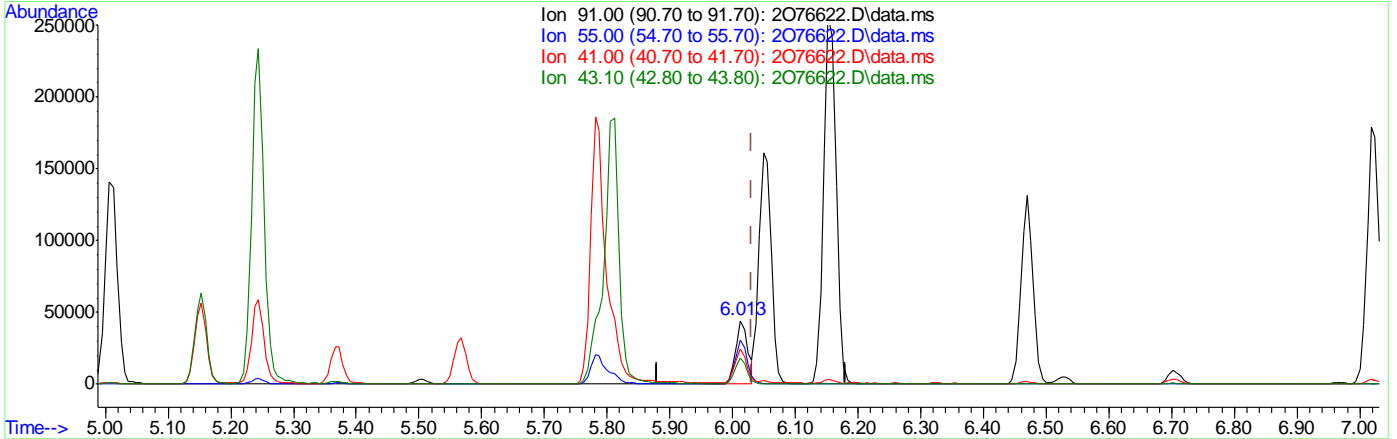
7.6.1.4  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.018) 22.91ug/L m

response 60017

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	69.66
41.00	53.70	55.68
43.10	42.30	41.44

7.6.1.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	426373	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	320814	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	169764	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	116224	49.18	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	98.36%	
50) 1,2-Dichloroethane-d4	3.854	65	141050	56.15	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	112.30%	
63) Toluene-d8	4.976	98	419102	47.90	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	95.80%	
86) 4-Bromofluorobenzene	6.921	174	122824	47.41	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	94.82%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	65826	37.90	ug/L		99
3) Chloromethane	1.379	50	62443	33.25	ug/L		99
4) 1,3-butadiene	1.446	39	68924	36.60	ug/L		98
5) Vinyl Chloride	1.434	62	68903	36.95	ug/L		96
6) Bromomethane	1.672	94	53773	37.65	ug/L		98
7) Chloroethane	1.751	64	37179	Below Cal			98
8) Trichlorofluoromethane	1.849	101	135489	40.91	ug/L		100
9) Ethyl Ether	2.056	59	61952	42.17	ug/L		98
10) Ethanol	2.154	45	23426	610.76	ug/L		99
11) 1,2-Dichlorotrifluoro...	2.178	67	91695	41.93	ug/L		97
12) 1,1-Dichloroethene	2.178	61	116171	41.36	ug/L		97
13) Freon 113	2.208	101	83745	44.79	ug/L		95
14) Carbon Disulfide	2.202	76	214433	39.31	ug/L		95
15) Iodomethane	2.269	142	76584	26.24	ug/L		93
16) Acrolein	2.385	56	95417	178.50	ug/L		99
17) Allyl chloride	2.471	41	77458	35.62	ug/L		94
18) Methylene Chloride	2.532	49	98407	38.46	ug/L		96
19) Acetone	2.556	43	187001	174.37	ug/L		97
20) Methyl acetate	2.629	43	465679	188.83	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	113274	42.18	ug/L		98
22) Hexane	2.678	56	57910	40.83	ug/L		98
23) Methyl Tert Butyl Ether	2.690	73	229067	44.46	ug/L		89
24) Tert Butyl Alcohol	2.739	59	137160	331.52	ug/L		96
25) Acetonitrile	2.830	41	131978	326.78	ug/L		98
26) Di-isopropyl ether	2.910	45	224834	41.13	ug/L		96
27) Chloroprene	2.971	53	102290	39.81	ug/L		100
28) 1,1-Dichloroethane	2.983	63	147398	42.28	ug/L		100
29) Acrylonitrile	3.007	52	178389	171.74	ug/L		98
30) ETBE	3.117	59	221218	44.62	ug/L		99
31) Vinyl acetate	3.117	43	786299	197.27	ug/L		100
32) cis-1,2-Dichloroethene	3.288	96	93812	43.31	ug/L		96
33) 2,2-Dichloropropane	3.355	77	102880	43.93	ug/L		98
34) Bromochloromethane	3.403	128	45659	39.10	ug/L		97
35) Cyclohexane	3.416	56	118080	40.99	ug/L		92

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	166135	43.99	ug/L	100
37) Ethyl acetate	3.501	43	559095	178.53	ug/L	100
38) Tetrahydrofuran	3.531	42	39579	32.87	ug/L	98
40) Carbon Tetrachloride	3.531	117	116593m	49.30	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	138307	45.13	ug/L	98
42) 2-Butanone	3.611	43	300446	168.90	ug/L	99
43) 1,1-Dichloropropene	3.635	75	114328	43.23	ug/L	97
44) tert-Butyl formate	3.696	59	151609	200.97	ug/L	90
45) Propionitrile	3.781	54	178462	338.06	ug/L	92
46) Methacrylonitrile	3.794	41	638344	357.25	ug/L	99
47) Benzene	3.781	78	335332	42.87	ug/L	90
48) TAME	3.836	73	213020	45.90	ug/L	99
49) Isobutyl alcohol	3.879	43	109378m	664.69	ug/L	
51) 1,2-Dichloroethane	3.891	62	132126	47.41	ug/L	98
52) Tert Amyl Alcohol	3.940	59	105000	320.82	ug/L	97
53) Trichloroethene	4.117	95	95946	42.56	ug/L	97
54) Methylcyclohexane	4.117	83	125578	42.56	ug/L	97
55) Dibromomethane	4.367	93	62808	44.29	ug/L	98
56) 1,2-Dichloropropane	4.428	63	79539	43.36	ug/L	97
57) Bromodichloromethane	4.464	83	115870	46.13	ug/L	99
58) Methyl methacrylate	4.549	41	77860	37.95	ug/L	99
59) 1,4-Dioxane	4.586	88	30335	760.40	ug/L	95
60) 2-Chloroethyl vinyl ether	4.806	63	336704	211.37	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	129473	43.92	ug/L	98
64) Toluene	5.007	91	358502	40.78	ug/L	99
65) 2-Nitropropane	5.153	41	139242	229.70	ug/L	95
66) 4-Methyl-2-pentanone	5.244	43	547884	174.40	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	129149	43.80	ug/L	96
68) Tetrachloroethene	5.263	166	95581	38.37	ug/L	95
69) Ethyl methacrylate	5.366	69	97892	37.68	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	75298	42.45	ug/L	98
71) Dibromochloromethane	5.501	129	93044	43.54	ug/L	98
72) 1,3-Dichloropropane	5.568	76	142612	43.88	ug/L	97
73) 1,2-Dibromoethane	5.671	107	97238	43.80	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	770515	1768.71	ug/L	99
75) 2-hexanone	5.805	43	550862	176.51	ug/L	100
76) 1-Chlorohexane	6.013	91	111025m	40.12	ug/L	
77) Ethylbenzene	6.049	91	394127	41.56	ug/L	98
78) Chlorobenzene	6.037	112	246538	41.49	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	85432	45.91	ug/L	98
80) m,p-Xylene	6.153	91	632914	85.76	ug/L	97
81) o-Xylene	6.470	91	319474	42.88	ug/L	96
82) Styrene	6.506	104	253553	43.31	ug/L	97
83) Bromoform	6.531	173	55711	40.32	ug/L	98
84) Isopropylbenzene	6.702	105	375983	41.85	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	24681	32.10	ug/L #	87
88) n-Propylbenzene	7.019	91	439449	41.76	ug/L	98
89) Bromobenzene	7.000	156	96668	41.39	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.067	83	139025	43.38	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	320425	43.12	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	304666	42.93	ug/L	96
93) trans-1,4-Dichloro-2-B...	7.207	53	25988	37.37	ug/L	94
94) 1,2,3-Trichloropropane	7.177	110	44519	42.21	ug/L	97
95) Cyclohexanone	7.214	55	22436	153.41	ug/L	97
96) 4-Chlorotoluene	7.275	91	288538	44.18	ug/L	99
97) tert-Butylbenzene	7.421	91	172894	43.07	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	322431	43.92	ug/L	97
100) Pentachloroethane	7.439	167	42913	40.81	ug/L #	85
101) sec-Butylbenzene	7.561	105	364792	41.02	ug/L	99
102) 4-Isopropyltoluene	7.671	119	317715	40.94	ug/L	98
103) 1,3-Dichlorobenzene	7.726	146	189630	41.09	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	333706	43.43	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	192691	41.21	ug/L	99
106) n-Butylbenzene	7.982	92	158519	40.22	ug/L #	80
107) Benzyl Chloride	7.976	126	36514	38.61	ug/L #	60
108) 1,2-Dichlorobenzene	8.104	146	180515	41.45	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	28987	41.99	ug/L	83
110) Hexachlorobutadiene	9.134	225	34012	35.64	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	104883	39.67	ug/L	98
112) Naphthalene	9.372	128	401231	42.90	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	101571	40.46	ug/L	99

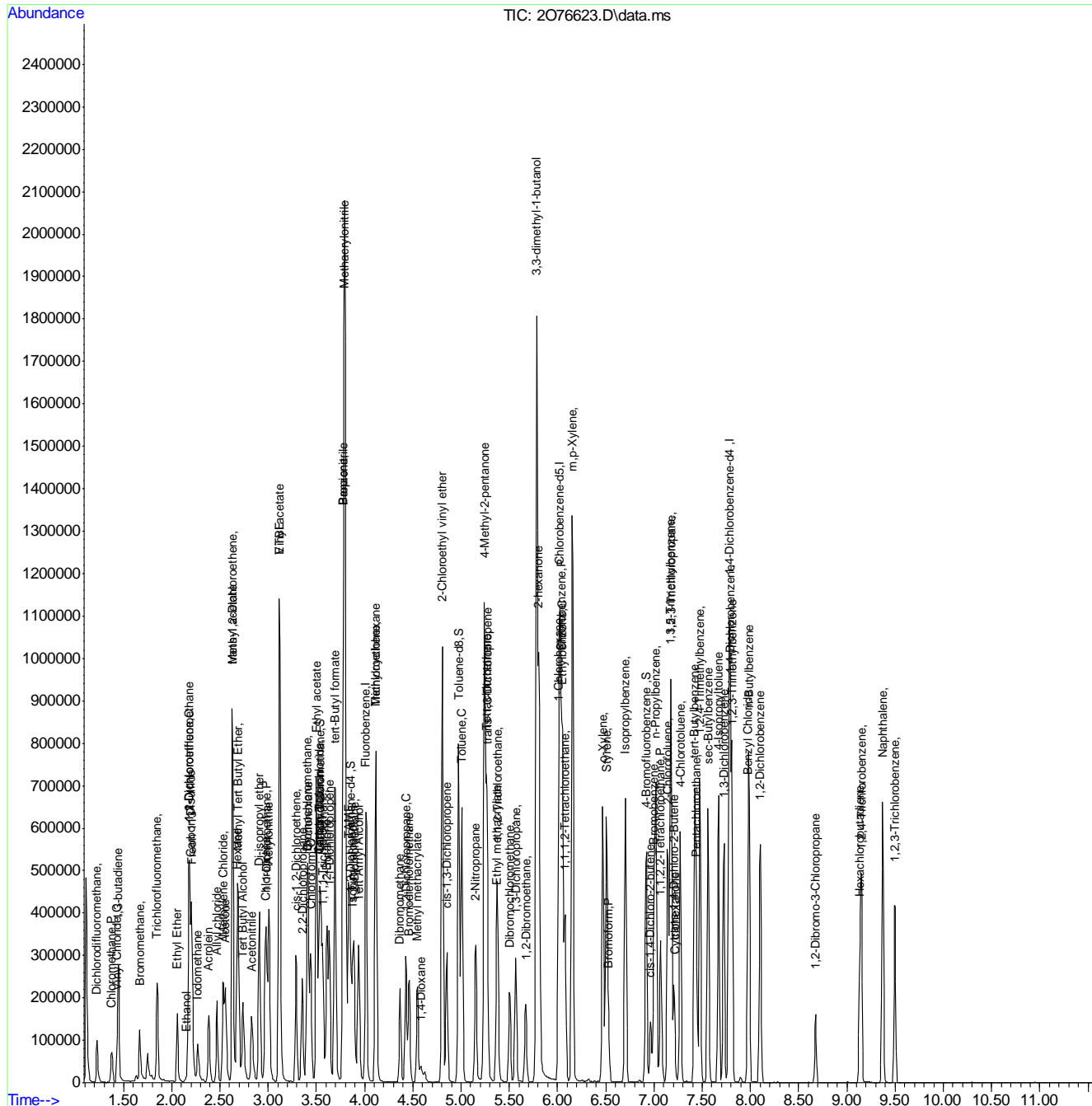
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



7.6.2  
7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-ICC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76623.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 11:47      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

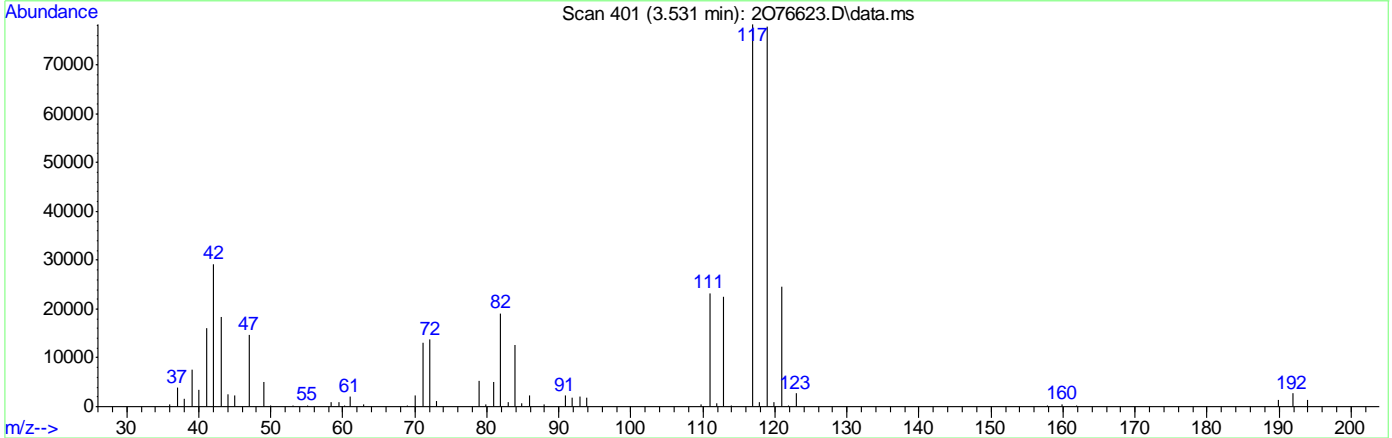
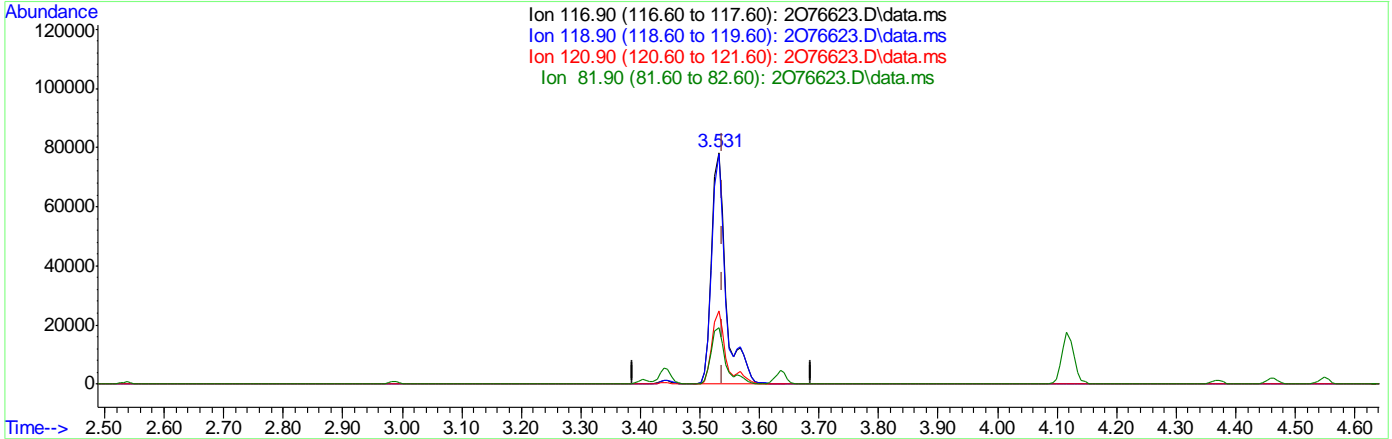
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.007) 56.30ug/L

response 133150

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.29
120.90	31.00	31.46
81.90	24.80	24.43

7.6.2.2

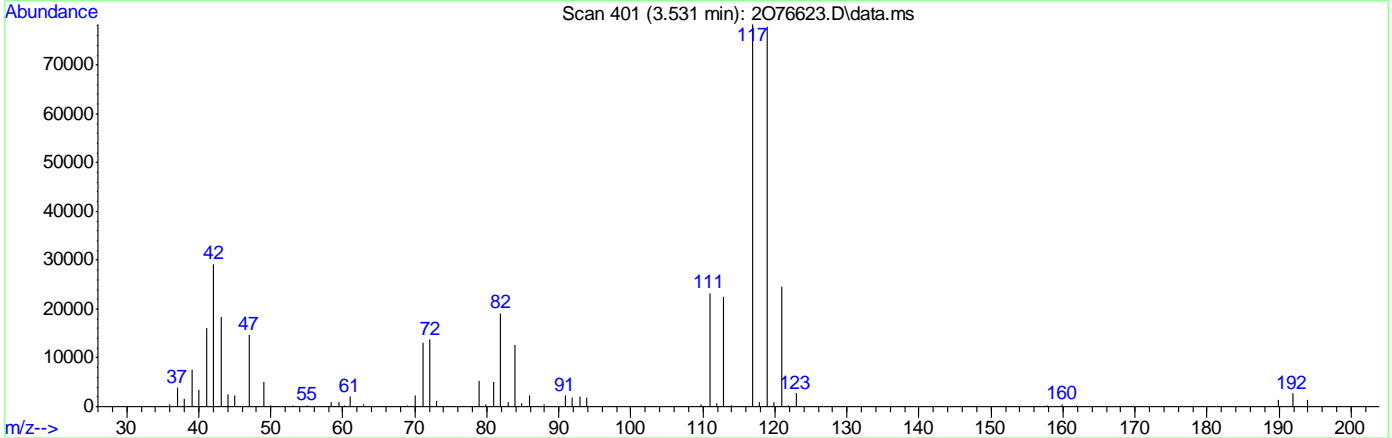
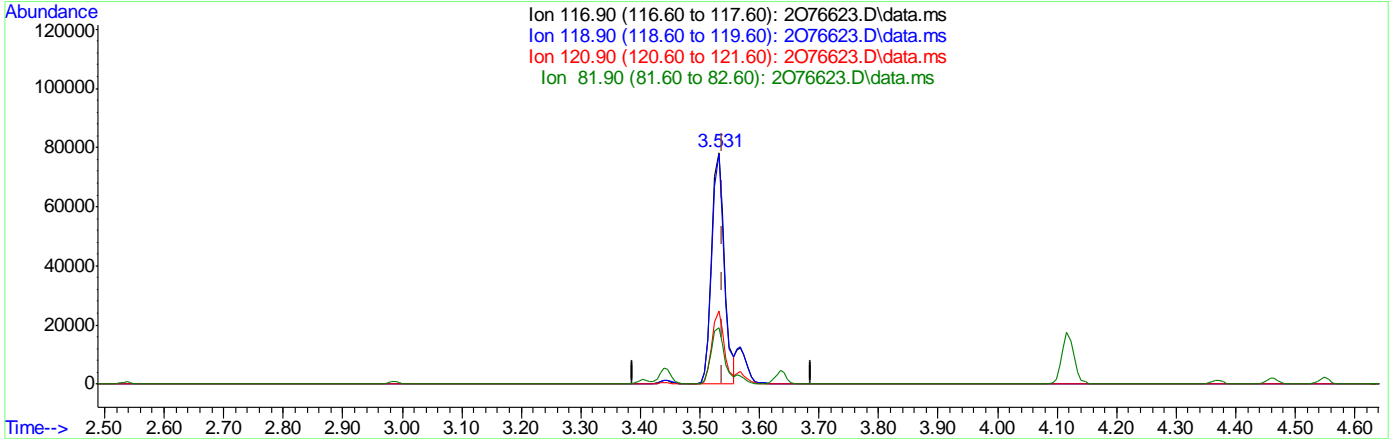
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.531min (-0.007) 49.30ug/L m  
 response 116593

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.29
120.90	31.00	31.46
81.90	24.80	24.43

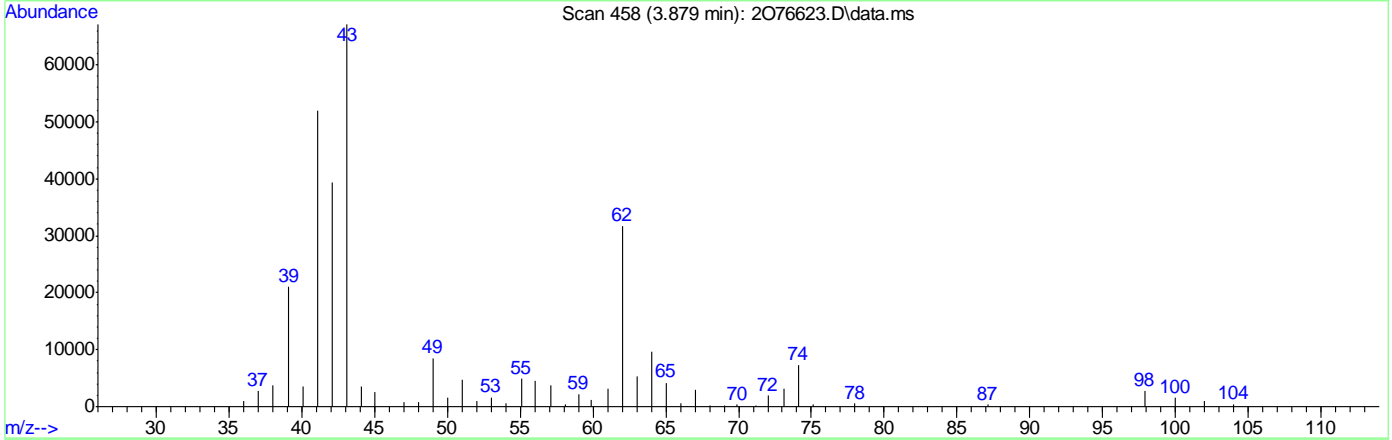
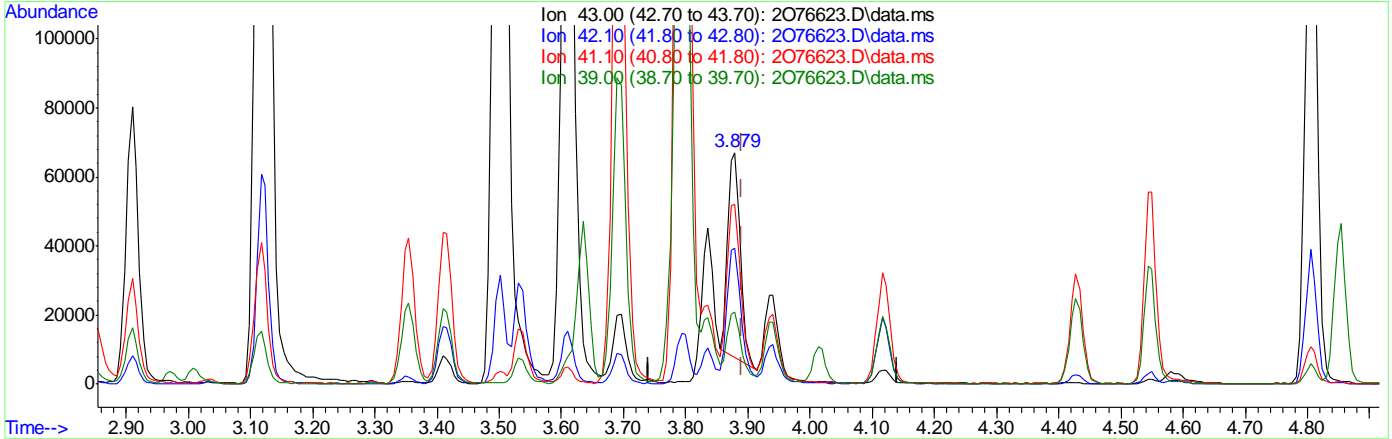
7.6.2.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 498.42ug/L  
 response 80281

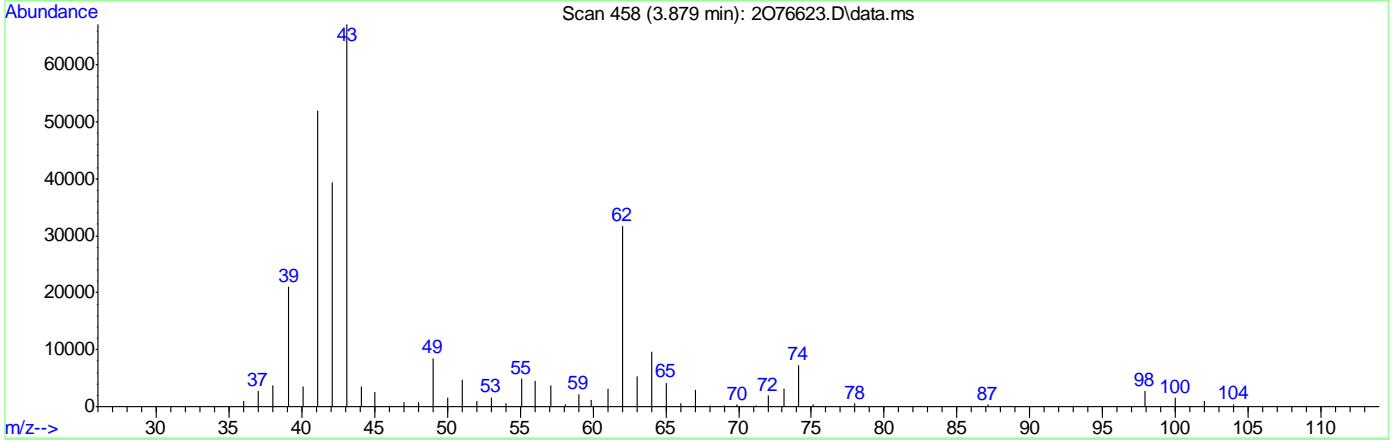
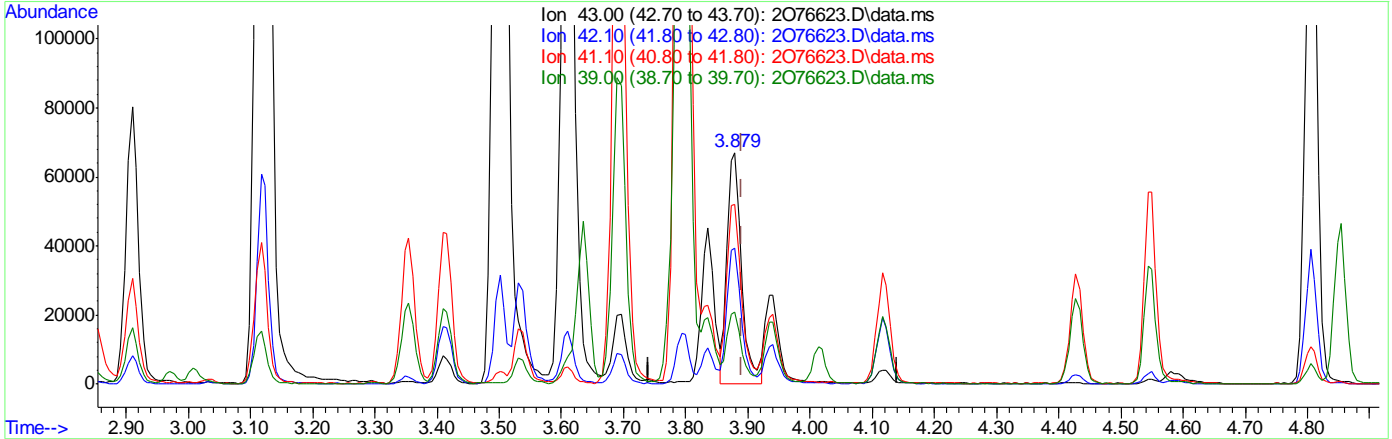
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	59.10
41.10	73.50	75.61
39.00	30.20	29.27

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

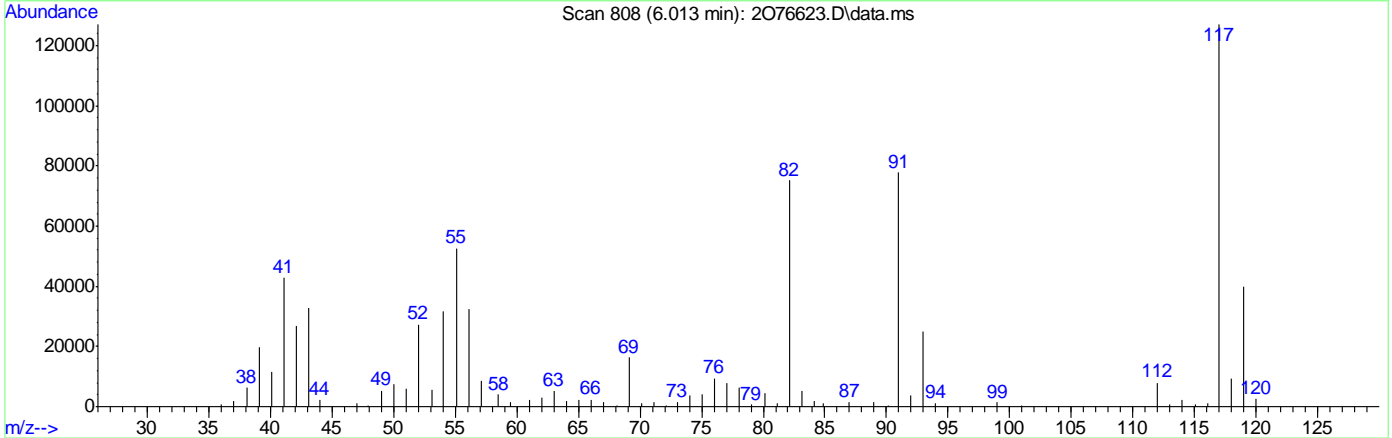
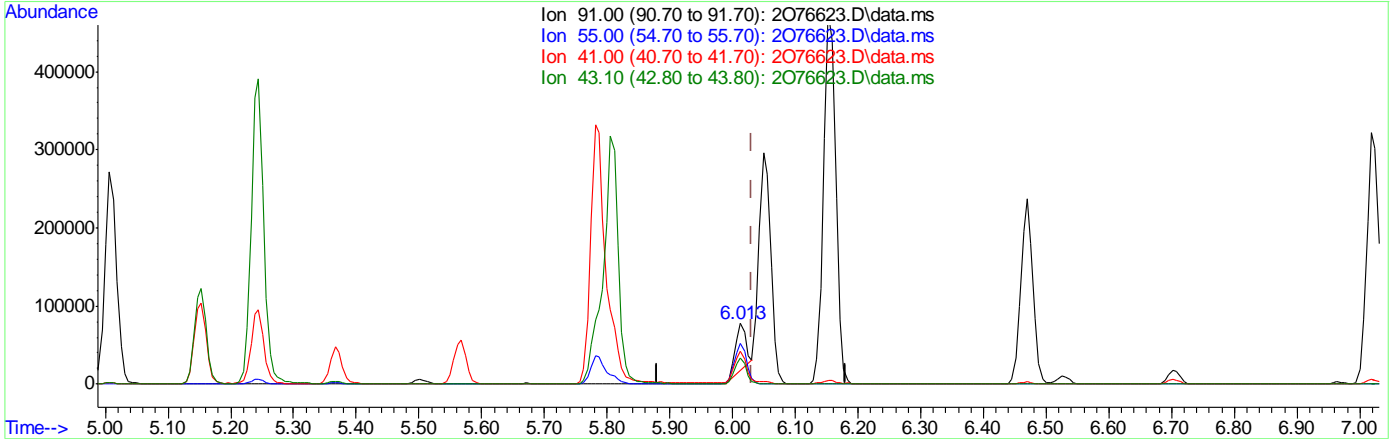
(49) Isobutyl alcohol  
 3.879min (-0.012) 664.69ug/L m  
 response 109378

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.52
41.10	73.50	77.53
39.00	30.20	31.34

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

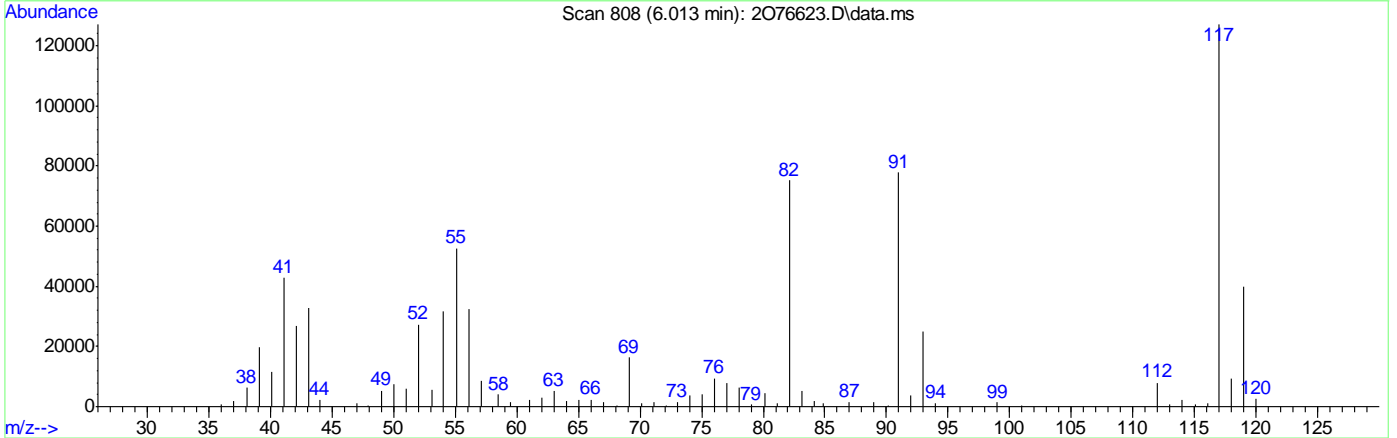
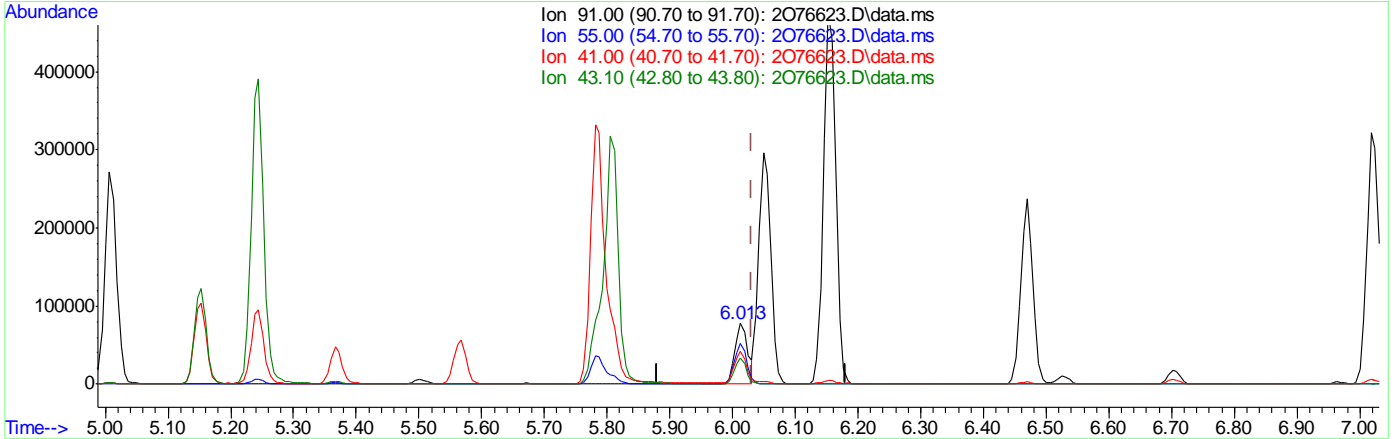
(76) 1-Chlorohexane  
 6.013min (-0.018) 25.37ug/L  
 response 70207

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.82
41.00	53.70	53.12
43.10	42.30	41.64

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 40.12ug/L m  
 response 111025

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	67.57
41.00	53.70	55.03
43.10	42.30	42.37

7.6.27  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	423665	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	315924	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	168870	50.00	ug/L	-0.02
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	116494	49.61	ug/L	-0.01
Spiked Amount	50.000	Range 83 - 118	Recovery =	99.22%		
50) 1,2-Dichloroethane-d4	3.855	65	142277	57.00	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 125	Recovery =	114.00%		
63) Toluene-d8	4.976	98	416533	48.35	ug/L	-0.01
Spiked Amount	50.000	Range 85 - 112	Recovery =	96.70%		
86) 4-Bromofluorobenzene	6.921	174	122505	47.54	ug/L	-0.02
Spiked Amount	50.000	Range 83 - 118	Recovery =	95.08%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.221	85	100849	58.43	ug/L	99
3) Chloromethane	1.373	50	103507	55.46	ug/L	97
4) 1,3-butadiene	1.446	39	100557	53.74	ug/L	94
5) Vinyl Chloride	1.434	62	108811	58.72	ug/L	99
6) Bromomethane	1.666	94	89131	62.81	ug/L	99
7) Chloroethane	1.745	64	28937	31.72	ug/L	97
8) Trichlorofluoromethane	1.843	101	206704	62.81	ug/L	99
9) Ethyl Ether	2.056	59	100657	68.95	ug/L	97
10) Ethanol	2.166	45	45124	1190.84	ug/L	98
11) 1,2-Dichlorotrifluoro...	2.178	67	134609	61.95	ug/L	98
12) 1,1-Dichloroethene	2.178	61	167189	59.91	ug/L	98
13) Freon 113	2.209	101	115717	62.28	ug/L	97
14) Carbon Disulfide	2.196	76	314715	58.06	ug/L	97
15) Iodomethane	2.269	142	127042	43.80	ug/L	93
16) Acrolein	2.385	56	171860	323.56	ug/L	99
17) Allyl chloride	2.471	41	127695	59.09	ug/L	93
18) Methylene Chloride	2.532	49	156334	62.56	ug/L	97
19) Acetone	2.556	43	336383	315.66	ug/L	97
20) Methyl acetate	2.629	43	791518	323.01	ug/L	100
21) trans-1,2-Dichloroethene	2.629	61	170176	63.78	ug/L	97
22) Hexane	2.678	56	84377	59.87	ug/L #	87
23) Methyl Tert Butyl Ether	2.690	73	379116	74.05	ug/L	98
24) Tert Butyl Alcohol	2.745	59	262994	604.66	ug/L	96
25) Acetonitrile	2.830	41	243690	607.24	ug/L	99
26) Di-isopropyl ether	2.910	45	365675	67.33	ug/L	97
27) Chloroprene	2.971	53	161613	63.30	ug/L	99
28) 1,1-Dichloroethane	2.983	63	227817	65.76	ug/L	99
29) Acrylonitrile	3.007	52	313540	303.79	ug/L	100
30) ETBE	3.117	59	359432	72.96	ug/L	97
31) Vinyl acetate	3.117	43	1341282	338.65	ug/L	100
32) cis-1,2-Dichloroethene	3.288	96	146825	68.22	ug/L	99
33) 2,2-Dichloropropane	3.355	77	157544	67.70	ug/L	99
34) Bromochloromethane	3.403	128	69690	60.06	ug/L	97
35) Cyclohexane	3.410	56	172963	60.42	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	257838	68.71	ug/L	98
37) Ethyl acetate	3.501	43	980406	315.07	ug/L	99
38) Tetrahydrofuran	3.531	42	72748	60.80	ug/L	99
40) Carbon Tetrachloride	3.531	117	172538	73.42	ug/L	99
41) 1,1,1-Trichloroethane	3.568	97	208373	68.43	ug/L	99
42) 2-Butanone	3.611	43	541327	306.25	ug/L	100
43) 1,1-Dichloropropene	3.635	75	170522	64.88	ug/L	96
44) tert-Butyl formate	3.696	59	265084	326.95	ug/L #	86
45) Propionitrile	3.781	54	333946	636.63	ug/L	96
46) Methacrylonitrile	3.794	41	1143273	643.92	ug/L	100
47) Benzene	3.775	78	516853	66.50	ug/L	96
48) TAME	3.836	73	352467	76.43	ug/L	99
49) Isobutyl alcohol	3.879	43	218491m	1244.36	ug/L	
51) 1,2-Dichloroethane	3.891	62	209385	75.62	ug/L	97
52) Tert Amyl Alcohol	3.940	59	199779	579.86	ug/L	99
53) Trichloroethene	4.117	95	145175	64.81	ug/L	97
54) Methylcyclohexane	4.117	83	181410	61.88	ug/L	97
55) Dibromomethane	4.367	93	101623	72.12	ug/L	97
56) 1,2-Dichloropropane	4.428	63	127319	69.86	ug/L	97
57) Bromodichloromethane	4.464	83	186925	74.89	ug/L	99
58) Methyl methacrylate	4.543	41	143720	70.50	ug/L	97
59) 1,4-Dioxane	4.586	88	55008	1334.34	ug/L	98
60) 2-Chloroethyl vinyl ether	4.806	63	564785	356.82	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	210443	69.62	ug/L	97
64) Toluene	5.007	91	555074	64.12	ug/L	100
65) 2-Nitropropane	5.153	41	252315	376.86	ug/L	96
66) 4-Methyl-2-pentanone	5.245	43	957840	309.62	ug/L	97
67) trans-1,3-Dichloropropene	5.269	75	211865	70.94	ug/L	98
68) Tetrachloroethene	5.263	166	143361	58.44	ug/L	95
69) Ethyl methacrylate	5.366	69	178886	67.40	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	120928	69.22	ug/L	97
71) Dibromochloromethane	5.507	129	154347	70.15	ug/L	98
72) 1,3-Dichloropropane	5.568	76	228588	71.43	ug/L	98
73) 1,2-Dibromoethane	5.671	107	158388	72.45	ug/L	99
74) 3,3-dimethyl-1-butanol	5.787	57	1473088	3241.40	ug/L	98
75) 2-hexanone	5.805	43	984752	320.43	ug/L	94
76) 1-Chlorohexane	6.013	91	165854m	60.86	ug/L	
77) Ethylbenzene	6.049	91	613129	65.66	ug/L	96
78) Chlorobenzene	6.037	112	386620	66.07	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	137976	75.30	ug/L	99
80) m,p-Xylene	6.153	91	980876	134.97	ug/L	97
81) o-Xylene	6.470	91	502925	68.55	ug/L	97
82) Styrene	6.506	104	410291	71.17	ug/L	98
83) Bromoform	6.531	173	97638	66.87	ug/L	98
84) Isopropylbenzene	6.702	105	581839	65.77	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	47332	61.88	ug/L #	90
88) n-Propylbenzene	7.019	91	686570	65.58	ug/L	99
89) Bromobenzene	7.000	156	156022	67.16	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	230627	72.35	ug/L	98
91) 1,3,5-Trimethylbenzene	7.177	105	510371	69.05	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	484219	68.60	ug/L	95
93) trans-1,4-Dichloro-2-B...	7.208	53	45900	63.10	ug/L	97
94) 1,2,3-Trichloropropane	7.177	110	73408	69.98	ug/L	98
95) Cyclohexanone	7.214	55	44123	303.29	ug/L	97
96) 4-Chlorotoluene	7.275	91	458711	70.60	ug/L	99
97) tert-Butylbenzene	7.421	91	271714	68.05	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	518007	70.93	ug/L	99
100) Pentachloroethane	7.439	167	77272	68.77	ug/L	92
101) sec-Butylbenzene	7.561	105	569271	64.35	ug/L	99
102) 4-Isopropyltoluene	7.671	119	513765	66.55	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	309150	67.34	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	546431	71.49	ug/L	100
105) 1,4-Dichlorobenzene	7.793	146	309008	66.44	ug/L	99
106) n-Butylbenzene	7.988	92	259526	65.14	ug/L	97
107) Benzyl Chloride	7.976	126	67210	64.09	ug/L #	75
108) 1,2-Dichlorobenzene	8.104	146	295952	68.32	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.677	75	53148	72.66	ug/L	82
110) Hexachlorobutadiene	9.134	225	53585	55.45	ug/L	97
111) 1,2,4-Trichlorobenzene	9.152	180	175830	66.86	ug/L	99
112) Naphthalene	9.372	128	686038	73.73	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	168246	67.37	ug/L	99

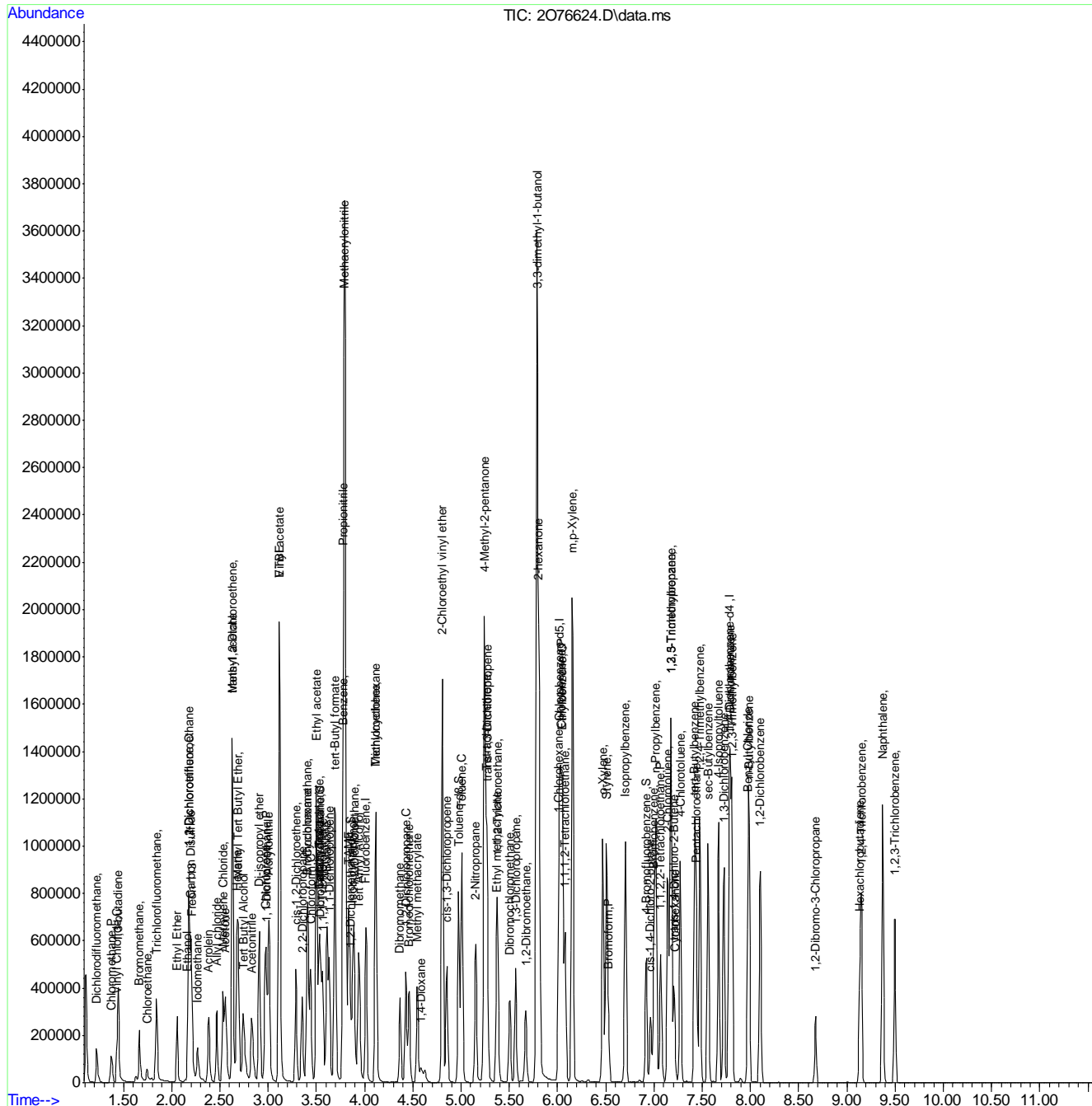
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



7.6.3  
7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76624.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 12:13      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

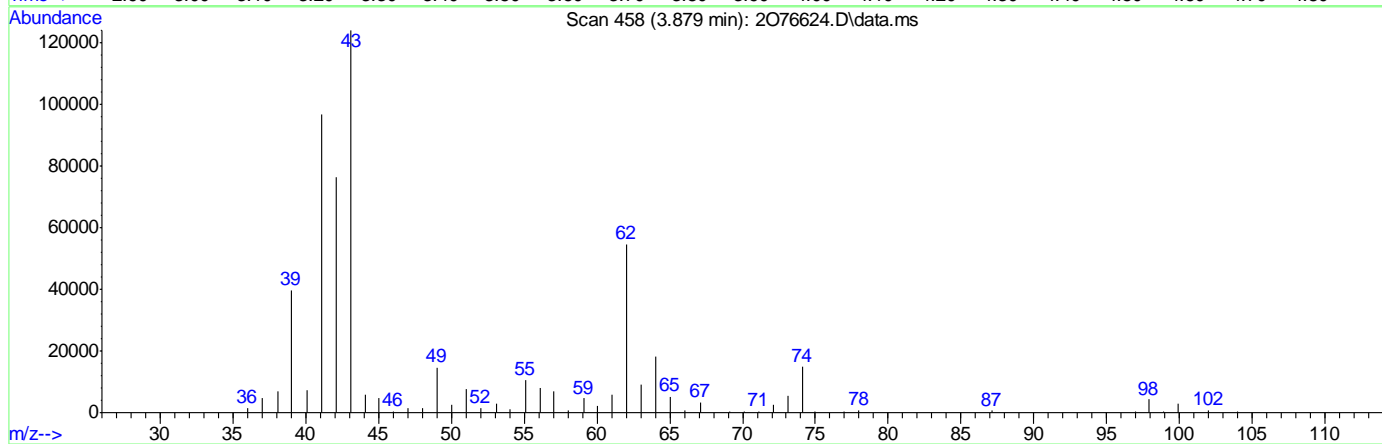
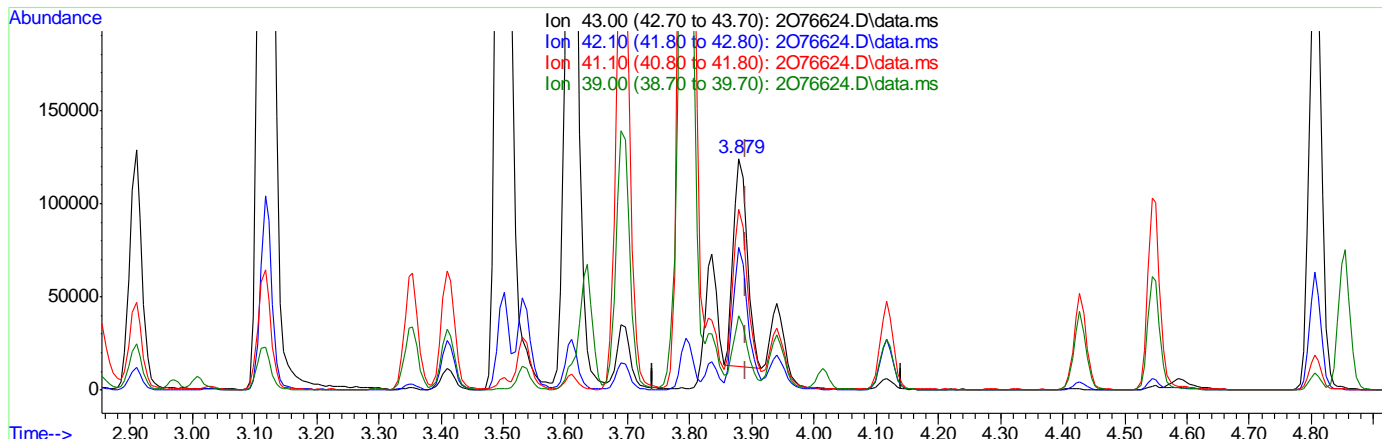
7.6.3.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 1012.80ug/L  
 response 172947

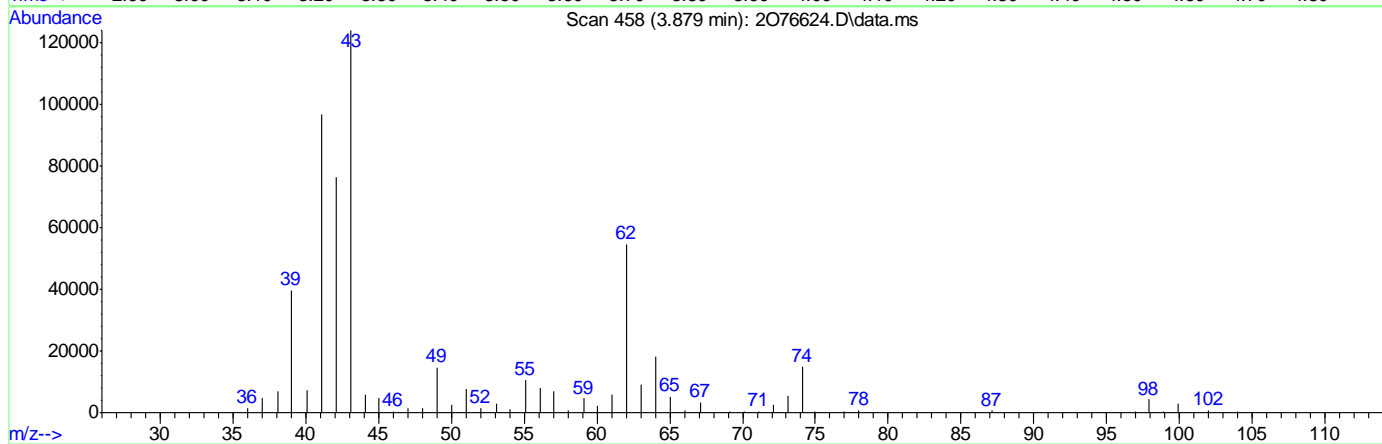
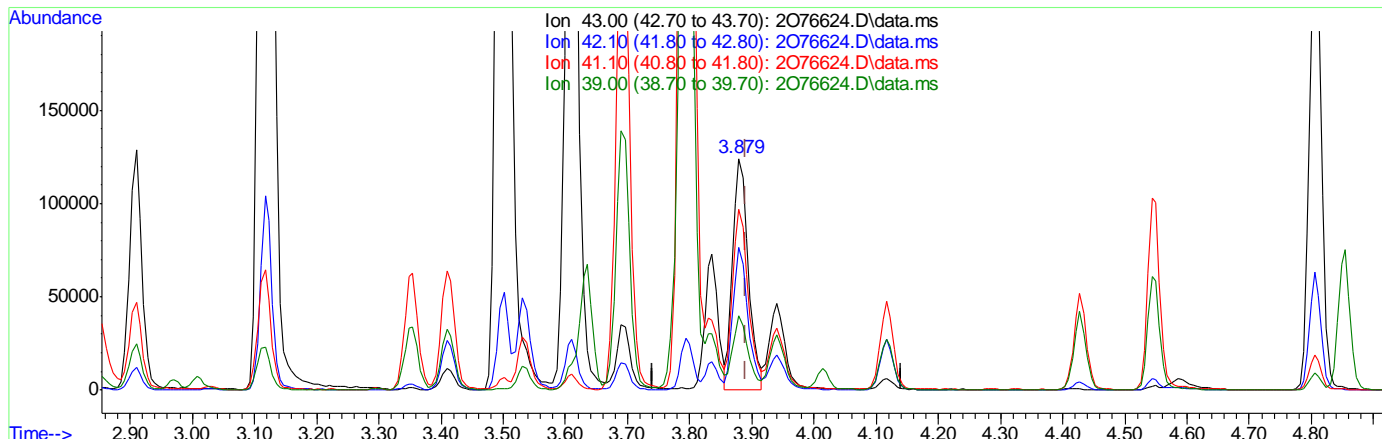
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	64.34
41.10	73.50	76.80
39.00	30.20	30.77

7.6.3.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 1244.36ug/L m  
 response 218491

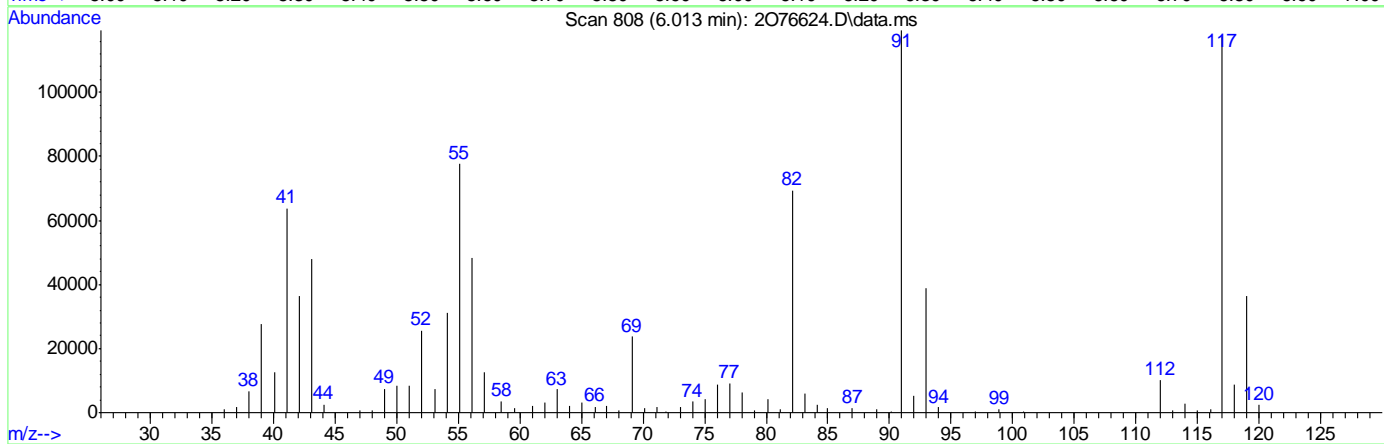
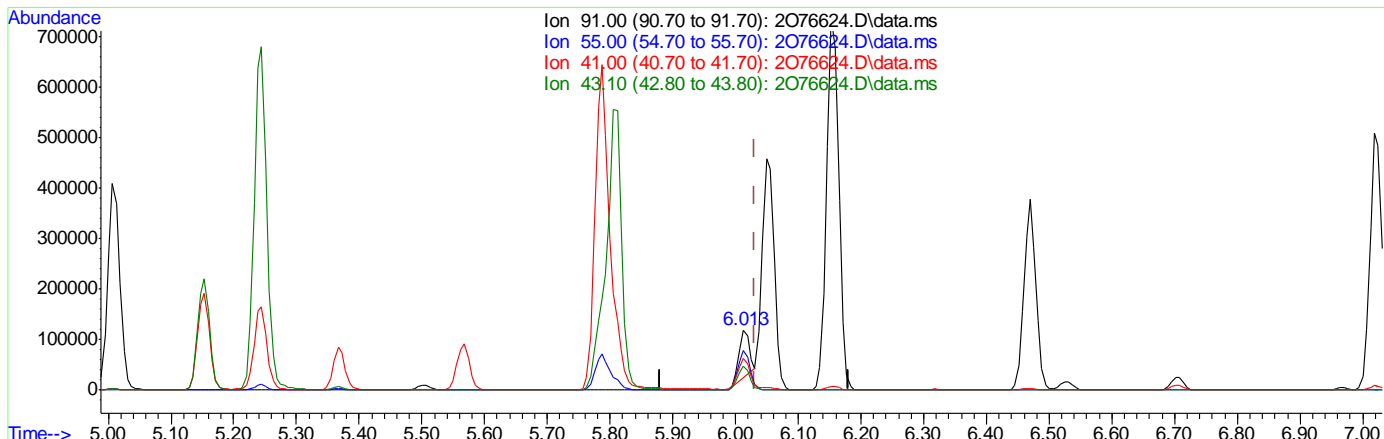
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	61.69
41.10	73.50	77.87
39.00	30.20	32.07

7.633  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 39.66ug/L  
 response 108079

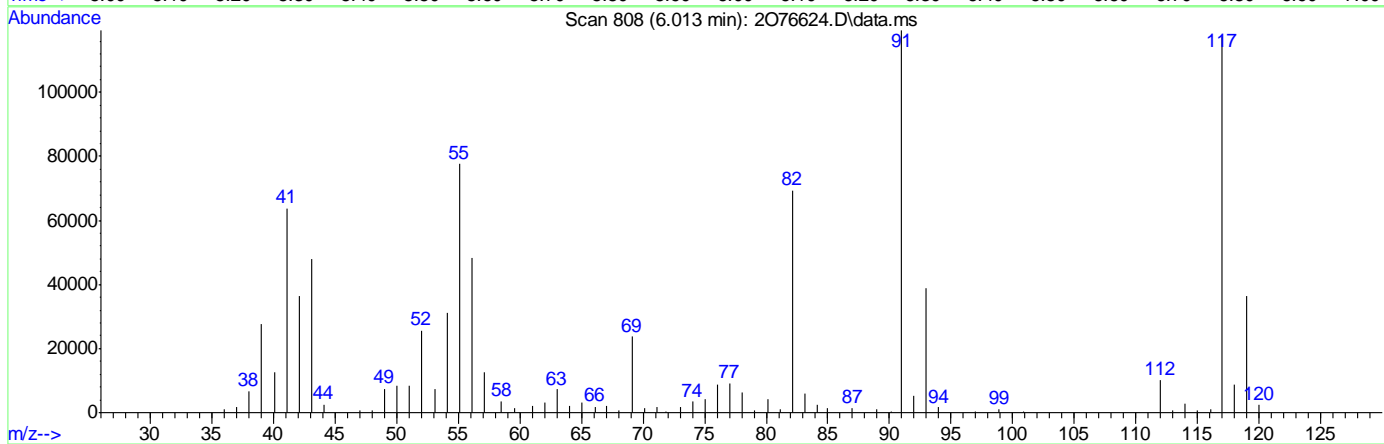
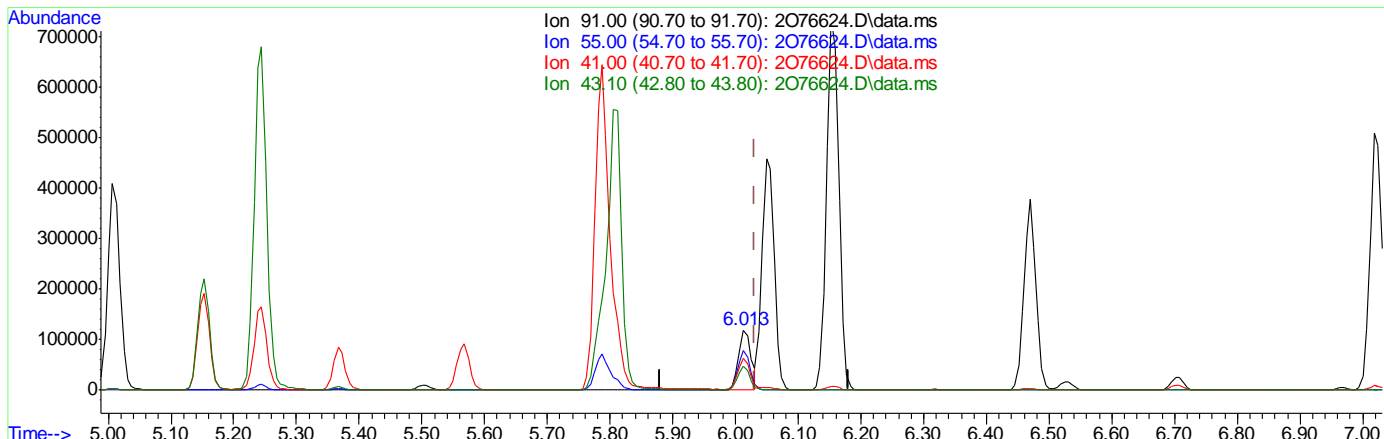
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	64.86
41.00	53.70	51.75
43.10	42.30	39.21

7.6.3.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 60.86ug/L m  
 response 165854

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	64.97
41.00	53.70	53.44
43.10	42.30	40.11

7.6.3.5  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	433256	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	322297	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	172872	50.00	ug/L	-0.02
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	118111	49.18	ug/L	-0.01
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.36%	
50) 1,2-Dichloroethane-d4	3.855	65	149180	58.45	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 125	Recovery	=	116.90%	
63) Toluene-d8	4.976	98	426463	48.52	ug/L	-0.01
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.04%	
86) 4-Bromofluorobenzene	6.921	174	126830	48.08	ug/L	-0.02
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.16%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.221	85	154832	87.72	ug/L	99
3) Chloromethane	1.373	50	158001	82.79	ug/L	99
4) 1,3-butadiene	1.447	39	152254	79.57	ug/L	95
5) Vinyl Chloride	1.434	62	161177	85.05	ug/L	100
6) Bromomethane	1.666	94	138564	95.48	ug/L	97
7) Chloroethane	1.745	64	37255	Below Cal		98
8) Trichlorofluoromethane	1.843	101	273183	81.18	ug/L	100
9) Ethyl Ether	2.056	59	148178	99.26	ug/L	95
10) Ethanol	2.184	45	65160	1689.95	ug/L	86
11) 1,2-Dichlorotrifluoro...	2.178	67	209673	94.36	ug/L	96
12) 1,1-Dichloroethene	2.178	61	266847	93.50	ug/L	97
13) Freon 113	2.203	101	187646	98.76	ug/L	95
14) Carbon Disulfide	2.196	76	506075	91.29	ug/L	96
15) Iodomethane	2.270	142	194130	65.45	ug/L	94
16) Acrolein	2.385	56	250615	461.38	ug/L	99
17) Allyl chloride	2.465	41	195681	88.55	ug/L	95
18) Methylene Chloride	2.532	49	231703	92.70	ug/L	95
19) Acetone	2.562	43	488394	448.16	ug/L	99
20) Methyl acetate	2.629	43	1152477	459.90	ug/L	100
21) trans-1,2-Dichloroethene	2.629	61	264868	97.07	ug/L	99
22) Hexane	2.678	56	131823	91.47	ug/L	95
23) Methyl Tert Butyl Ether	2.690	73	562842	107.51	ug/L	98
24) Tert Butyl Alcohol	2.745	59	396953	850.50	ug/L	96
25) Acetonitrile	2.830	41	343309	836.54	ug/L	100
26) Di-isopropyl ether	2.910	45	544203	97.98	ug/L	96
27) Chloroprene	2.971	53	250987	96.13	ug/L	99
28) 1,1-Dichloroethane	2.983	63	349182	98.56	ug/L	99
29) Acrylonitrile	3.007	52	470696	445.96	ug/L	99
30) ETBE	3.117	59	540669	107.32	ug/L	98
31) Vinyl acetate	3.117	43	2036191	502.73	ug/L	99
32) cis-1,2-Dichloroethene	3.288	96	222184	100.95	ug/L	99
33) 2,2-Dichloropropane	3.355	77	250772	105.38	ug/L	98
34) Bromochloromethane	3.403	128	102826	86.66	ug/L	97
35) Cyclohexane	3.410	56	272861	93.21	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	388206	101.16	ug/L	98
37) Ethyl acetate	3.501	43	1473279	462.98	ug/L	99
38) Tetrahydrofuran	3.532	42	98804	80.74	ug/L	99
40) Carbon Tetrachloride	3.532	117	272511m	113.39	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	323940	104.03	ug/L	99
42) 2-Butanone	3.611	43	782113	432.68	ug/L	100
43) 1,1-Dichloropropene	3.635	75	263726	98.13	ug/L	98
44) tert-Butyl formate	3.696	59	383901	434.88	ug/L #	84
45) Propionitrile	3.788	54	482356	899.20	ug/L #	69
46) Methacrylonitrile	3.794	41	1642400	904.56	ug/L	99
47) Benzene	3.775	78	777336	97.80	ug/L	92
48) TAME	3.836	73	526926	111.74	ug/L	97
49) Isobutyl alcohol	3.885	43	311768m	1655.53	ug/L	
51) 1,2-Dichloroethane	3.891	62	305567	107.91	ug/L	97
52) Tert Amyl Alcohol	3.946	59	304927	822.29	ug/L	97
53) Trichloroethene	4.117	95	221816	96.83	ug/L	96
54) Methylcyclohexane	4.117	83	284066	94.75	ug/L	98
55) Dibromomethane	4.367	93	149138	103.50	ug/L	97
56) 1,2-Dichloropropane	4.428	63	189407	101.62	ug/L	97
57) Bromodichloromethane	4.464	83	279284	109.42	ug/L	98
58) Methyl methacrylate	4.544	41	212851	102.10	ug/L	96
59) 1,4-Dioxane	4.592	88	81805	1872.87	ug/L	97
60) 2-Chloroethyl vinyl ether	4.806	63	769213	475.21	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	315045	98.50	ug/L	99
64) Toluene	5.007	91	837018	94.78	ug/L	98
65) 2-Nitropropane	5.153	41	377382	504.91	ug/L	95
66) 4-Methyl-2-pentanone	5.245	43	1396011	442.34	ug/L	97
67) trans-1,3-Dichloropropene	5.275	75	315849	100.62	ug/L	96
68) Tetrachloroethene	5.263	166	223153	89.16	ug/L	96
69) Ethyl methacrylate	5.367	69	267100	95.41	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	176175	98.85	ug/L	97
71) Dibromochloromethane	5.507	129	229177	97.70	ug/L	98
72) 1,3-Dichloropropane	5.568	76	330755	101.31	ug/L	98
73) 1,2-Dibromoethane	5.671	107	233268	104.59	ug/L	100
74) 3,3-dimethyl-1-butanol	5.787	57	2116704	4376.52	ug/L	97
75) 2-hexanone	5.812	43	1427082	455.18	ug/L	96
76) 1-Chlorohexane	6.013	91	255764m	91.99	ug/L	
77) Ethylbenzene	6.049	91	919962	96.57	ug/L	97
78) Chlorobenzene	6.037	112	581089	97.34	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.080	131	209239	111.93	ug/L	98
80) m,p-Xylene	6.153	91	1479333	199.54	ug/L	97
81) o-Xylene	6.470	91	764307	102.11	ug/L	98
82) Styrene	6.507	104	614748	104.52	ug/L	97
83) Bromoform	6.531	173	148273	93.22	ug/L	98
84) Isopropylbenzene	6.702	105	898177	99.52	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	75008	95.80	ug/L	89
88) n-Propylbenzene	7.019	91	1054008	98.35	ug/L	99
89) Bromobenzene	7.000	156	228969	96.27	ug/L	92
90) 1,1,2,2-Tetrachloroethane	7.067	83	340637	104.38	ug/L	99
91) 1,3,5-Trimethylbenzene	7.177	105	771187	101.92	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	726612	100.55	ug/L	96
93) trans-1,4-Dichloro-2-B...	7.208	53	70393	89.94	ug/L	98
94) 1,2,3-Trichloropropane	7.177	110	106047	98.75	ug/L	99
95) Cyclohexanone	7.214	55	68594	460.58	ug/L	97
96) 4-Chlorotoluene	7.275	91	693150	104.22	ug/L	99
97) tert-Butylbenzene	7.421	91	419726	102.68	ug/L	93
99) 1,2,4-Trimethylbenzene	7.476	105	780540	104.40	ug/L	97
100) Pentachloroethane	7.439	167	119983	97.43	ug/L #	88
101) sec-Butylbenzene	7.561	105	880243	97.19	ug/L	99
102) 4-Isopropyltoluene	7.671	119	782205	98.98	ug/L	98
103) 1,3-Dichlorobenzene	7.726	146	459390	97.75	ug/L	96
104) 1,2,3-Trimethylbenzene	7.811	105	811442	103.71	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	466203	97.92	ug/L	98
106) n-Butylbenzene	7.988	92	398030	95.72	ug/L	97
107) Benzyl Chloride	7.976	126	105960	89.51	ug/L #	84
108) 1,2-Dichlorobenzene	8.104	146	438925	98.98	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	79711	100.80	ug/L	84
110) Hexachlorobutadiene	9.134	225	83962	82.87	ug/L	95
111) 1,2,4-Trichlorobenzene	9.152	180	259138	96.26	ug/L	98
112) Naphthalene	9.372	128	1012965	106.35	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	248101	97.04	ug/L	98

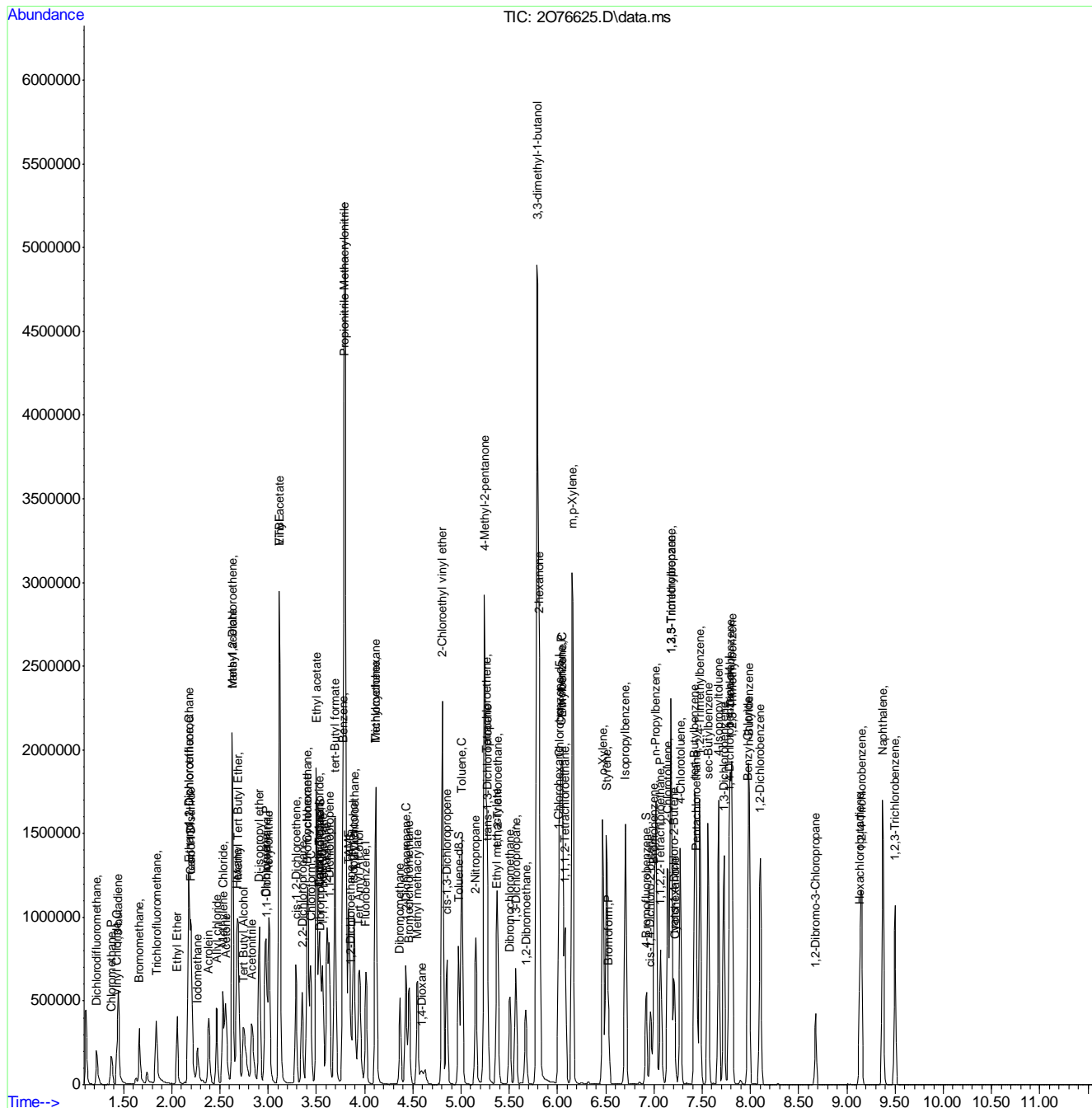
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



7.6.4  
7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76625.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 12:38      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.89	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

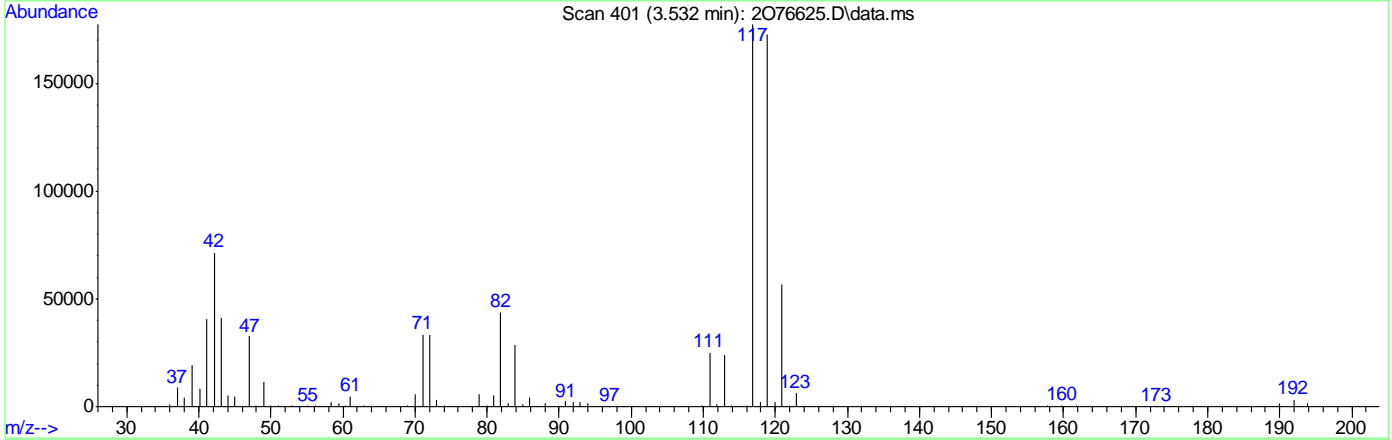
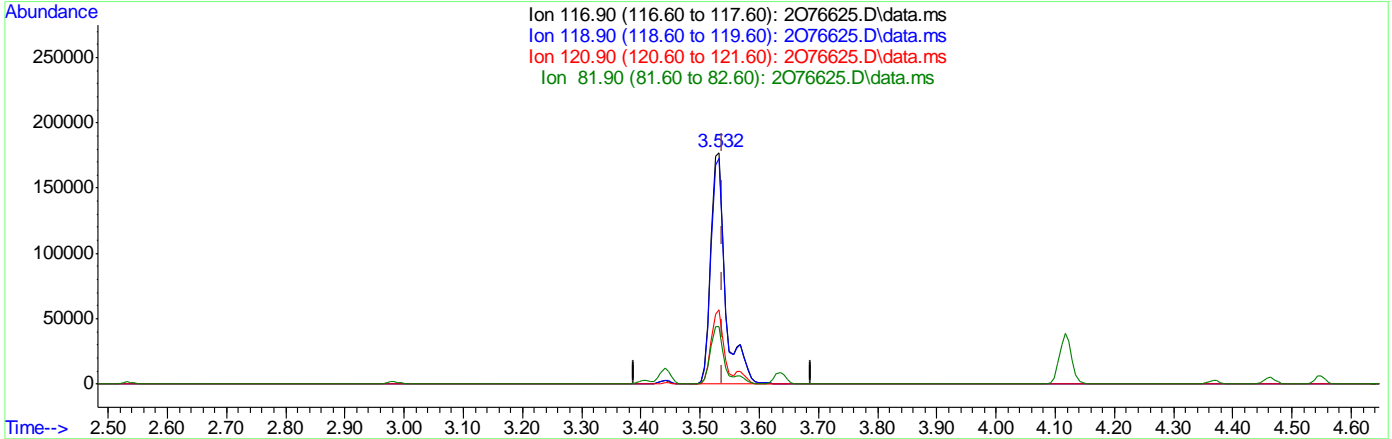
7.6.4.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (-0.006) 129.25ug/L  
 response 310617

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.51
120.90	31.00	31.88
81.90	24.80	24.61

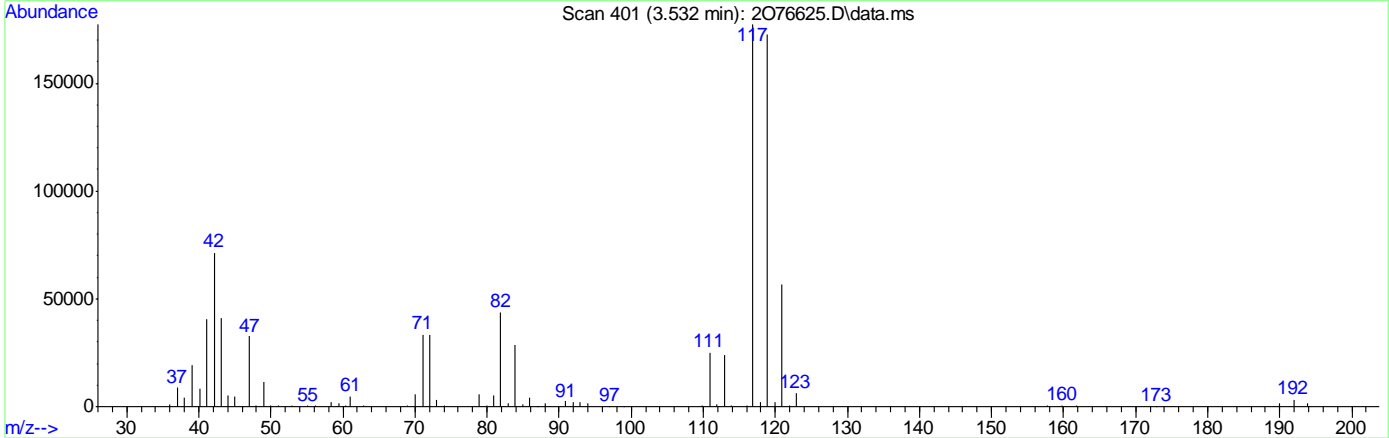
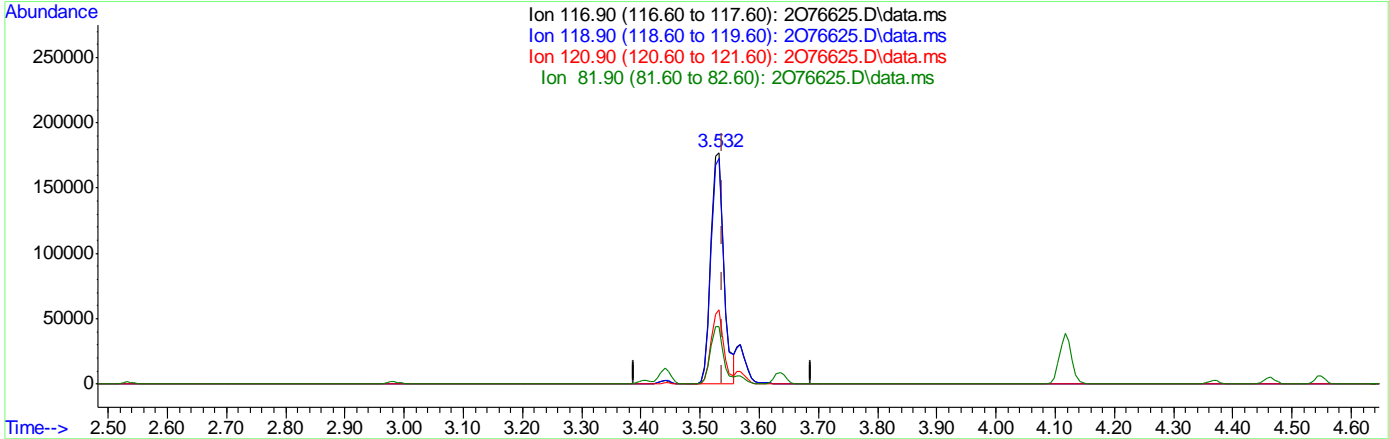
7.6.4.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (-0.006) 113.39ug/L m  
 response 272511

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.51
120.90	31.00	31.88
81.90	24.80	24.76

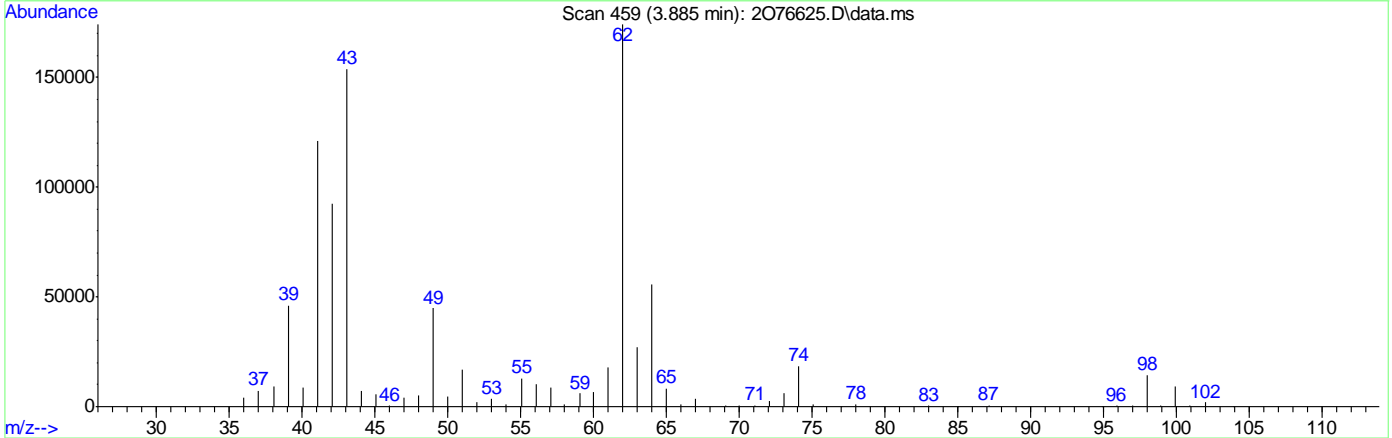
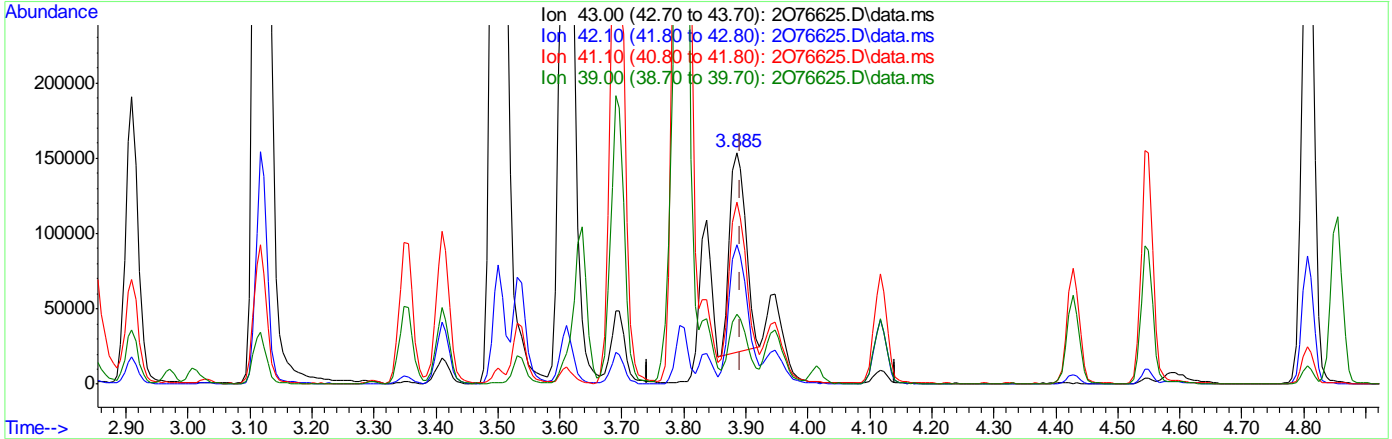
7.6.4.3  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(49) Isobutyl alcohol  
 3.885min (-0.006) 1330.64ug/L  
 response 241376

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	64.63
41.10	73.50	78.41
39.00	30.20	26.55

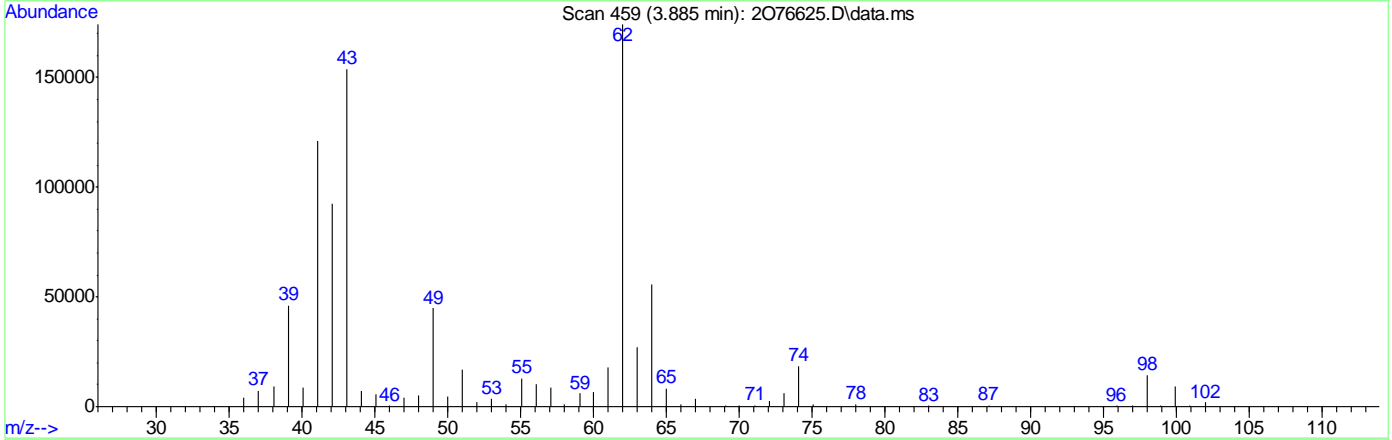
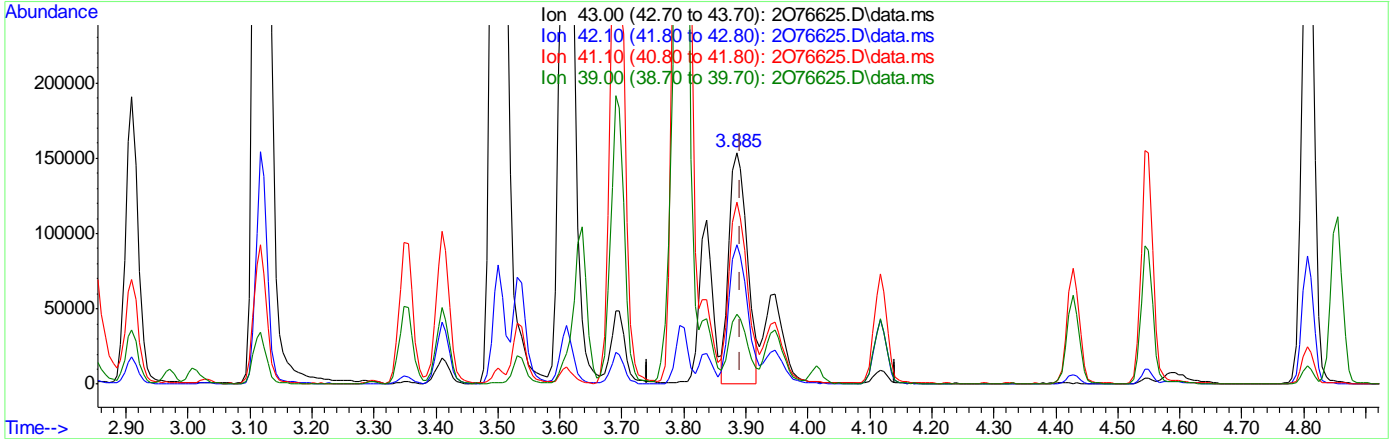
7.6.4.4

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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(49) Isobutyl alcohol  
 3.885min (-0.006) 1655.53ug/L m  
 response 311768

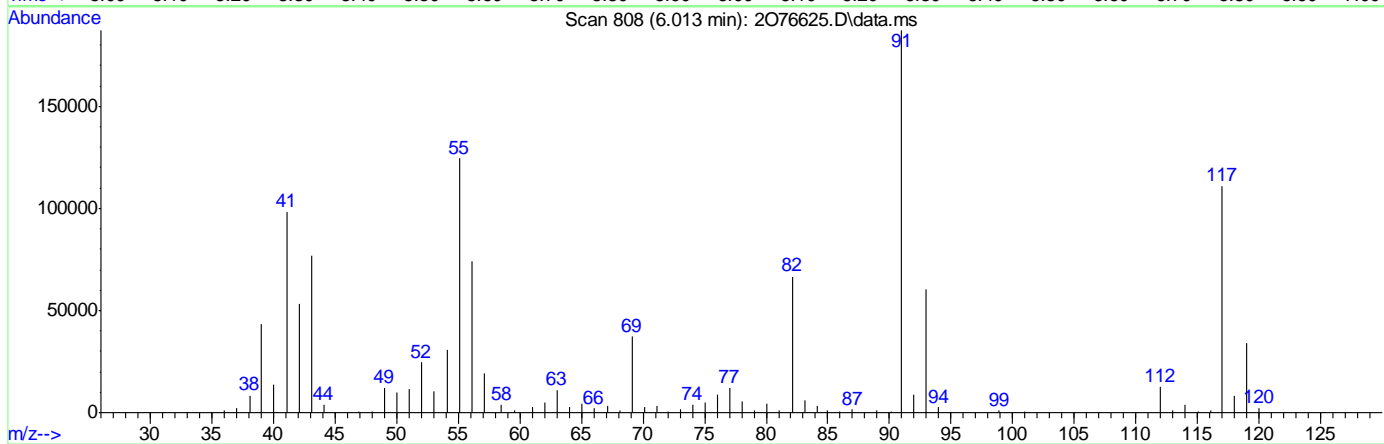
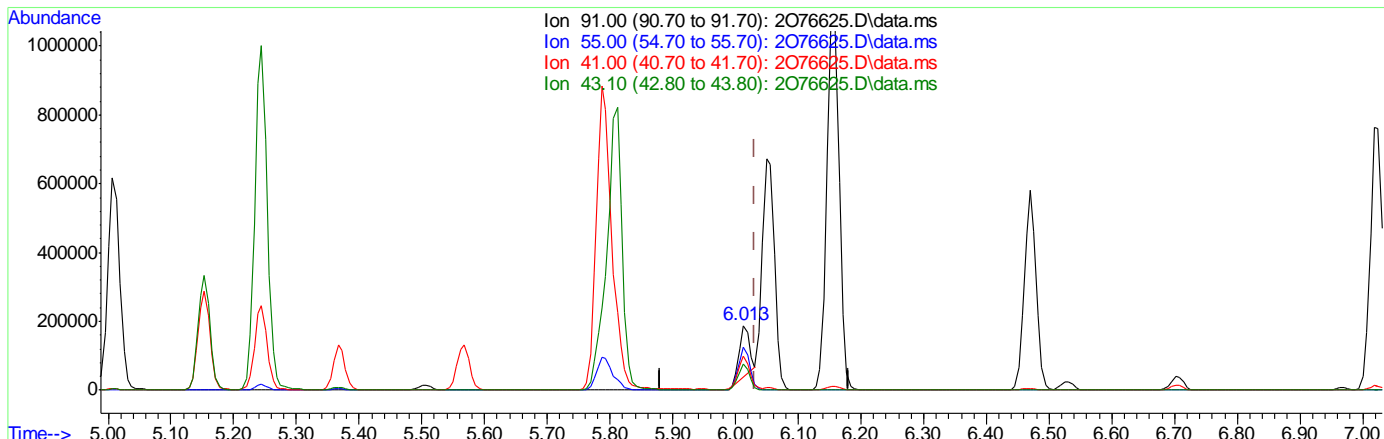
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	60.17
41.10	73.50	78.61
39.00	30.20	29.94

7.6.4.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 60.12ug/L  
 response 167144

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.09
41.00	53.70	50.96
43.10	42.30	40.21

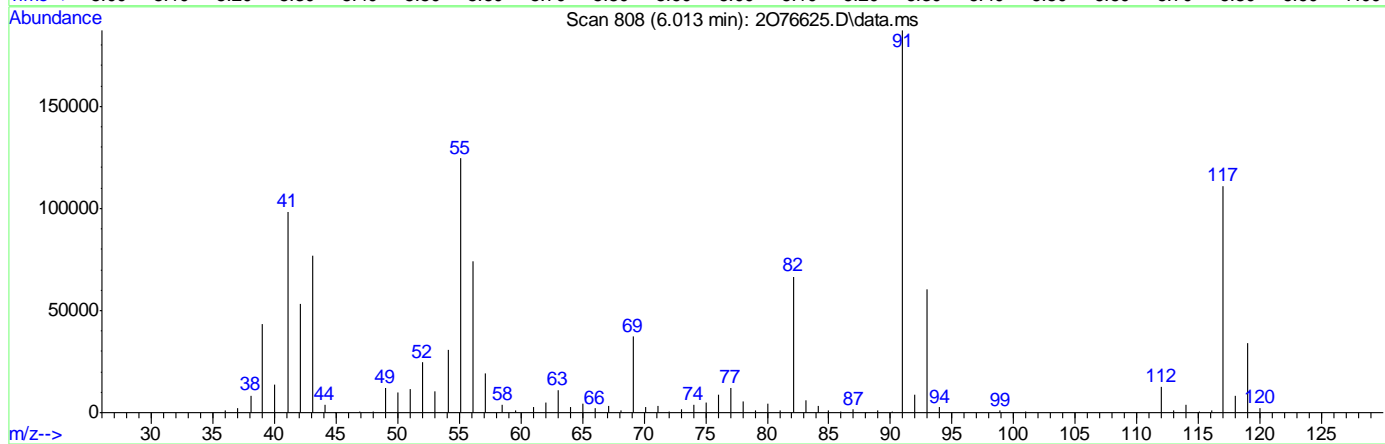
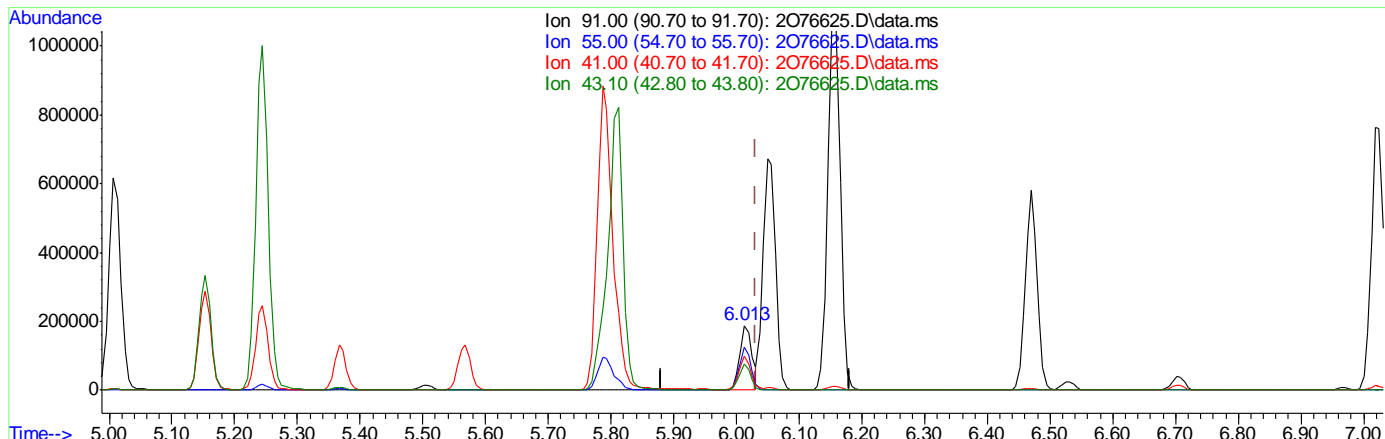
7.6.4.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.018) 91.99ug/L m

response 255764

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.54
41.00	53.70	52.36
43.10	42.30	40.96

7.6.4.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	428165	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	307214	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	160102	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	116102	48.92	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	97.84%	
50) 1,2-Dichloroethane-d4	3.849	65	131582	52.16	ug/L	-0.02	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	104.32%	
63) Toluene-d8	4.976	98	416094	49.67	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	99.34%	
86) 4-Bromofluorobenzene	6.921	174	117568	48.12	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	96.24%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	1700	0.97	ug/L		97
3) Chloromethane	1.373	50	2069	1.10	ug/L		97
4) 1,3-butadiene	1.447	39	1573	0.83	ug/L		86
5) Vinyl Chloride	1.434	62	1915	1.02	ug/L		98
6) Bromomethane	1.672	94	1849	1.29	ug/L		90
7) Chloroethane	1.757	64	1546	1.25	ug/L		86
8) Trichlorofluoromethane	1.855	101	3317	1.00	ug/L		99
9) Ethyl Ether	2.056	59	1702	1.15	ug/L		87
11) 1,2-Dichlorotrifluoro...	2.184	67	2227	1.01	ug/L		91
12) 1,1-Dichloroethene	2.184	61	2916	1.03	ug/L		95
13) Freon 113	2.209	101	1865	0.99	ug/L		89
14) Carbon Disulfide	2.196	76	7186	1.31	ug/L		95
15) Iodomethane	2.270	142	1590	0.54	ug/L		74
16) Acrolein	2.385	56	1611	3.00	ug/L		98
17) Allyl chloride	2.471	41	1454	0.67	ug/L		85
18) Methylene Chloride	2.532	49	4235	1.61	ug/L		96
19) Acetone	2.556	43	6359	5.90	ug/L		99
20) Methyl acetate	2.629	43	14487	5.85	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	3148	1.17	ug/L		91
22) Hexane	2.678	56	1515	1.06	ug/L	#	93
23) Methyl Tert Butyl Ether	2.690	73	5830	1.13	ug/L		86
24) Tert Butyl Alcohol	2.739	59	3128	8.08	ug/L		72
25) Acetonitrile	2.830	41	4273	10.54	ug/L		92
26) Di-isopropyl ether	2.910	45	5801	1.06	ug/L		95
27) Chloroprene	2.971	53	1581	0.61	ug/L		99
28) 1,1-Dichloroethane	2.983	63	3906	1.12	ug/L		96
29) Acrylonitrile	3.007	52	5847	5.61	ug/L		98
30) ETBE	3.117	59	5182	1.04	ug/L		96
31) Vinyl acetate	3.117	43	16712	4.18	ug/L		97
32) cis-1,2-Dichloroethene	3.288	96	2828	1.30	ug/L		94
33) 2,2-Dichloropropane	3.355	77	2480	1.05	ug/L		90
34) Bromochloromethane	3.403	128	1270	1.08	ug/L		92
35) Cyclohexane	3.416	56	2479	0.86	ug/L		87
36) Chloroform	3.440	83	4440	1.17	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Ethyl acetate	3.501	43	13756	4.37	ug/L	97
38) Tetrahydrofuran	3.538	42	1146m	0.95	ug/L	
40) Carbon Tetrachloride	3.531	117	2585m	1.09	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	3173	1.03	ug/L	96
42) 2-Butanone	3.611	43	9107	5.10	ug/L	98
43) 1,1-Dichloropropene	3.635	75	2701	1.02	ug/L	92
44) tert-Butyl formate	3.690	59	2305	3.49	ug/L #	80
45) Propionitrile	3.781	54	3736	7.05	ug/L	89
46) Methacrylonitrile	3.794	41	12708	7.08	ug/L	96
47) Benzene	3.775	78	8983	1.14	ug/L	91
48) TAME	3.830	73	4674	1.00	ug/L	92
49) Isobutyl alcohol	3.879	43	1455m	9.61	ug/L	
51) 1,2-Dichloroethane	3.891	62	4105	1.47	ug/L	97
52) Tert Amyl Alcohol	3.940	59	2208	7.24	ug/L #	73
53) Trichloroethene	4.117	95	2693	1.19	ug/L	92
54) Methylcyclohexane	4.117	83	2864	0.97	ug/L #	80
55) Dibromomethane	4.373	93	1995	1.40	ug/L	83
56) 1,2-Dichloropropane	4.428	63	2100	1.14	ug/L	85
57) Bromodichloromethane	4.458	83	2799	1.11	ug/L	85
58) Methyl methacrylate	4.543	41	1176	0.57	ug/L	90
59) 1,4-Dioxane	4.580	88	1015	26.70	ug/L	91
60) 2-Chloroethyl vinyl ether	4.806	63	6568	4.11	ug/L	93
61) cis-1,3-Dichloropropene	4.854	75	2660	0.95	ug/L	97
64) Toluene	5.007	91	9766	1.16	ug/L	86
65) 2-Nitropropane	5.153	41	2241	4.74	ug/L	86
66) 4-Methyl-2-pentanone	5.245	43	13337	4.43	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	2896	1.07	ug/L	87
68) Tetrachloroethene	5.263	166	2351	0.99	ug/L	87
69) Ethyl methacrylate	5.367	69	1023	0.43	ug/L #	80
70) 1,1,2-Trichloroethane	5.379	83	1901	1.12	ug/L	93
71) Dibromochloromethane	5.507	129	1730	0.91	ug/L	83
72) 1,3-Dichloropropane	5.562	76	3964	1.27	ug/L	95
73) 1,2-Dibromoethane	5.671	107	2842	1.34	ug/L	78
74) 3,3-dimethyl-1-butanol	5.781	57	11841	30.52	ug/L	92
75) 2-hexanone	5.812	43	12444	4.16	ug/L	92
76) 1-Chlorohexane	6.013	91	3099m	1.17	ug/L	
77) Ethylbenzene	6.049	91	10384	1.14	ug/L	94
78) Chlorobenzene	6.037	112	6915	1.22	ug/L	87
79) 1,1,1,2-Tetrachloroethane	6.080	131	1672	0.94	ug/L	94
80) m,p-Xylene	6.153	91	15842	2.24	ug/L	95
81) o-Xylene	6.470	91	7854	1.10	ug/L	94
82) Styrene	6.507	104	5136	0.92	ug/L	97
83) Bromoform	6.531	173	1072	0.91	ug/L	76
84) Isopropylbenzene	6.702	105	8417	0.98	ug/L	92
88) n-Propylbenzene	7.019	91	11289	1.14	ug/L	93
89) Bromobenzene	7.000	156	2690	1.22	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	3728	1.23	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	7530	1.07	ug/L	97
92) 2-Chlorotoluene	7.141	91	7586	1.13	ug/L	95
94) 1,2,3-Trichloropropane	7.177	110	1238m	1.24	ug/L	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 4-Chlorotoluene	7.275	91	7838	1.27	ug/L	97
97) tert-Butylbenzene	7.421	91	4206	1.11	ug/L	95
99) 1,2,4-Trimethylbenzene	7.476	105	7425	1.07	ug/L	92
100) Pentachloroethane	7.439	167	393m	0.44	ug/L	
101) sec-Butylbenzene	7.561	105	8780	1.05	ug/L	93
102) 4-Isopropyltoluene	7.671	119	6975	0.95	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	5336	1.23	ug/L	99
104) 1,2,3-Trimethylbenzene	7.811	105	8355	1.15	ug/L	97
105) 1,4-Dichlorobenzene	7.793	146	6071m	1.38	ug/L	
106) n-Butylbenzene	7.982	92	3935	1.09	ug/L	96
107) Benzyl Chloride	7.970	126	559m	0.76	ug/L	
108) 1,2-Dichlorobenzene	8.104	146	4976	1.21	ug/L	89
109) 1,2-Dibromo-3-Chloropr...	8.677	75	505m	0.85	ug/L	
110) Hexachlorobutadiene	9.134	225	1664	1.91	ug/L	92
111) 1,2,4-Trichlorobenzene	9.152	180	3526	1.41	ug/L	86
112) Naphthalene	9.372	128	9536	1.08	ug/L	98
113) 1,2,3-Trichlorobenzene	9.500	180	3072	1.30	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed





# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76627.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 13:55      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Tetrahydrofuran	109-99-9		3.54	Missed peak
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline
1,2,3-Trichloropropane	96-18-4		7.18	Missed peak
Pentachloroethane	76-01-7		7.44	Missed peak
1,4-Dichlorobenzene	106-46-7		7.79	Missed peak
Benzyl Chloride	100-44-7		7.97	Missed peak
1,2-Dibromo-3-chloropropane	96-12-8		8.68	Missed peak

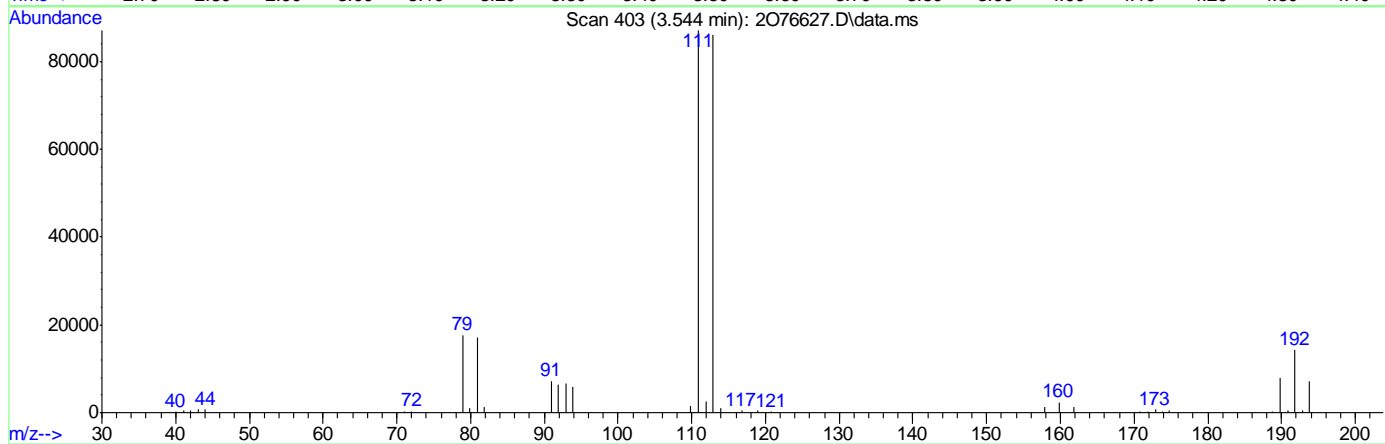
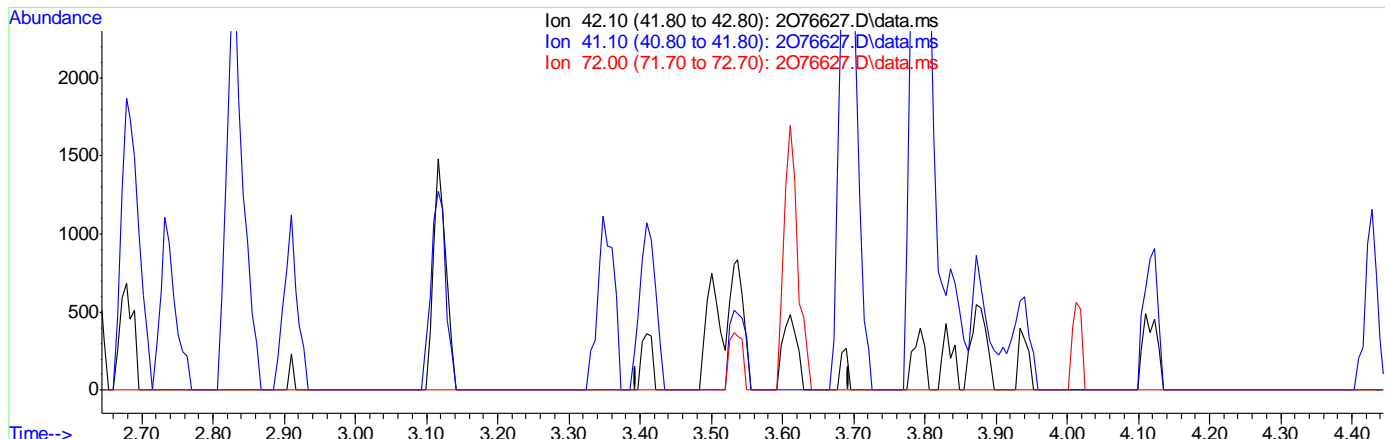
7.6.5.1  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(38) Tetrahydrofuran  
 3.544min (-3.544) 0.00ug/L  
 response 0

Ion	Exp%	Act%
42.10	100	0.00
41.10	55.90	0.00#
72.00	47.60	0.00#
0.00	0.00	0.00

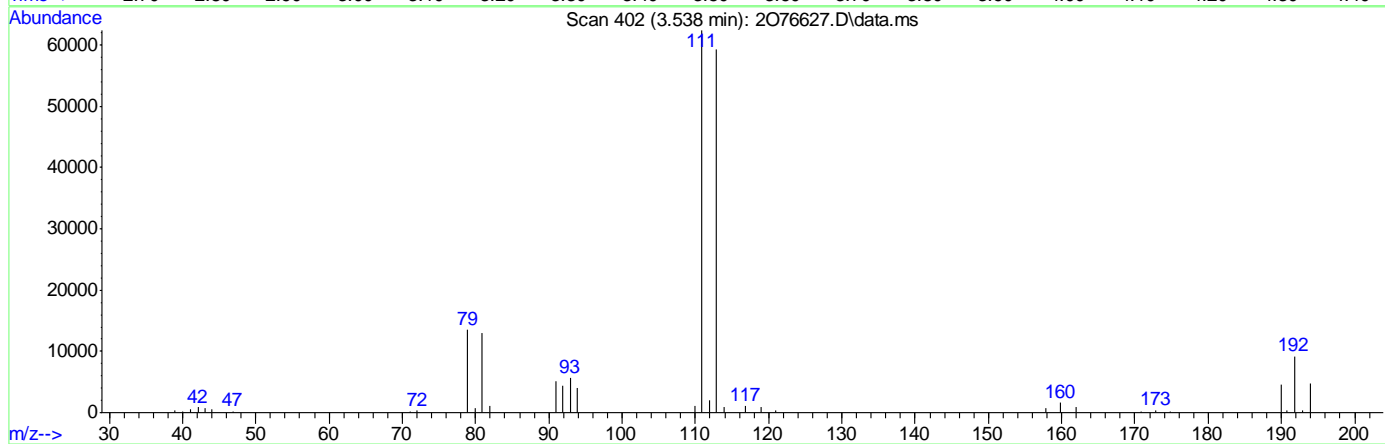
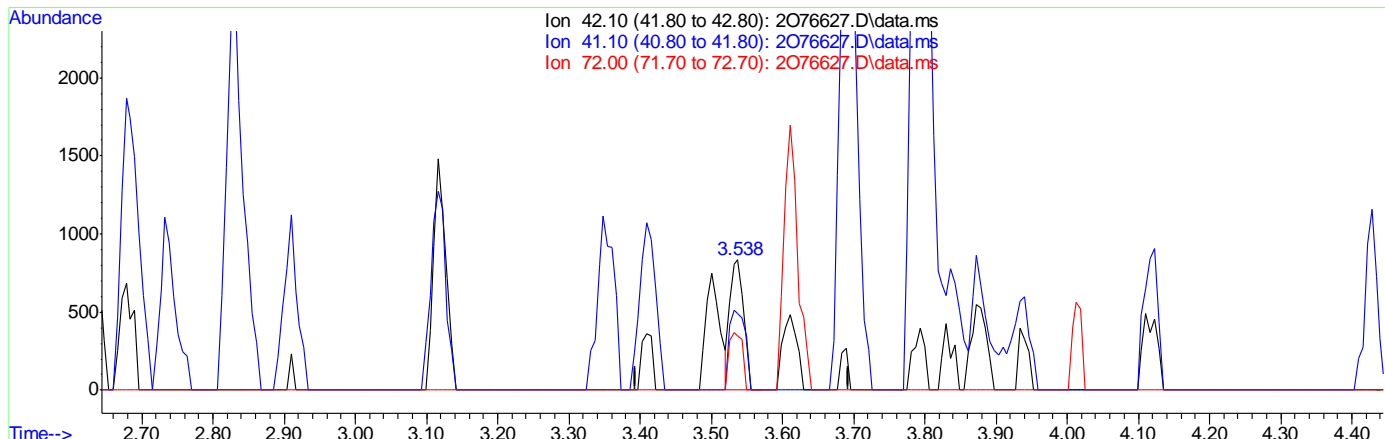
7.6.5.2  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(38) Tetrahydrofuran  
 3.538min (-0.006) 0.95ug/L m  
 response 1146

Ion	Exp%	Act%
42.10	100	100
41.10	55.90	58.99
72.00	47.60	41.73
0.00	0.00	0.00

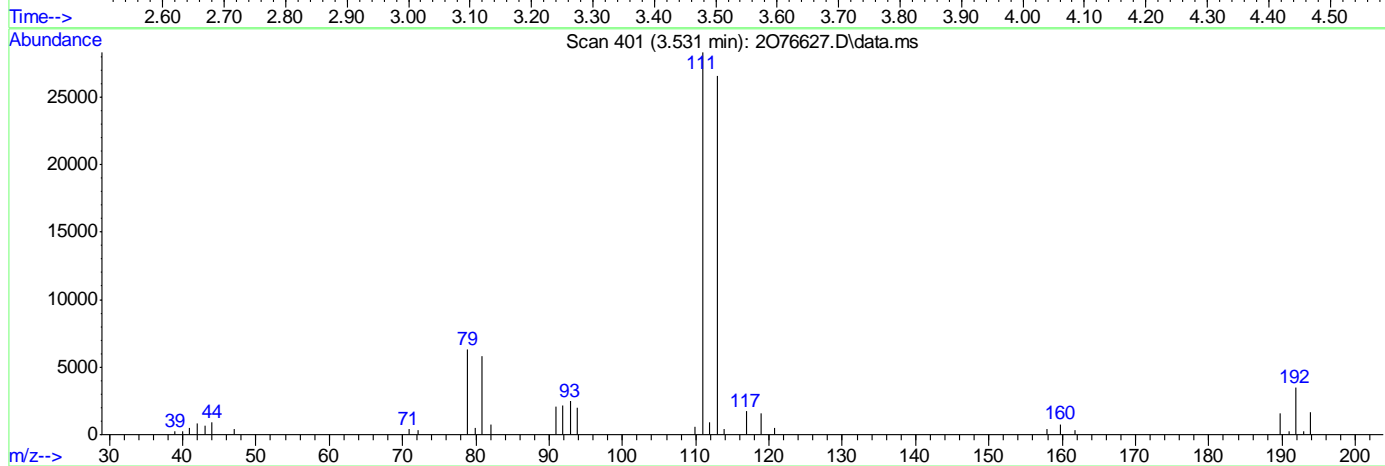
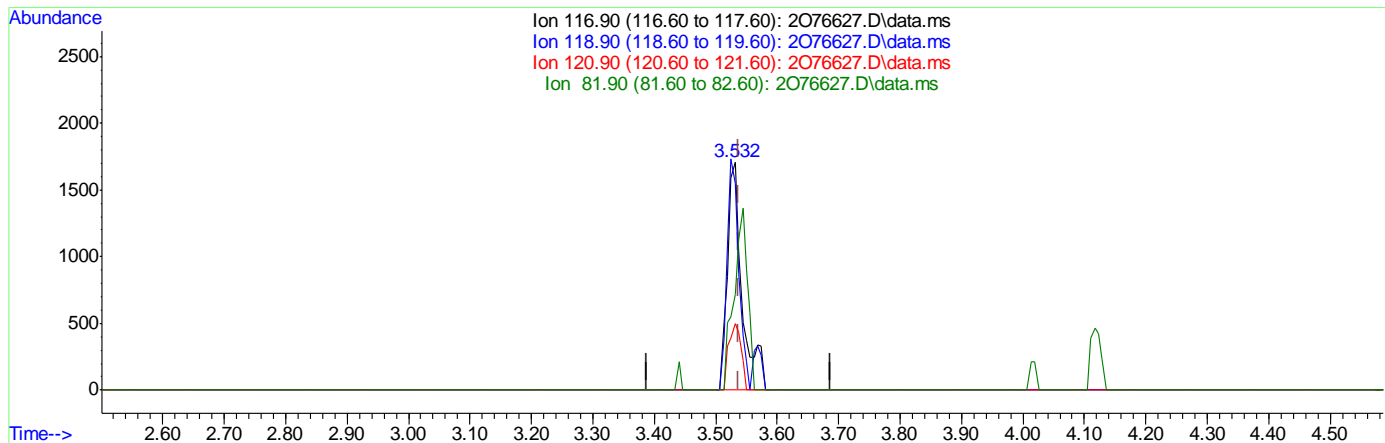
7.6.5.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.006) 1.19ug/L

response 2830

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	90.46
120.90	31.00	29.26
81.90	24.80	42.01

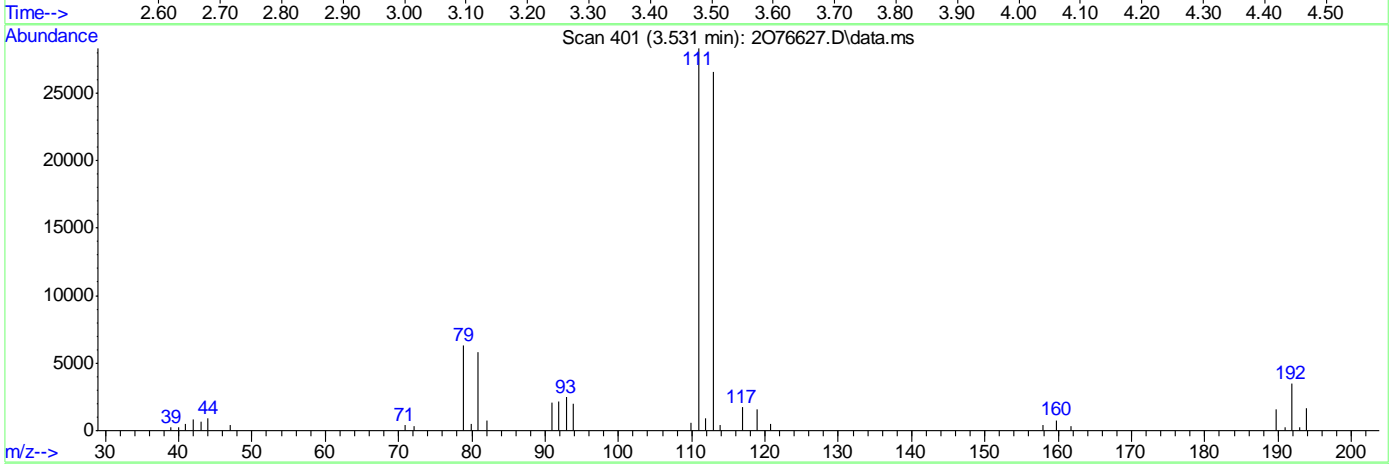
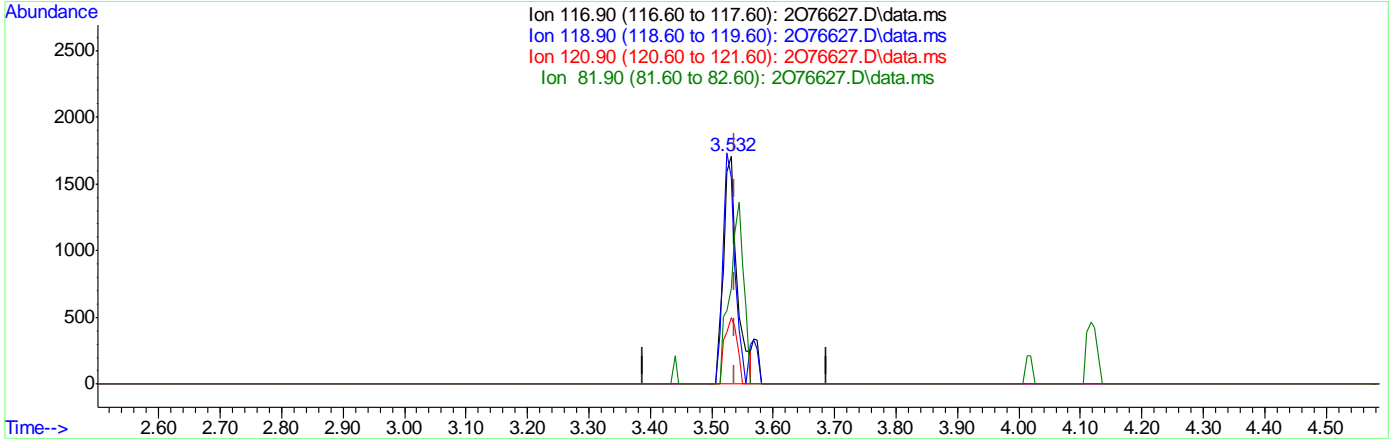
7.6.5.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.006) 1.09ug/L m

response 2585

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	90.46
120.90	31.00	29.26
81.90	24.80	42.01

7.6.5.5

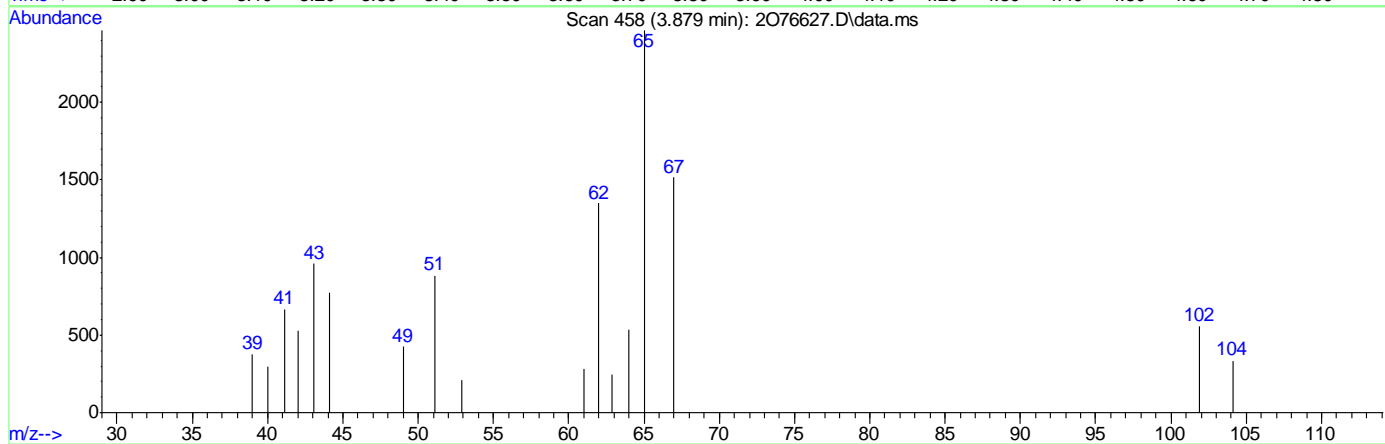
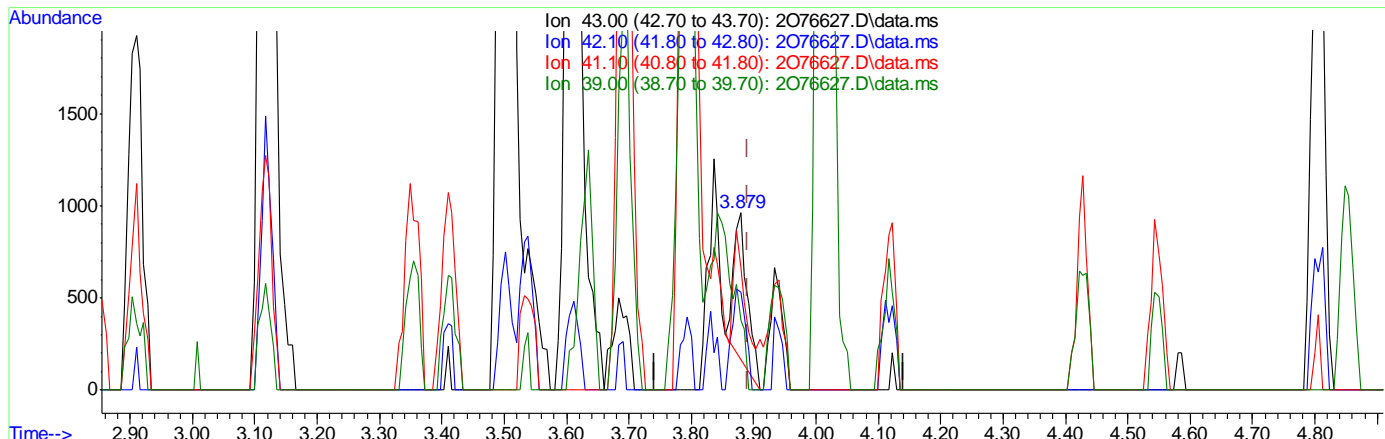
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 7.60ug/L  
 response 1150

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.10
41.10	73.50	40.52
39.00	30.20	39.48

7.6.5.6  
7

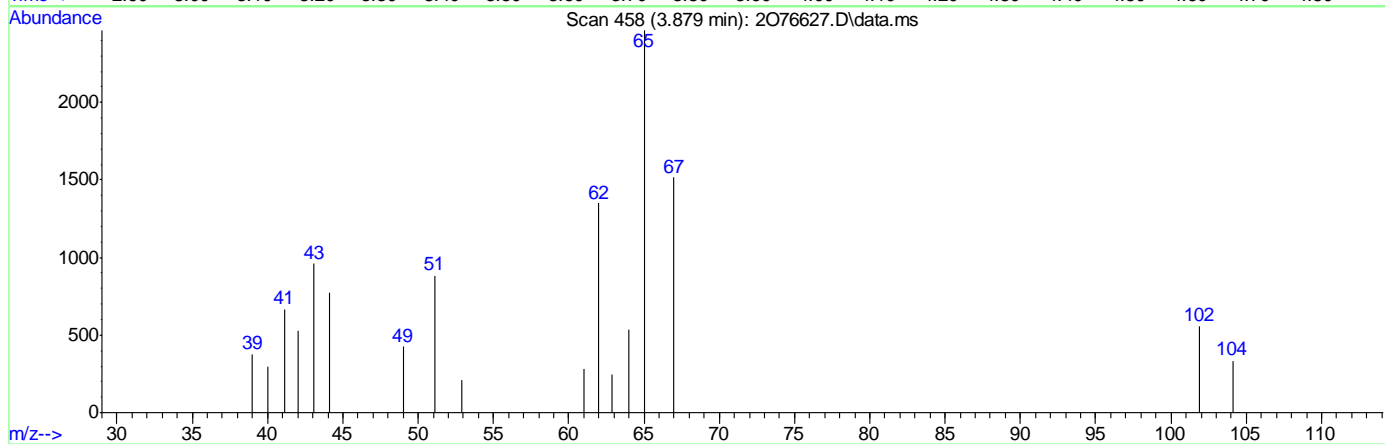
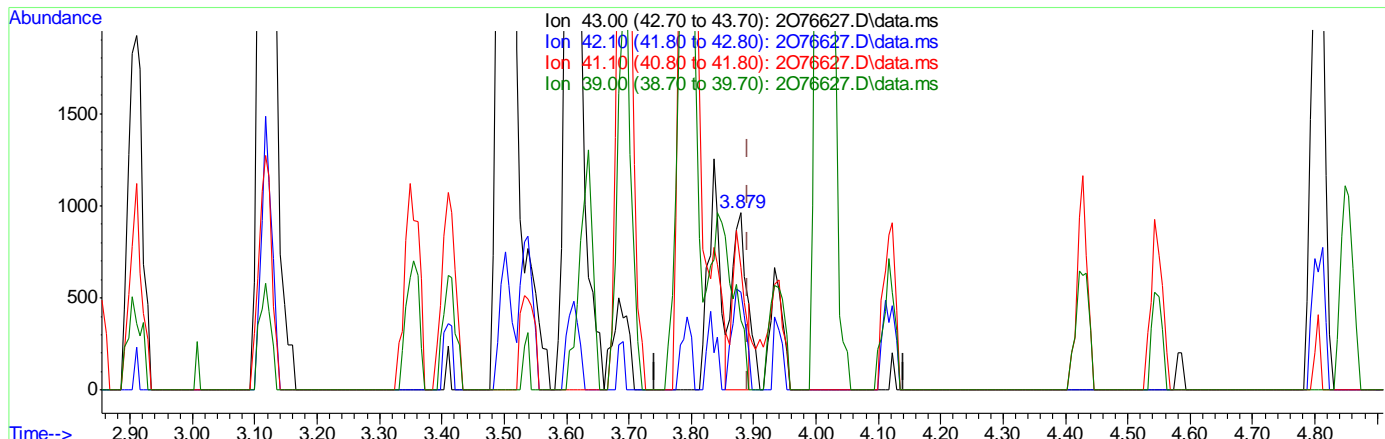


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.879min (-0.012) 9.61ug/L m  
 response 1455

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.10
41.10	73.50	69.48
39.00	30.20	39.48

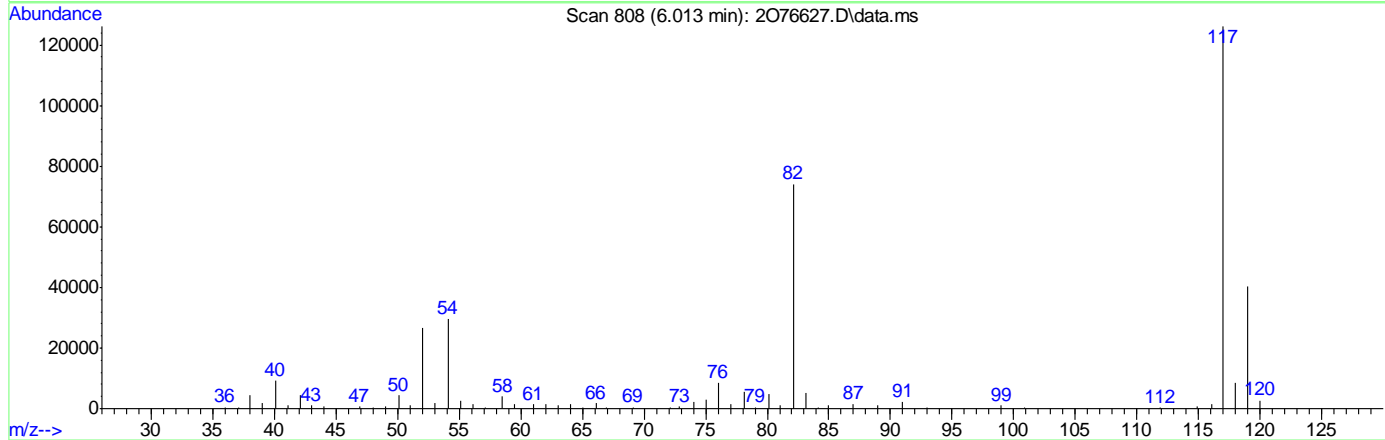
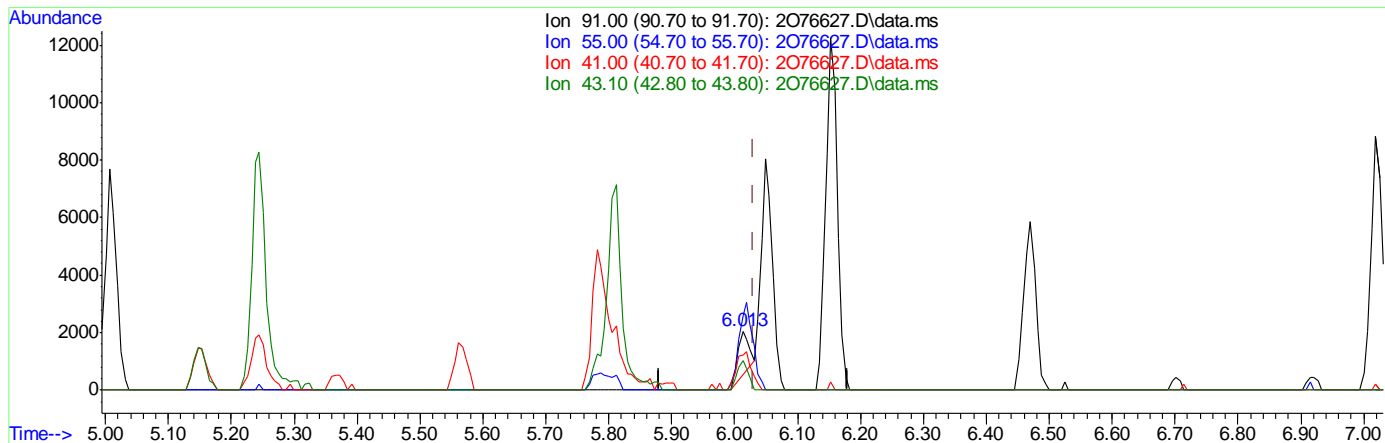
7.6.5.7  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 0.75ug/L  
 response 1986

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	115.79#
41.00	53.70	47.12
43.10	42.30	49.32

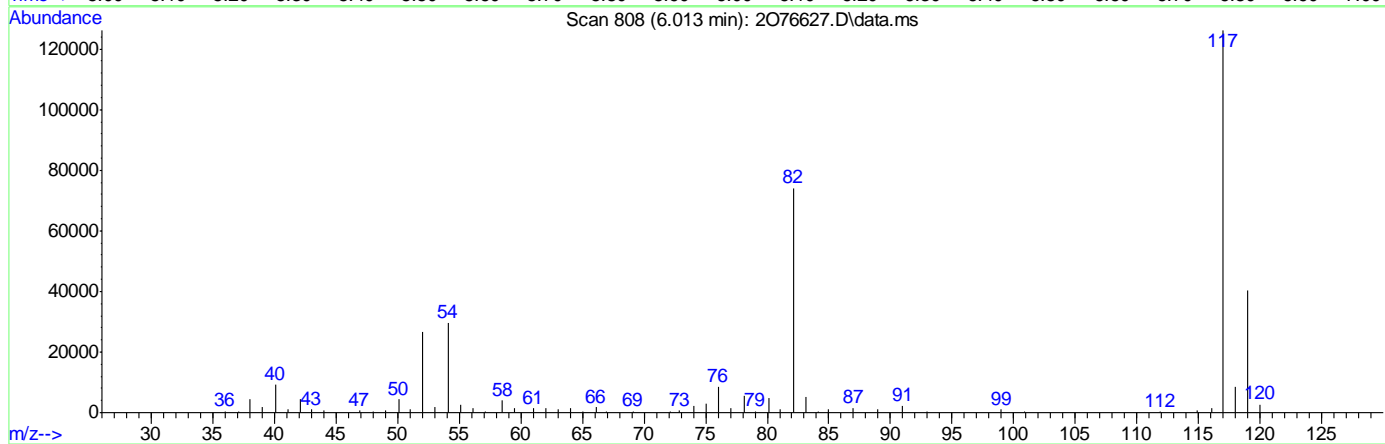
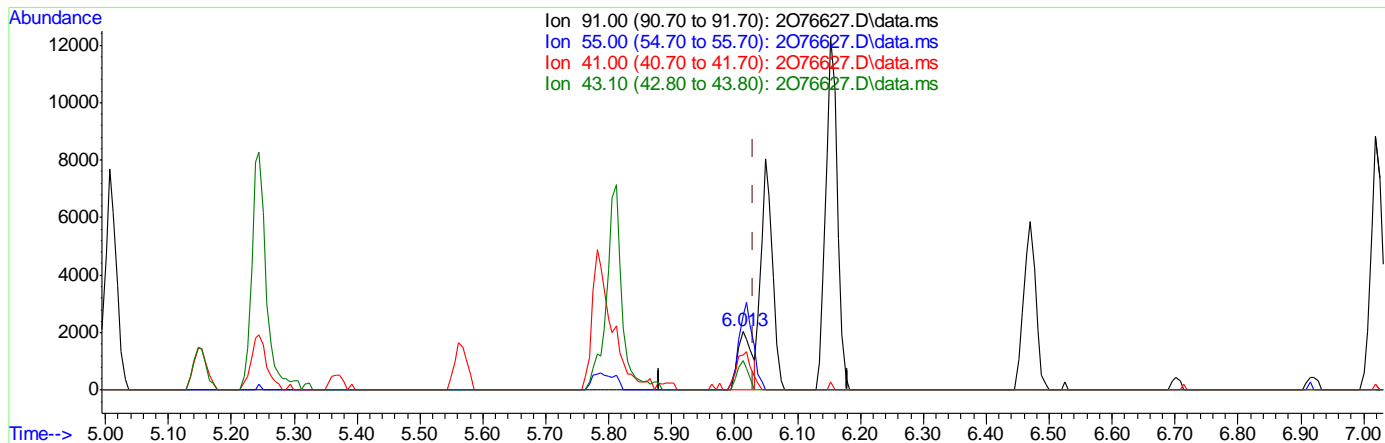
7.6.5.8  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 1.17ug/L m  
 response 3099

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	125.93#
41.00	53.70	59.99
43.10	42.30	49.32

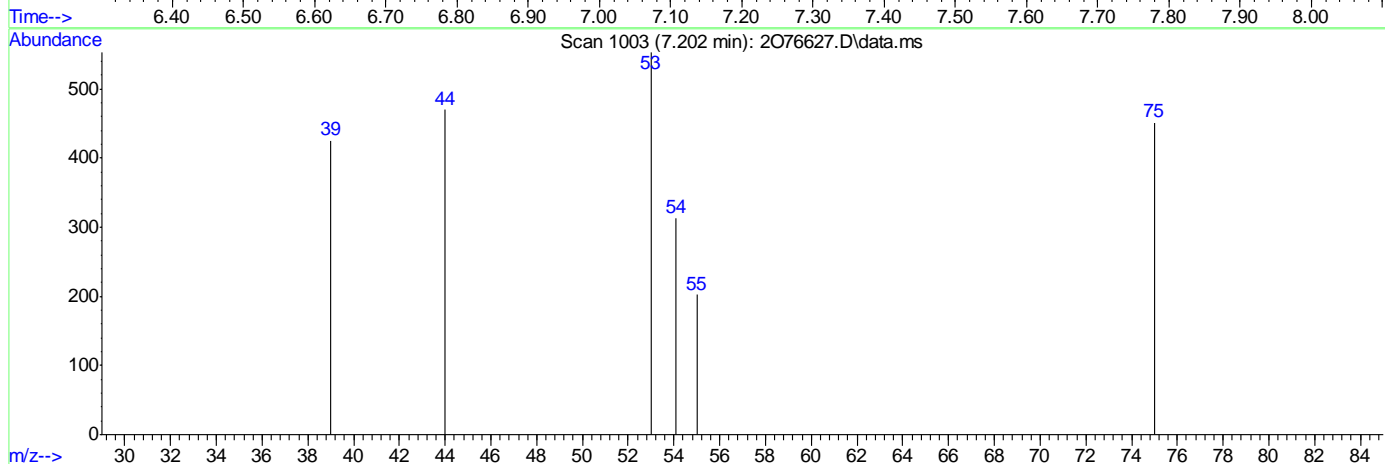
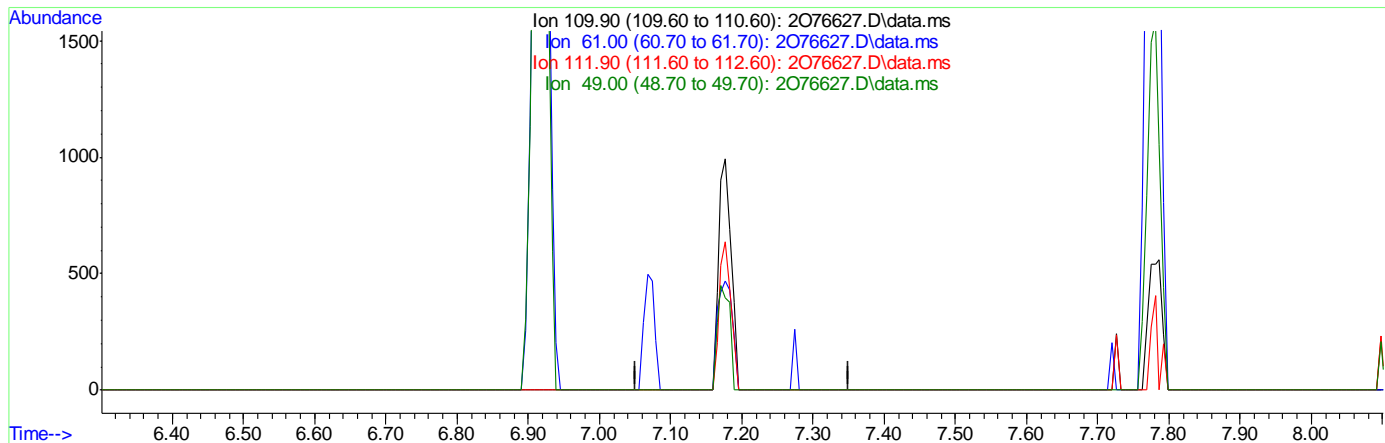
7.65.9  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(94) 1,2,3-Trichloropropane ( )

7.201min (-7.201) 0.00ug/L

response 0

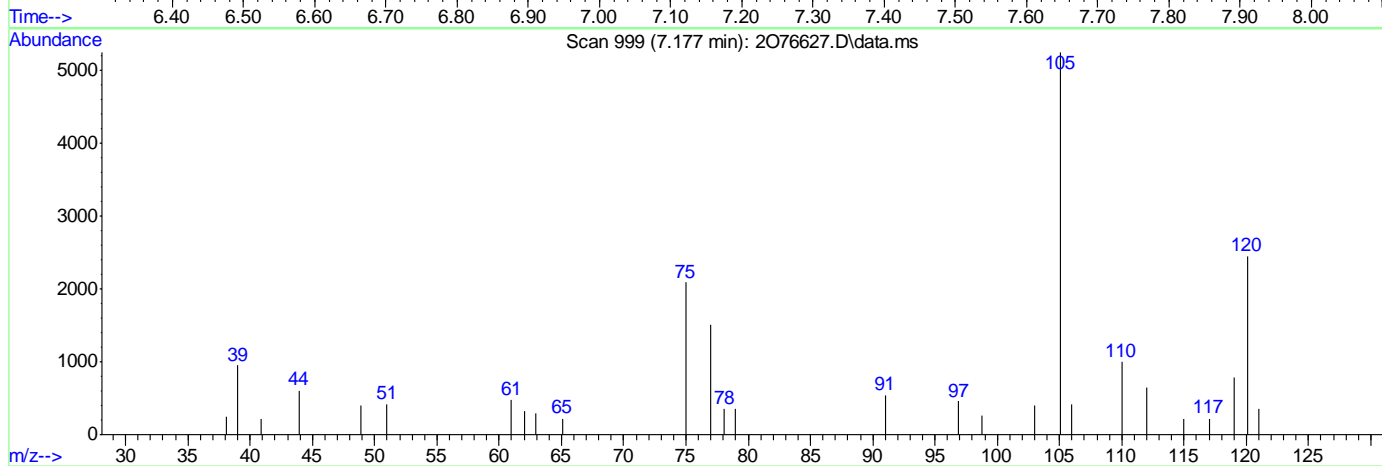
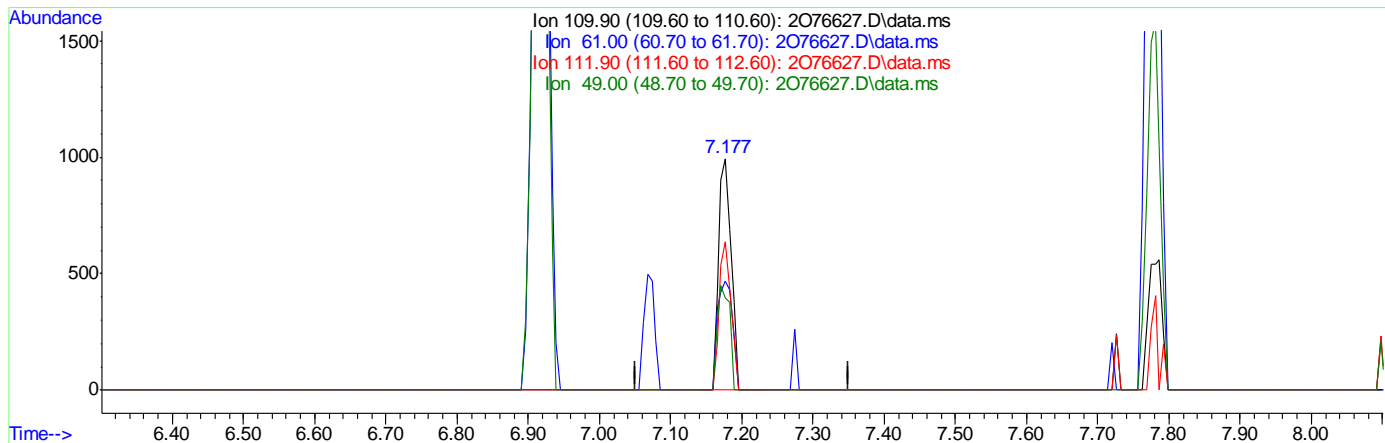
Ion	Exp%	Act%
109.90	100	0.00
61.00	63.10	0.00#
111.90	64.70	0.00#
49.00	47.70	0.00#

7.65.10  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(94) 1,2,3-Trichloropropane ( )

7.177min (-0.024) 1.24ug/L m

response 1238

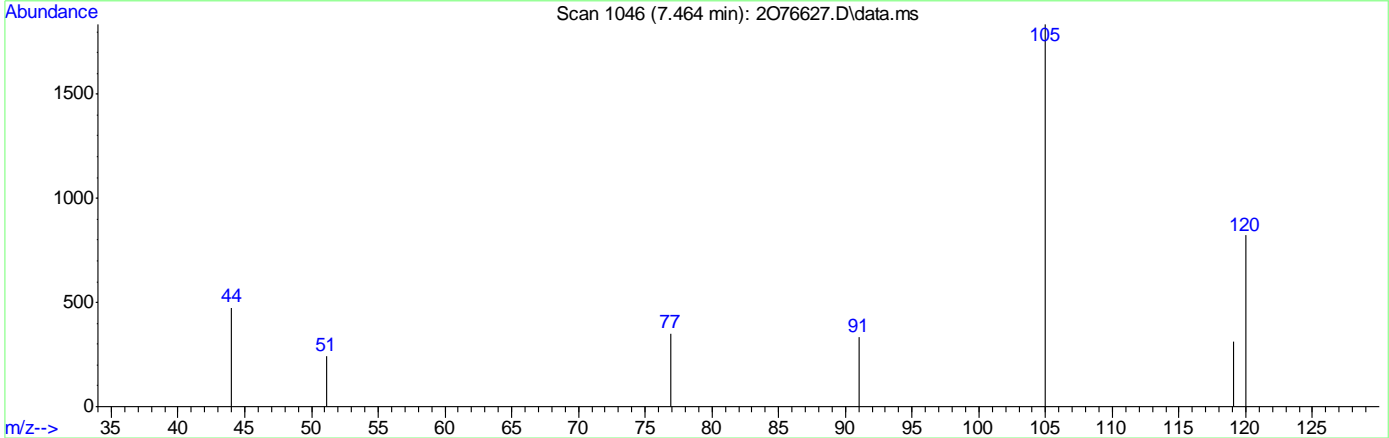
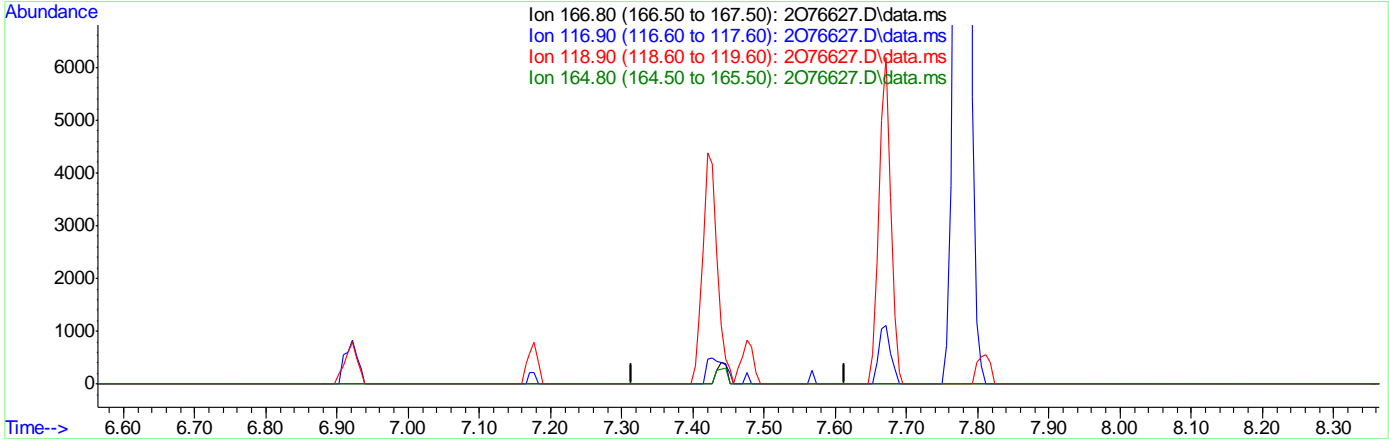
Ion	Exp%	Act%
109.90	100	100
61.00	63.10	47.28
111.90	64.70	64.29
49.00	47.70	39.84

7.6.5.11  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(100) Pentachloroethane ( )  
 7.464min (-7.464) 0.00ug/L  
 response 0

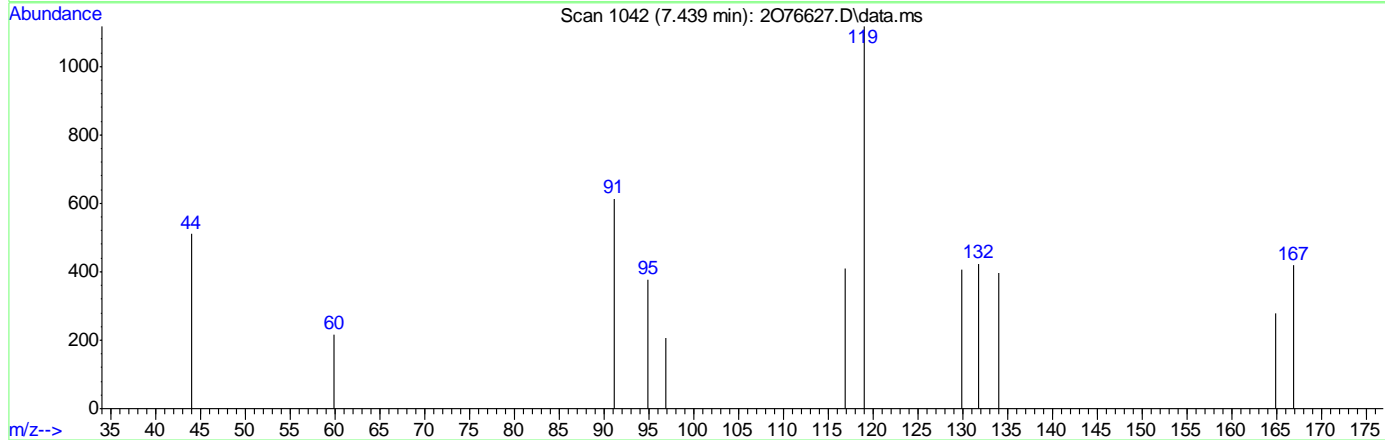
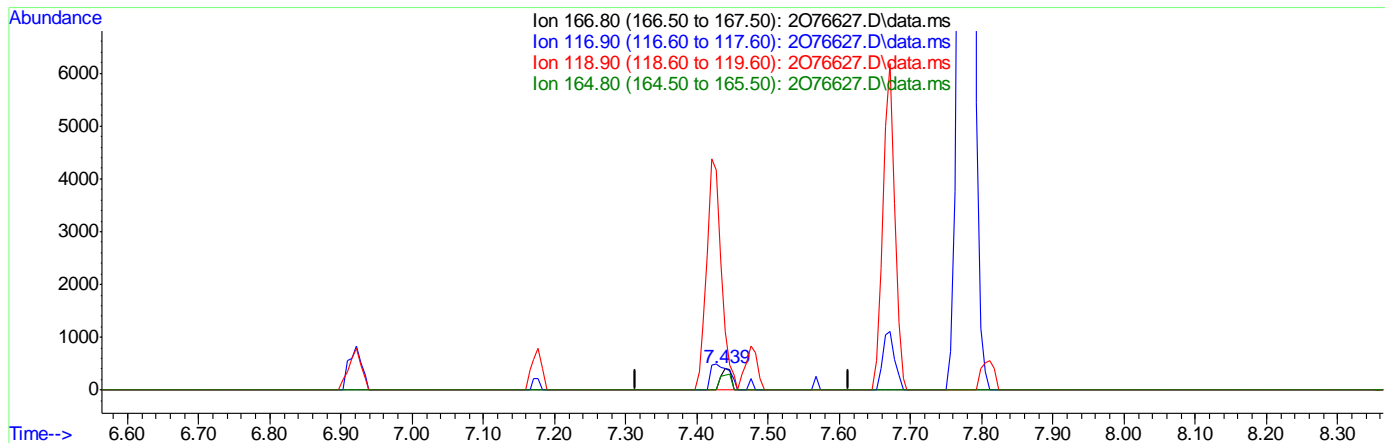
Ion	Exp%	Act%
166.80	100	0.00
116.90	99.80	0.00#
118.90	210.50	0.00#
164.80	79.80	0.00#

7.6.5.12  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(100) Pentachloroethane ( )  
 7.439min (-0.025) 0.44ug/L m  
 response 393

Ion	Exp%	Act%
166.80	100	100
116.90	99.80	97.39
118.90	210.50	265.32#
164.80	79.80	66.51

7.65.13  
7

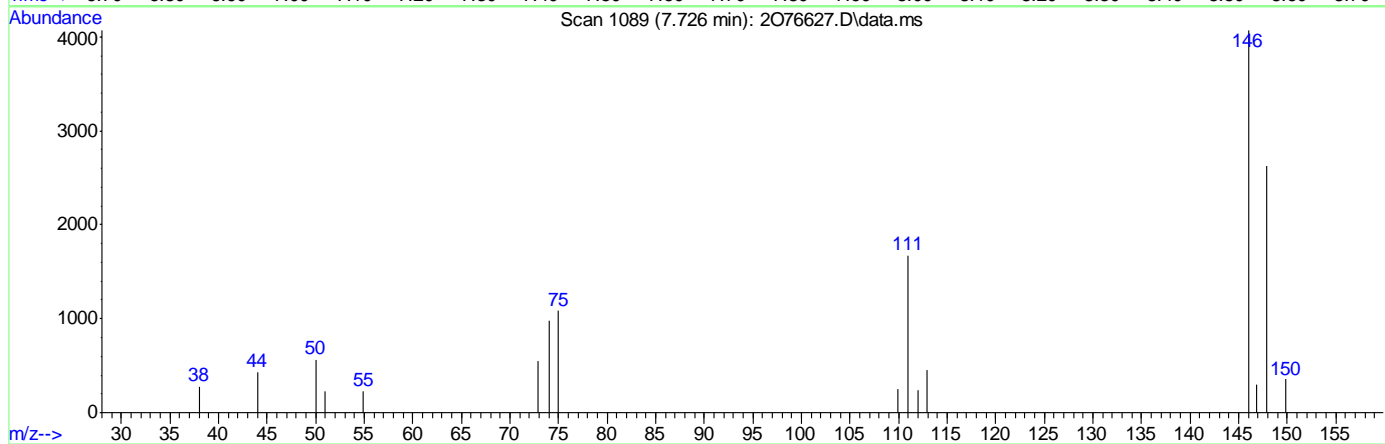
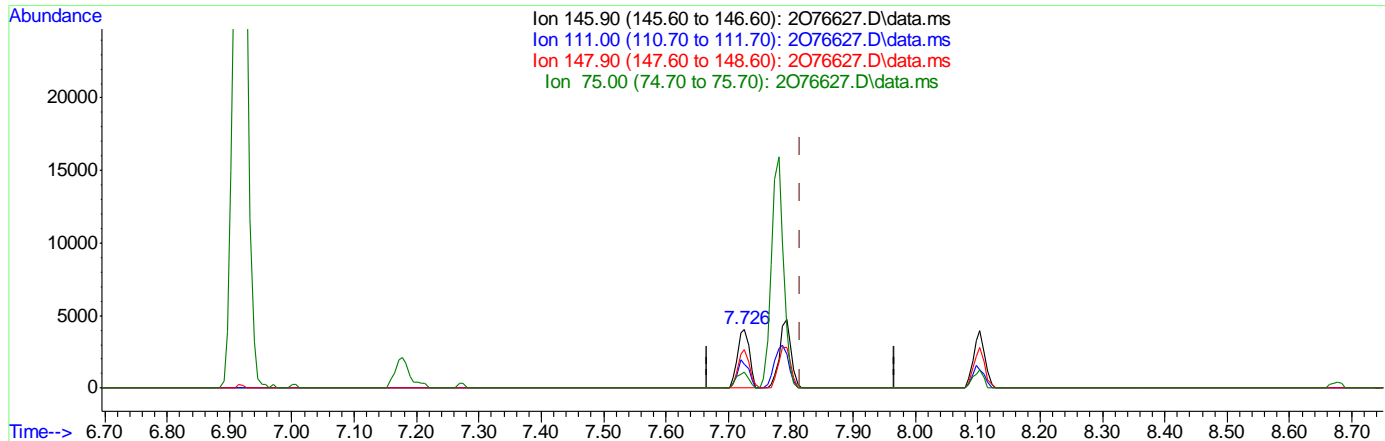


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(105) 1,4-Dichlorobenzene

7.726min (-0.091) 1.21ug/L

response 5336

Ion	Exp%	Act%
145.90	100	100
111.00	38.60	41.12
147.90	64.50	64.39
75.00	30.40	26.64

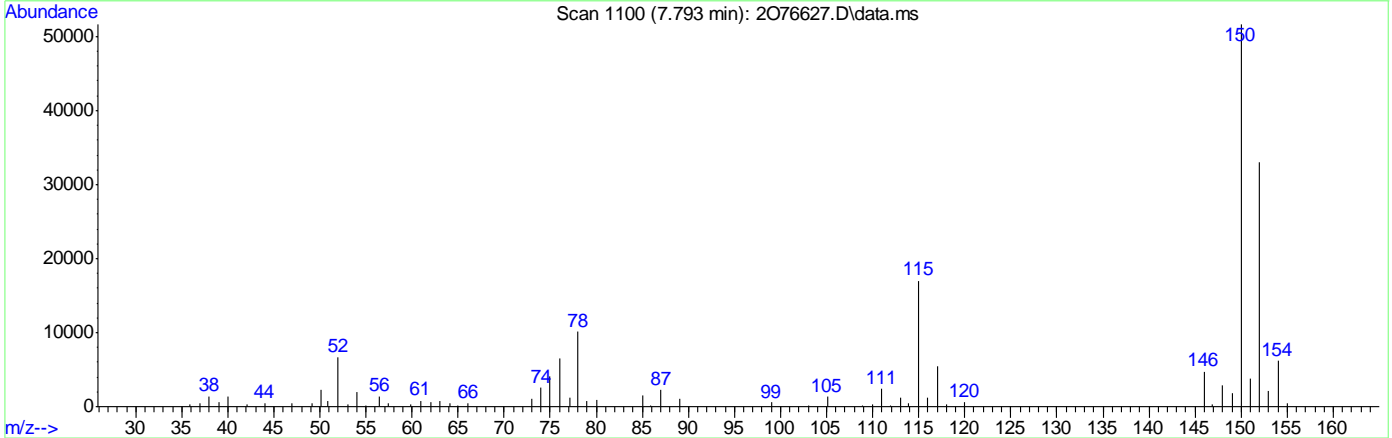
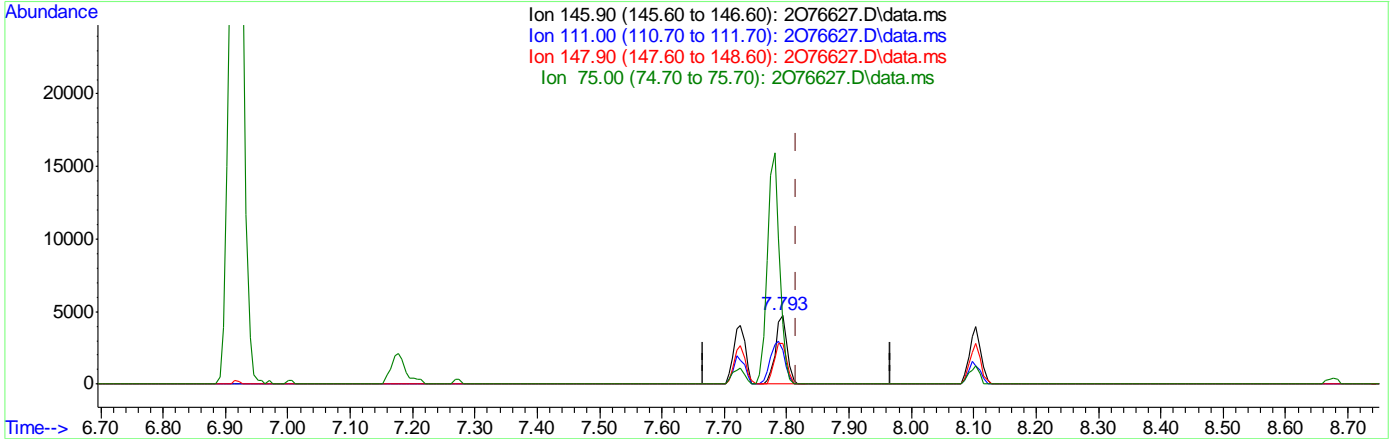
7.65.14  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(105) 1,4-Dichlorobenzene

7.793min (-0.024) 1.38ug/L m

response 6071

Ion	Exp%	Act%
145.90	100	100
111.00	38.60	49.56
147.90	64.50	59.62
75.00	30.40	87.12#

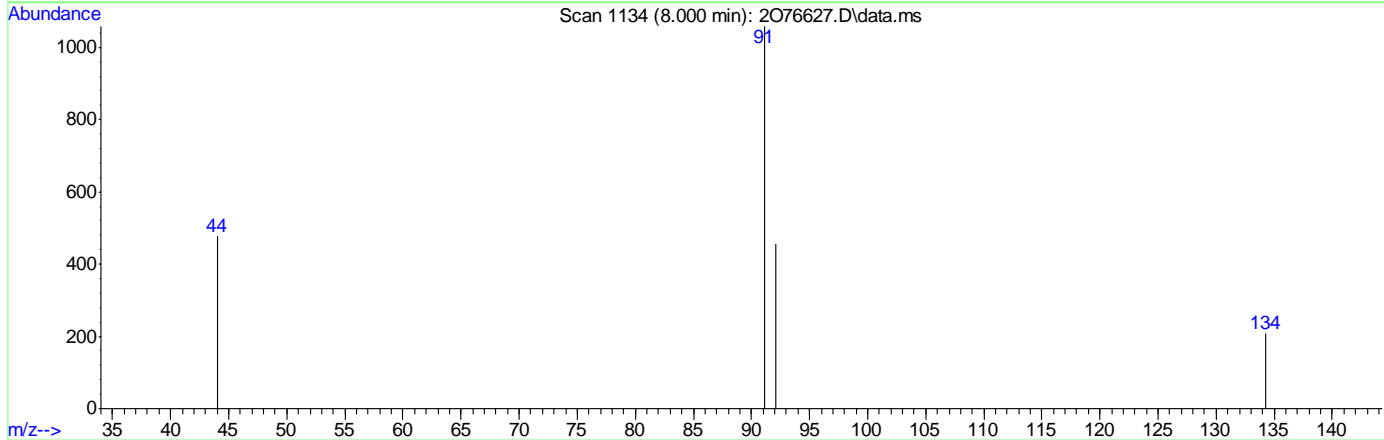
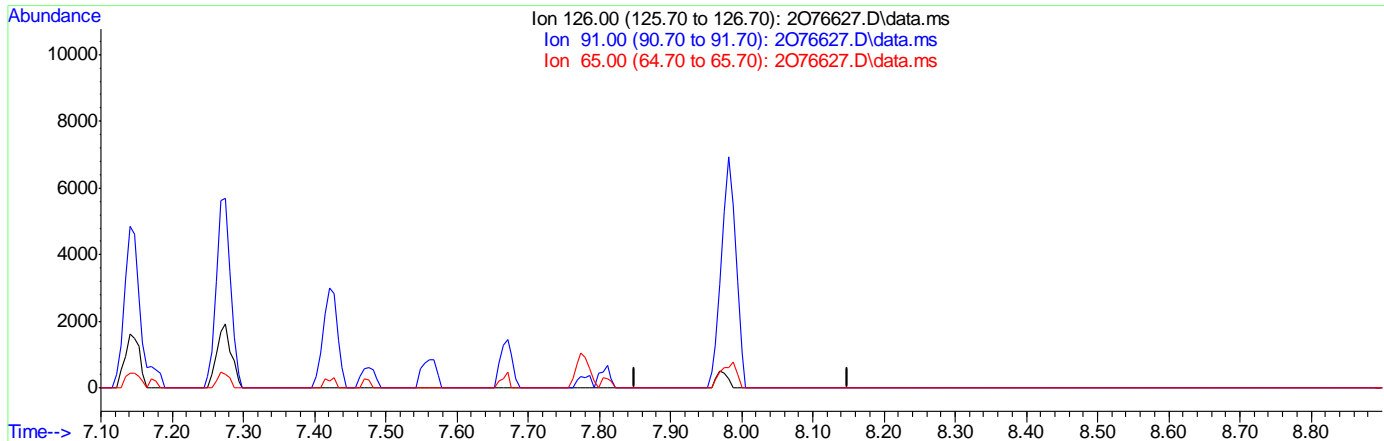
7.6.5.15  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(107) Benzyl Chloride

8.000min (-8.000) 0.00ug/L

response 0

Ion	Exp%	Act%
126.00	100	0.00
91.00	690.00	0.00#
65.00	76.80	0.00#
0.00	0.00	0.00

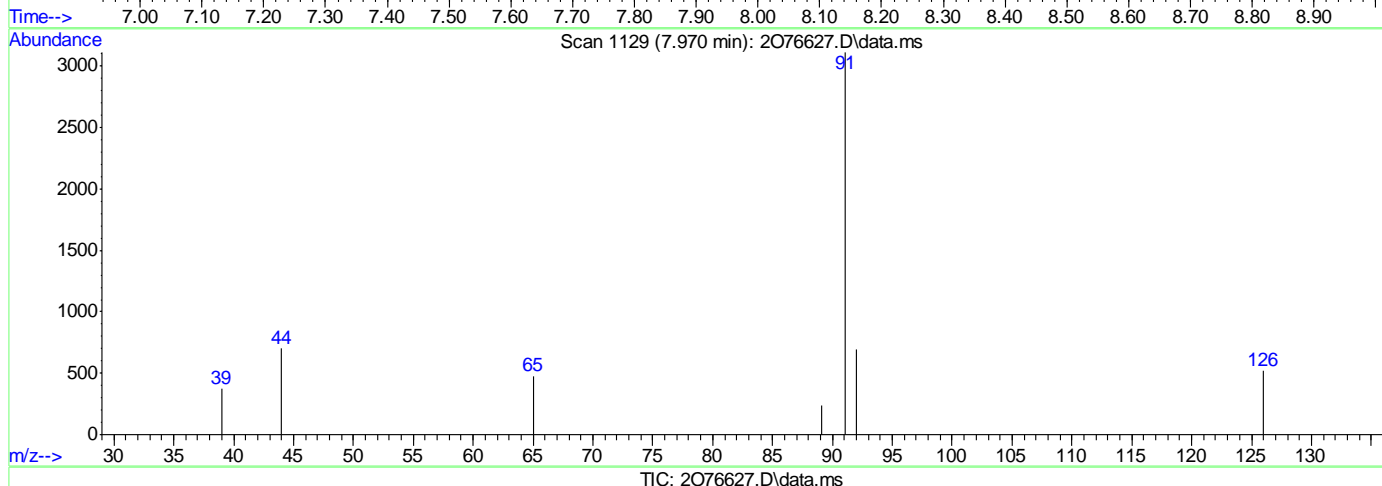
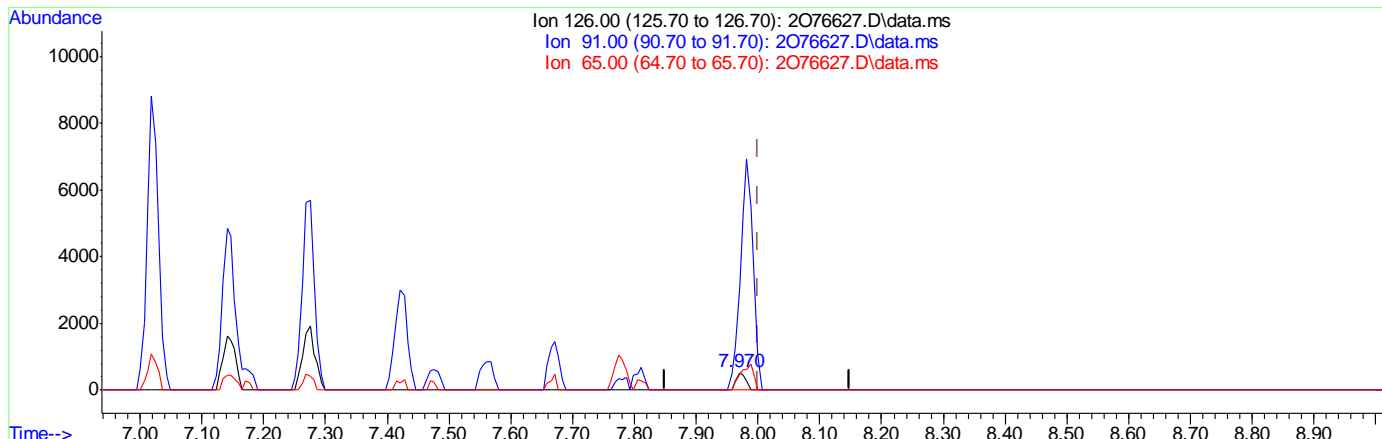
7.6.5.16  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(107) Benzyl Chloride  
 7.970min (-0.030) 0.76ug/L m  
 response 559

Ion	Exp%	Act%
126.00	100	100
91.00	690.00	602.13#
65.00	76.80	91.88
0.00	0.00	0.00

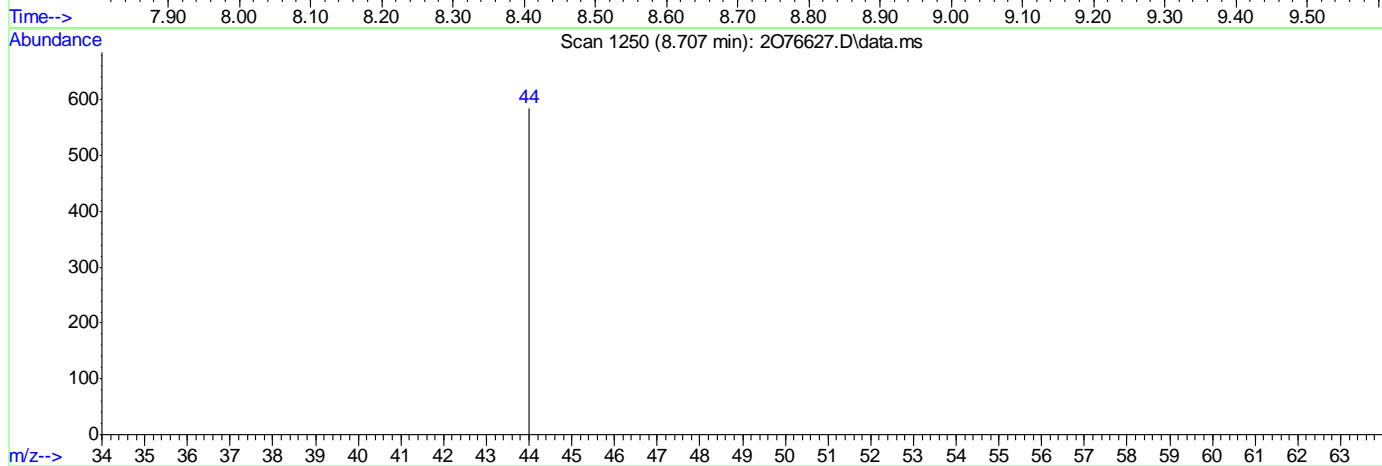
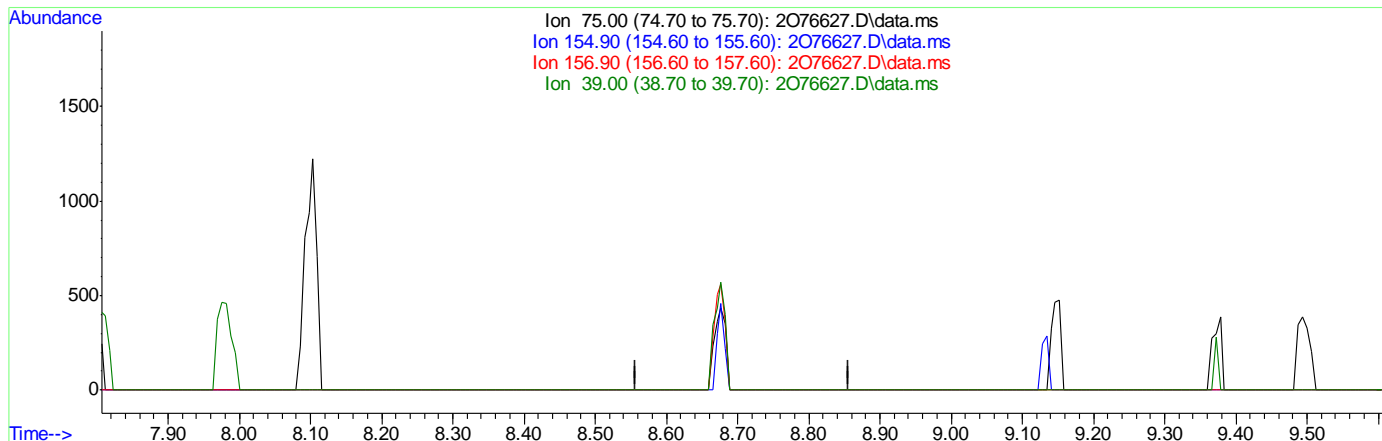
7.6.5.17  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(109) 1,2-Dibromo-3-Chloropropane

8.707min (-8.707) 0.00ug/L

response 0

Ion	Exp%	Act%
75.00	100	0.00
154.90	105.60	0.00#
156.90	135.20	0.00#
39.00	68.40	0.00#

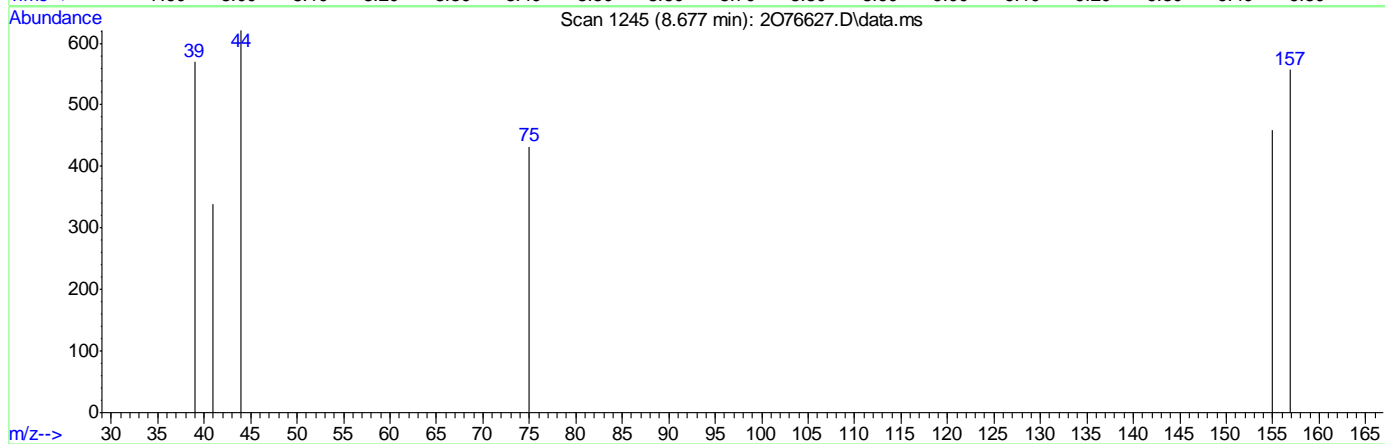
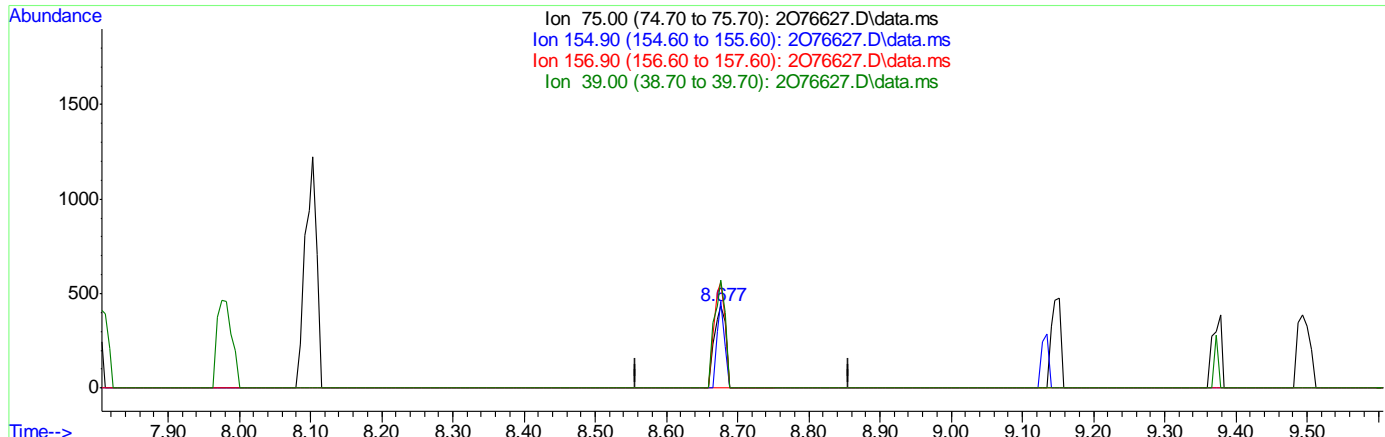
7.6.5.18  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(109) 1,2-Dibromo-3-Chloropropane

8.677min (-0.030) 0.85ug/L m

response 505

Ion	Exp%	Act%
75.00	100	100
154.90	105.60	106.25
156.90	135.20	128.94
39.00	68.40	131.94#

7.6.5.19  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	404974	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	293790	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	152816	50.00	ug/L	-0.02
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	109996	49.00	ug/L	-0.01
Spiked Amount	50.000	Range 83 - 118	Recovery =	98.00%		
50) 1,2-Dichloroethane-d4	3.855	65	132234	55.42	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 125	Recovery =	110.84%		
63) Toluene-d8	4.976	98	394450	49.23	ug/L	-0.01
Spiked Amount	50.000	Range 85 - 112	Recovery =	98.46%		
86) 4-Bromofluorobenzene	6.921	174	111883	47.98	ug/L	-0.02
Spiked Amount	50.000	Range 83 - 118	Recovery =	95.96%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	7833	4.75	ug/L	99
3) Chloromethane	1.373	50	7470	4.19	ug/L	91
4) 1,3-butadiene	1.447	39	8856	4.95	ug/L	99
5) Vinyl Chloride	1.434	62	7803	4.41	ug/L	94
6) Bromomethane	1.666	94	5879	4.33	ug/L	100
7) Chloroethane	1.751	64	5968	4.76	ug/L	98
8) Trichlorofluoromethane	1.849	101	15769	5.01	ug/L	98
9) Ethyl Ether	2.056	59	6040	4.33	ug/L	97
10) Ethanol	2.160	45	3321	90.69	ug/L	94
11) 1,2-Dichlorotrifluoro...	2.178	67	8809	4.24	ug/L	97
12) 1,1-Dichloroethene	2.178	61	10848	4.07	ug/L	97
13) Freon 113	2.209	101	7935	4.47	ug/L	91
14) Carbon Disulfide	2.196	76	19764	3.81	ug/L	99
15) Iodomethane	2.270	142	5249	1.89	ug/L	96
16) Acrolein	2.385	56	13631	26.85	ug/L	98
17) Allyl chloride	2.471	41	8953	4.33	ug/L	92
18) Methylene Chloride	2.532	49	11616	4.67	ug/L	99
19) Acetone	2.556	43	23604	23.17	ug/L	100
20) Methyl acetate	2.629	43	49410	21.09	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	11325	4.44	ug/L	97
22) Hexane	2.678	56	6143	4.56	ug/L	94
23) Methyl Tert Butyl Ether	2.690	73	22102	4.52	ug/L	91
24) Tert Butyl Alcohol	2.739	59	12733	34.58	ug/L	89
25) Acetonitrile	2.830	41	19659	51.25	ug/L	98
26) Di-isopropyl ether	2.910	45	21277	4.10	ug/L	96
27) Chloroprene	2.971	53	11340	4.65	ug/L	94
28) 1,1-Dichloroethane	2.983	63	14544	4.39	ug/L	98
29) Acrylonitrile	3.007	52	22009	22.31	ug/L	100
30) ETBE	3.117	59	19708	4.19	ug/L	98
31) Vinyl acetate	3.117	43	82271	21.73	ug/L	98
32) cis-1,2-Dichloroethene	3.288	96	9466	4.60	ug/L	97
33) 2,2-Dichloropropane	3.355	77	8959	4.03	ug/L	98
34) Bromochloromethane	3.404	128	4890	4.41	ug/L	84
35) Cyclohexane	3.416	56	11174	4.08	ug/L	94



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	16498	4.60	ug/L	96
37) Ethyl acetate	3.501	43	64391	21.65	ug/L	99
38) Tetrahydrofuran	3.538	42	4436	3.88	ug/L	94
40) Carbon Tetrachloride	3.532	117	9351m	4.16	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	12462	4.28	ug/L	93
42) 2-Butanone	3.611	43	35957	21.28	ug/L	96
43) 1,1-Dichloropropene	3.635	75	10732	4.27	ug/L	97
44) tert-Butyl formate	3.690	59	12320	19.49	ug/L #	77
45) Propionitrile	3.781	54	23175	46.22	ug/L	92
46) Methacrylonitrile	3.794	41	78381	46.18	ug/L	98
47) Benzene	3.775	78	32310	4.35	ug/L	98
48) TAME	3.836	73	18478	4.19	ug/L	92
49) Isobutyl alcohol	3.873	43	11227m	77.64	ug/L	
51) 1,2-Dichloroethane	3.891	62	13495	5.10	ug/L	92
52) Tert Amyl Alcohol	3.940	59	8507	29.33	ug/L #	80
53) Trichloroethene	4.117	95	9455	4.42	ug/L	92
54) Methylcyclohexane	4.117	83	11432	4.08	ug/L	93
55) Dibromomethane	4.367	93	6316	4.69	ug/L	98
56) 1,2-Dichloropropane	4.428	63	7491	4.30	ug/L	94
57) Bromodichloromethane	4.464	83	9966	4.18	ug/L	93
58) Methyl methacrylate	4.550	41	7997	4.10	ug/L	99
59) 1,4-Dioxane	4.586	88	2887	79.98	ug/L	96
60) 2-Chloroethyl vinyl ether	4.806	63	35209	23.27	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	10809	4.06	ug/L	97
64) Toluene	5.007	91	35293	4.38	ug/L	100
65) 2-Nitropropane	5.153	41	8493	18.53	ug/L	89
66) 4-Methyl-2-pentanone	5.245	43	59486	20.68	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	10498	4.06	ug/L	85
68) Tetrachloroethene	5.263	166	9103	3.99	ug/L	91
69) Ethyl methacrylate	5.367	69	10009	4.39	ug/L	93
70) 1,1,2-Trichloroethane	5.379	83	7435	4.58	ug/L	95
71) Dibromochloromethane	5.501	129	7348	4.03	ug/L	95
72) 1,3-Dichloropropane	5.568	76	14290	4.80	ug/L	98
73) 1,2-Dibromoethane	5.671	107	8935	4.39	ug/L	97
74) 3,3-dimethyl-1-butanol	5.781	57	72595	194.30	ug/L	94
75) 2-hexanone	5.812	43	60258	21.08	ug/L	95
76) 1-Chlorohexane	6.013	91	10472m	4.13	ug/L	
77) Ethylbenzene	6.049	91	37797	4.35	ug/L	95
78) Chlorobenzene	6.037	112	24419	4.49	ug/L	95
79) 1,1,1,2-Tetrachloroethane	6.080	131	7128	4.18	ug/L	96
80) m,p-Xylene	6.153	91	59021	8.73	ug/L	94
81) o-Xylene	6.470	91	28758	4.21	ug/L	98
82) Styrene	6.507	104	21432	4.00	ug/L	96
83) Bromoform	6.531	173	3863	3.40	ug/L	94
84) Isopropylbenzene	6.702	105	33556	4.08	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	2472	3.57	ug/L #	70
88) n-Propylbenzene	7.019	91	39938	4.22	ug/L	95
89) Bromobenzene	7.006	156	9088	4.32	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	12854	4.46	ug/L	96
91) 1,3,5-Trimethylbenzene	7.177	105	28027	4.19	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	29666	4.64	ug/L	93
93) trans-1,4-Dichloro-2-B...	7.208	53	2065	3.54	ug/L #	70
94) 1,2,3-Trichloropropane	7.177	110	4283	4.51	ug/L	92
95) Cyclohexanone	7.208	55	2144	16.29	ug/L	93
96) 4-Chlorotoluene	7.275	91	26547	4.52	ug/L	99
97) tert-Butylbenzene	7.421	91	15692	4.34	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	27462	4.16	ug/L	97
100) Pentachloroethane	7.439	167	3906	4.56	ug/L #	71
101) sec-Butylbenzene	7.561	105	32879	4.11	ug/L	98
102) 4-Isopropyltoluene	7.671	119	26924	3.85	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	18090	4.35	ug/L	96
104) 1,2,3-Trimethylbenzene	7.811	105	30267	4.38	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	19119	4.54	ug/L	89
106) n-Butylbenzene	7.988	92	13411	3.87	ug/L	99
107) Benzyl Chloride	7.976	126	2087	2.92	ug/L #	10
108) 1,2-Dichlorobenzene	8.104	146	18119	4.62	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	2348	4.11	ug/L #	71
110) Hexachlorobutadiene	9.134	225	3550	4.25	ug/L	82
111) 1,2,4-Trichlorobenzene	9.152	180	9849	4.14	ug/L	96
112) Naphthalene	9.372	128	31987	3.80	ug/L	96
113) 1,2,3-Trichlorobenzene	9.500	180	9876	4.37	ug/L	94

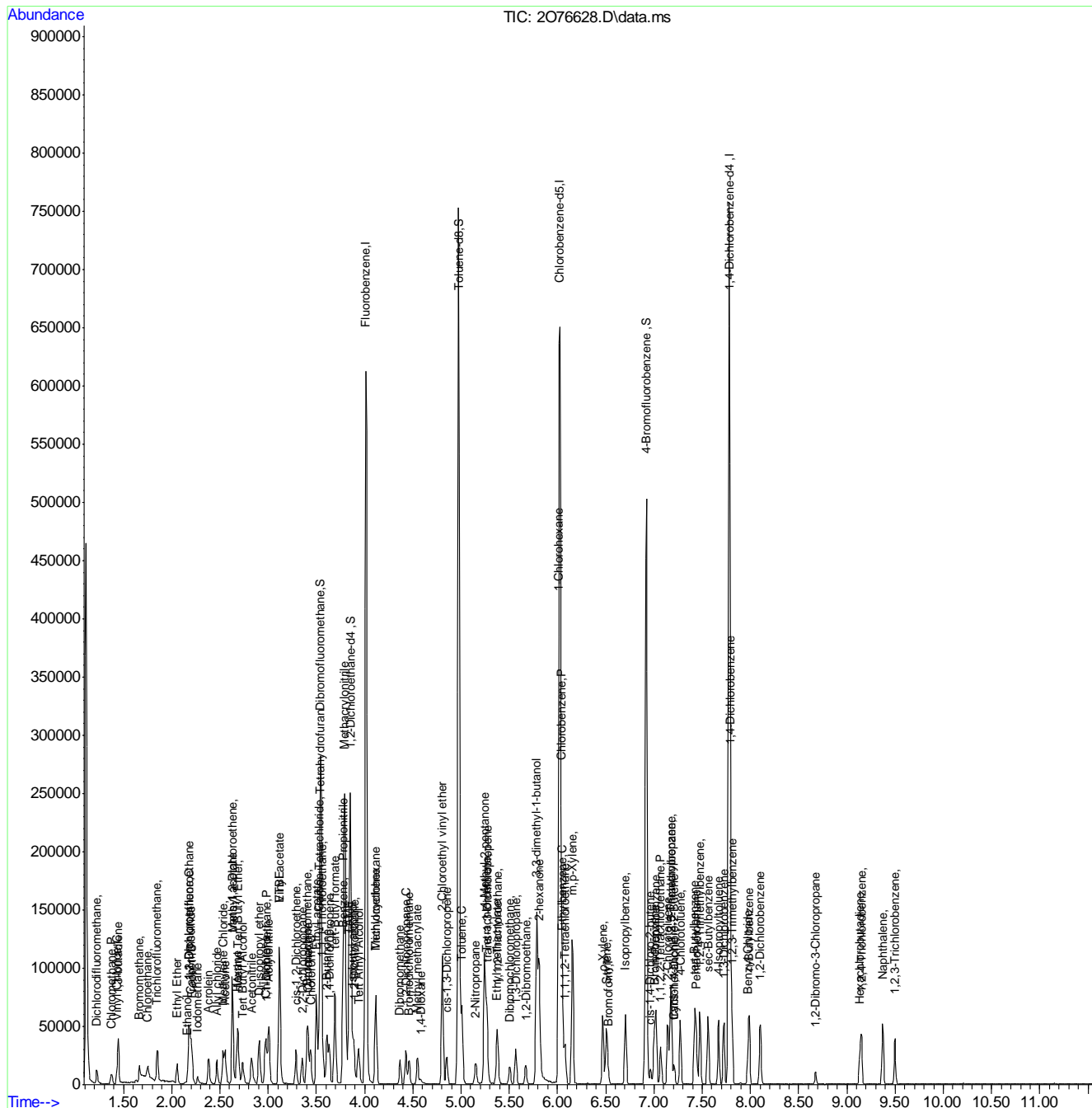
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76628.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 14:20      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

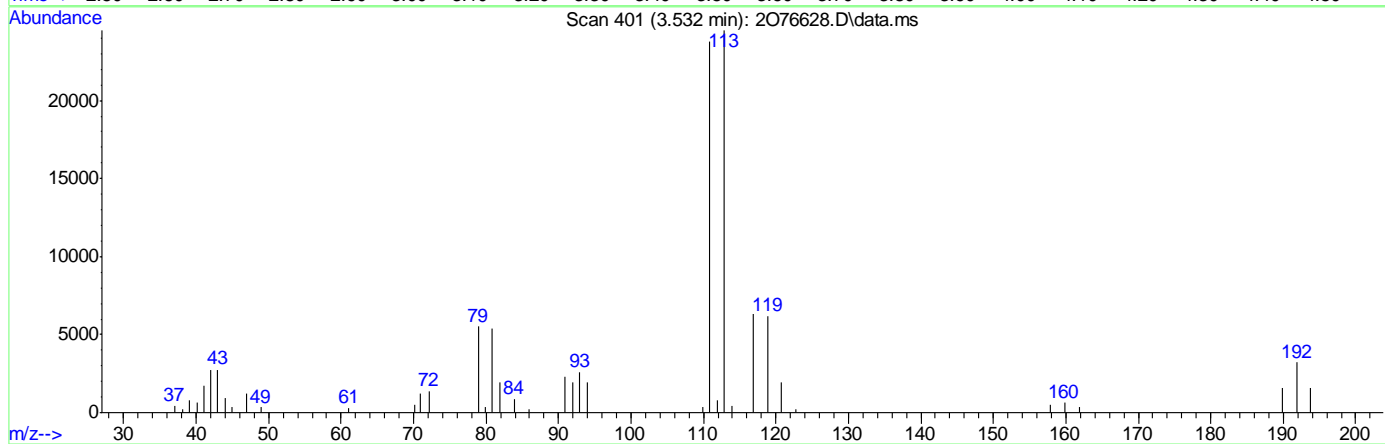
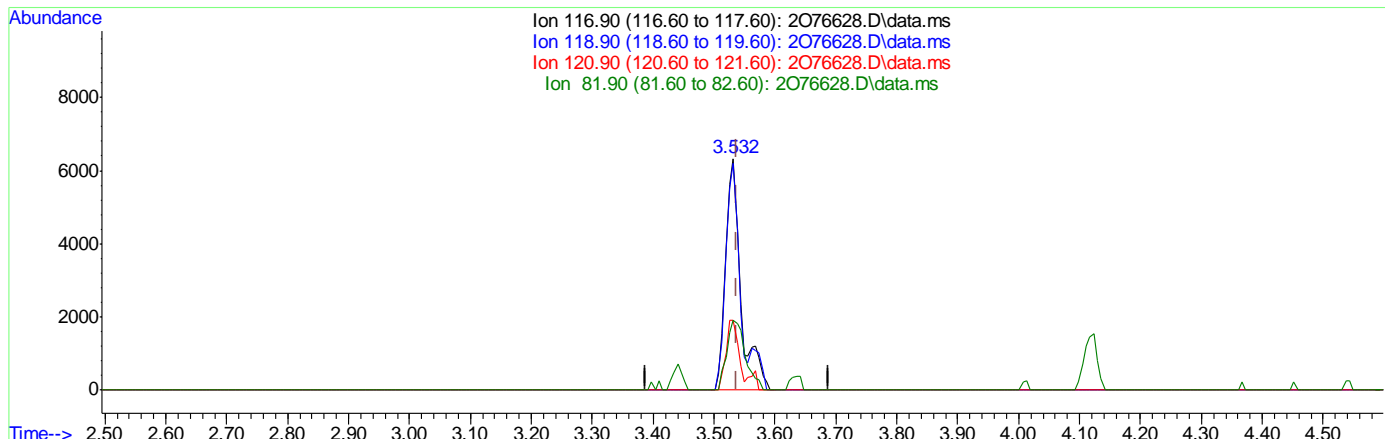
7.6.6.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
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Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 4.95ug/L

response 11113

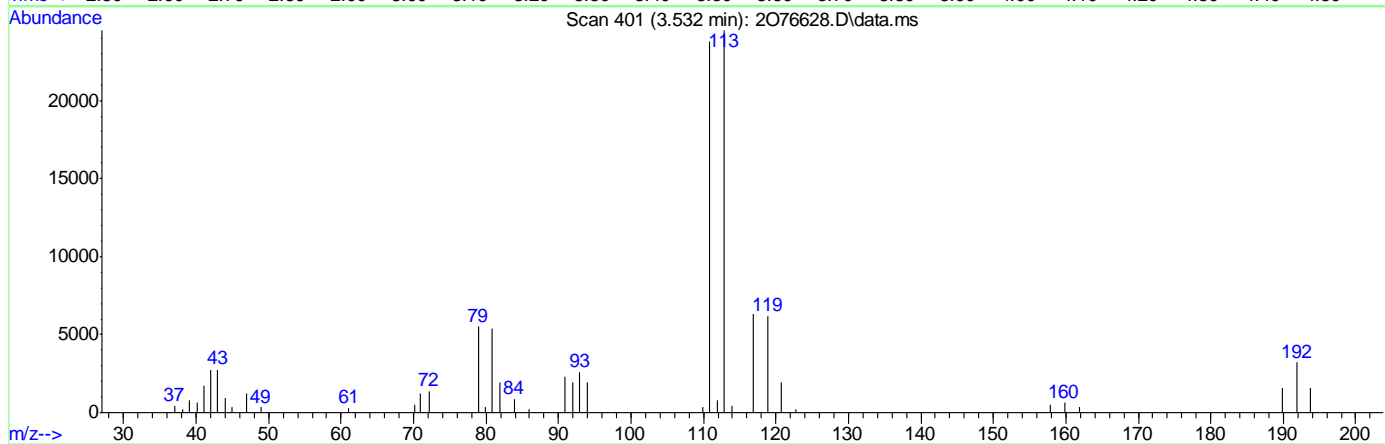
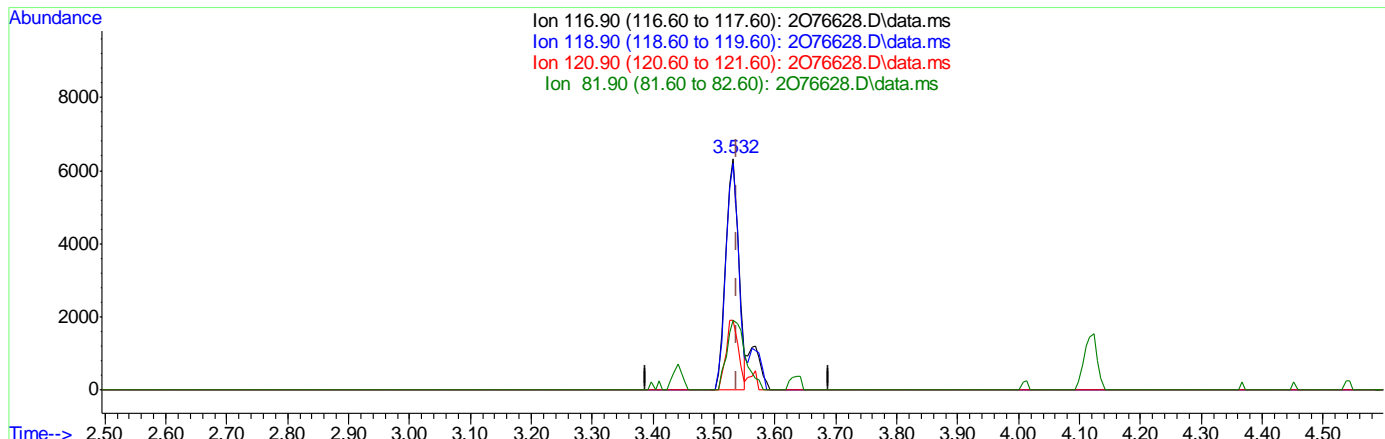
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.85
120.90	31.00	30.31
81.90	24.80	30.21

7.6.6.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.532min (-0.006) 4.16ug/L m

response 9351

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.85
120.90	31.00	30.31
81.90	24.80	30.21

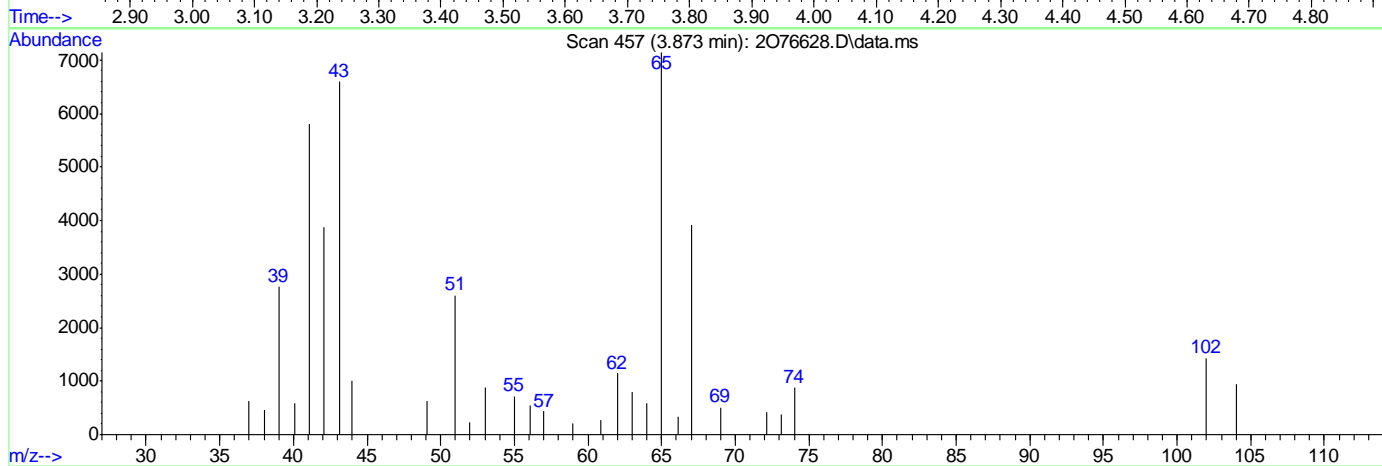
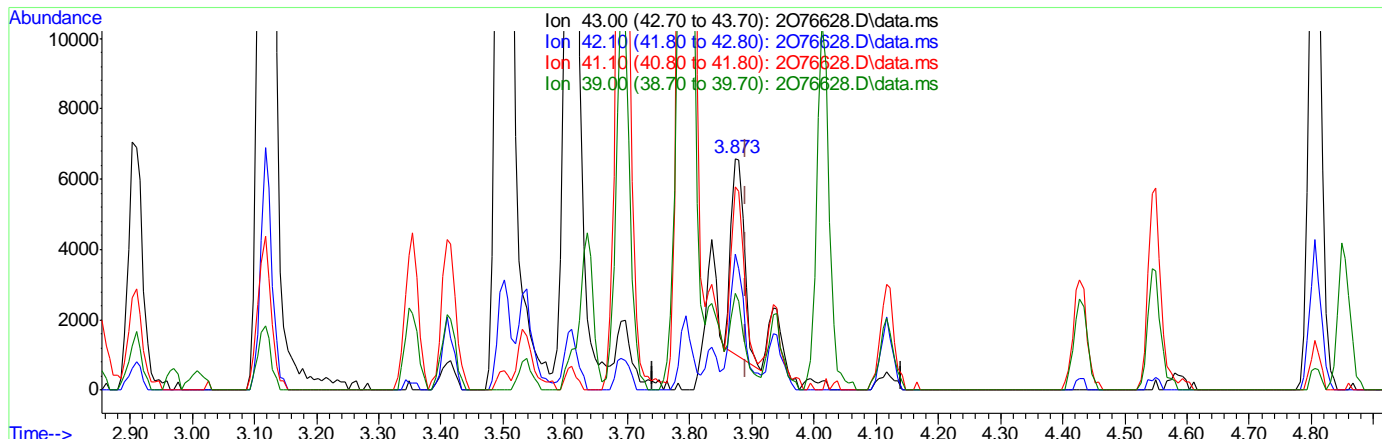
7.6.6.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 56.50ug/L  
 response 8147

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	57.01
41.10	73.50	81.97
39.00	30.20	39.92

7.6.6.4  
7

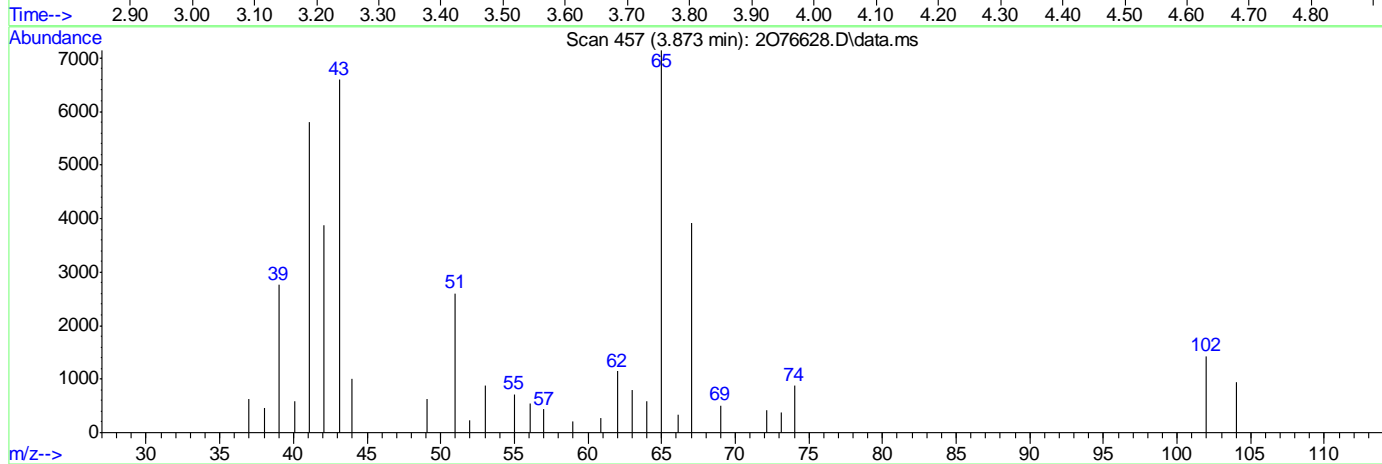
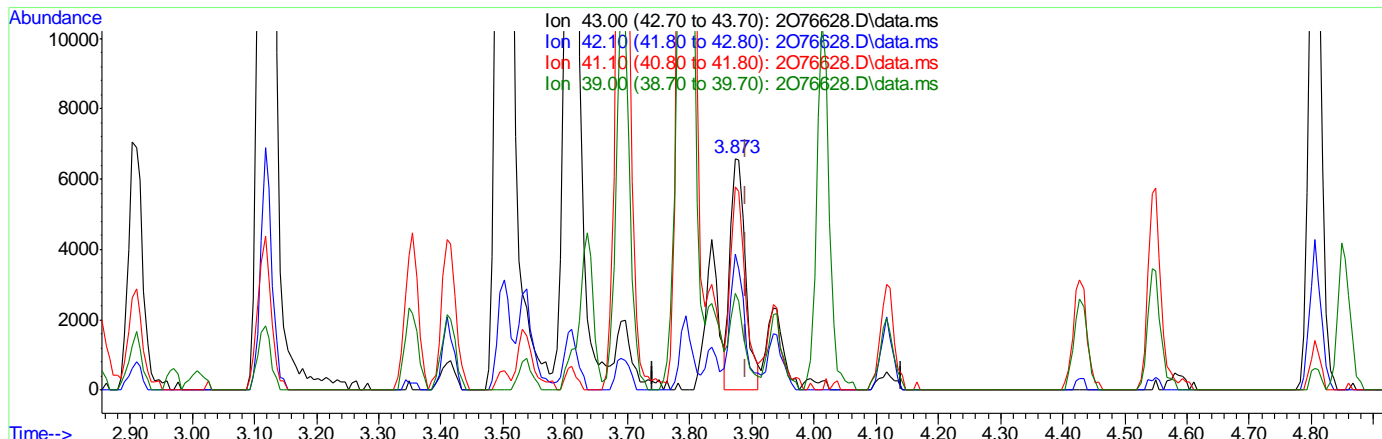


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 77.64ug/L m  
 response 11227

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.68
41.10	73.50	87.95
39.00	30.20	41.83

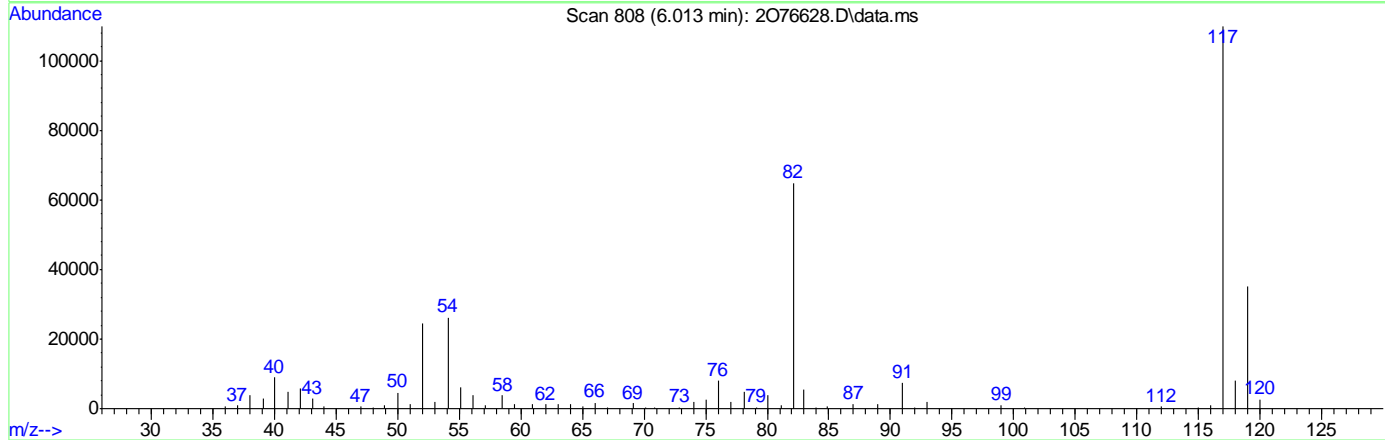
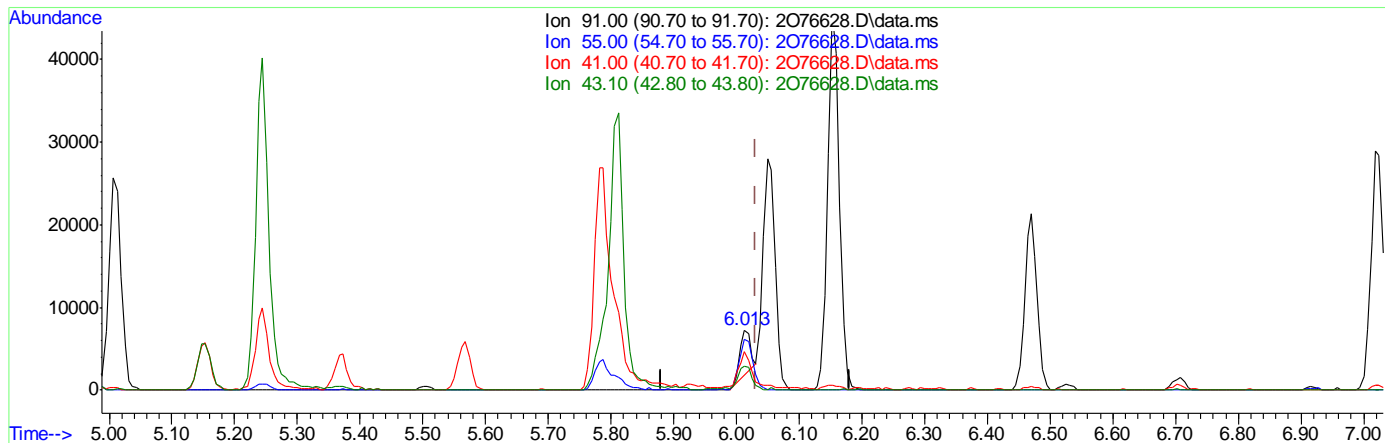
7.6.6.5  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 2.53ug/L  
 response 6422

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	84.71
41.00	53.70	58.66
43.10	42.30	35.75

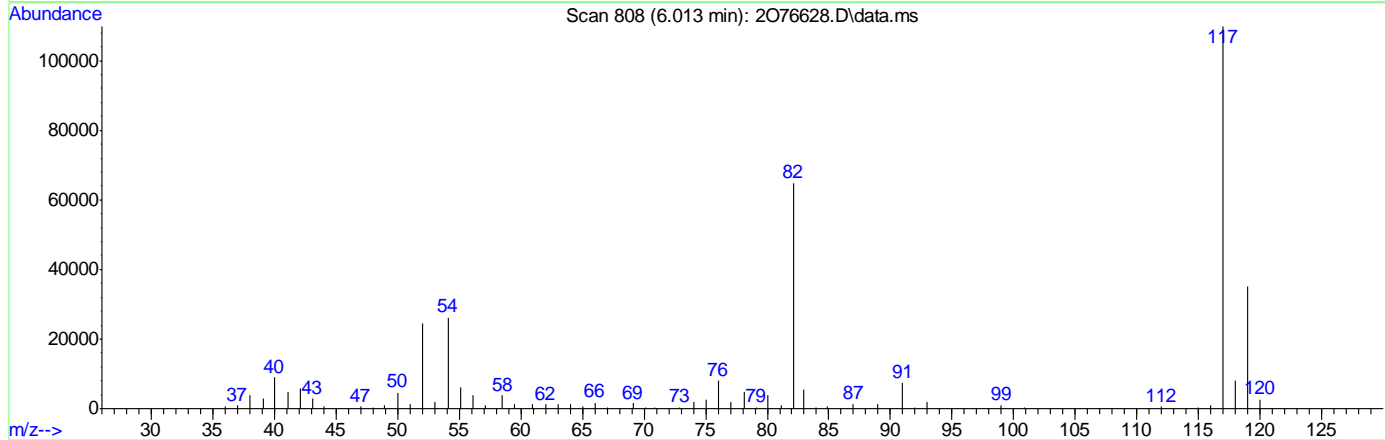
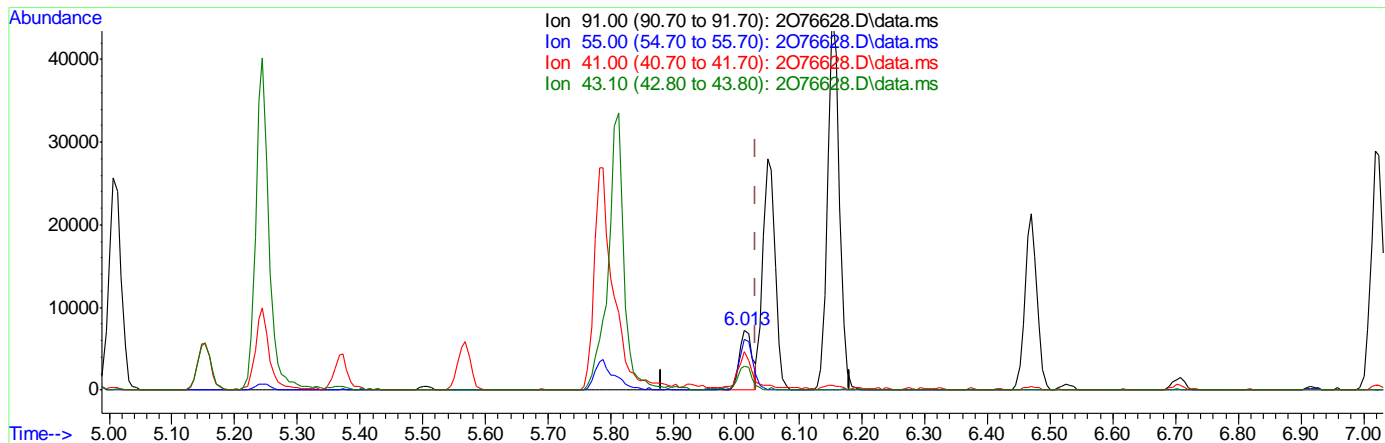
7.6.6.6  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 4.13ug/L m  
 response 10472

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	84.71
41.00	53.70	64.64
43.10	42.30	38.82

7.6.6.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	419369	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	299387	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	147990	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	112256	48.29	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	96.58%	
50) 1,2-Dichloroethane-d4	3.855	65	124045	50.21	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	100.42%	
63) Toluene-d8	4.976	98	410567	50.29	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	100.58%	
86) 4-Bromofluorobenzene	6.921	174	110051	48.73	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	97.46%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	14159	8.29	ug/L		96
3) Chloromethane	1.373	50	14281	7.73	ug/L		99
4) 1,3-butadiene	1.447	39	21966	11.86	ug/L		95
5) Vinyl Chloride	1.434	62	14841	8.09	ug/L		98
6) Bromomethane	1.666	94	12790	9.10	ug/L		96
7) Chloroethane	1.751	64	11531	9.22	ug/L		99
8) Trichlorofluoromethane	1.855	101	28857	8.86	ug/L		98
9) Ethyl Ether	2.056	59	14179	9.81	ug/L		97
10) Ethanol	2.148	45	7388	195.03	ug/L		92
11) 1,2-Dichlorotrifluoro...	2.178	67	21269	9.89	ug/L		98
12) 1,1-Dichloroethene	2.178	61	25545	9.25	ug/L		98
13) Freon 113	2.209	101	18242	9.92	ug/L		97
14) Carbon Disulfide	2.196	76	46458	8.66	ug/L		100
15) Iodomethane	2.270	142	11838	4.12	ug/L		96
16) Acrolein	2.385	56	21680	41.23	ug/L		100
17) Allyl chloride	2.471	41	23205	10.85	ug/L		93
18) Methylene Chloride	2.532	49	23368	9.09	ug/L		93
19) Acetone	2.556	43	40200	38.11	ug/L		95
20) Methyl acetate	2.629	43	106505	43.91	ug/L		97
21) trans-1,2-Dichloroethene	2.629	61	24876	9.42	ug/L		98
22) Hexane	2.678	56	12980	9.30	ug/L		93
23) Methyl Tert Butyl Ether	2.690	73	48734	9.62	ug/L		84
24) Tert Butyl Alcohol	2.739	59	28264	73.48	ug/L		96
25) Acetonitrile	2.830	41	46242	116.41	ug/L		98
26) Di-isopropyl ether	2.910	45	49704	9.25	ug/L		97
27) Chloroprene	2.971	53	30419	12.04	ug/L		97
28) 1,1-Dichloroethane	2.983	63	33210	9.68	ug/L		98
29) Acrylonitrile	3.007	52	41694	40.81	ug/L		98
30) ETBE	3.117	59	45529	9.34	ug/L		98
31) Vinyl acetate	3.117	43	165022	42.09	ug/L		98
32) cis-1,2-Dichloroethene	3.288	96	21594	10.14	ug/L		97
33) 2,2-Dichloropropane	3.355	77	21489	9.33	ug/L		96
34) Bromochloromethane	3.404	128	10910	9.50	ug/L		97
35) Cyclohexane	3.416	56	26719	9.43	ug/L		96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	37057	9.98	ug/L	95
37) Ethyl acetate	3.501	43	122718	39.84	ug/L	99
38) Tetrahydrofuran	3.538	42	9442	7.97	ug/L	94
40) Carbon Tetrachloride	3.532	117	23413m	10.06	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	28685	9.52	ug/L	92
42) 2-Butanone	3.611	43	58985	33.71	ug/L	99
43) 1,1-Dichloropropene	3.635	75	25268	9.71	ug/L	97
44) tert-Butyl formate	3.696	59	27466	41.29	ug/L	91
45) Propionitrile	3.782	54	54691	105.33	ug/L	98
46) Methacrylonitrile	3.794	41	197008	112.10	ug/L	100
47) Benzene	3.782	78	73822	9.60	ug/L	75
48) TAME	3.836	73	42714	9.36	ug/L	93
49) Isobutyl alcohol	3.873	43	29288m	192.54	ug/L	
51) 1,2-Dichloroethane	3.891	62	29670	10.83	ug/L	99
52) Tert Amyl Alcohol	3.940	59	19883	65.61	ug/L	89
53) Trichloroethene	4.117	95	21676	9.78	ug/L	93
54) Methylcyclohexane	4.117	83	26689	9.20	ug/L	98
55) Dibromomethane	4.367	93	14206	10.19	ug/L	95
56) 1,2-Dichloropropane	4.428	63	18144	10.06	ug/L	98
57) Bromodichloromethane	4.464	83	23459	9.50	ug/L	99
58) Methyl methacrylate	4.550	41	22857	11.33	ug/L	96
59) 1,4-Dioxane	4.586	88	7119	188.95	ug/L	98
60) 2-Chloroethyl vinyl ether	4.806	63	73491	46.91	ug/L	97
61) cis-1,3-Dichloropropene	4.854	75	25420	9.16	ug/L	95
64) Toluene	5.007	91	78741	9.60	ug/L	98
65) 2-Nitropropane	5.153	41	20315	42.48	ug/L	93
66) 4-Methyl-2-pentanone	5.245	43	103323	35.24	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	24400	9.20	ug/L	93
68) Tetrachloroethene	5.263	166	21010	9.04	ug/L	97
69) Ethyl methacrylate	5.373	69	26356	11.25	ug/L	91
70) 1,1,2-Trichloroethane	5.379	83	16938	10.23	ug/L	94
71) Dibromochloromethane	5.507	129	17360	9.25	ug/L	95
72) 1,3-Dichloropropane	5.568	76	30797	10.15	ug/L	95
73) 1,2-Dibromoethane	5.671	107	20754	10.02	ug/L	96
74) 3,3-dimethyl-1-butanol	5.787	57	152612	397.35	ug/L	98
75) 2-hexanone	5.812	43	110591	37.97	ug/L	95
76) 1-Chlorohexane	6.013	91	24148m	9.35	ug/L	
77) Ethylbenzene	6.055	91	87245	9.86	ug/L	99
78) Chlorobenzene	6.037	112	54505	9.83	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	17412	10.03	ug/L	98
80) m,p-Xylene	6.153	91	137392	19.95	ug/L	97
81) o-Xylene	6.470	91	67805	9.75	ug/L	96
82) Styrene	6.507	104	51434	9.41	ug/L	96
83) Bromoform	6.525	173	9671	8.23	ug/L	97
84) Isopropylbenzene	6.702	105	78509	9.36	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	6848	10.22	ug/L #	71
88) n-Propylbenzene	7.019	91	93508	10.19	ug/L	97
89) Bromobenzene	7.000	156	20705	10.17	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.067	83	29986	10.73	ug/L	98
91) 1,3,5-Trimethylbenzene	7.177	105	67336	10.40	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	66021	10.67	ug/L	97
93) trans-1,4-Dichloro-2-B...	7.208	53	5426	9.48	ug/L #	67
94) 1,2,3-Trichloropropane	7.177	110	9480	10.31	ug/L	95
95) Cyclohexanone	7.208	55	4201	32.95	ug/L	94
96) 4-Chlorotoluene	7.275	91	62474	10.97	ug/L	98
97) tert-Butylbenzene	7.427	91	35635	10.18	ug/L	98
99) 1,2,4-Trimethylbenzene	7.476	105	67842	10.60	ug/L	97
100) Pentachloroethane	7.439	167	10863	12.80	ug/L #	60
101) sec-Butylbenzene	7.561	105	76471	9.86	ug/L	98
102) 4-Isopropyltoluene	7.671	119	65044	9.61	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	41222	10.25	ug/L	98
104) 1,2,3-Trimethylbenzene	7.811	105	71503	10.68	ug/L	98
105) 1,4-Dichlorobenzene	7.793	146	42137	10.34	ug/L	93
106) n-Butylbenzene	7.988	92	32655	9.70	ug/L	90
107) Benzyl Chloride	7.976	126	5378	7.59	ug/L #	11
108) 1,2-Dichlorobenzene	8.104	146	39720	10.46	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	5193	9.27	ug/L	82
110) Hexachlorobutadiene	9.134	225	7668	9.44	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	22216	9.64	ug/L	99
112) Naphthalene	9.372	128	76182	9.34	ug/L	97
113) 1,2,3-Trichlorobenzene	9.500	180	21519	9.83	ug/L	96

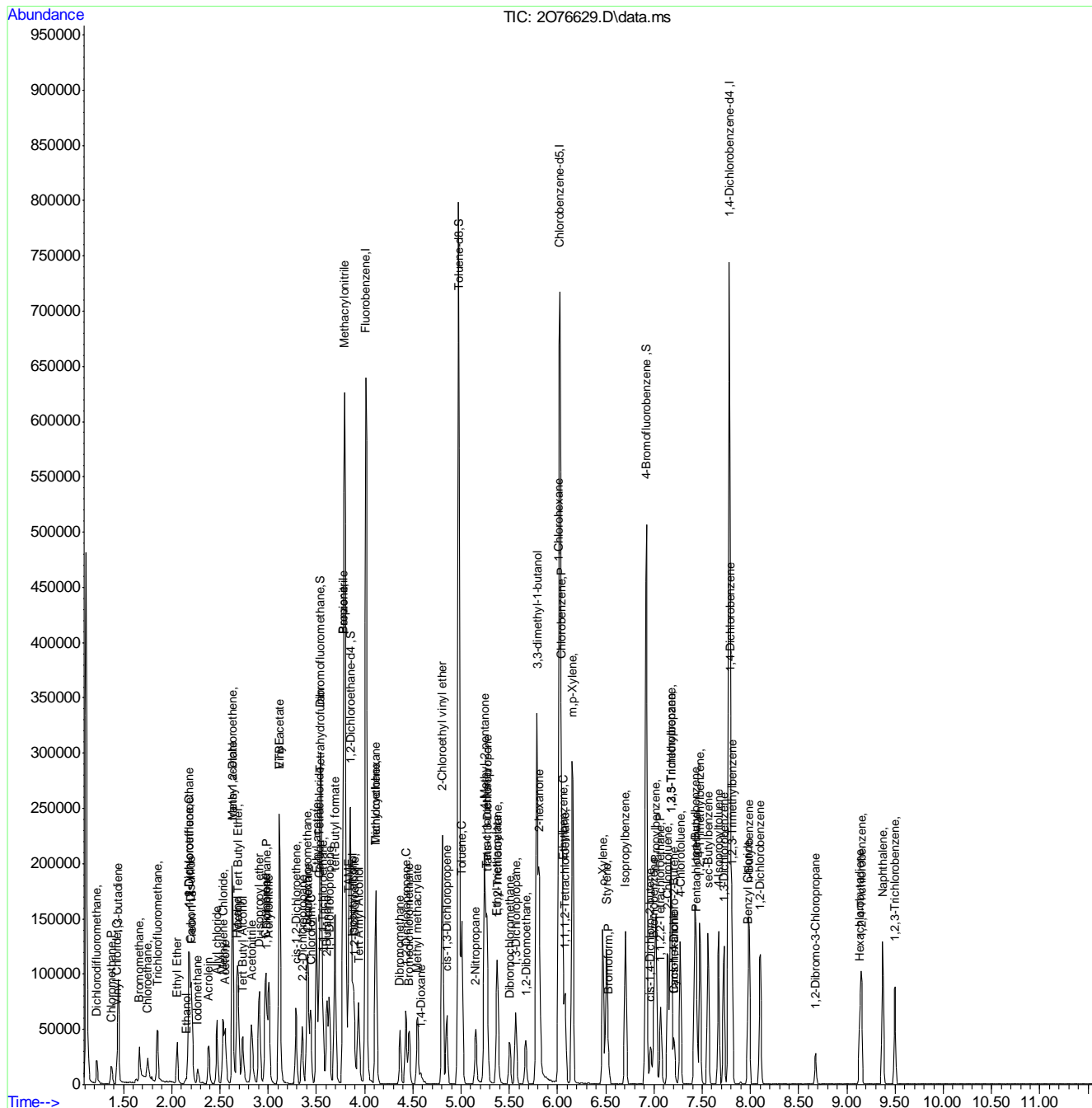
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



7.6.7



# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76629.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 14:46      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

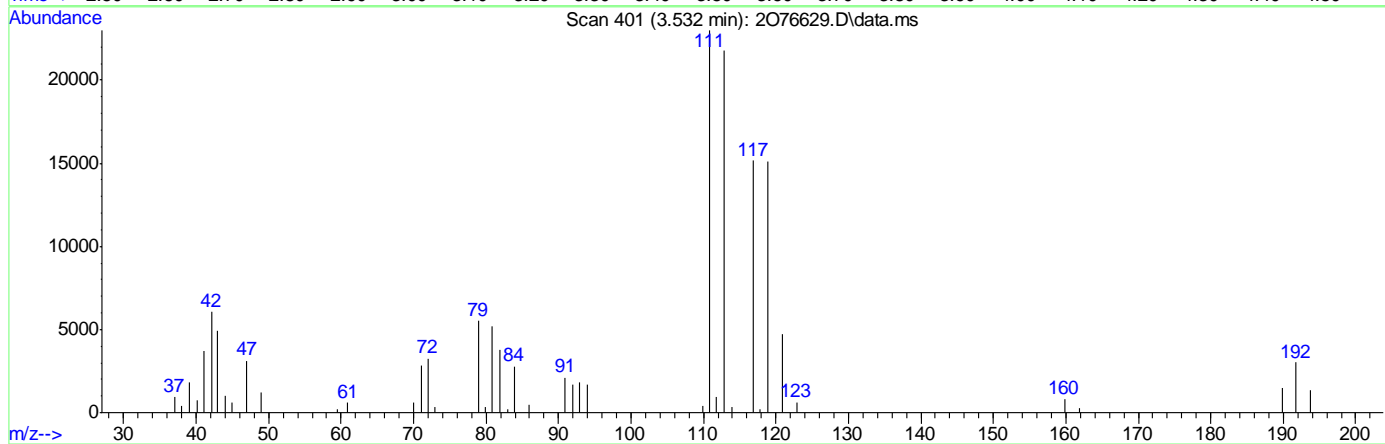
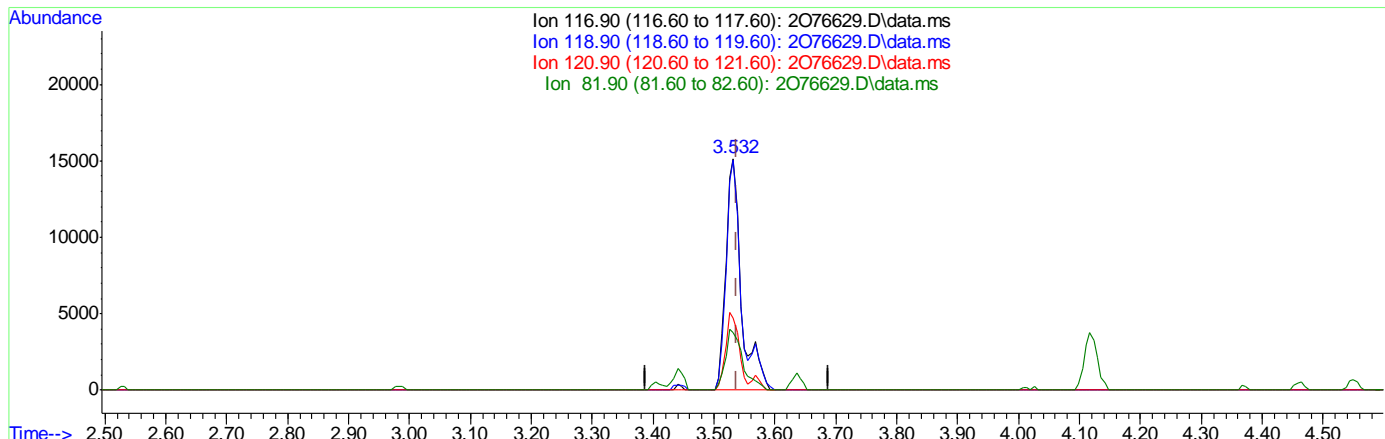
7.6.7.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 11.53ug/L

response 26818

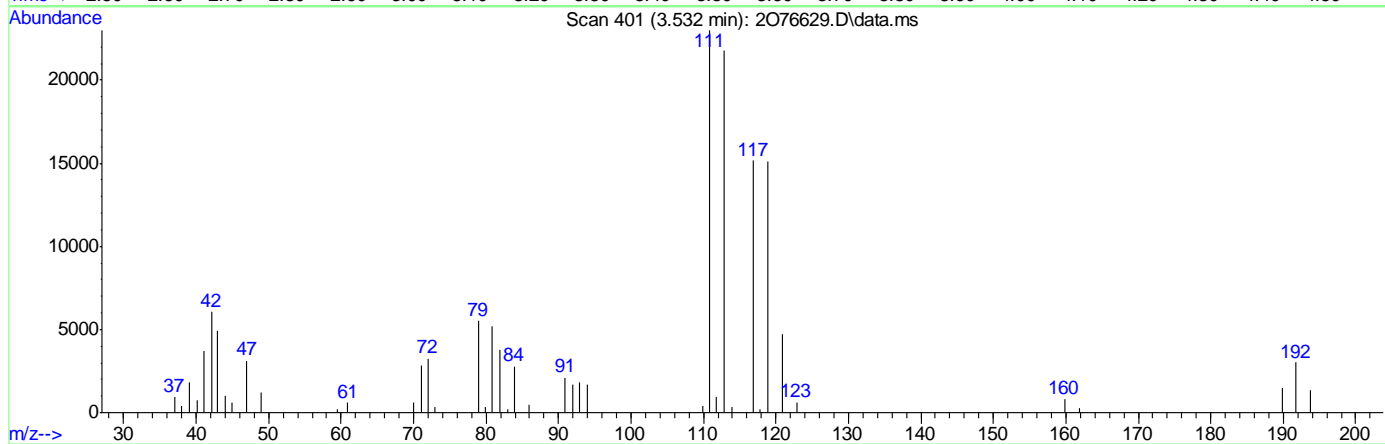
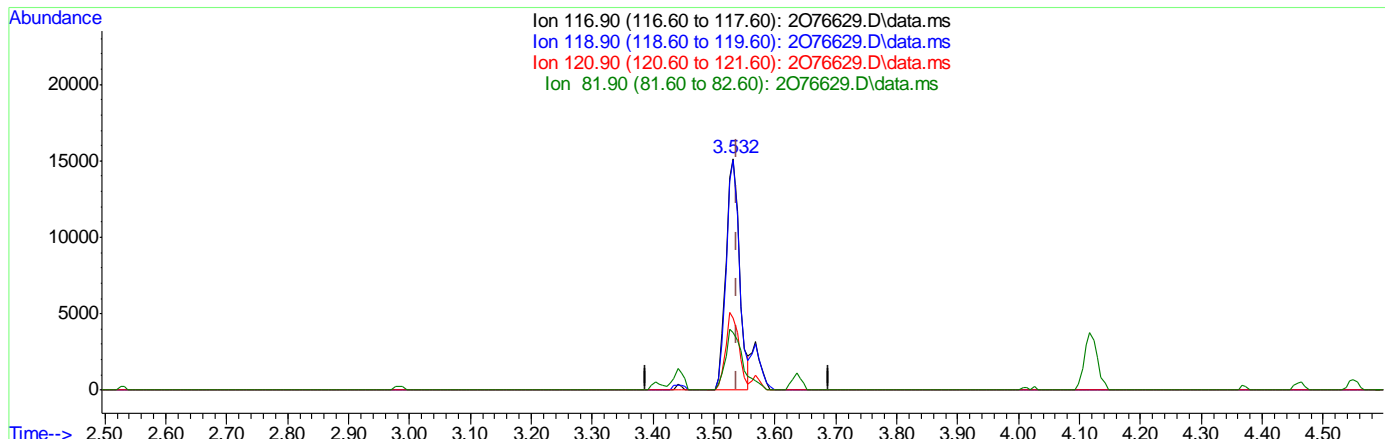
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.52
120.90	31.00	30.95
81.90	24.80	25.02

7.6.7.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (-0.006) 10.06ug/L m  
 response 23413

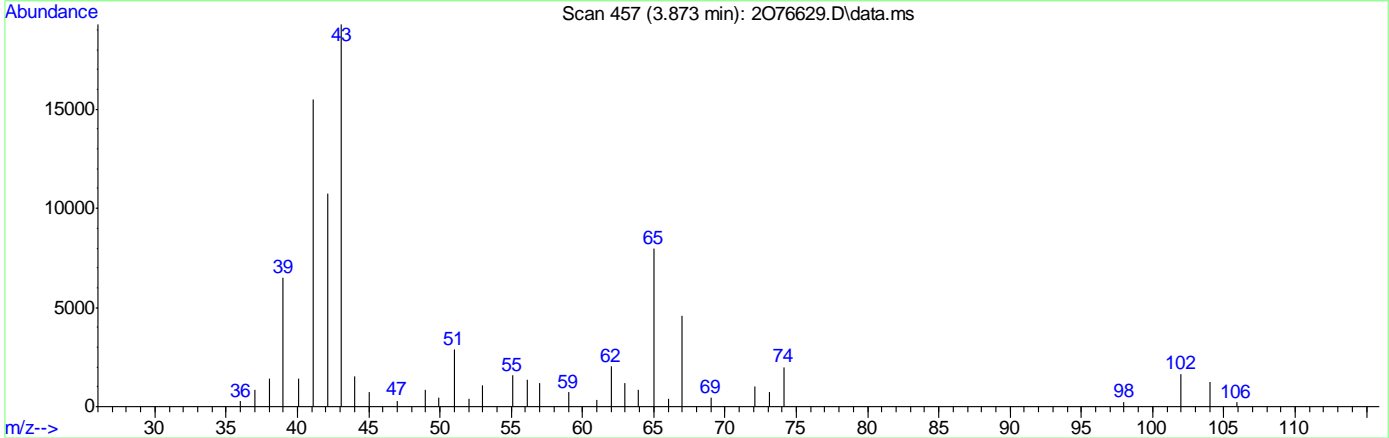
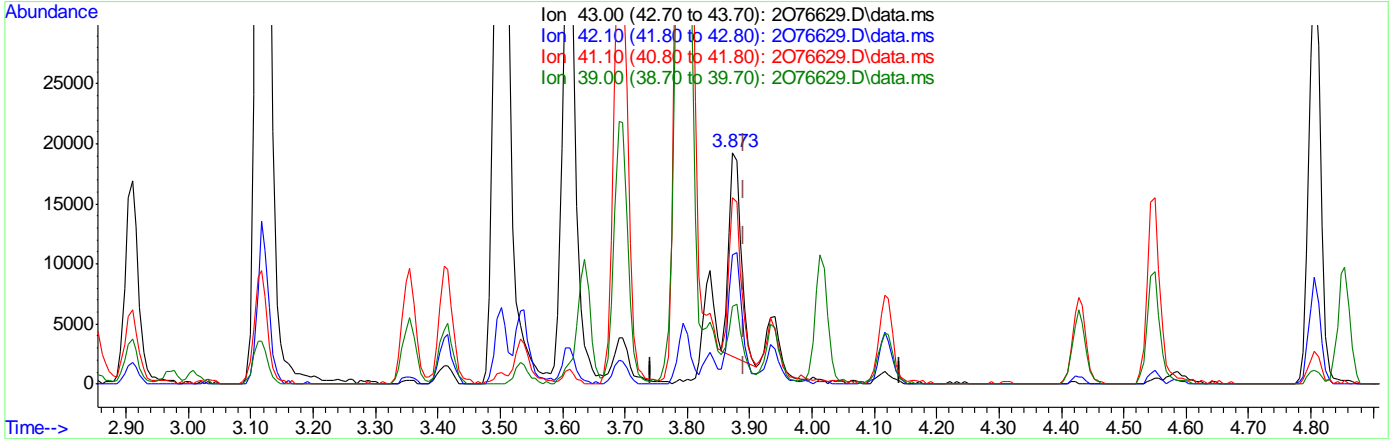
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.52
120.90	31.00	30.95
81.90	24.80	25.02

7.6.7.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 151.46ug/L  
 response 22911

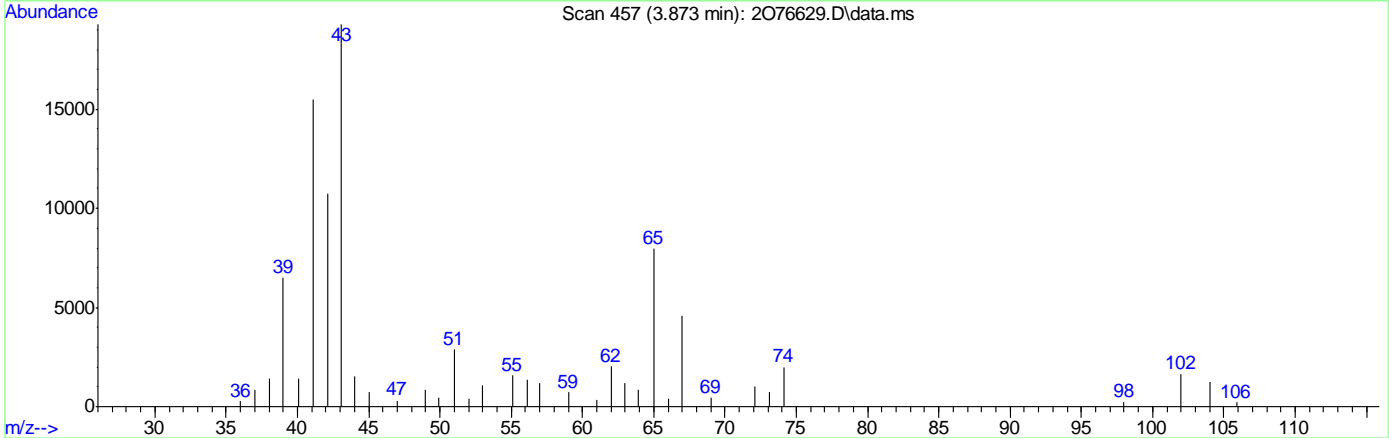
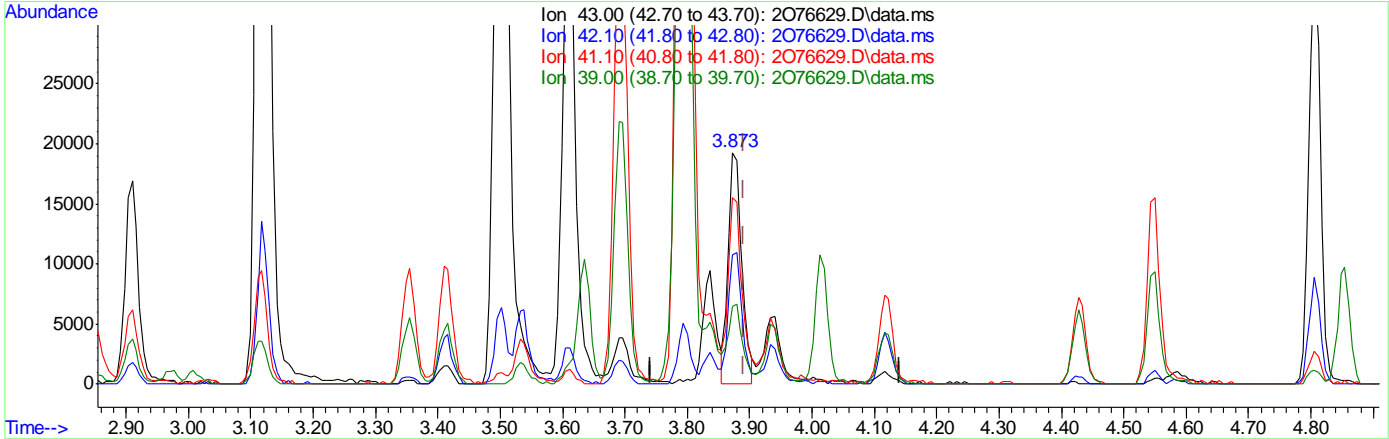
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.61
41.10	73.50	77.53
39.00	30.20	32.15

7.6.7.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 192.54ug/L m  
 response 29288

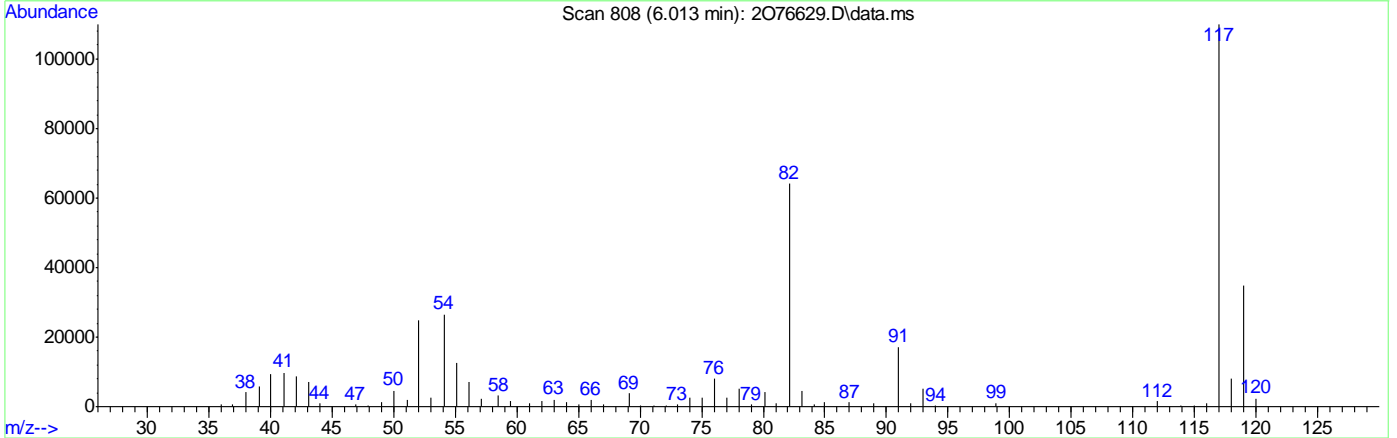
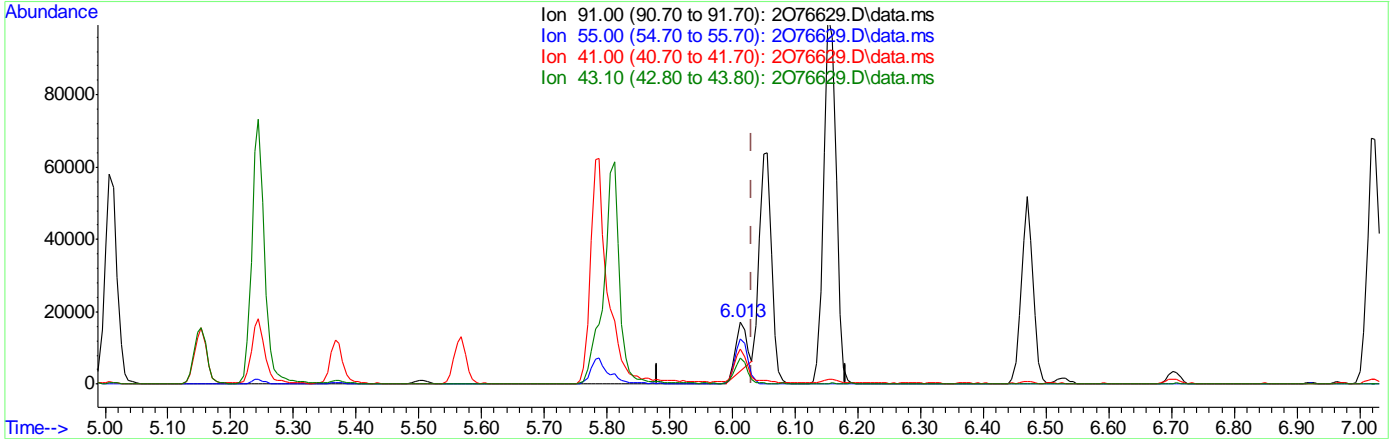
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.79
41.10	73.50	80.30
39.00	30.20	33.64

7.6.7.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 6.23ug/L  
 response 16093

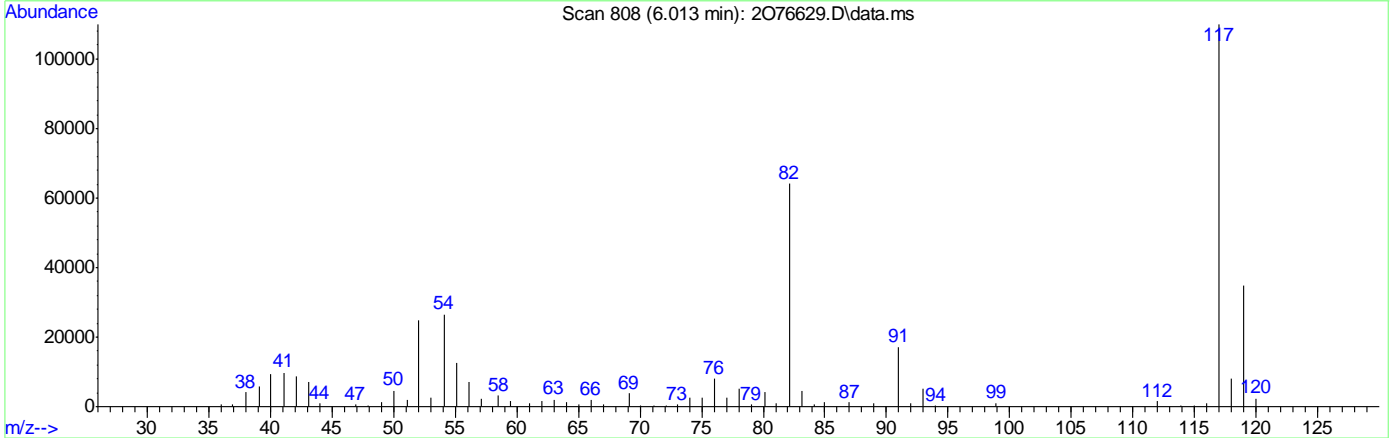
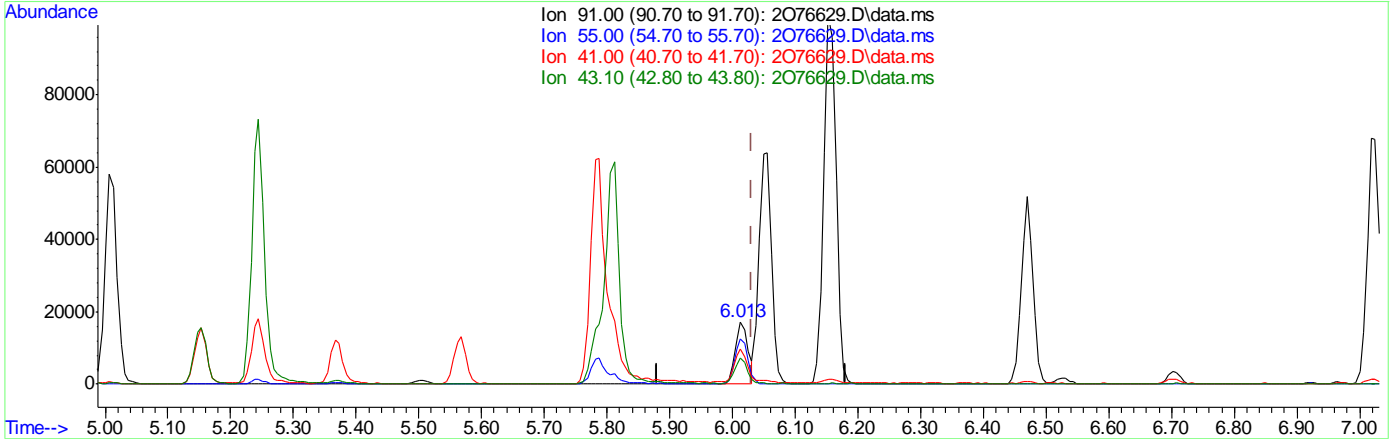
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	70.62
41.00	53.70	52.35
43.10	42.30	40.47

7.6.7.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 9.35ug/L m  
 response 24148

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	72.69
41.00	53.70	56.97
43.10	42.30	42.13

7.6.7.7  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076631.D  
 Acq On : 7 Jun 2023 3:37 pm  
 Operator : joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:25:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	414377	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.025	117	305712	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	159068	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	112991	50.14	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.28%	
50) 1,2-Dichloroethane-d4	3.849	65	136161	50.90	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	101.80%	
63) Toluene-d8	4.976	98	409736	50.27	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	100.54%	
86) 4-Bromofluorobenzene	6.921	174	115966	49.89	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.78%	
Target Compounds						
10) Ethanol	2.160	45	24410	756.97	ug/L	100
17) Allyl chloride	2.471	41	88294	47.59	ug/L	98

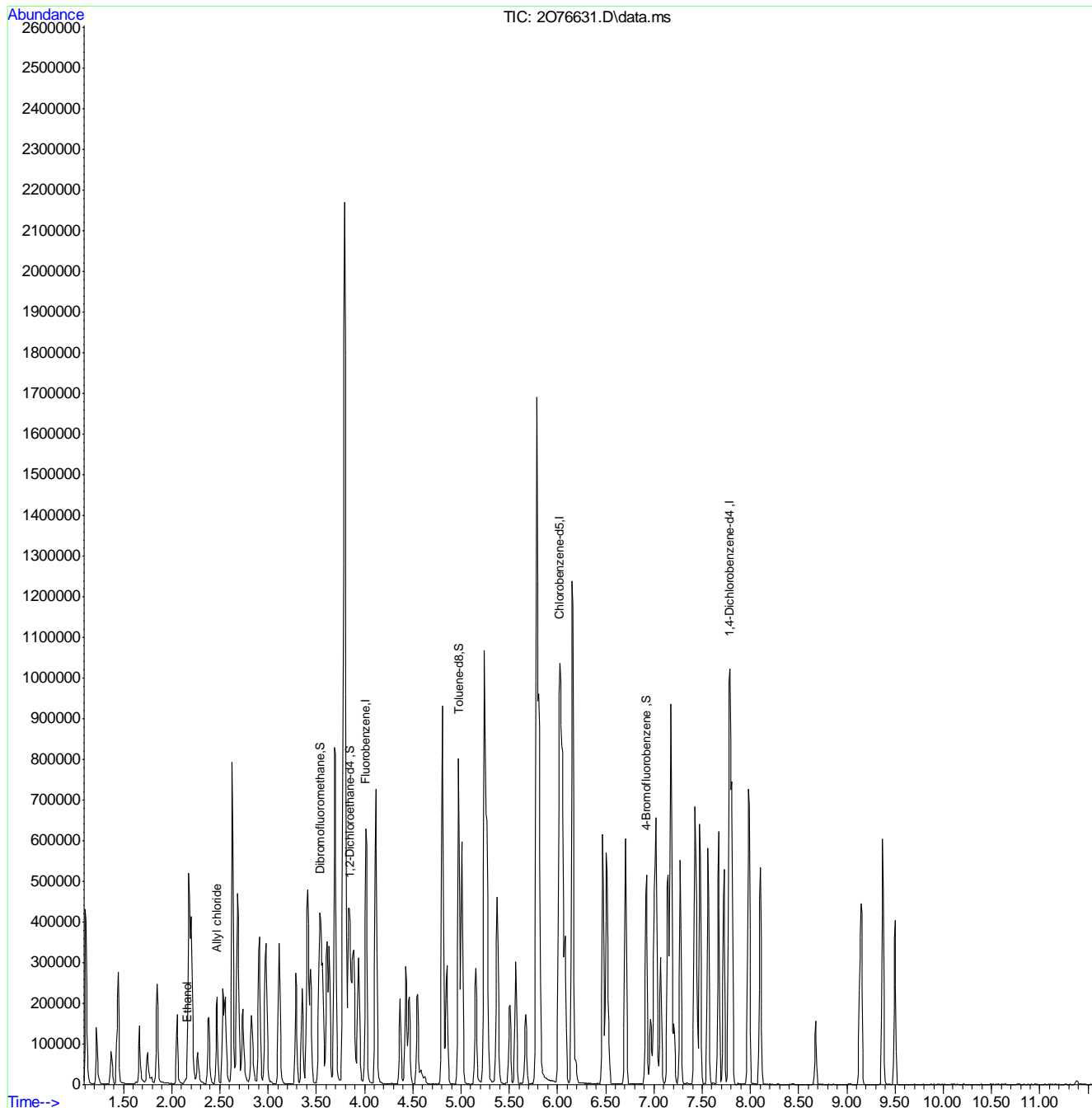
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.8  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076631.D  
 Acq On : 7 Jun 2023 3:37 pm  
 Operator : joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:25:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



7  
8  
9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Fluorobenzene	4.013	96	434499	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.025	117	314063	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	164053	50.00	ug/L	0.00
<b>System Monitoring Compounds</b>						
39) Dibromofluoromethane	3.544	113	117403	49.69	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	99.38%		
50) 1,2-Dichloroethane-d4	3.855	65	139463	49.72	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery =	99.44%		
63) Toluene-d8	4.976	98	422814	50.49	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery =	100.98%		
86) 4-Bromofluorobenzene	6.921	174	120391	50.22	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	100.44%		
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	1.221	85	51906	32.36	ug/L	99
3) Chloromethane	1.373	50	43187	26.41	ug/L	100
4) 1,3-butadiene	1.447	39	41003	21.92	ug/L	95
5) Vinyl Chloride	1.434	62	44975	26.66	ug/L	96
6) Bromomethane	1.666	94	36676	27.91	ug/L	96
7) Chloroethane	1.751	64	29437	25.00	ug/L	99
8) Trichlorofluoromethane	1.849	101	81676	25.66	ug/L	100
9) Ethyl Ether	2.056	59	38463	25.66	ug/L	98
11) 1,2-Dichlorotrifluoro...	2.178	67	54683	25.73	ug/L	97
12) 1,1-Dichloroethene	2.178	61	63160	23.66	ug/L	97
13) Freon 113	2.209	101	47591	25.37	ug/L	97
14) Carbon Disulfide	2.196	76	118183	23.81	ug/L	96
15) Iodomethane	2.270	142	43251	26.12	ug/L	97
16) Acrolein	2.385	56	65058	134.32	ug/L	99
18) Methylene Chloride	2.532	49	59696	24.75	ug/L	99
19) Acetone	2.556	43	107290	107.03	ug/L	99
20) Methyl acetate	2.629	43	259378	109.58	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	64538	23.93	ug/L	98
22) Hexane	2.678	56	33073	24.11	ug/L	89
23) Methyl Tert Butyl Ether	2.690	73	135498	24.98	ug/L	96
24) Tert Butyl Alcohol	2.739	59	87323	259.99	ug/L	97
25) Acetonitrile	2.830	41	109096	279.25	ug/L	97
26) Di-isopropyl ether	2.910	45	131496	24.63	ug/L	99
27) Chloroprene	2.971	53	62282	23.54	ug/L	99
28) 1,1-Dichloroethane	2.983	63	83520	23.83	ug/L	99
29) Acrylonitrile	3.007	52	112368	116.10	ug/L	98
30) ETBE	3.117	59	129966	25.60	ug/L	98
31) Vinyl acetate	3.117	43	502881	132.19	ug/L	99
32) cis-1,2-Dichloroethene	3.288	96	52859	23.01	ug/L	99
33) 2,2-Dichloropropane	3.355	77	61403	26.21	ug/L	99
34) Bromochloromethane	3.404	128	27768	24.84	ug/L	99
35) Cyclohexane	3.410	56	64486	24.11	ug/L	95
36) Chloroform	3.440	83	97415	24.60	ug/L	98
37) Ethyl acetate	3.501	43	342089	120.13	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Tetrahydrofuran	3.532	42	25353	24.85	ug/L	96
40) Carbon Tetrachloride	3.532	117	61822m	24.23	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	76053	24.34	ug/L	97
42) 2-Butanone	3.611	43	174158	112.37	ug/L	99
43) 1,1-Dichloropropene	3.635	75	64684	24.69	ug/L	99
44) tert-Butyl formate	3.696	59	107277	156.33	ug/L	97
45) Propionitrile	3.781	54	136267	283.86	ug/L	96
46) Methacrylonitrile	3.794	41	468555	280.69	ug/L	99
47) Benzene	3.775	78	197107	24.93	ug/L	91
48) TAME	3.836	73	121922	25.32	ug/L	97
49) Isobutyl alcohol	3.873	43	83094m	579.85	ug/L	
51) 1,2-Dichloroethane	3.891	62	77228	23.74	ug/L	99
52) Tert Amyl Alcohol	3.934	59	65294	254.65	ug/L	96
53) Trichloroethene	4.117	95	55159	24.05	ug/L	99
54) Methylcyclohexane	4.117	83	66202	23.51	ug/L	98
55) Dibromomethane	4.367	93	37951	24.29	ug/L	98
56) 1,2-Dichloropropane	4.428	63	49034	25.92	ug/L	98
57) Bromodichloromethane	4.464	83	62970	23.77	ug/L	98
58) Methyl methacrylate	4.544	41	53894	26.72	ug/L	94
59) 1,4-Dioxane	4.586	88	19559	523.96	ug/L	96
60) 2-Chloroethyl vinyl ether	4.806	63	187668	121.32	ug/L	100
61) cis-1,3-Dichloropropene	4.854	75	71611	25.01	ug/L	99
64) Toluene	5.007	91	208862	24.89	ug/L	99
65) 2-Nitropropane	5.153	41	68827	117.09	ug/L	97
66) 4-Methyl-2-pentanone	5.245	43	302502	116.01	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	67505	23.83	ug/L	98
68) Tetrachloroethene	5.263	166	55189	25.31	ug/L	98
69) Ethyl methacrylate	5.367	69	71866	29.50	ug/L	94
70) 1,1,2-Trichloroethane	5.379	83	42838	24.30	ug/L	98
71) Dibromochloromethane	5.507	129	52800	26.63	ug/L	96
72) 1,3-Dichloropropane	5.568	76	87707	26.07	ug/L	99
73) 1,2-Dibromoethane	5.671	107	56995	24.81	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	448429	1246.19	ug/L	99
75) 2-hexanone	5.806	43	318910	121.17	ug/L	98
76) 1-Chlorohexane	6.013	91	60872m	23.69	ug/L	
77) Ethylbenzene	6.049	91	228923	24.97	ug/L	99
78) Chlorobenzene	6.037	112	143264	24.56	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.080	131	48188	25.82	ug/L	99
80) m,p-Xylene	6.153	91	369005	50.94	ug/L	99
81) o-Xylene	6.470	91	181223	24.90	ug/L	98
82) Styrene	6.507	104	144580	26.06	ug/L	98
83) Bromoform	6.531	173	29057	24.14	ug/L	97
84) Isopropylbenzene	6.708	105	212056	25.31	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.964	53	19486	30.40	ug/L	95
88) n-Propylbenzene	7.019	91	250828	24.90	ug/L	99
89) Bromobenzene	7.000	156	57862	25.60	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.067	83	81620	24.97	ug/L	97
91) 1,3,5-Trimethylbenzene	7.177	105	187322	26.01	ug/L	99
92) 2-Chlorotoluene	7.141	91	178452	25.29	ug/L	99
93) trans-1,4-Dichloro-2-B...	7.208	53	14036	23.78	ug/L	87

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) 1,2,3-Trichloropropane	7.177	110	27000	25.78	ug/L	98
95) Cyclohexanone	7.214	55	17531	157.50	ug/L	98
96) 4-Chlorotoluene	7.275	91	166304	24.77	ug/L	98
97) tert-Butylbenzene	7.421	91	97959	25.05	ug/L	97
99) 1,2,4-Trimethylbenzene	7.476	105	185479	25.72	ug/L	99
100) Pentachloroethane	7.439	167	29310	28.47	ug/L	94
101) sec-Butylbenzene	7.561	105	196044	23.74	ug/L	99
102) 4-Isopropyltoluene	7.671	119	177046	25.11	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	106601	23.74	ug/L	99
104) 1,2,3-Trimethylbenzene	7.811	105	186647	24.35	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	112223	25.03	ug/L	98
106) n-Butylbenzene	7.988	92	94229	26.08	ug/L #	79
107) Benzyl Chloride	7.976	126	18518	24.86	ug/L	98
108) 1,2-Dichlorobenzene	8.104	146	102598	23.87	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	16521	25.42	ug/L	98
110) Hexachlorobutadiene	9.134	225	19188	23.74	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	60217	24.53	ug/L	98
112) Naphthalene	9.372	128	224336	25.08	ug/L	100
113) 1,2,3-Trichlorobenzene	9.500	180	58055	23.80	ug/L	98

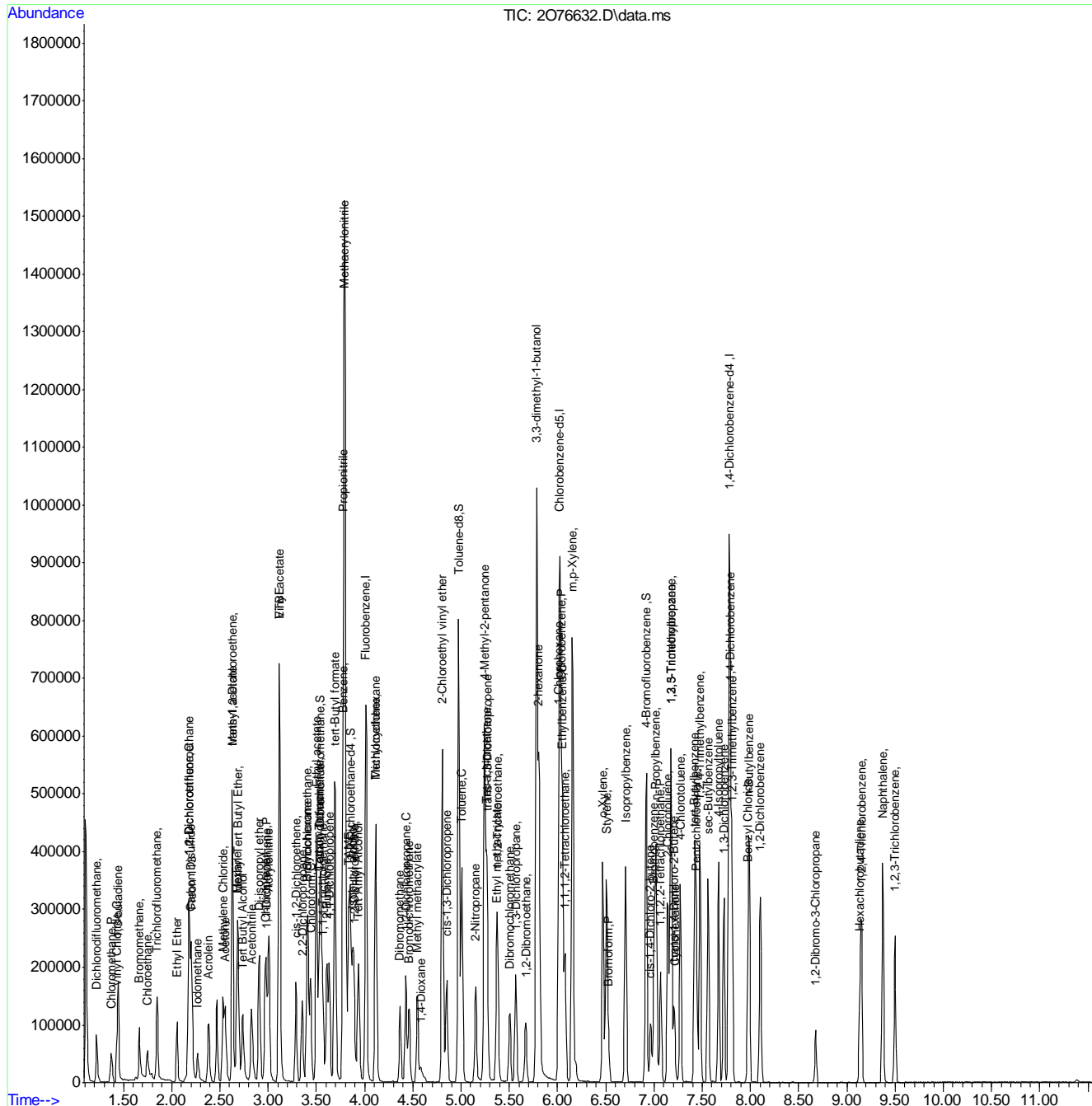
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



# Manual Integration Approval Summary

**Sample Number:** V2O2981-ICV2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76632.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 16:02      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

7.6.9.1

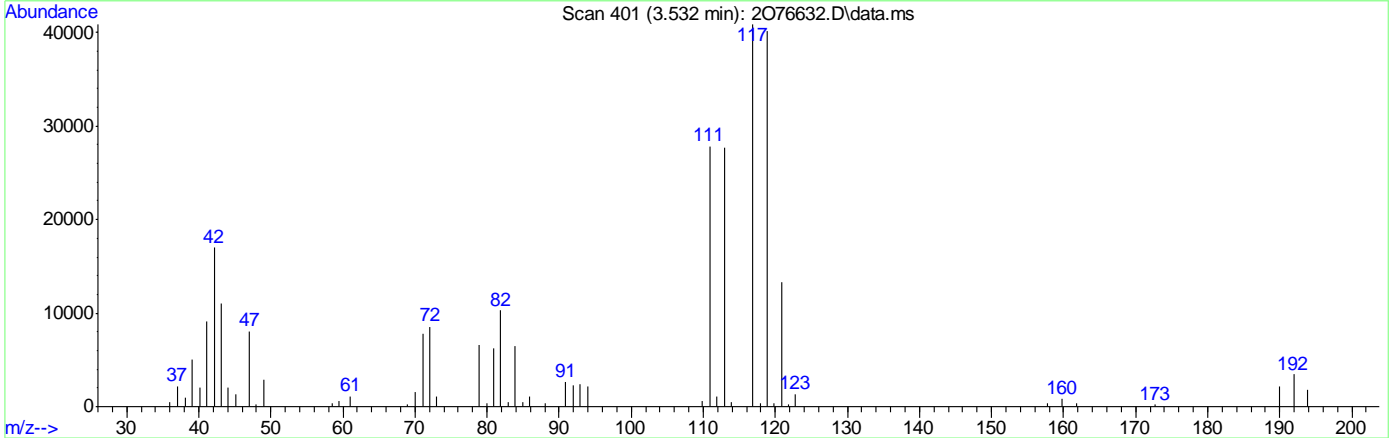
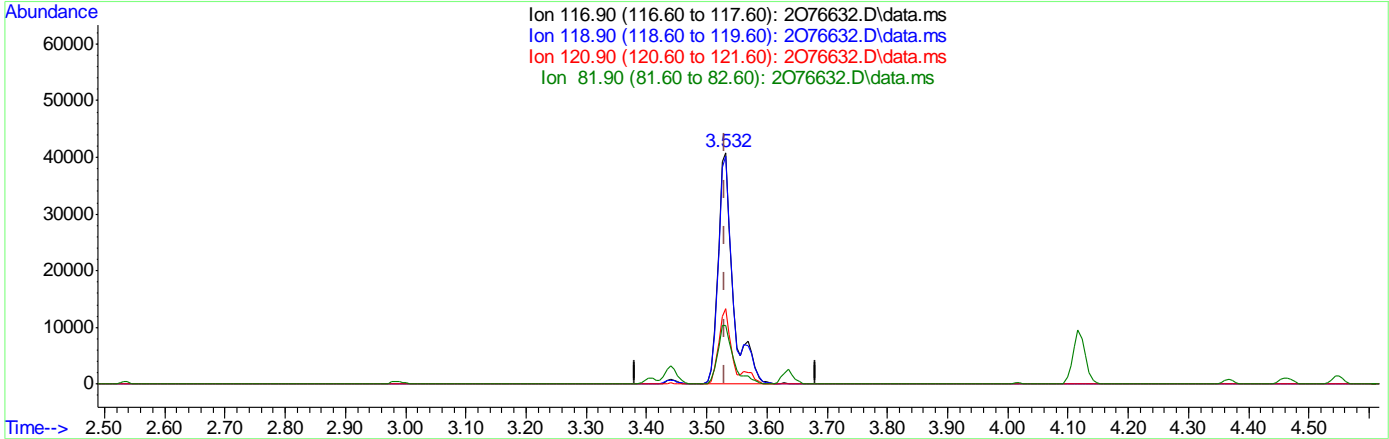
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (+0.001) 27.85ug/L  
 response 71074

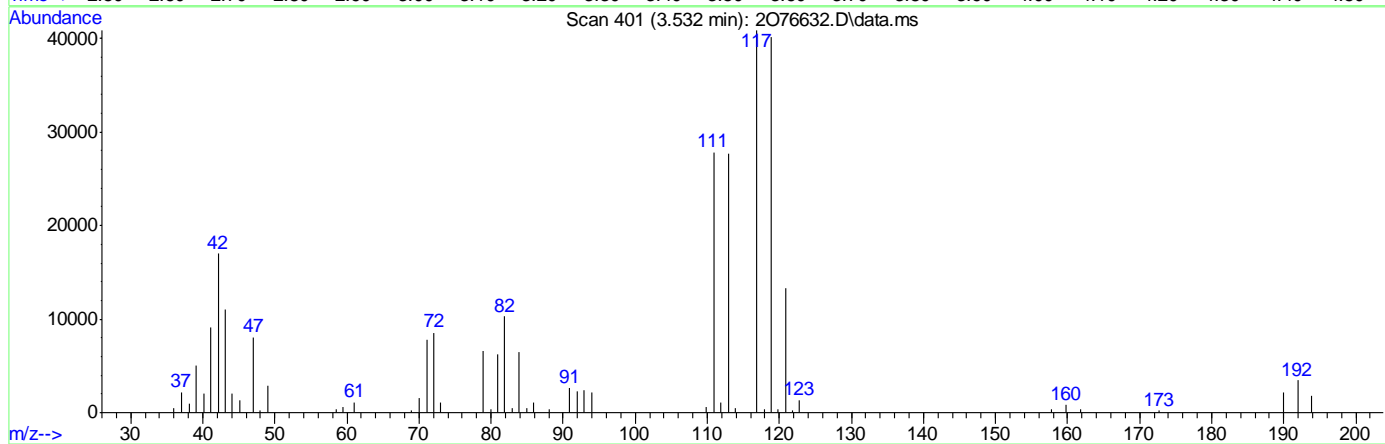
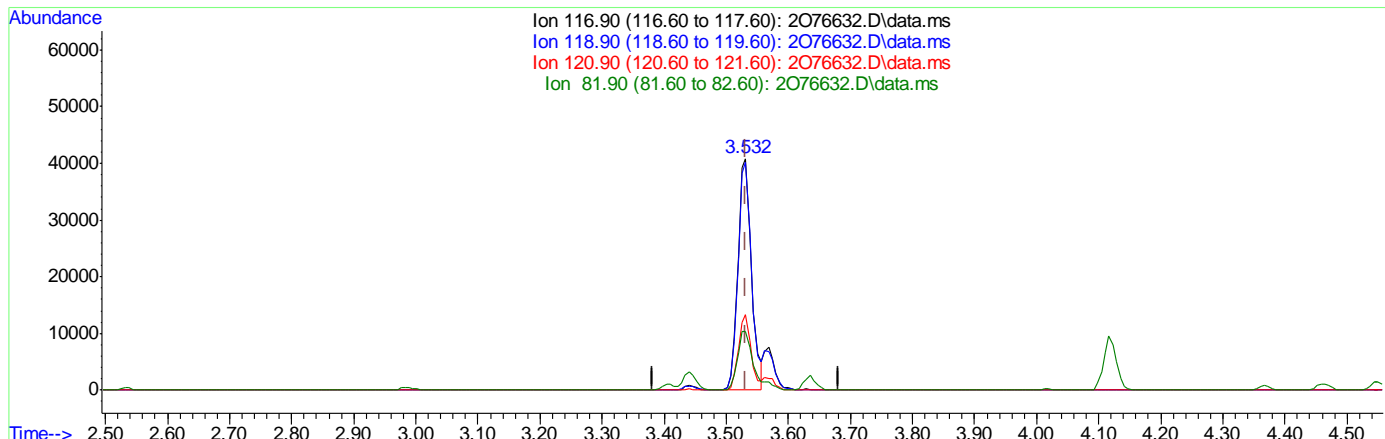
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.18
120.90	31.50	32.63
81.90	24.40	25.16

7.69.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (+0.001) 24.23ug/L m  
 response 61822

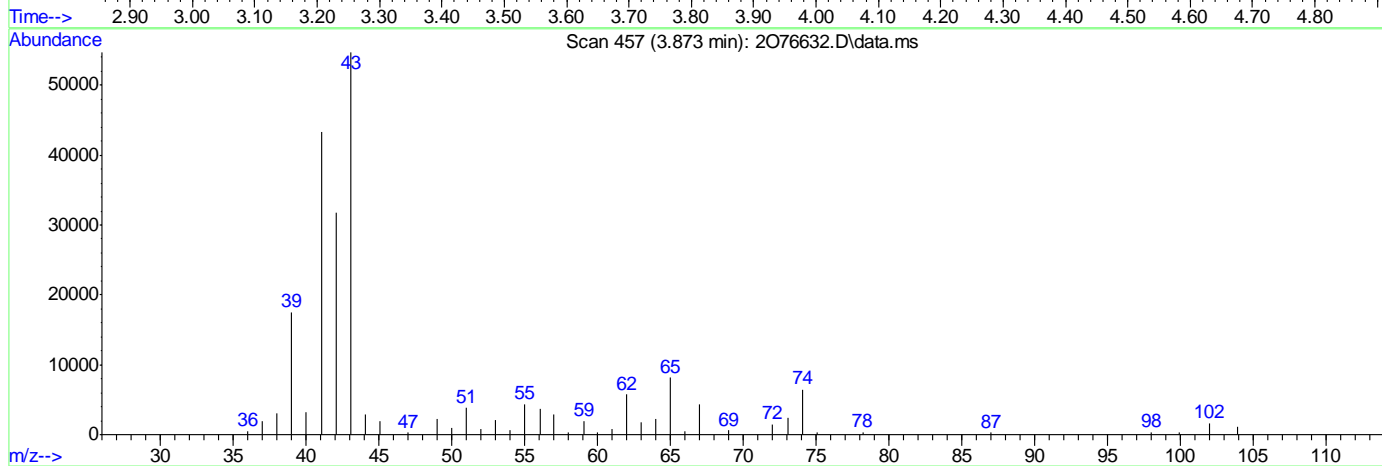
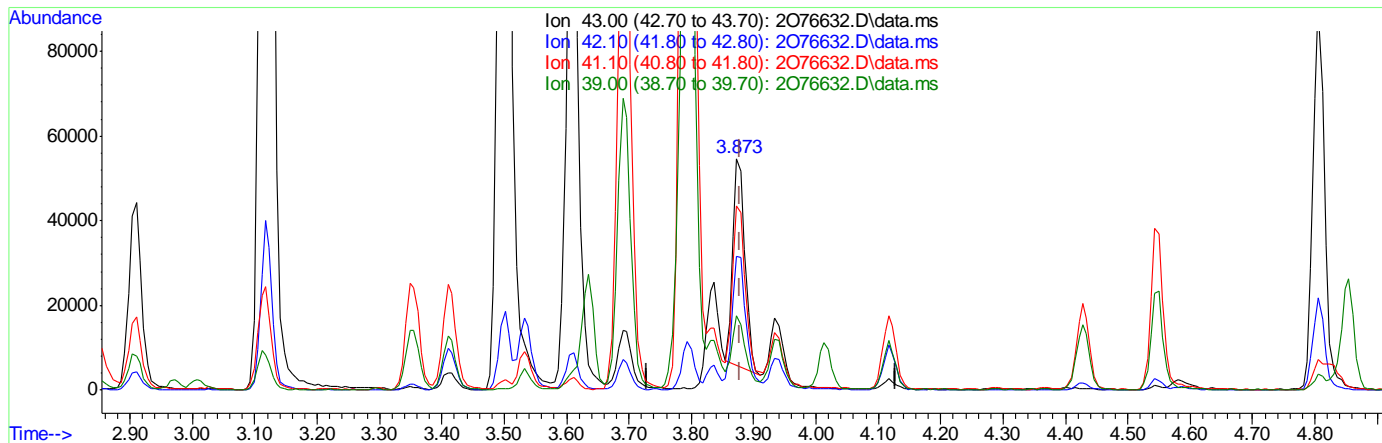
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.18
120.90	31.50	32.63
81.90	24.40	25.16

7.69.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 460.72ug/L  
 response 65408

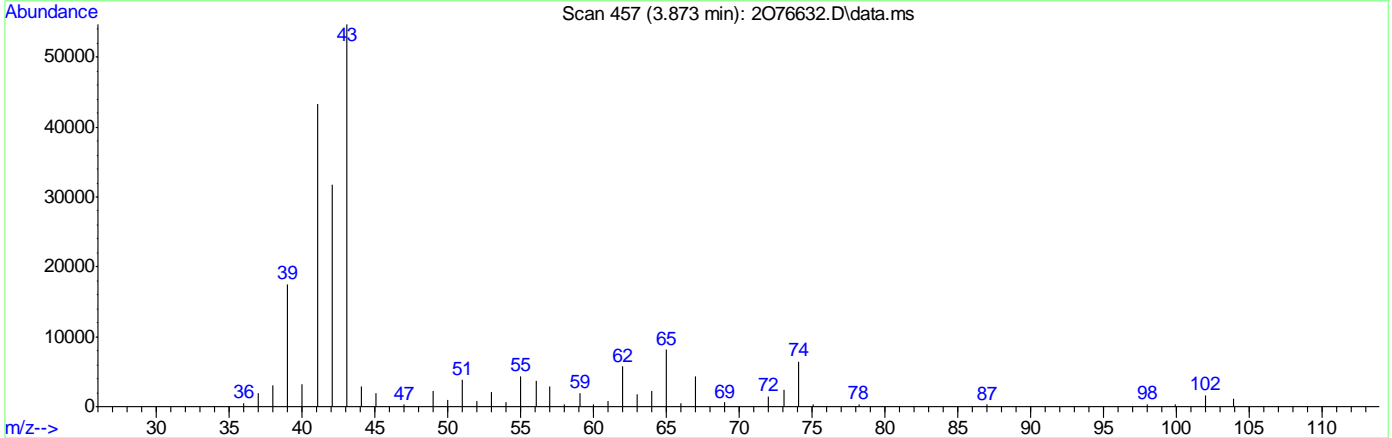
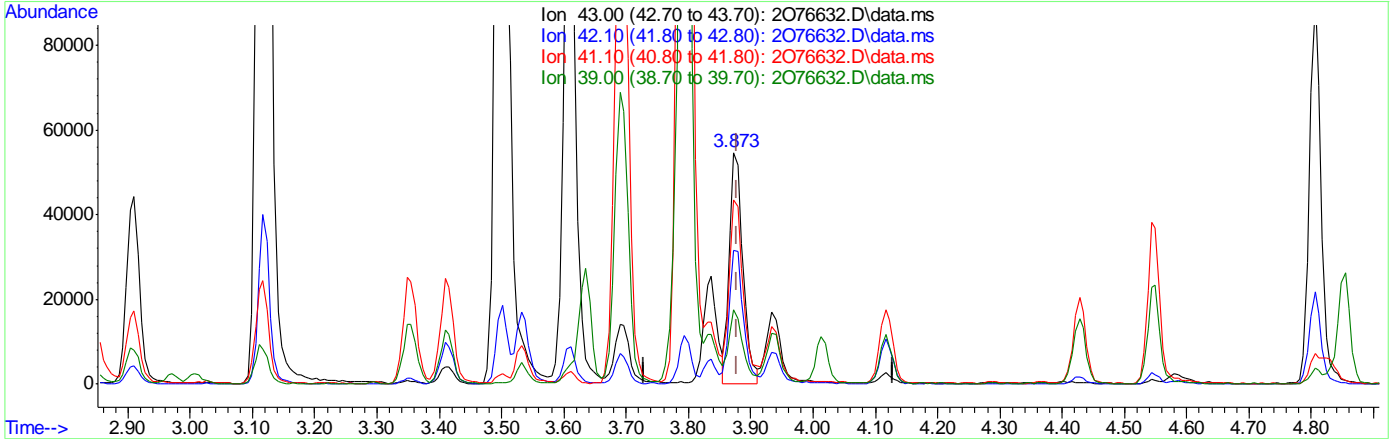
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.41
41.10	77.50	76.57
39.00	31.30	30.33

7.6.9.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

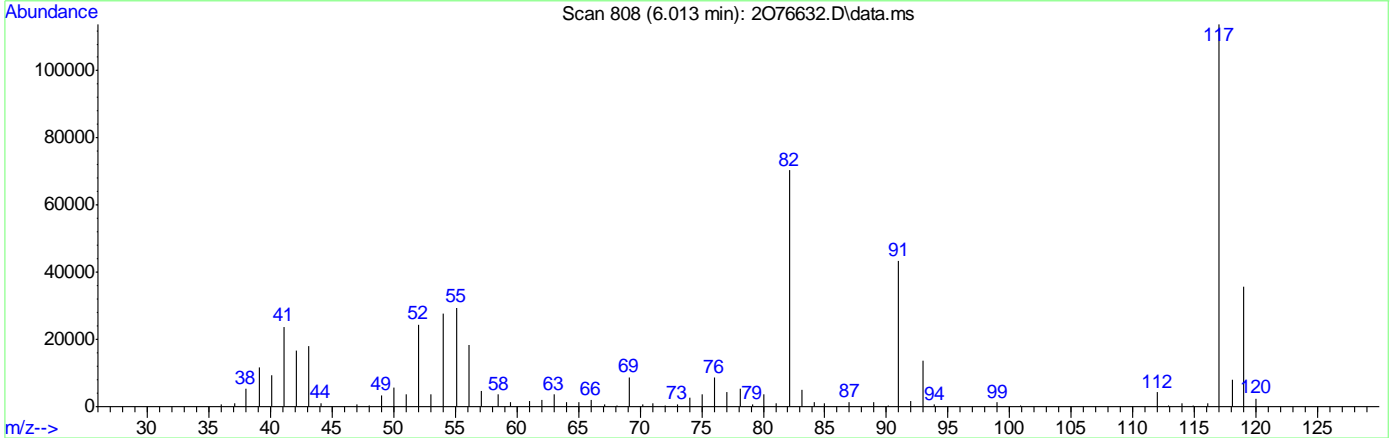
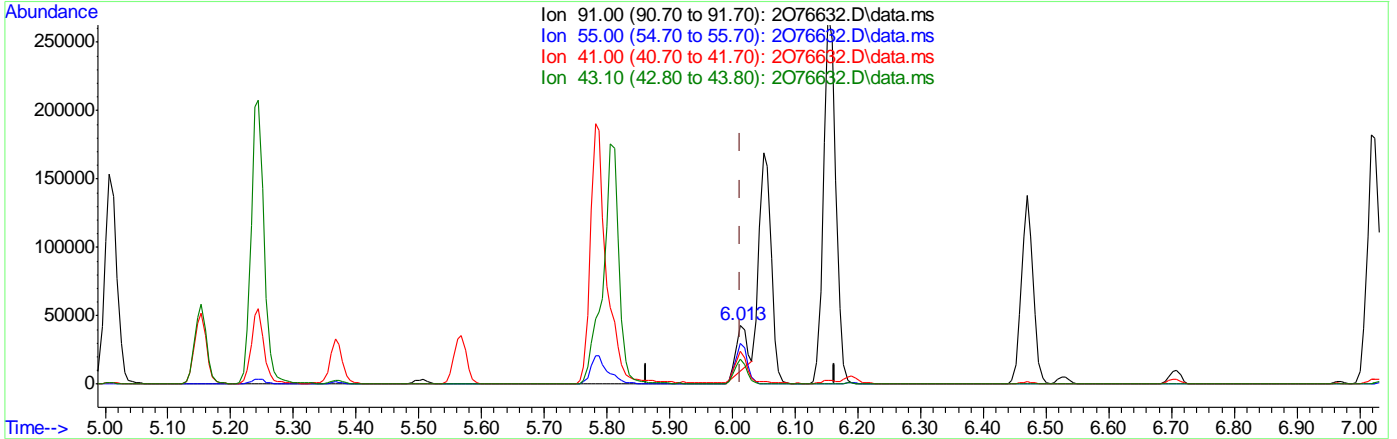
(49) Isobutyl alcohol  
 3.873min (-0.006) 579.85ug/L m  
 response 83094

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.98
41.10	77.50	79.32
39.00	31.30	32.06

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 14.98ug/L  
 response 38485

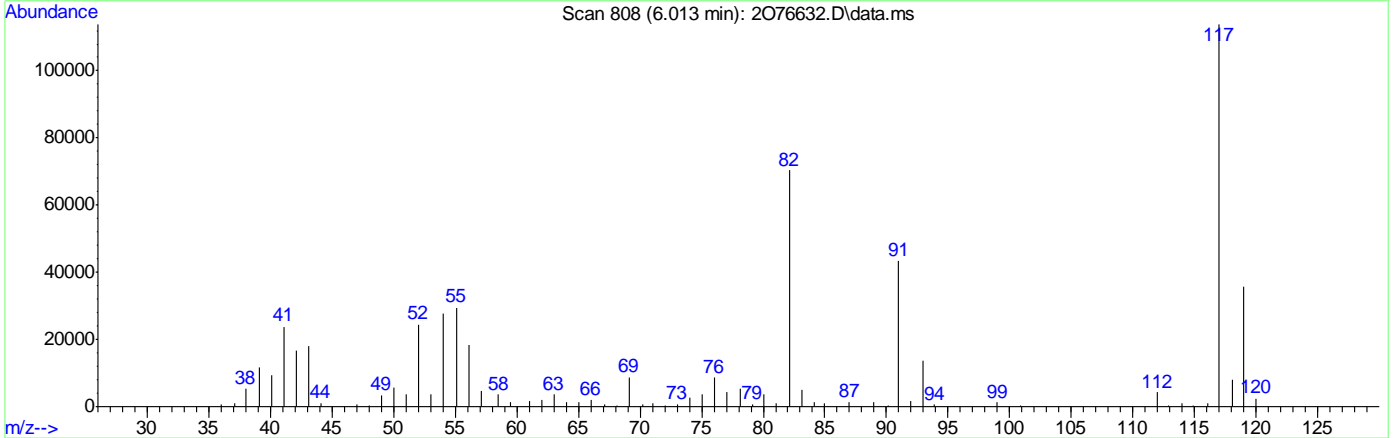
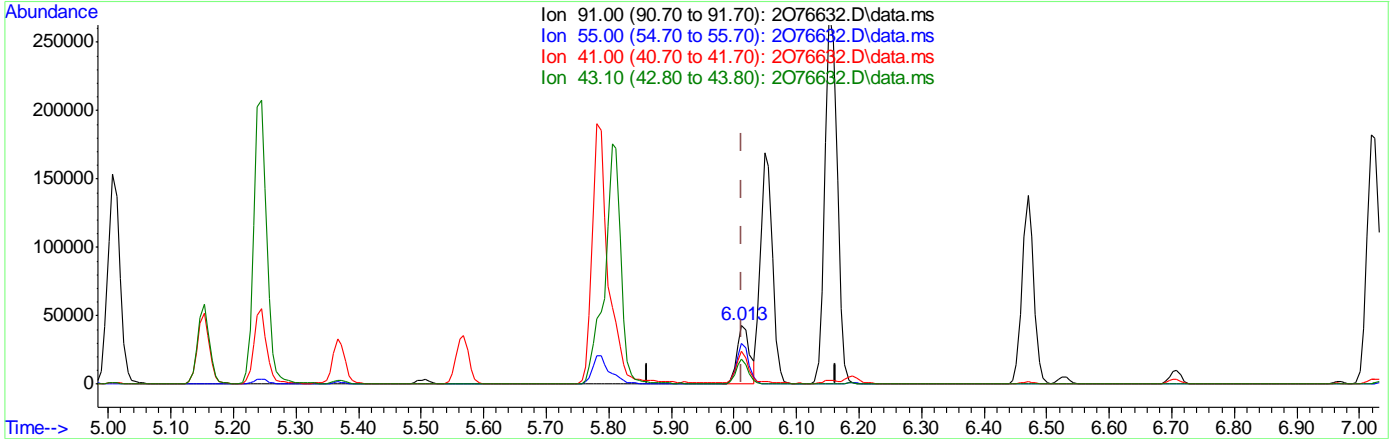
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	67.37
41.00	55.00	52.25
43.10	42.40	40.71

7.696  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 23.69ug/L m  
 response 60872

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	68.21
41.00	55.00	54.95
43.10	42.40	41.76

7.697  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 30 09:23:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	411911	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	303135	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.774	152	153133	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	112449	50.20	ug/L	0.00
Spiked Amount	50.000	Range 83	- 118	Recovery	=	100.40%
50) 1,2-Dichloroethane-d4	3.854	65	130436	49.05	ug/L	0.00
Spiked Amount	50.000	Range 79	- 125	Recovery	=	98.10%
63) Toluene-d8	4.976	98	399972	49.49	ug/L	0.00
Spiked Amount	50.000	Range 85	- 112	Recovery	=	98.98%
86) 4-Bromofluorobenzene	6.915	174	106069	47.40	ug/L	0.00
Spiked Amount	50.000	Range 83	- 118	Recovery	=	94.80%
Target Compounds						
2) Dichlorodifluoromethane	1.227	85	46506	30.59	ug/L	100
3) Chloromethane	1.379	50	46266	29.84	ug/L	99
4) 1,3-butadiene	1.453	39	40761	23.06	ug/L	98
5) Vinyl Chloride	1.434	62	45178	28.25	ug/L	96
6) Bromomethane	1.672	94	25727	20.75	ug/L	94
7) Chloroethane	1.757	64	28474	25.77	ug/L	96
8) Trichlorofluoromethane	1.855	101	77919	25.83	ug/L	96
9) Ethyl Ether	2.062	59	33031	23.24	ug/L	98
10) Ethanol	2.154	45	15523	484.26	ug/L	98
11) 1,2-Dichlorotrifluoro...	2.184	67	49519	24.58	ug/L	95
12) 1,1-Dichloroethene	2.184	61	60228	23.80	ug/L	97
13) Freon 113	2.208	101	42135	23.70	ug/L	99
14) Carbon Disulfide	2.202	76	121360	25.78	ug/L	99
15) Iodomethane	2.269	142	30213	19.59	ug/L	93
16) Acrolein	2.385	56	51607	112.68	ug/L	100
17) Allyl chloride	2.471	41	48113	26.09	ug/L	93
18) Methylene Chloride	2.532	49	70792	31.07	ug/L	98
19) Acetone	2.556	43	137228	144.40	ug/L	97
20) Methyl acetate	2.629	43	283327	126.26	ug/L	99
21) trans-1,2-Dichloroethene	2.629	61	60709	23.74	ug/L	98
22) Hexane	2.684	56	30997	23.84	ug/L	94
23) Methyl Tert Butyl Ether	2.690	73	115979	22.55	ug/L	93
24) Tert Butyl Alcohol	2.739	59	73196	229.88	ug/L	84
25) Acetonitrile	2.830	41	98007	264.62	ug/L	98
26) Di-isopropyl ether	2.910	45	114910	22.70	ug/L	95
27) Chloroprene	2.971	53	56869	22.65	ug/L	98
28) 1,1-Dichloroethane	2.983	63	81249	24.45	ug/L	98
29) Acrylonitrile	3.007	52	111431	121.44	ug/L	99
30) ETBE	3.117	59	110797	23.02	ug/L	100
31) Vinyl acetate	3.117	43	437511	121.31	ug/L	98
32) cis-1,2-Dichloroethene	3.288	96	48994	22.50	ug/L	99
33) 2,2-Dichloropropane	3.355	77	53868	24.26	ug/L	96
34) Bromochloromethane	3.403	128	25619	24.18	ug/L	97
35) Cyclohexane	3.409	56	57166	22.54	ug/L	94



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 30 09:23:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	88327	23.53	ug/L	99
37) Ethyl acetate	3.501	43	330542	122.44	ug/L	99
38) Tetrahydrofuran	3.531	42	24486	25.31	ug/L	98
40) Carbon Tetrachloride	3.531	117	60319m	24.94	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	69837	23.58	ug/L	100
42) 2-Butanone	3.611	43	188094	128.02	ug/L	98
43) 1,1-Dichloropropene	3.635	75	60177	24.23	ug/L	96
44) tert-Butyl formate	3.696	59	88552	137.30	ug/L	98
45) Propionitrile	3.781	54	119130	261.77	ug/L	98
46) Methacrylonitrile	3.794	41	416983	263.49	ug/L	96
47) Benzene	3.775	78	184650	24.64	ug/L	90
48) TAME	3.836	73	105946	23.21	ug/L	96
49) Isobutyl alcohol	3.873	43	67507m	500.03	ug/L	
51) 1,2-Dichloroethane	3.891	62	67842	22.00	ug/L	99
52) Tert Amyl Alcohol	3.934	59	55780	230.95	ug/L	96
53) Trichloroethene	4.117	95	51111	23.51	ug/L	96
54) Methylcyclohexane	4.117	83	59840	22.42	ug/L	100
55) Dibromomethane	4.367	93	32283	21.80	ug/L	98
56) 1,2-Dichloropropane	4.428	63	44048	24.57	ug/L	94
57) Bromodichloromethane	4.458	83	60607	24.13	ug/L	95
58) Methyl methacrylate	4.543	41	42515	22.32	ug/L	93
59) 1,4-Dioxane	4.586	88	13898	396.40	ug/L	95
60) 2-Chloroethyl vinyl ether	4.806	63	171349	116.84	ug/L	100
61) cis-1,3-Dichloropropene	4.848	75	67110	24.72	ug/L	97
64) Toluene	5.007	91	188436	23.27	ug/L	99
65) 2-Nitropropane	5.147	41	69267	121.67	ug/L	96
66) 4-Methyl-2-pentanone	5.238	43	325790	129.45	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	68132	24.92	ug/L	95
68) Tetrachloroethene	5.263	166	48844	23.21	ug/L	97
69) Ethyl methacrylate	5.366	69	51958	22.25	ug/L	92
70) 1,1,2-Trichloroethane	5.379	83	40945	24.06	ug/L	95
71) Dibromochloromethane	5.501	129	46950	24.53	ug/L	97
72) 1,3-Dichloropropane	5.561	76	75152	23.14	ug/L	98
73) 1,2-Dibromoethane	5.671	107	49496	22.32	ug/L	95
74) 3,3-dimethyl-1-butanol	5.781	57	427856	1232.66	ug/L	99
75) 2-hexanone	5.805	43	331196	130.38	ug/L	95
76) 1-Chlorohexane	6.013	91	50237m	20.25	ug/L	
77) Ethylbenzene	6.049	91	211296	23.88	ug/L	98
78) Chlorobenzene	6.031	112	131287	23.32	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.074	131	44396	24.64	ug/L	97
80) m,p-Xylene	6.153	91	324669	46.44	ug/L	100
81) o-Xylene	6.470	91	151627	21.59	ug/L	99
82) Styrene	6.506	104	121429	22.68	ug/L	99
83) Bromoform	6.525	173	28209	24.27	ug/L	99
84) Isopropylbenzene	6.702	105	178214	22.04	ug/L	100
87) cis-1,4-Dichloro-2-butene	6.964	53	12790	21.38	ug/L	95
88) n-Propylbenzene	7.019	91	225166	23.94	ug/L	99
89) Bromobenzene	7.000	156	48889	23.17	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.067	83	74902	24.55	ug/L	98
91) 1,3,5-Trimethylbenzene	7.171	105	159708	23.76	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 30 09:23:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	153340	23.28	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.201	53	11996	21.77	ug/L	93
94) 1,2,3-Trichloropropane	7.177	110	24497	25.06	ug/L	93
95) Cyclohexanone	7.207	55	12637	121.62	ug/L	90
96) 4-Chlorotoluene	7.268	91	147010	23.46	ug/L	99
97) tert-Butylbenzene	7.421	91	81588	22.35	ug/L	95
99) 1,2,4-Trimethylbenzene	7.476	105	156656	23.27	ug/L	99
100) Pentachloroethane	7.439	167	25608	26.71	ug/L #	69
101) sec-Butylbenzene	7.561	105	178882	23.21	ug/L	99
102) 4-Isopropyltoluene	7.665	119	149128	22.66	ug/L	100
103) 1,3-Dichlorobenzene	7.720	146	98206	23.43	ug/L	97
104) 1,2,3-Trimethylbenzene	7.805	105	170333	23.81	ug/L	99
105) 1,4-Dichlorobenzene	7.787	146	101099	24.15	ug/L	95
106) n-Butylbenzene	7.982	92	82790	24.55	ug/L	89
107) Benzyl Chloride	7.976	126	19486	27.64	ug/L #	67
108) 1,2-Dichlorobenzene	8.098	146	91683	22.85	ug/L	96
109) 1,2-Dibromo-3-Chloropr...	8.671	75	15342	25.30	ug/L	91
110) Hexachlorobutadiene	9.128	225	16375	21.68	ug/L	93
111) 1,2,4-Trichlorobenzene	9.146	180	45285	19.77	ug/L	96
112) Naphthalene	9.372	128	163462	19.58	ug/L	100
113) 1,2,3-Trichlorobenzene	9.494	180	46253	20.31	ug/L	96

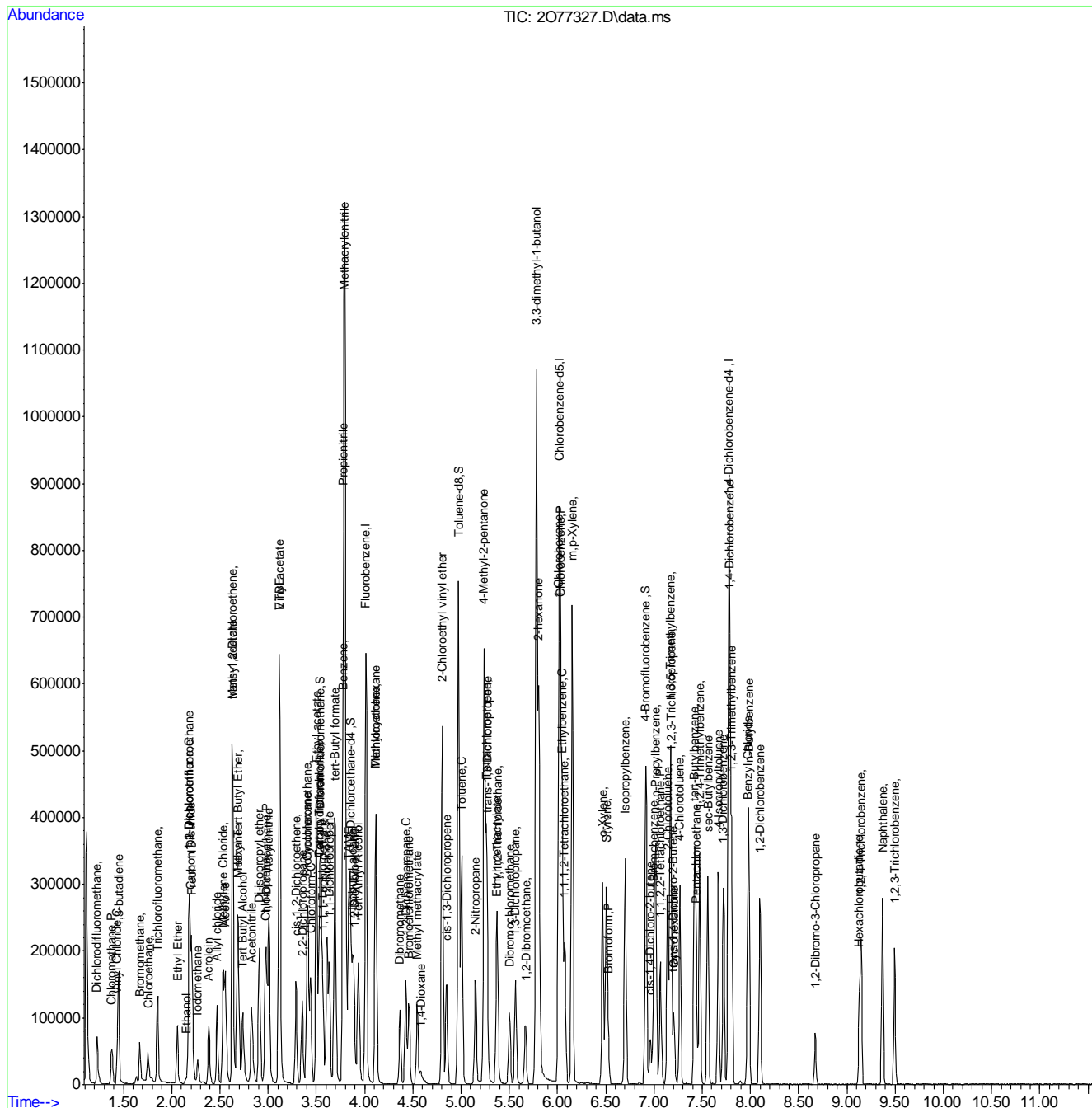
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 30 09:23:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



2023-06-30

# Manual Integration Approval Summary

**Sample Number:** V2O3013-CC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O77327.D      **Analyst approved:** 06/30/23 09:56 Adelard Lefebvre  
**Injection Time:** 06/30/23 09:10      **Supervisor approved:** 07/03/23 12:36 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

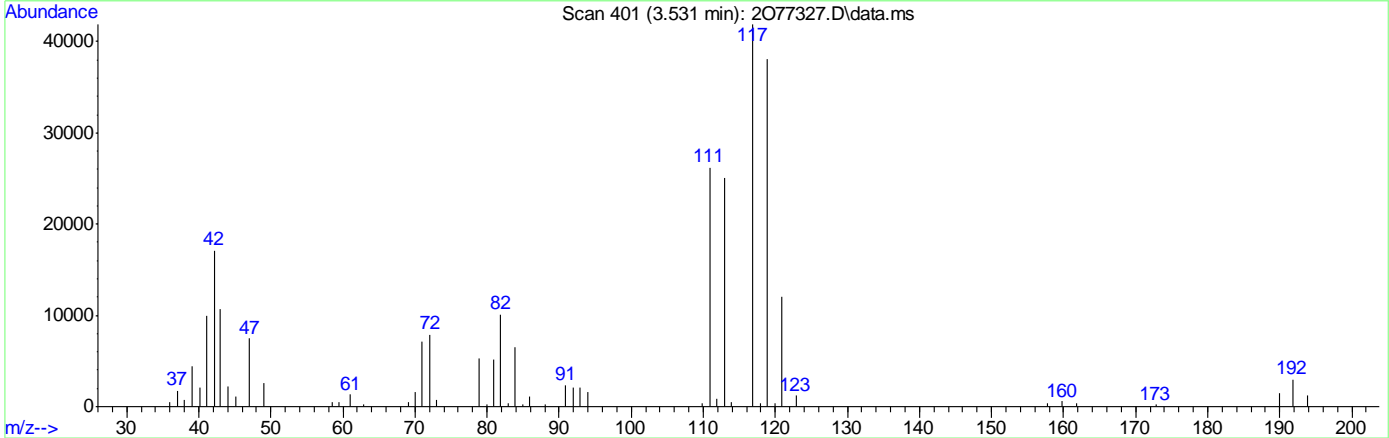
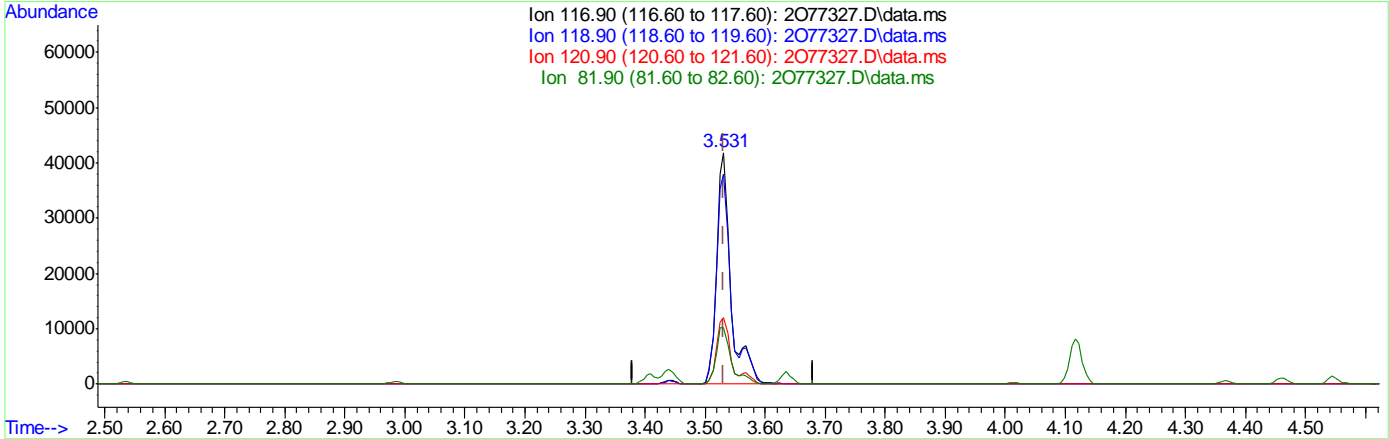
7.6.10.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 30 09:22:50 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077327.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (+0.000) 28.52ug/L

response 68994

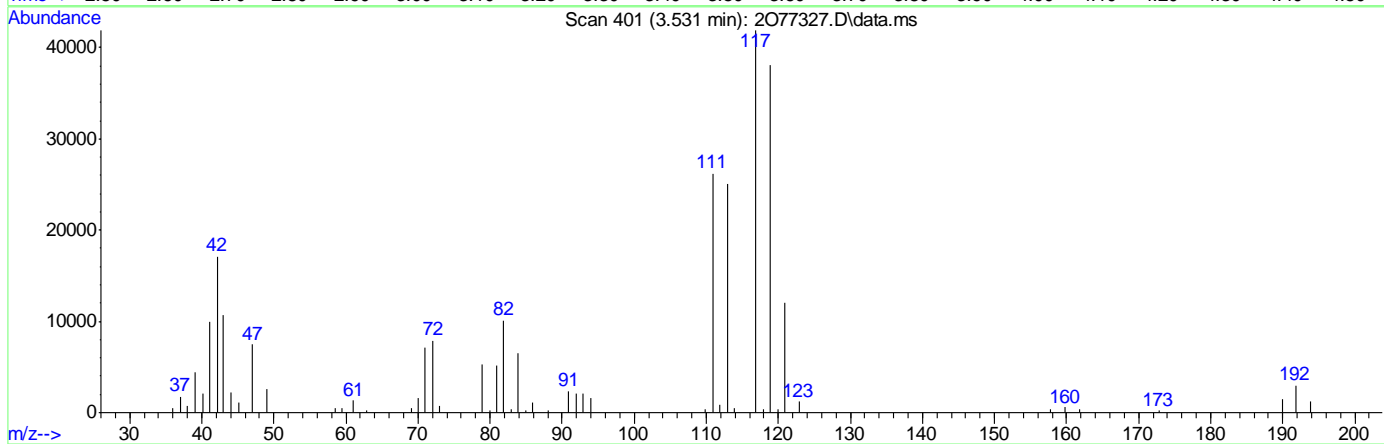
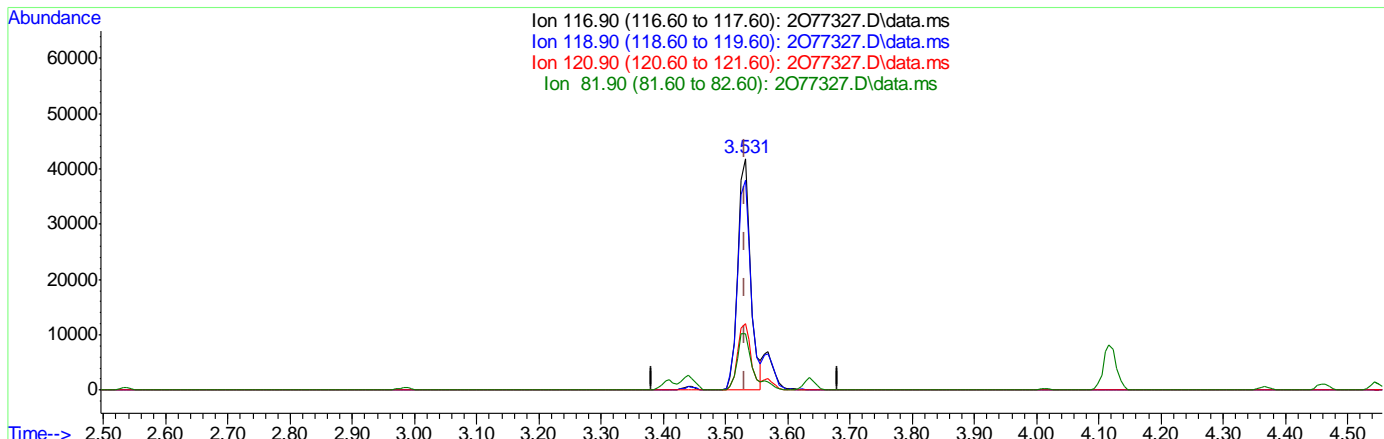
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	90.85
120.90	31.50	28.66
81.90	24.40	24.17

7.6.10.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 30 09:22:50 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )  
 3.531min (+0.000) 24.94ug/L m  
 response 60319

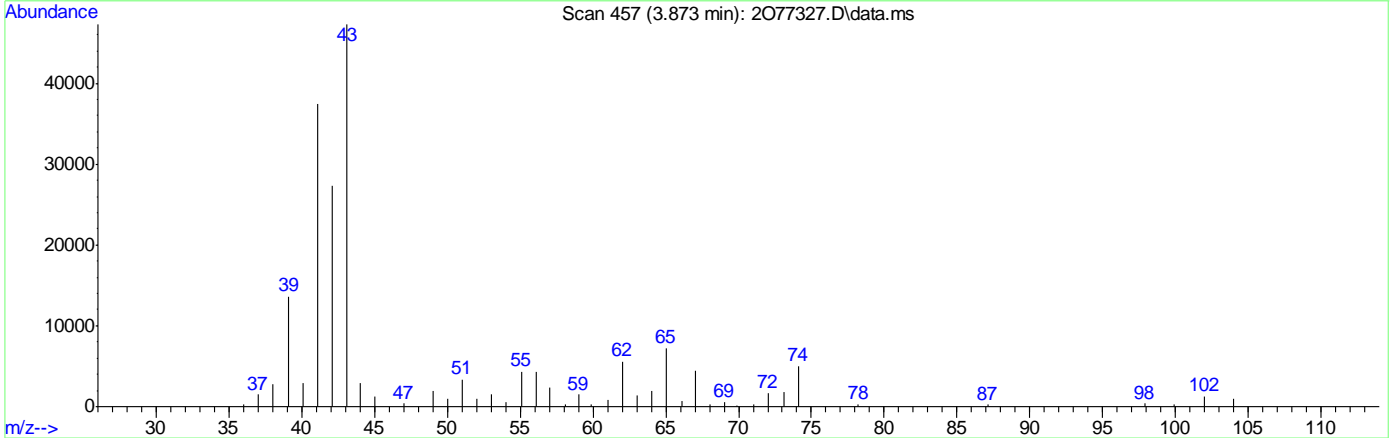
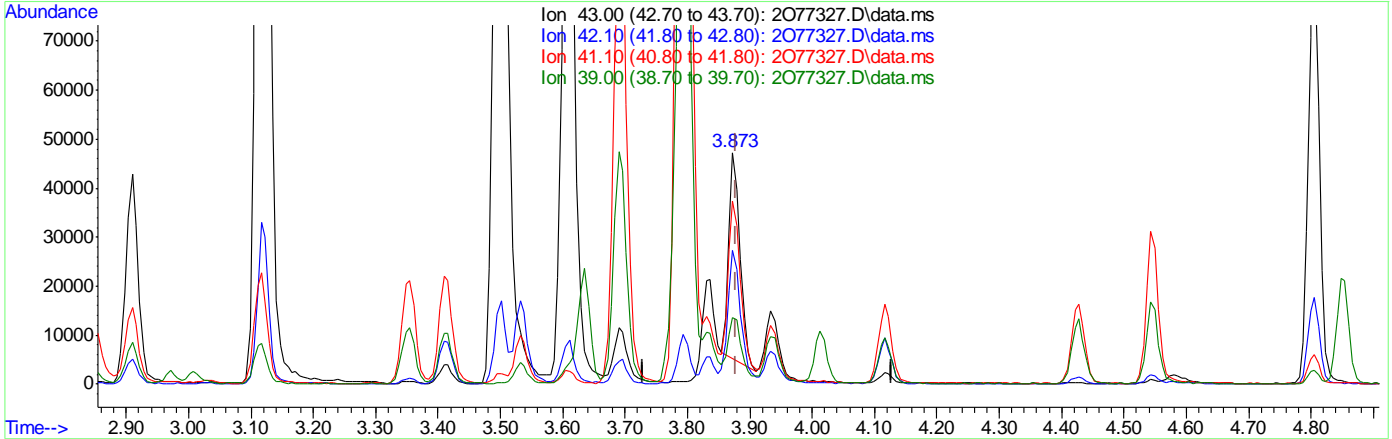
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	90.85
120.90	31.50	28.66
81.90	24.40	24.17

7.6.10.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 30 09:22:50 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077327.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 393.63ug/L  
 response 52698

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.95
41.10	77.50	77.01
39.00	31.30	26.47

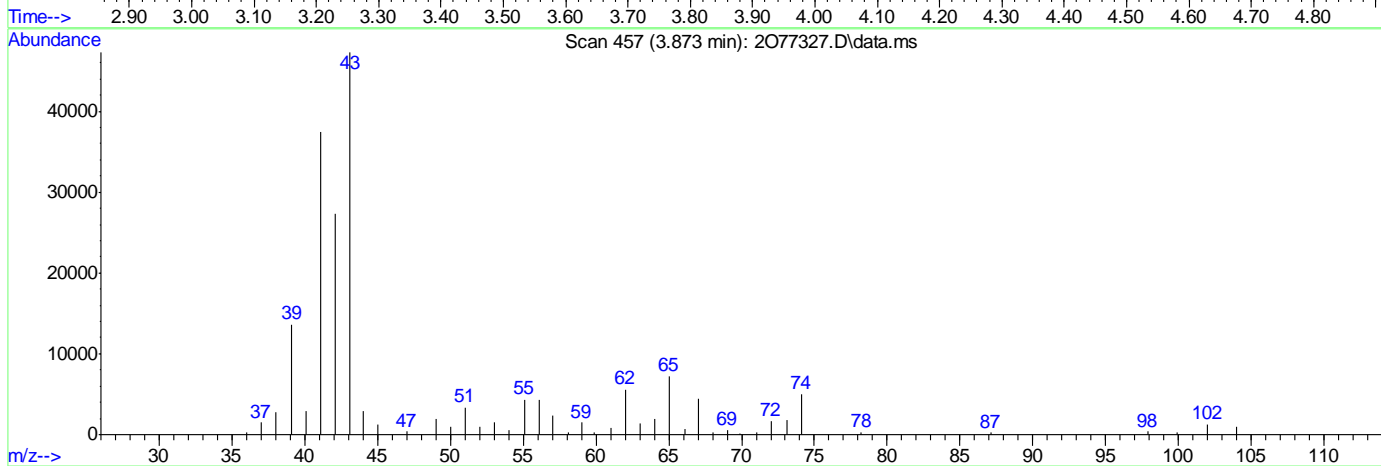
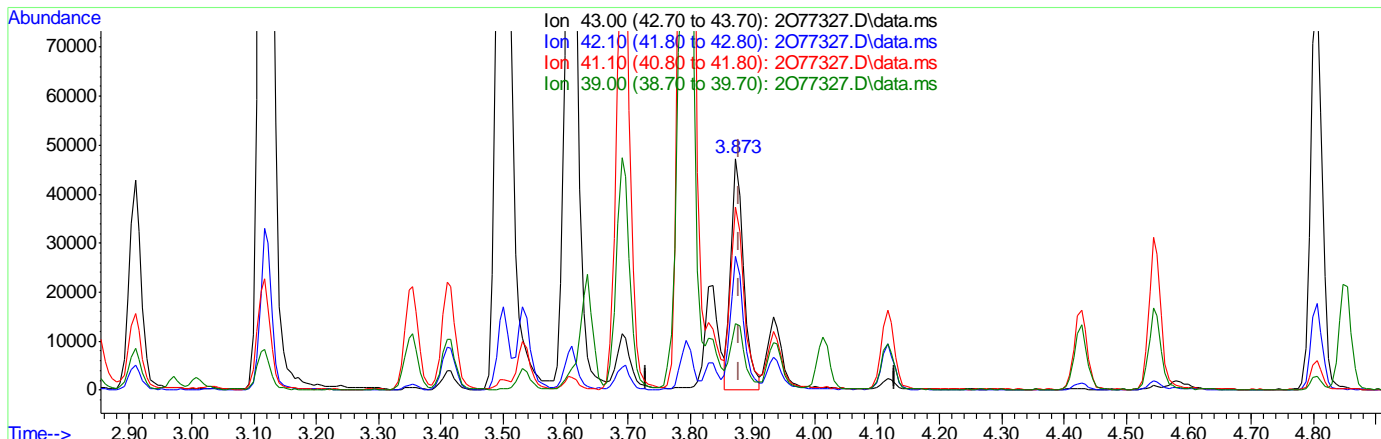
7.6.10.4  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 30 09:22:50 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077327.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 500.03ug/L m  
 response 67507

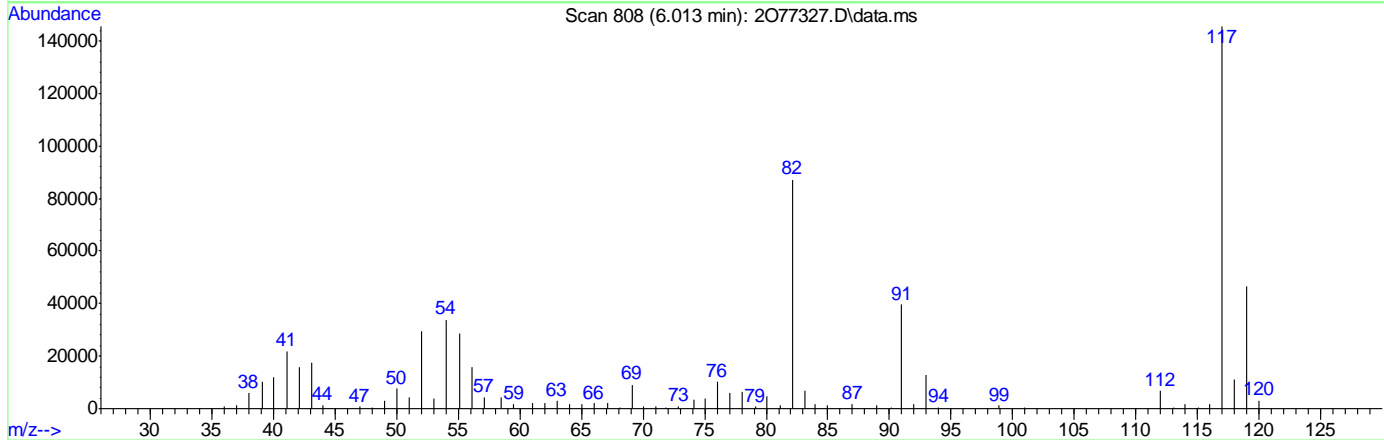
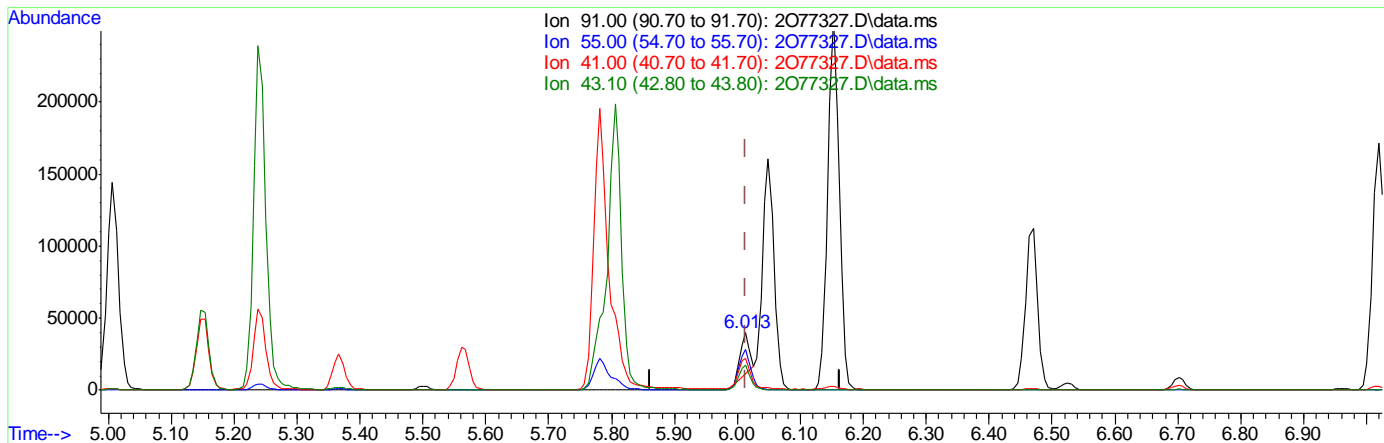
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.67
41.10	77.50	79.12
39.00	31.30	28.76

7.6.10.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 30 09:22:50 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077327.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.000) 12.65ug/L

response 31365

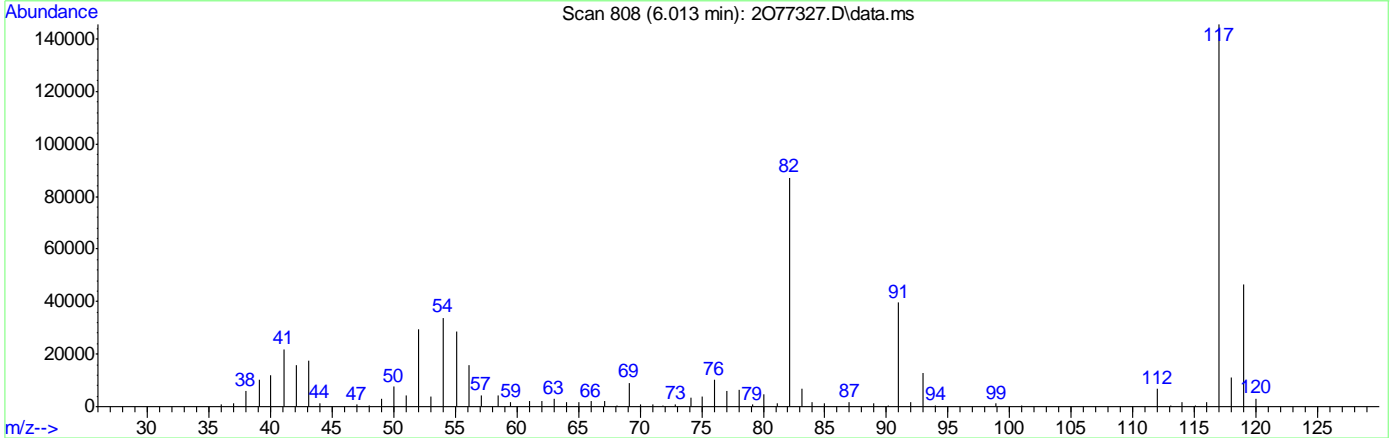
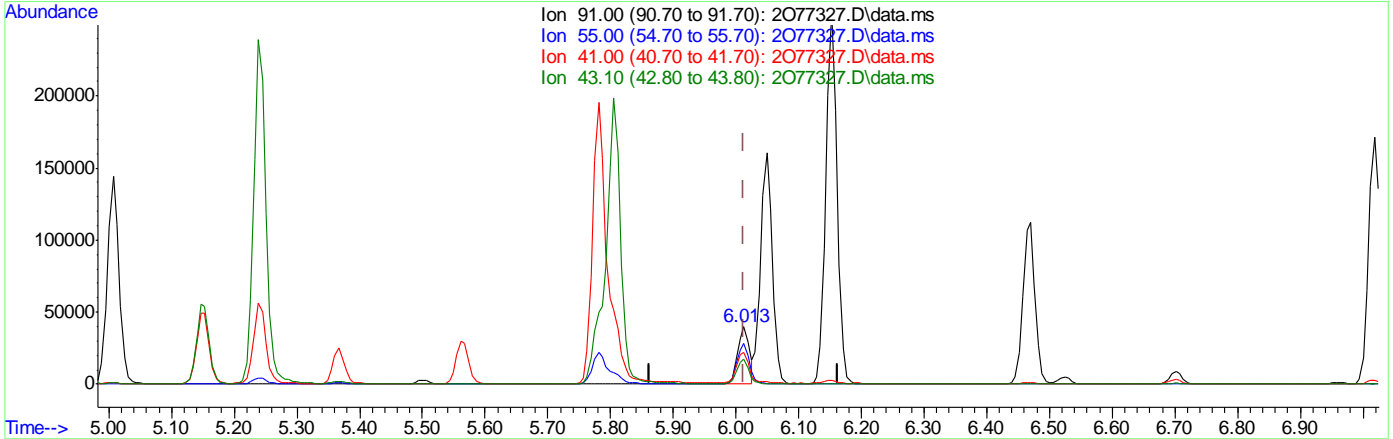
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	71.00
41.00	55.00	52.27
43.10	42.40	42.43

7.6.10.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077327.D  
 Acq On : 30 Jun 2023 9:10 am  
 Operator : adelardl  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54313,V203013,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 30 09:22:50 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077327.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 20.25ug/L m  
 response 50237

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	71.96
41.00	55.00	55.11
43.10	42.40	44.08

7.6.10.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 02 15:09:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	423203	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	308707	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.781	152	154630	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	113897	49.49	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery =	98.98%			
50) 1,2-Dichloroethane-d4	3.855	65	132873	48.64	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery =	97.28%			
63) Toluene-d8	4.976	98	409096	49.70	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery =	99.40%			
86) 4-Bromofluorobenzene	6.921	174	108425	47.98	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery =	95.96%			
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	48436	31.01	ug/L		98
3) Chloromethane	1.380	50	48536	30.47	ug/L		99
4) 1,3-butadiene	1.453	39	44699	24.72	ug/L		96
5) Vinyl Chloride	1.434	62	48391	29.45	ug/L		98
6) Bromomethane	1.672	94	24513	19.26	ug/L		97
7) Chloroethane	1.751	64	28891	25.28	ug/L		97
8) Trichlorofluoromethane	1.855	101	79319	25.59	ug/L		99
9) Ethyl Ether	2.056	59	33887	23.21	ug/L		98
10) Ethanol	2.154	45	17237	523.38	ug/L		98
11) 1,2-Dichlorotrifluoro...	2.178	67	52211	25.22	ug/L		91
12) 1,1-Dichloroethene	2.184	61	62764	24.14	ug/L		96
13) Freon 113	2.209	101	43768	23.96	ug/L		98
14) Carbon Disulfide	2.203	76	124667	25.78	ug/L		97
15) Iodomethane	2.270	142	35780	22.41	ug/L		98
16) Acrolein	2.385	56	51511	109.51	ug/L		100
17) Allyl chloride	2.471	41	51315	27.08	ug/L		94
18) Methylene Chloride	2.532	49	72264	30.86	ug/L		97
19) Acetone	2.556	43	135268	138.54	ug/L		100
20) Methyl acetate	2.629	43	297513	129.04	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	63641	24.23	ug/L		99
22) Hexane	2.684	56	31752	23.77	ug/L		95
23) Methyl Tert Butyl Ether	2.690	73	122841	23.25	ug/L		98
24) Tert Butyl Alcohol	2.739	59	77587	237.17	ug/L		92
25) Acetonitrile	2.830	41	102040	268.16	ug/L		96
26) Di-isopropyl ether	2.910	45	122951	23.64	ug/L		96
27) Chloroprene	2.971	53	59064	22.91	ug/L		99
28) 1,1-Dichloroethane	2.983	63	85317	24.99	ug/L		98
29) Acrylonitrile	3.007	52	114374	121.32	ug/L		98
30) ETBE	3.117	59	117816	23.83	ug/L		98
31) Vinyl acetate	3.117	43	441688	119.20	ug/L		98
32) cis-1,2-Dichloroethene	3.288	96	50166	22.42	ug/L		98
33) 2,2-Dichloropropane	3.355	77	53419	23.41	ug/L		97
34) Bromochloromethane	3.404	128	26312	24.17	ug/L		97
35) Cyclohexane	3.416	56	60864	23.36	ug/L		98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 02 15:09:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	92364	23.95	ug/L	96
37) Ethyl acetate	3.501	43	342765	123.58	ug/L	99
38) Tetrahydrofuran	3.532	42	25717	25.88	ug/L	99
40) Carbon Tetrachloride	3.532	117	61857m	24.89	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	73745	24.24	ug/L	100
42) 2-Butanone	3.611	43	191516	126.87	ug/L	98
43) 1,1-Dichloropropene	3.635	75	62460	24.48	ug/L	94
44) tert-Butyl formate	3.690	59	91637	138.23	ug/L	99
45) Propionitrile	3.781	54	121169	259.15	ug/L	94
46) Methacrylonitrile	3.794	41	428088	263.29	ug/L	97
47) Benzene	3.775	78	190593	24.75	ug/L	90
48) TAME	3.836	73	112232	23.93	ug/L	95
49) Isobutyl alcohol	3.873	43	67674m	488.34	ug/L	
51) 1,2-Dichloroethane	3.891	62	70179	22.15	ug/L	99
52) Tert Amyl Alcohol	3.934	59	58388	235.03	ug/L	97
53) Trichloroethene	4.117	95	52760	23.62	ug/L	97
54) Methylcyclohexane	4.117	83	61212	22.32	ug/L	98
55) Dibromomethane	4.367	93	33677	22.13	ug/L	98
56) 1,2-Dichloropropane	4.428	63	45401	24.64	ug/L	96
57) Bromodichloromethane	4.458	83	61377	23.79	ug/L	98
58) Methyl methacrylate	4.544	41	46259	23.61	ug/L	90
59) 1,4-Dioxane	4.580	88	16283	450.25	ug/L	100
60) 2-Chloroethyl vinyl ether	4.806	63	176982	117.46	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	69490	24.92	ug/L	94
64) Toluene	5.007	91	199181	24.15	ug/L	99
65) 2-Nitropropane	5.153	41	68574	118.56	ug/L	97
66) 4-Methyl-2-pentanone	5.245	43	334163	130.38	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	70081	25.17	ug/L	95
68) Tetrachloroethene	5.263	166	52140	24.33	ug/L	97
69) Ethyl methacrylate	5.367	69	54521	22.91	ug/L	92
70) 1,1,2-Trichloroethane	5.379	83	43009	24.82	ug/L	97
71) Dibromochloromethane	5.501	129	47051	24.14	ug/L	99
72) 1,3-Dichloropropane	5.568	76	77039	23.29	ug/L	99
73) 1,2-Dibromoethane	5.671	107	51244	22.69	ug/L	100
74) 3,3-dimethyl-1-butanol	5.781	57	444829	1257.00	ug/L	100
75) 2-hexanone	5.806	43	336907	130.23	ug/L	97
76) 1-Chlorohexane	6.013	91	55731m	22.06	ug/L	
77) Ethylbenzene	6.049	91	220850	24.51	ug/L	97
78) Chlorobenzene	6.037	112	136327	23.78	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.080	131	46116	25.14	ug/L	97
80) m,p-Xylene	6.153	91	334356	46.96	ug/L	99
81) o-Xylene	6.470	91	159334	22.27	ug/L	98
82) Styrene	6.507	104	126576	23.21	ug/L	99
83) Bromoform	6.525	173	28086	23.76	ug/L	98
84) Isopropylbenzene	6.702	105	187199	22.73	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.964	53	12191	20.18	ug/L	97
88) n-Propylbenzene	7.019	91	233668	24.61	ug/L	100
89) Bromobenzene	7.000	156	49339	23.16	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.067	83	78172	25.37	ug/L	98
91) 1,3,5-Trimethylbenzene	7.171	105	165167	24.33	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 02 15:09:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	162630	24.45	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.208	53	11310	20.33	ug/L	98
94) 1,2,3-Trichloropropane	7.177	110	24565	24.89	ug/L	99
95) Cyclohexanone	7.208	55	13125	125.10	ug/L	98
96) 4-Chlorotoluene	7.269	91	153189	24.21	ug/L	97
97) tert-Butylbenzene	7.421	91	86404	23.44	ug/L	97
99) 1,2,4-Trimethylbenzene	7.476	105	161773	23.80	ug/L	99
100) Pentachloroethane	7.439	167	23749	24.60	ug/L #	86
101) sec-Butylbenzene	7.561	105	184062	23.65	ug/L	99
102) 4-Isopropyltoluene	7.671	119	154539	23.25	ug/L	98
103) 1,3-Dichlorobenzene	7.726	146	99782	23.58	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	176944	24.50	ug/L	98
105) 1,4-Dichlorobenzene	7.793	146	103949	24.59	ug/L	98
106) n-Butylbenzene	7.982	92	82097	24.11	ug/L	92
107) Benzyl Chloride	7.976	126	17802	25.30	ug/L #	94
108) 1,2-Dichlorobenzene	8.104	146	93848	23.17	ug/L	99
109) 1,2-Dibromo-3-Chloropr...	8.677	75	15866	25.87	ug/L	93
110) Hexachlorobutadiene	9.134	225	16959	22.24	ug/L	95
111) 1,2,4-Trichlorobenzene	9.146	180	47824	20.67	ug/L	96
112) Naphthalene	9.372	128	176017	20.88	ug/L	99
113) 1,2,3-Trichlorobenzene	9.494	180	47987	20.87	ug/L	97

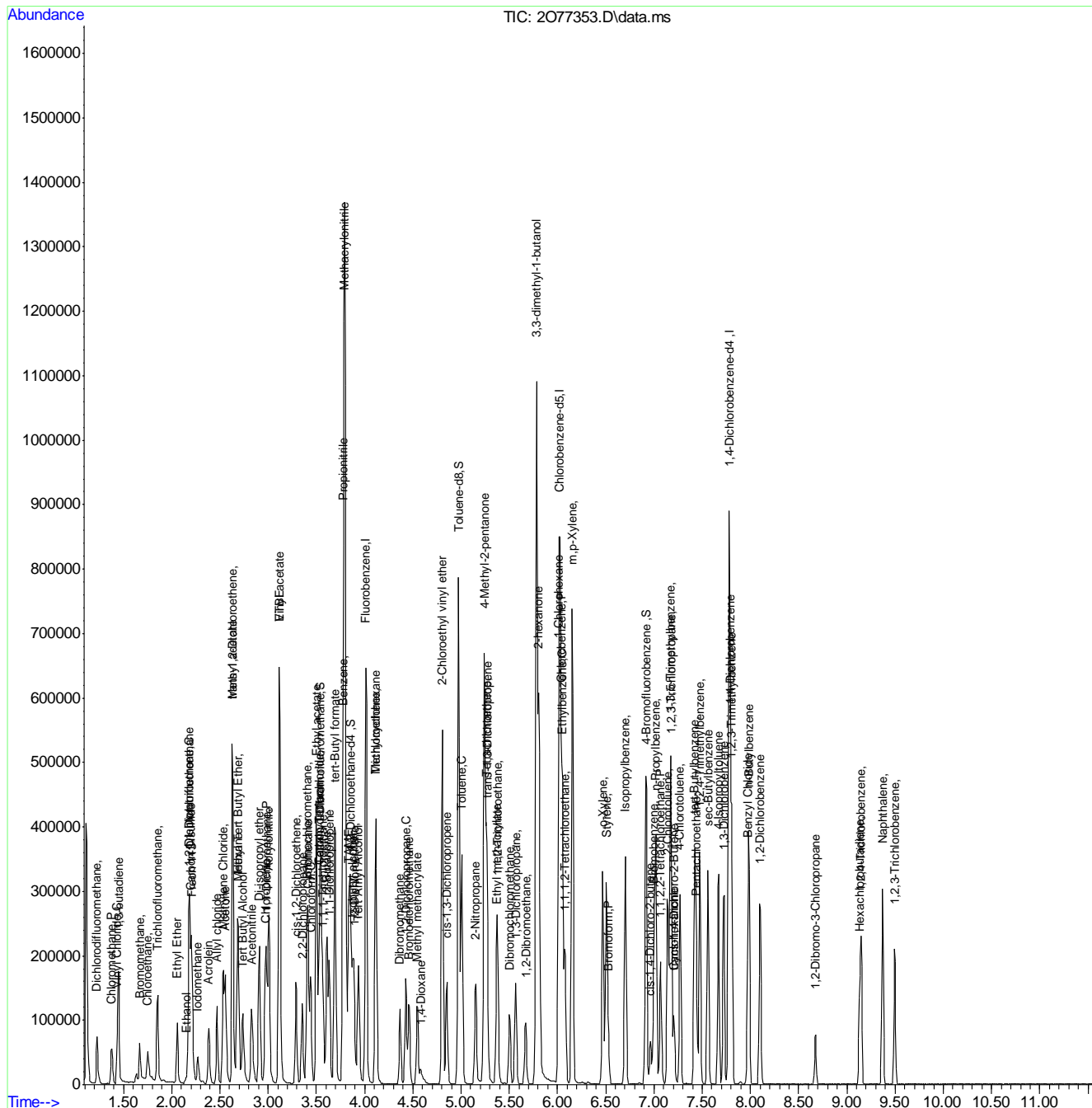
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 02 15:09:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7.6.11  
7



# Manual Integration Approval Summary

**Sample Number:** V2O3013-ECC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O77353.D      **Analyst approved:** 07/02/23 15:42 Jenifer Willis  
**Injection Time:** 06/30/23 20:24      **Supervisor approved:** 07/03/23 12:36 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

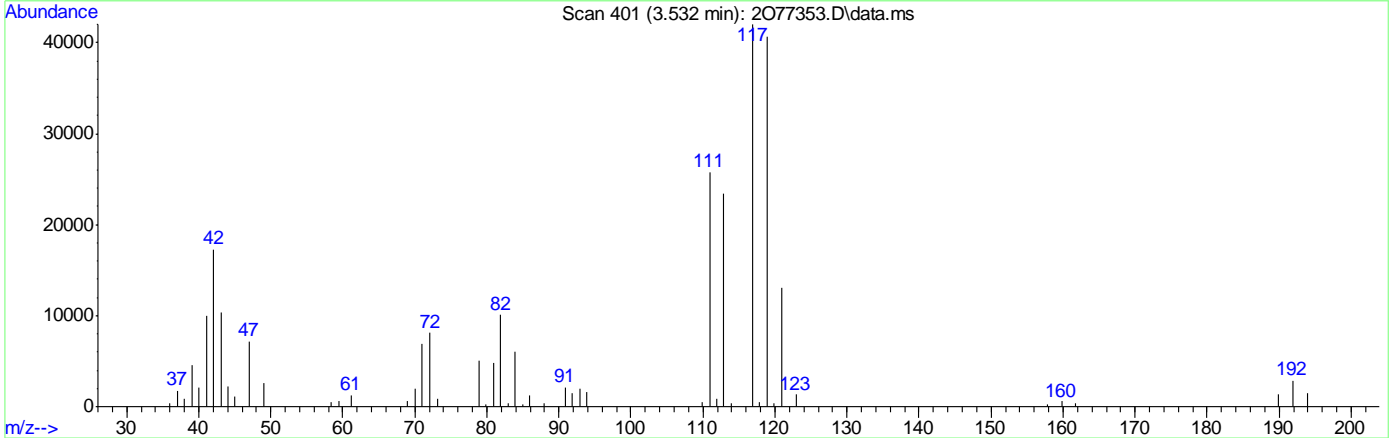
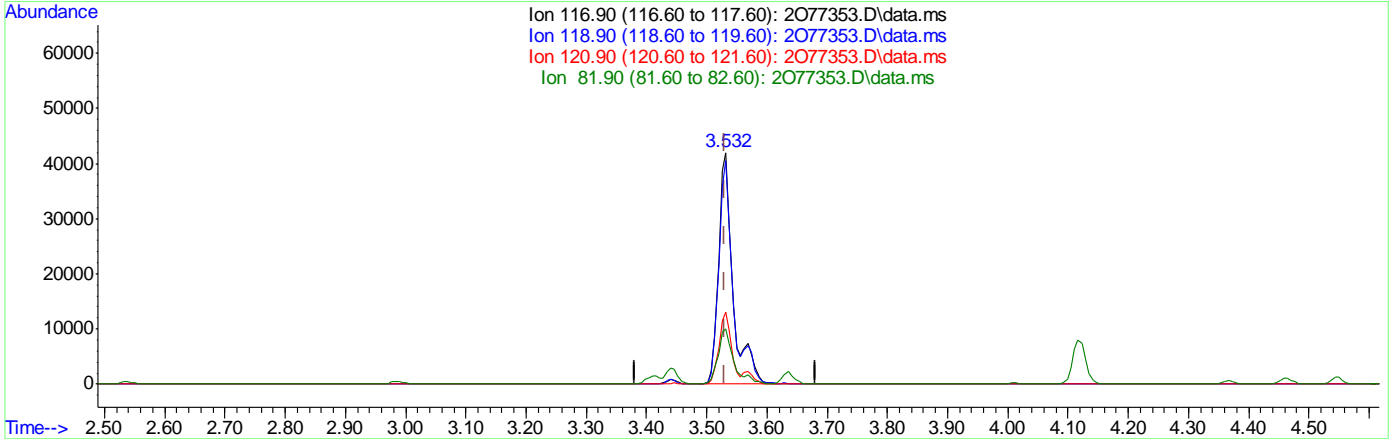
7.6.11.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 02 07:17:36 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077353.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (+0.001) 28.50ug/L

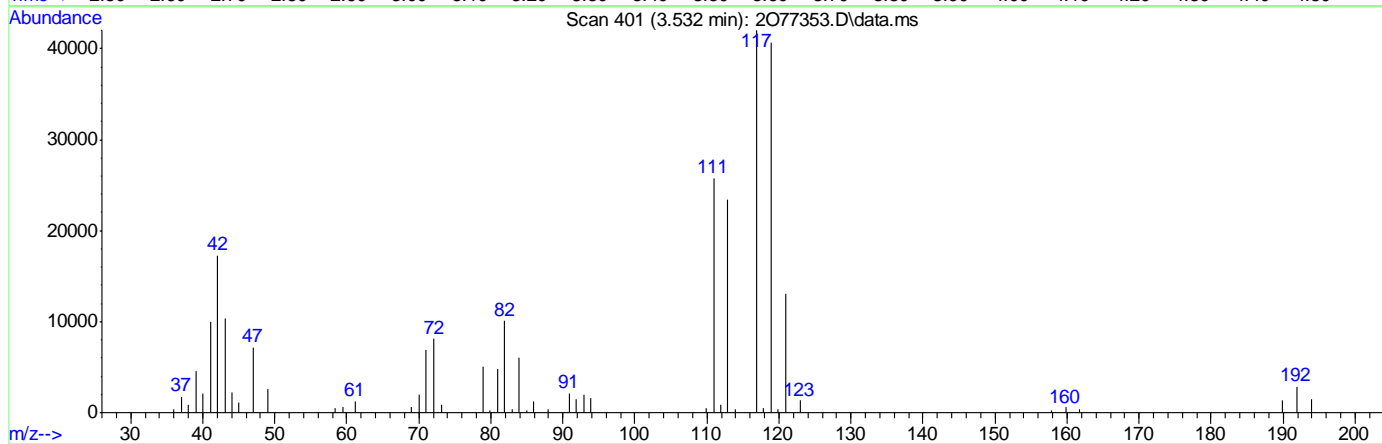
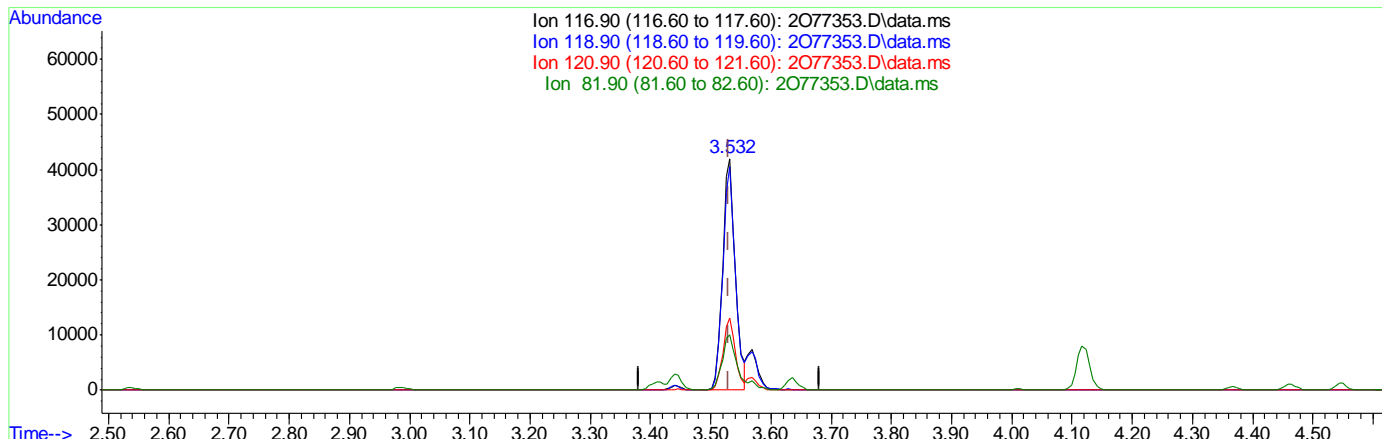
response 70829

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	96.67
120.90	31.50	31.01
81.90	24.40	23.96

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 02 07:17:36 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077353.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (+0.001) 24.89ug/L m  
 response 61857

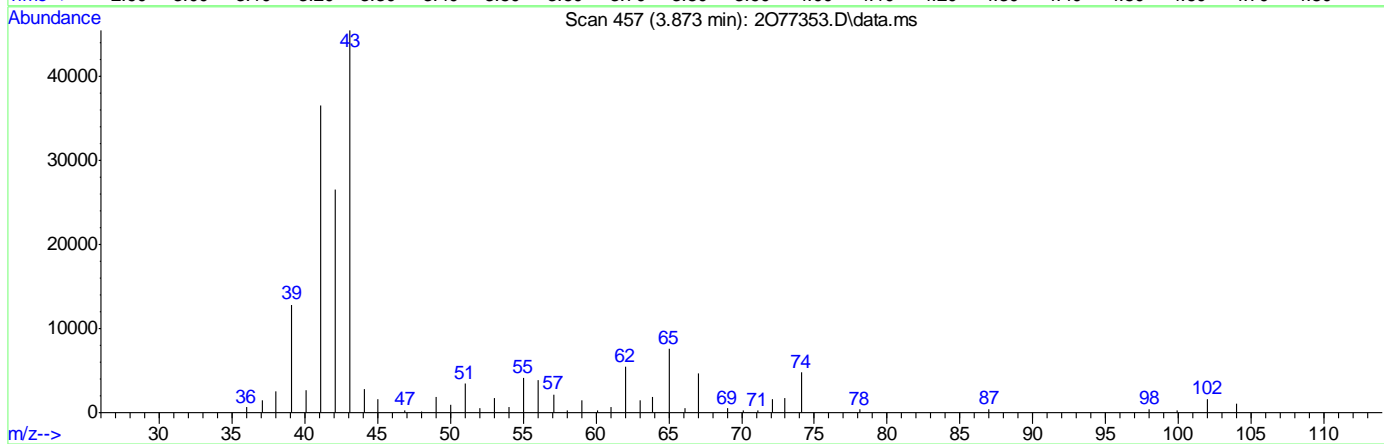
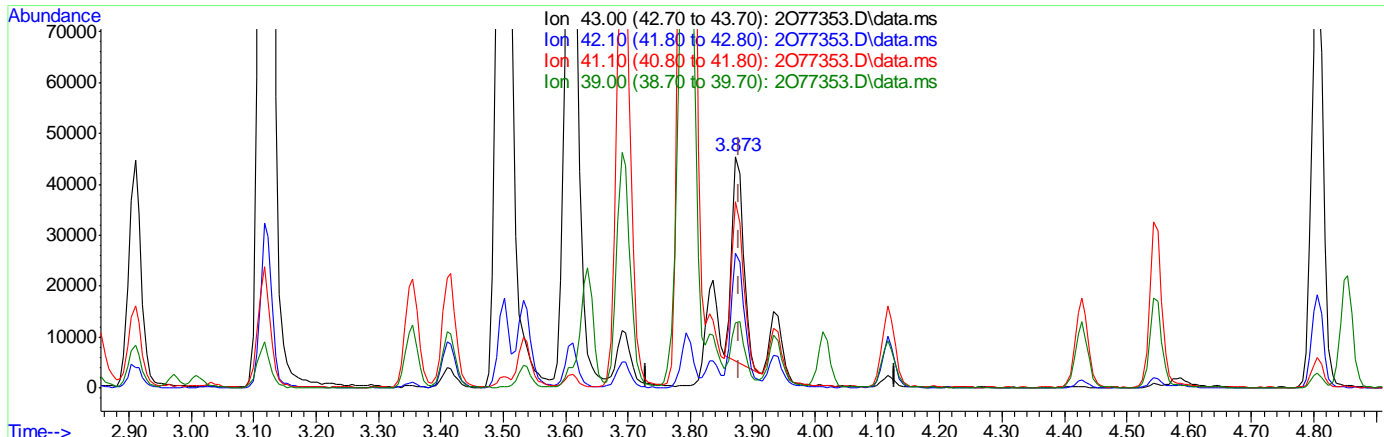
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	96.67
120.90	31.50	31.01
81.90	24.40	23.96

7.6.11.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 02 07:17:36 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077353.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 379.11ug/L  
 response 52086

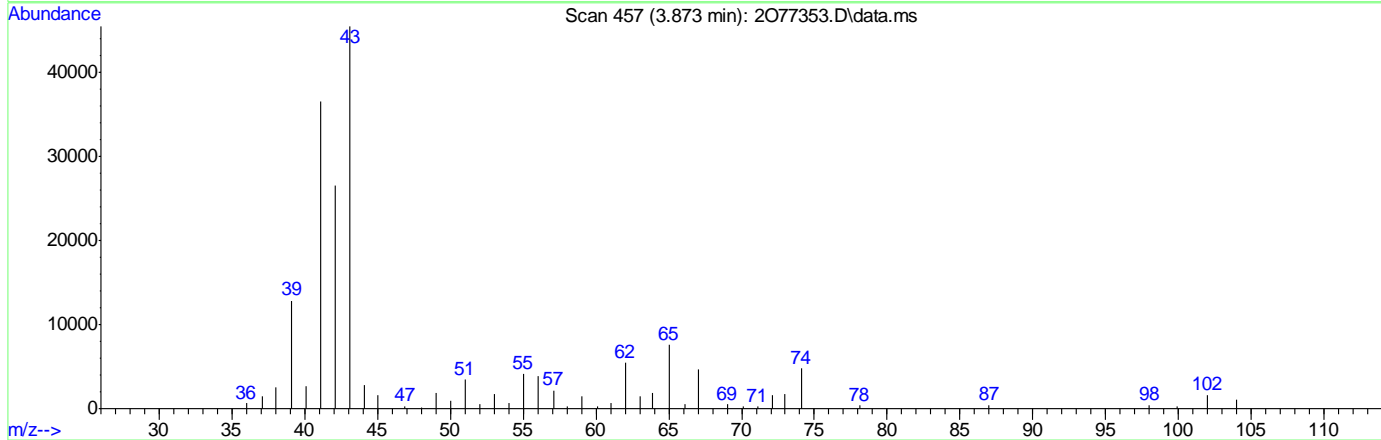
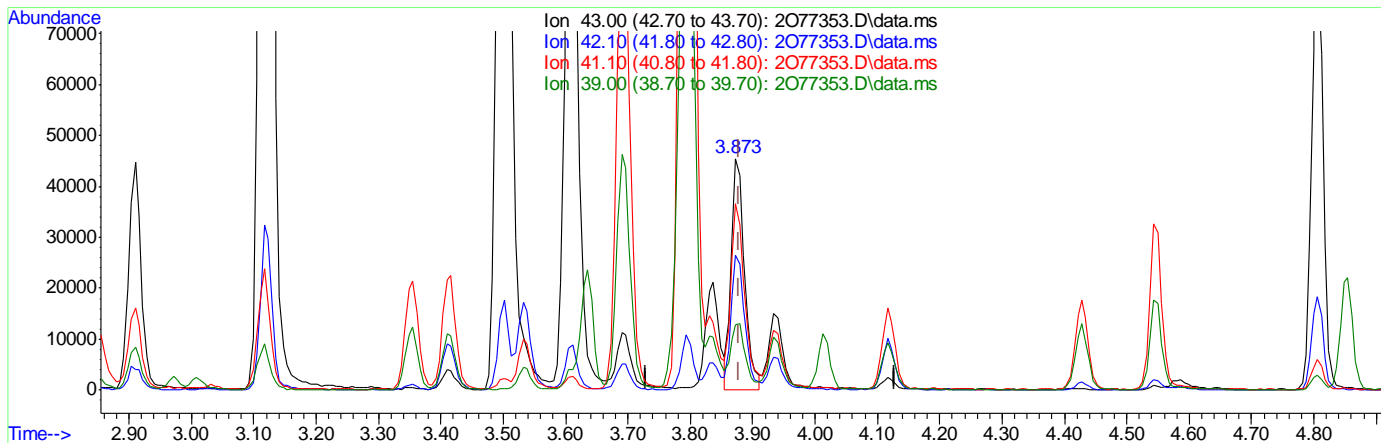
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.73
41.10	77.50	78.77
39.00	31.30	26.38

7.6.11.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 02 07:17:36 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077353.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 488.34ug/L m  
 response 67674

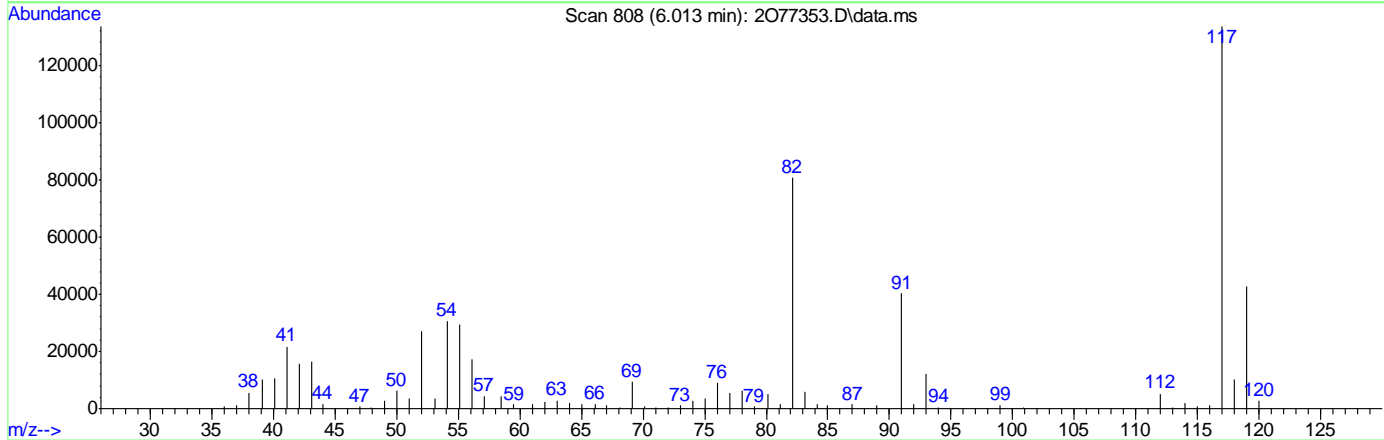
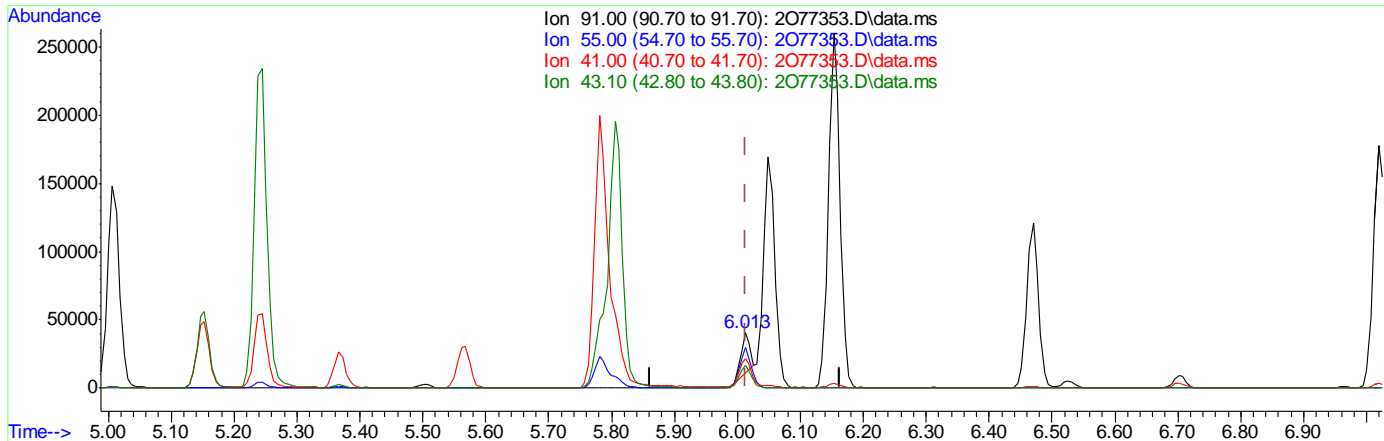
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.32
41.10	77.50	80.35
39.00	31.30	28.18

7.6.11.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 02 07:17:36 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077353.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 12.13ug/L  
 response 30648

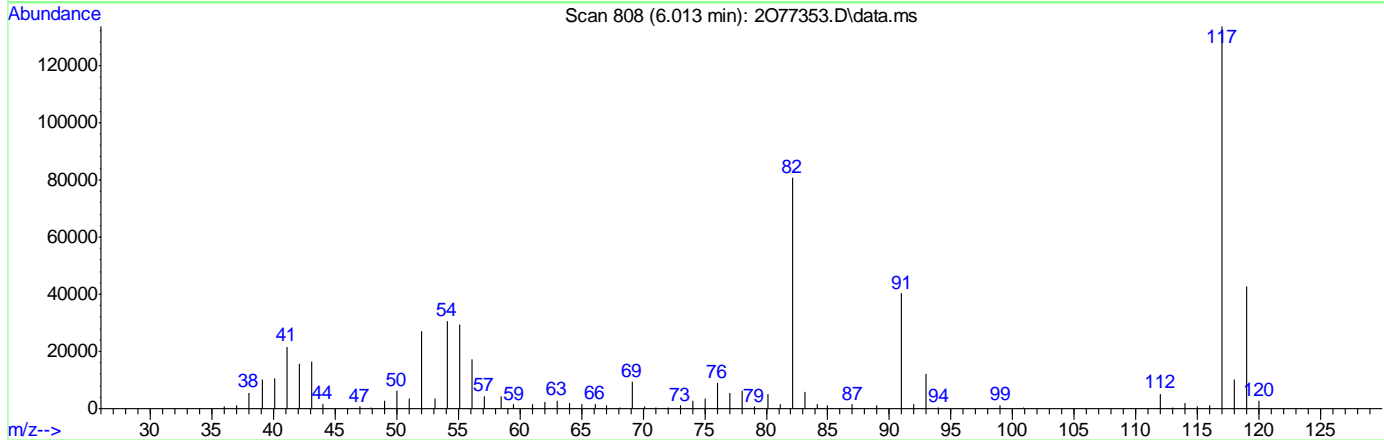
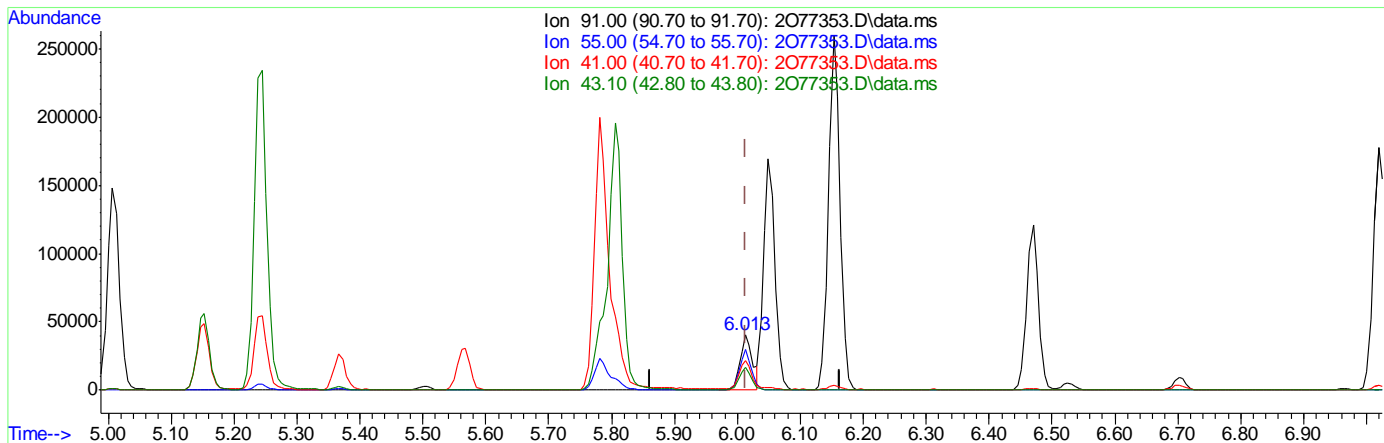
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.39
41.00	55.00	51.64
43.10	42.40	39.82

7.6.11.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-30\  
 Data File : 2077353.D  
 Acq On : 30 Jun 2023 8:24 pm  
 Operator : adelardl  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54337,V203013,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 02 07:17:36 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077353.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 22.06ug/L m  
 response 55731

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.41
41.00	55.00	53.81
43.10	42.40	41.13

7.6.11.7  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1182769	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	892319	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	524006	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	328612	48.80	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	97.60%	
49) 1,2-Dichloroethane-d4	7.555	65	306960	50.29	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	100.58%	
63) Toluene-d8	9.439	98	1222137	48.22	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	96.44%	
86) 4-Bromofluorobenzene	12.219	174	433734	49.01	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.02%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	5442	1.73	ug/L		93
3) Chloromethane	2.635	50	7772	1.61	ug/L		91
4) Vinyl Chloride	2.763	62	5352	1.21	ug/L #		42
5) 1,3-Butadiene	2.800	39	5688	1.25	ug/L		85
6) Bromomethane	3.233	94	6666	3.92	ug/L		95
7) Chloroethane	3.391	64	5521	1.89	ug/L		93
8) Trichlorofluoromethane	3.604	101	7518	1.22	ug/L		95
9) Ethyl Ether	4.013	59	3699	0.98	ug/L		94
10) 1,2-Dichlorotrifluoro...	4.245	67	4964	1.01	ug/L		85
11) 1,1-Dichloroethene	4.269	61	6373	0.98	ug/L		92
12) Ethanol	4.184	45	5721	32.84	ug/L		94
13) Freon 113	4.318	101	3859	1.00	ug/L		79
14) Carbon Disulfide	4.330	76	15138	1.14	ug/L		99
15) Iodomethane	4.458	142	2662	0.82	ug/L		90
16) Acrolein	4.684	56	11013	6.68	ug/L		99
17) Allyl chloride	4.854	41	7625	1.31	ug/L		96
18) Methylene Chloride	4.976	49	13096	1.71	ug/L		96
19) Acetone	5.025	43	24855	7.63	ug/L		95
20) Methyl acetate	5.177	43	30948	4.48	ug/L		97
21) trans-1,2-Dichloroethene	5.183	61	6808	1.00	ug/L		94
22) Hexane	5.281	56	3591	1.10	ug/L		91
23) Methyl Tert Butyl Ether	5.293	73	14557	0.98	ug/L		63
24) Tert butyl alcohol	5.379	59	19025	8.86	ug/L		96
25) Acetonitrile	5.568	41	28590	23.81	ug/L		93
26) Di-isopropyl ether	5.732	45	15246	1.00	ug/L		90
27) Chloroprene	5.878	53	6526	1.10	ug/L		90
28) 1,1-Dichloroethane	5.891	63	8483	0.94	ug/L		98
29) Acrylonitrile	5.976	53	14041	4.43	ug/L		94
30) ETBE	6.147	59	14803	0.99	ug/L		90
31) Vinyl acetate	6.189	43	39427m	4.80	ug/L		
32) cis-1,2-Dichloroethene	6.519	96	5193	0.98	ug/L		97
33) 2,2-Dichloropropane	6.622	77	6951	1.01	ug/L		94
34) Bromochloromethane	6.750	128	2871	1.05	ug/L #		82
35) Cyclohexane	6.750	56	7322	1.03	ug/L		97
36) Chloroform	6.799	83	9792	1.04	ug/L		94
37) Ethyl acetate	6.915	43	30834	3.92	ug/L		99
38) Tetrahydrofuran	6.982	42	4003	1.01	ug/L		83
40) Carbon Tetrachloride	6.982	117	6470m	0.94	ug/L		
41) 1,1,1-Trichloroethane	7.031	97	7655	0.98	ug/L		91
42) 2-Butanone	7.159	43	19868m	4.44	ug/L		
43) 1,1-Dichloropropene	7.183	75	5478	0.89	ug/L		94
44) tert-Butyl Formate	7.256	59	17629	4.53	ug/L		89

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.439	54	14969	10.18	ug/L #	16
46) Methacrylonitrile	7.457	41	48988	11.36	ug/L	93
47) Benzene	7.445	78	18678	0.99	ug/L	88
48) TAME	7.531	73	14856	1.03	ug/L	96
50) Isobutyl alcohol	7.604	42	9073	22.09	ug/L	90
51) 1,2-Dichloroethane	7.652	62	7067	1.08	ug/L	86
52) Tert Amyl Alcohol	7.707	59	14687	8.25	ug/L	92
53) Trichloroethene	8.061	95	6218	1.20	ug/L #	78
54) Methylcyclohexane	8.055	83	6362	0.98	ug/L	95
55) Dibromomethane	8.500	93	3501	1.03	ug/L #	63
56) 1,2-Dichloropropane	8.585	63	4878	1.00	ug/L	93
57) Bromodichloromethane	8.640	83	6240	0.90	ug/L	85
58) Methyl methacrylate	8.823	41	1262	0.26	ug/L #	65
59) 1,4-Dioxane	8.860	88	2137	14.12	ug/L	77
60) 2-Chloroethyl vinyl ether	9.207	63	8760	3.38	ug/L	80
61) cis-1,3-Dichloropropene	9.280	75	6754	0.89	ug/L	86
64) Toluene	9.506	91	20555	0.97	ug/L	97
65) 2-Nitropropane	9.707	41	8460	3.60	ug/L	84
66) 4-Methyl-2-pentanone	9.841	43	42494	5.02	ug/L	98
67) trans-1,3-Dichloropropene	9.951	75	3720	0.54	ug/L	81
68) Tetrachloroethene	9.914	166	6086	0.96	ug/L	92
69) Ethyl methacrylate	10.079	69	3454	0.59	ug/L #	28
70) 1,1,2-Trichloroethane	10.079	83	4227	0.98	ug/L	94
71) Dibromochloromethane	10.268	129	5544	0.90	ug/L	89
72) 1,3-Dichloropropane	10.359	76	6447	0.86	ug/L	95
73) 1,2-Dibromoethane	10.554	107	5181	0.93	ug/L	86
74) 3,3-dimethyl-1-butanol	10.615	57	55872	32.70	ug/L	96
75) 2-hexanone	10.682	43	26377	4.05	ug/L	88
76) 1-Chlorohexane	10.975	91	6171	1.04	ug/L	91
77) Ethylbenzene	11.042	91	23310	1.05	ug/L	90
78) Chlorobenzene	11.024	112	13208	0.94	ug/L	98
79) 1,1,1,2-Tetrachloroethane	11.079	131	5447	0.99	ug/L #	15
80) m,p-Xylene	11.182	91	30687	1.80	ug/L	93
81) o-Xylene	11.621	91	17884	0.98	ug/L	96
82) Styrene	11.731	104	8879	0.71	ug/L	82
83) Bromoform	11.725	173	4336	0.82	ug/L	84
84) Isopropylbenzene	11.920	105	20851	0.98	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.298	53	1588	1.00	ug/L #	33
88) n-Propylbenzene	12.347	91	23298	0.99	ug/L	89
89) Bromobenzene	12.353	156	5937	0.96	ug/L #	81
90) 1,1,2,2-Tetrachloroethane	12.395	83	8662	1.01	ug/L	95
91) 1,3,5-Trimethylbenzene	12.523	105	16216	0.95	ug/L	99
92) 2-Chlorotoluene	12.536	91	15888	0.99	ug/L	97
93) trans-1,4-Dichloro-2-B...	12.609	53	1127	0.60	ug/L #	33
94) 1,2,3-Trichloropropene	12.554	110	2400	0.93	ug/L	90
95) Cyclohexanone	12.621	55	3155	5.92	ug/L	94
96) 4-Chlorotoluene	12.712	91	14017	0.94	ug/L	93
97) tert-Butylbenzene	12.859	91	8894	0.98	ug/L	89
98) 1,2,4-Trimethylbenzene	12.938	105	16247	0.97	ug/L	93
99) Pentachloroethane	12.895	167	3551	1.02	ug/L #	75
100) sec-Butylbenzene	13.048	105	20668	1.05	ug/L	98
101) 4-Isopropyltoluene	13.176	119	15691	0.92	ug/L	95
102) 1,3-Dichlorobenzene	13.322	146	9751	0.91	ug/L	93
103) 1,2,3-Trimethylbenzene	13.389	105	18145	1.03	ug/L	90
104) 1,4-Dichlorobenzene	13.389	146	12189	1.06	ug/L	97
105) n-Butylbenzene	13.645	92	7013	0.82	ug/L #	71
106) Benzyl Chloride	13.657	126	2168	0.73	ug/L #	89
107) 1,2-Dichlorobenzene	13.840	146	9910	0.95	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.596	75	1993	0.88	ug/L	90
109) Hexachlorobutadiene	15.151	225	3519	0.97	ug/L	94
110) 1,2,4-Trichlorobenzene	15.212	180	7144	0.92	ug/L	85
111) Naphthalene	15.480	128	21732	0.89	ug/L	98
112) 1,2,3-Trichlorobenzene	15.645	180	7600	0.97	ug/L	86

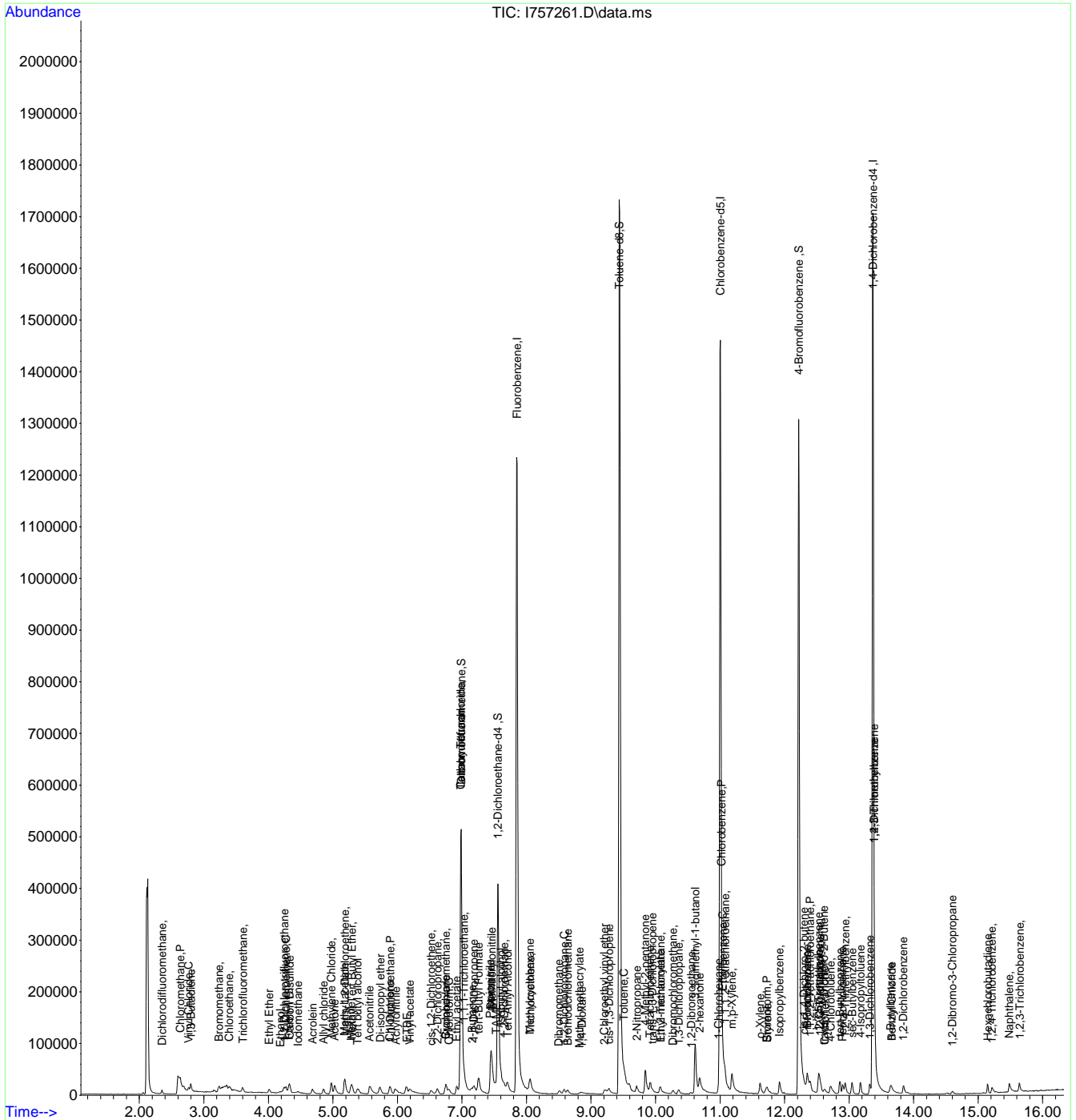
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.12  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



7.6-12  
7



# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757261.D  
**Injection Time:** 06/15/23 10:43

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Vinyl Acetate	108-05-4		6.19	Missed peak
Carbon Tetrachloride	56-23-5		6.98	Missed peak
2-Butanone (MEK)	78-93-3		7.16	Missed peak

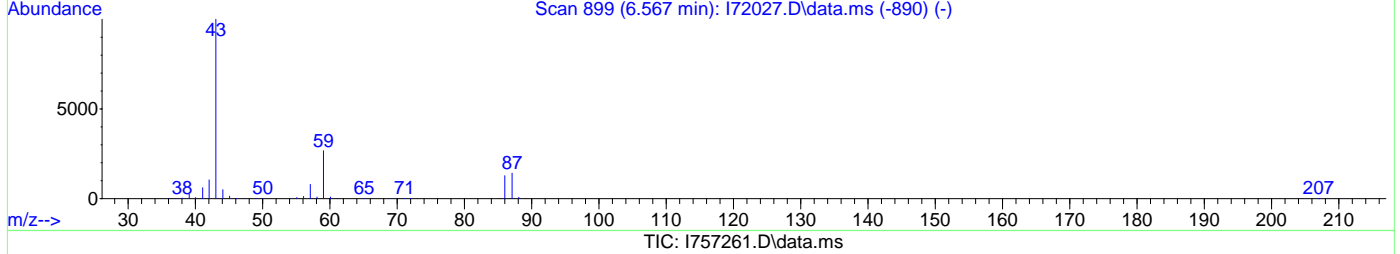
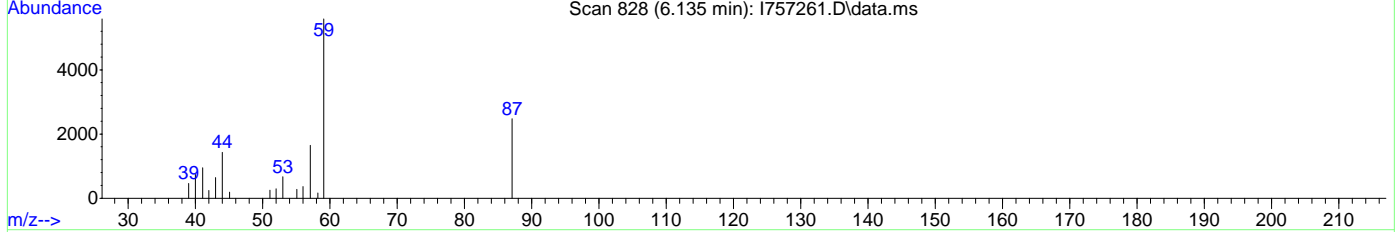
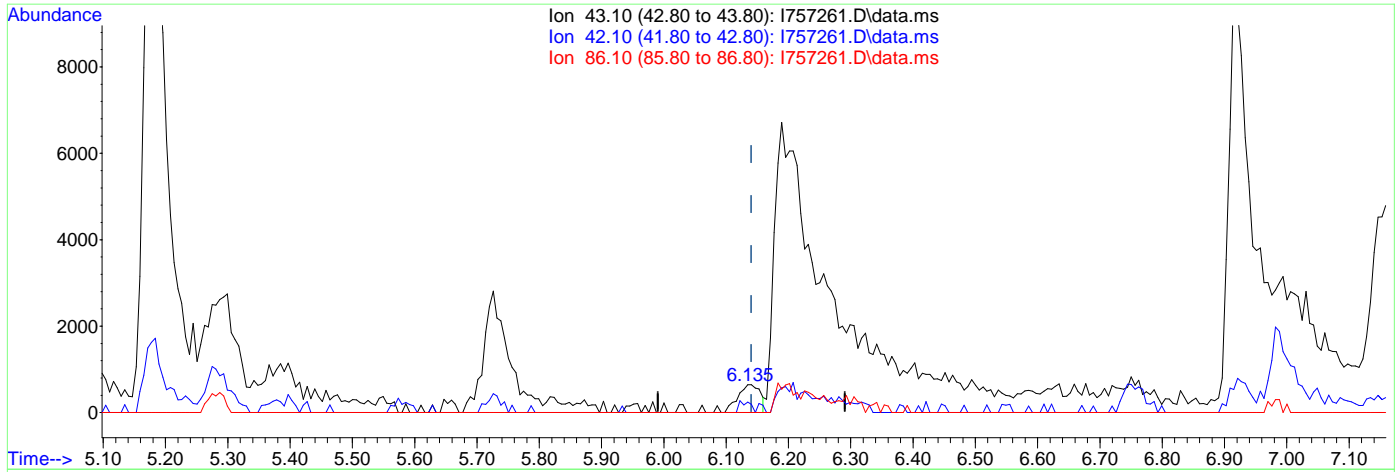
7.6.12.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(31) Vinyl acetate

6.135min (-0.006) 0.20ug/L

response 1610

Ion	Exp%	Act%
43.10	100	100
42.10	8.60	37.31
86.10	9.80	0.00
0.00	0.00	0.00

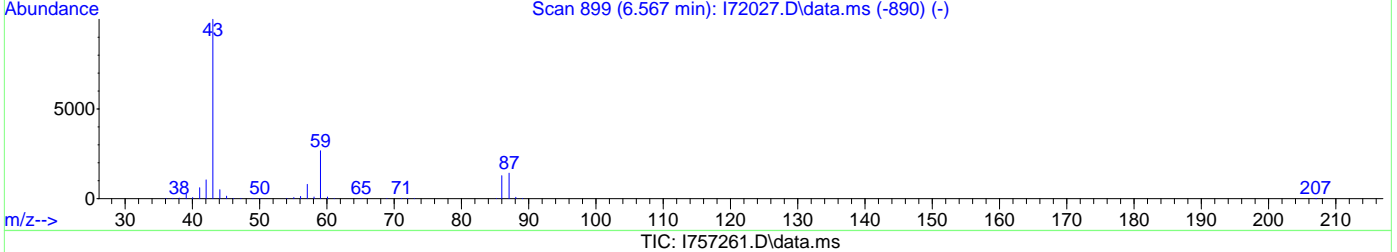
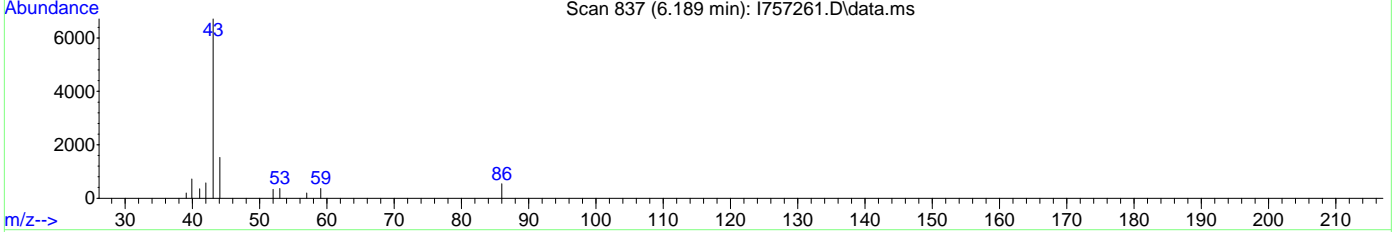
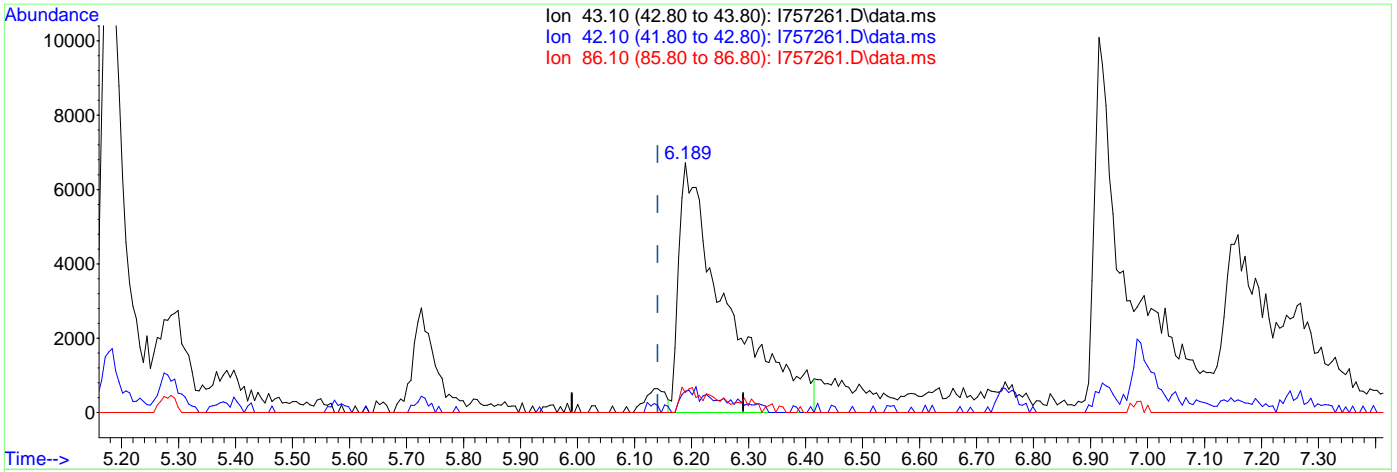
7.6.12.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(31) Vinyl acetate

6.189min (+0.049) 4.80ug/L m

response 39427

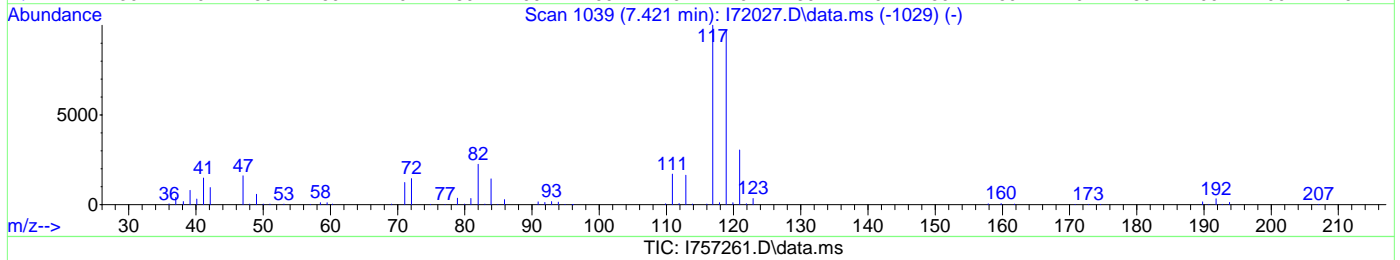
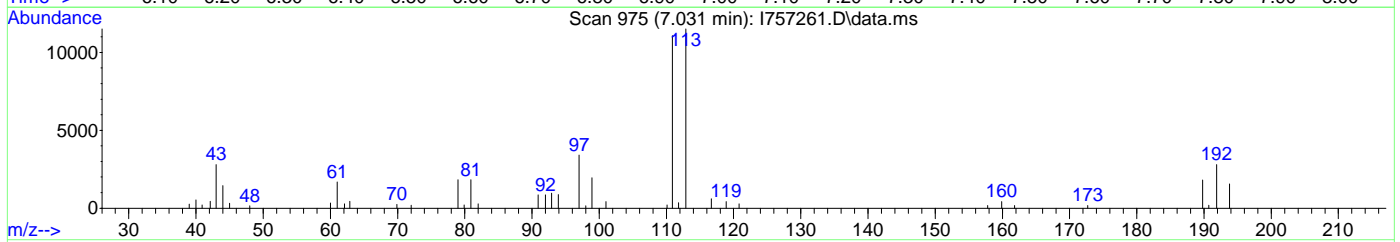
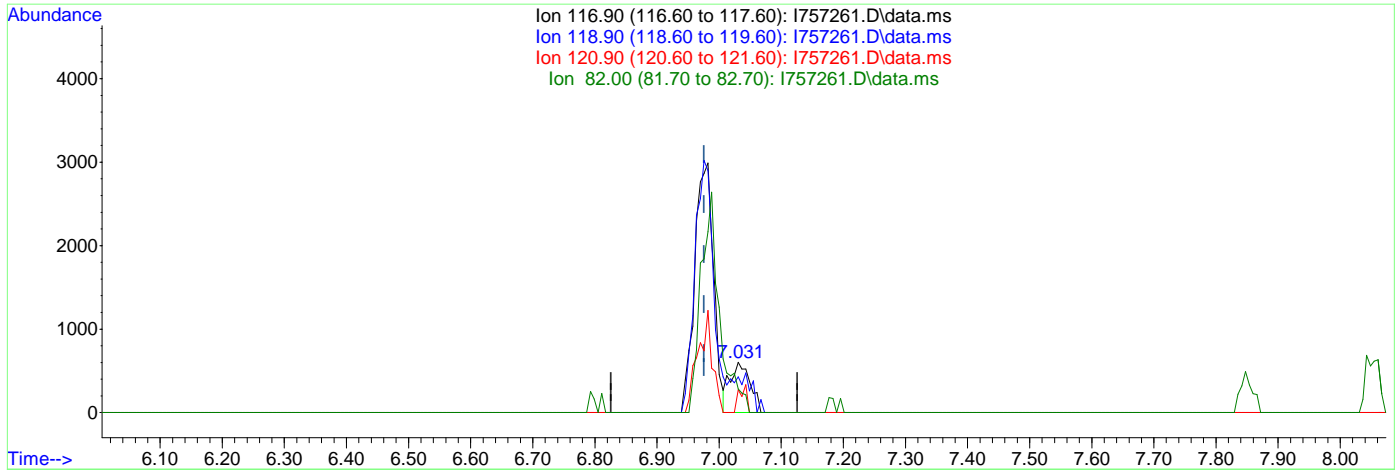
Ion	Exp%	Act%
43.10	100	100
42.10	8.60	8.56
86.10	9.80	8.02
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

7.031min (+0.055) 0.20ug/L

response 1371

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	71.14
120.90	32.80	45.61
82.00	23.90	46.77

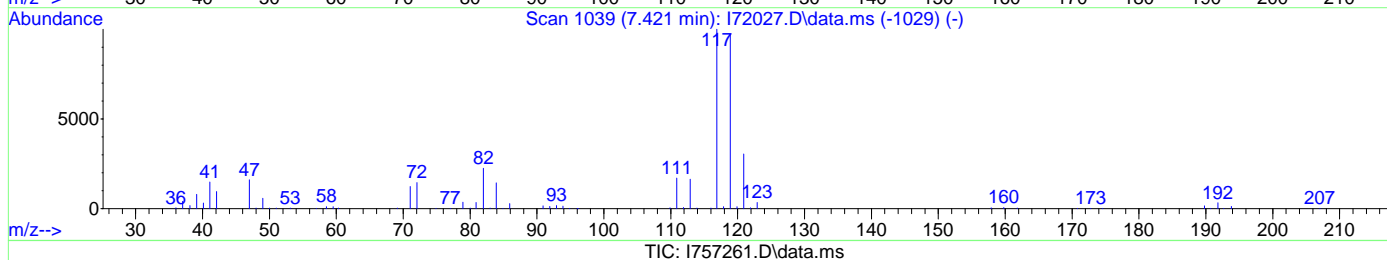
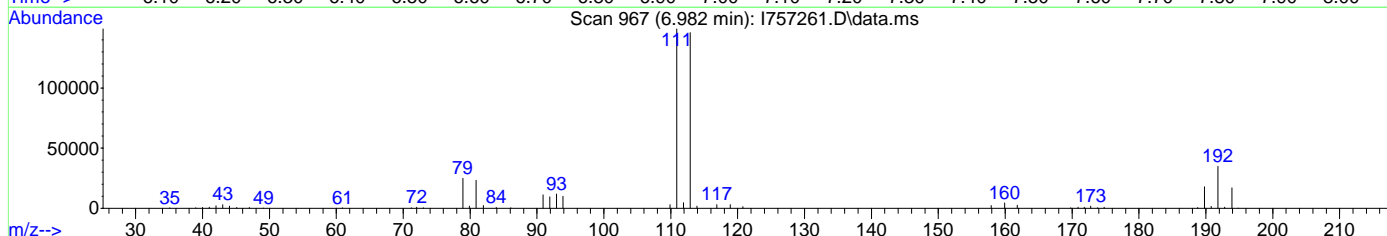
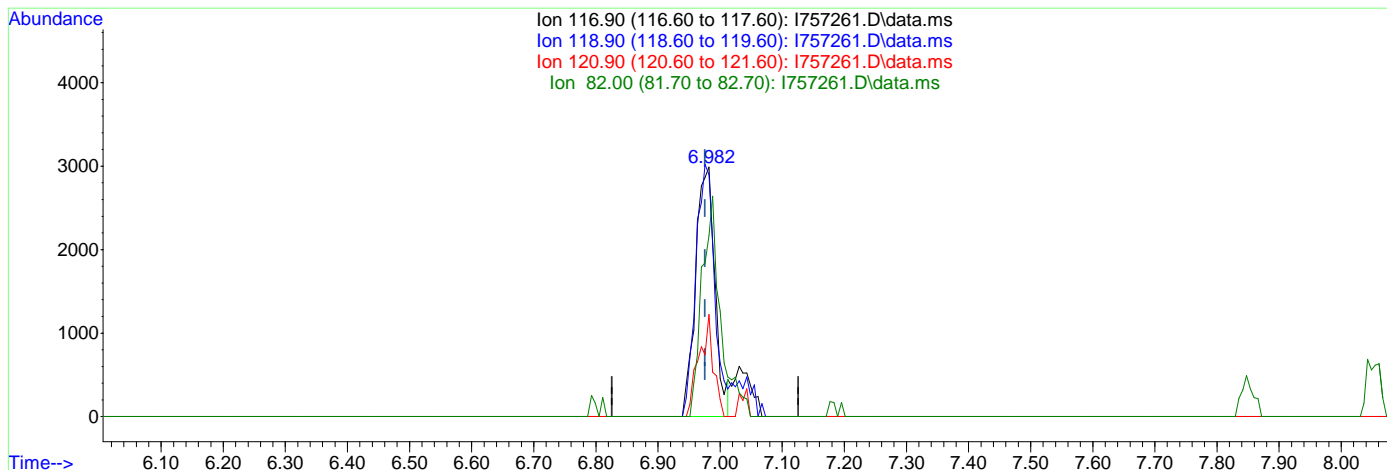
7.6.12.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

6.982min (+0.006) 0.94ug/L m

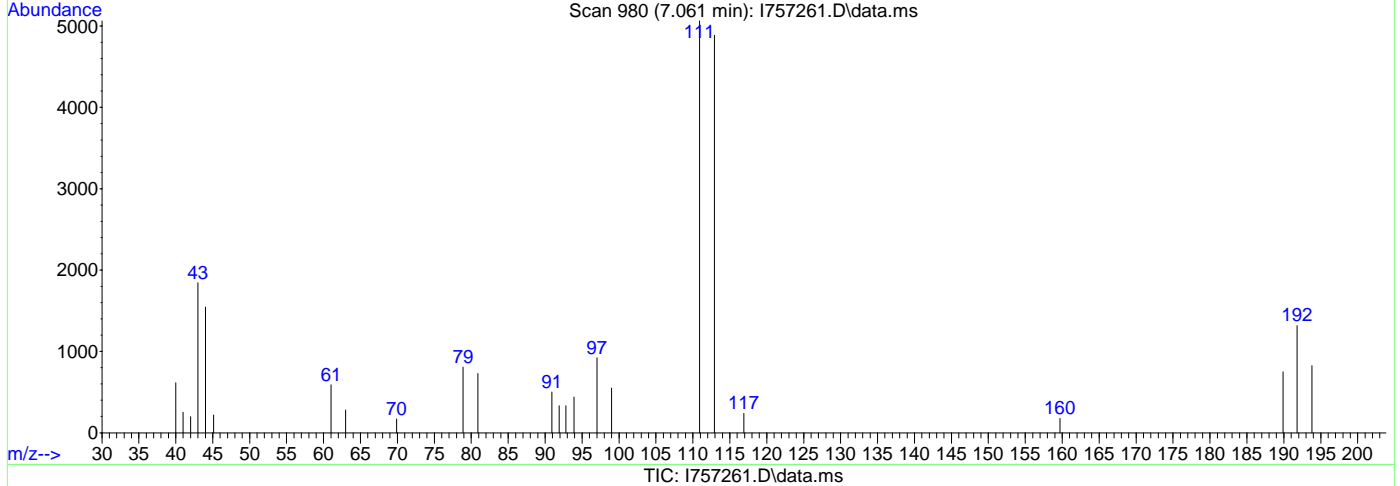
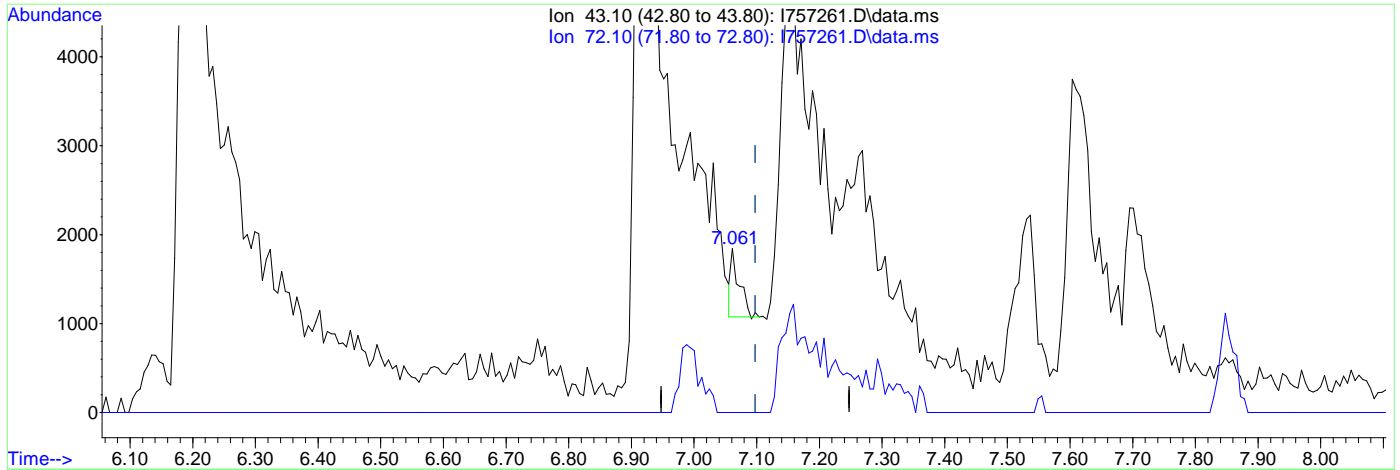
response 6470

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	96.92
120.90	32.80	40.89
82.00	23.90	72.42#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:20:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(42) 2-Butanone  
 7.061min (-0.037) 0.16ug/L  
 response 709

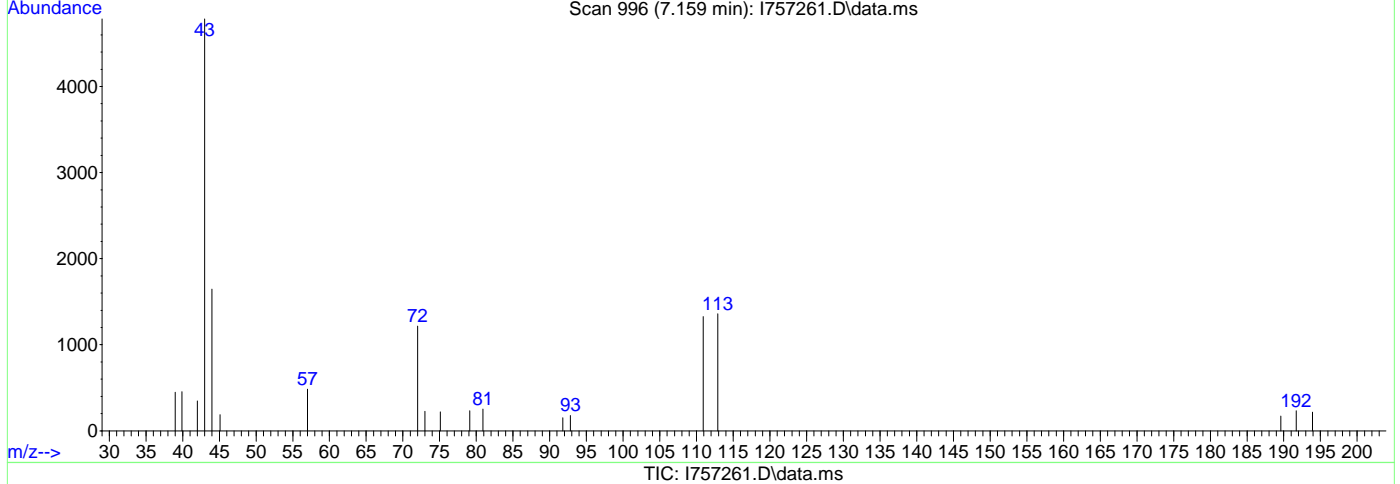
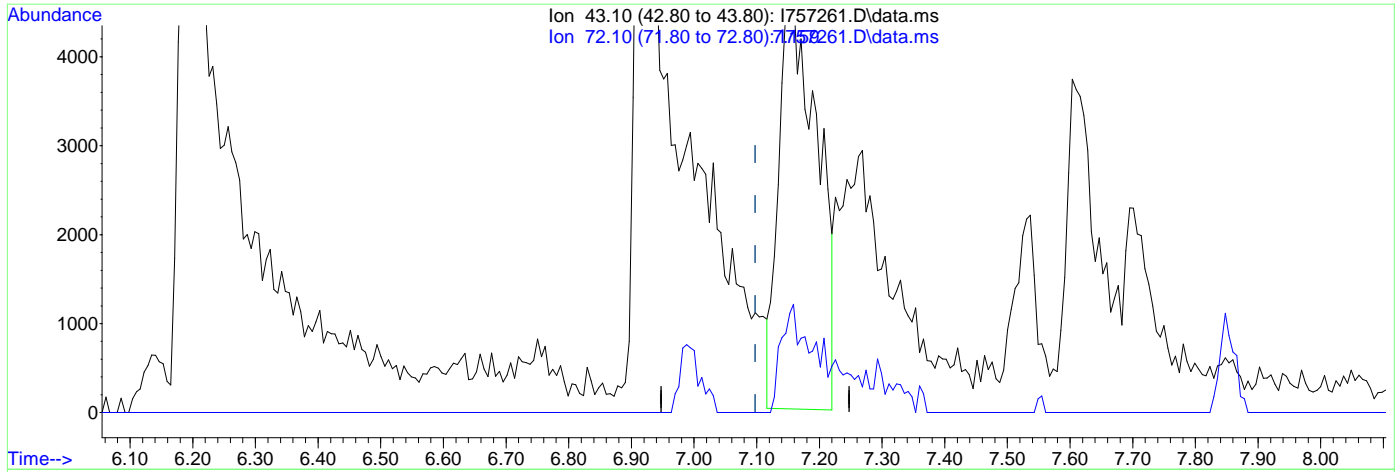
Ion	Exp%	Act%
43.10	100	100
72.10	25.20	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7.6.12.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:20:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(42) 2-Butanone

7.159min (+0.061) 4.44ug/L m

response 19868

Ion	Exp%	Act%
43.10	100	100
72.10	25.20	25.43
0.00	0.00	0.00
0.00	0.00	0.00

7.6.12.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1165649	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	889602	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	505367	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	325283	49.02	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.04%	
49) 1,2-Dichloroethane-d4	7.561	65	298097	49.55	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	99.10%	
63) Toluene-d8	9.445	98	1209637	47.87	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	95.74%	
86) 4-Bromofluorobenzene	12.219	174	424991	49.79	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.58%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	27386	8.82	ug/L		99
3) Chloromethane	2.635	50	32237	6.79	ug/L		98
4) Vinyl Chloride	2.763	62	29478	6.74	ug/L		92
5) 1,3-Butadiene	2.794	39	30328	6.79	ug/L		97
6) Bromomethane	3.227	94	12706	7.58	ug/L		92
7) Chloroethane	3.397	64	18474	6.43	ug/L		93
8) Trichlorofluoromethane	3.599	101	38170	6.30	ug/L		97
9) Ethyl Ether	4.013	59	17548	4.71	ug/L		94
10) 1,2-Dichlorotrifluoro...	4.239	67	25007	5.19	ug/L		91
11) 1,1-Dichloroethene	4.269	61	32815	5.12	ug/L		99
12) Ethanol	4.190	45	21259	123.82	ug/L		100
13) Freon 113	4.318	101	20080	5.27	ug/L		96
14) Carbon Disulfide	4.330	76	67756	5.19	ug/L		97
15) Iodomethane	4.452	142	9749	3.03	ug/L		90
16) Acrolein	4.684	56	34013	20.92	ug/L		95
17) Allyl chloride	4.848	41	40712	7.09	ug/L		93
18) Methylene Chloride	4.976	49	37948	5.01	ug/L		95
19) Acetone	5.025	43	64352	20.03	ug/L		96
20) Methyl acetate	5.171	43	145110	21.31	ug/L		99
21) trans-1,2-Dichloroethene	5.184	61	35419	5.26	ug/L		93
22) Hexane	5.275	56	16338	5.08	ug/L		94
23) Methyl Tert Butyl Ether	5.293	73	67195	4.60	ug/L		79
24) Tert butyl alcohol	5.379	59	81165	38.35	ug/L		93
25) Acetonitrile	5.562	41	82345	69.59	ug/L		99
26) Di-isopropyl ether	5.726	45	72889	4.85	ug/L		99
27) Chloroprene	5.872	53	40481	6.91	ug/L		97
28) 1,1-Dichloroethane	5.885	63	47851	5.37	ug/L		99
29) Acrylonitrile	5.940	53	65417	20.92	ug/L		100
30) ETBE	6.135	59	72629	4.94	ug/L		98
31) Vinyl acetate	6.153	43	173852	21.46	ug/L		98
32) cis-1,2-Dichloroethene	6.513	96	27700	5.29	ug/L		95
33) 2,2-Dichloropropane	6.622	77	35630	5.24	ug/L		95
34) Bromochloromethane	6.744	128	13940	5.16	ug/L		92
35) Cyclohexane	6.756	56	36114	5.17	ug/L		95
36) Chloroform	6.793	83	48112	5.20	ug/L		94
37) Ethyl acetate	6.897	43	137371m	17.74	ug/L		
38) Tetrahydrofuran	6.988	42	17138	4.40	ug/L		92
40) Carbon Tetrachloride	6.970	117	32968	4.84	ug/L		93
41) 1,1,1-Trichloroethane	7.037	97	39468	5.12	ug/L		94
42) 2-Butanone	7.116	43	79492	18.01	ug/L		93
43) 1,1-Dichloropropene	7.177	75	31403	5.15	ug/L		95
44) tert-Butyl Formate	7.256	59	84861	22.12	ug/L		88

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	88024	60.74	ug/L	92
46) Methacrylonitrile	7.439	41	276916	65.19	ug/L	98
47) Benzene	7.433	78	96713	5.20	ug/L	99
48) TAME	7.525	73	69750	4.90	ug/L	94
50) Isobutyl alcohol	7.592	42	37775	93.33	ug/L	95
51) 1,2-Dichloroethane	7.640	62	31609	4.89	ug/L	95
52) Tert Amyl Alcohol	7.695	59	62297	35.52	ug/L	93
53) Trichloroethene	8.055	95	24957	4.88	ug/L	93
54) Methylcyclohexane	8.049	83	32907	5.17	ug/L	96
55) Dibromomethane	8.500	93	15603	4.64	ug/L	93
56) 1,2-Dichloropropane	8.573	63	23524	4.91	ug/L	95
57) Bromodichloromethane	8.634	83	32071	4.71	ug/L	98
58) Methyl methacrylate	8.768	41	23862	5.00	ug/L	92
59) 1,4-Dioxane	8.829	88	12289	82.40	ug/L	93
60) 2-Chloroethyl vinyl ether	9.171	63	65292	25.55	ug/L	97
61) cis-1,3-Dichloropropene	9.262	75	35643	4.75	ug/L	96
64) Toluene	9.506	91	103423	4.91	ug/L	99
65) 2-Nitropropane	9.701	41	36331	15.52	ug/L #	90
66) 4-Methyl-2-pentanone	9.829	43	167971	19.90	ug/L	96
67) trans-1,3-Dichloropropene	9.914	75	31240	4.54	ug/L	86
68) Tetrachloroethene	9.914	166	30996	4.89	ug/L	97
69) Ethyl methacrylate	10.024	69	32508	5.60	ug/L	99
70) 1,1,2-Trichloroethane	10.067	83	20499	4.75	ug/L	95
71) Dibromochloromethane	10.262	129	26106	4.27	ug/L	95
72) 1,3-Dichloropropane	10.347	76	33945	4.55	ug/L	96
73) 1,2-Dibromoethane	10.530	107	23931	4.32	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	266330	156.37	ug/L	97
75) 2-hexanone	10.664	43	122777	18.92	ug/L	93
76) 1-Chlorohexane	10.969	91	27619	4.68	ug/L	98
77) Ethylbenzene	11.030	91	110351	4.97	ug/L	100
78) Chlorobenzene	11.024	112	69283	4.96	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	25168	4.61	ug/L	87
80) m,p-Xylene	11.170	91	165014	9.71	ug/L	99
81) o-Xylene	11.609	91	88560	4.86	ug/L	99
82) Styrene	11.670	104	55606	4.43	ug/L	93
83) Bromoform	11.719	173	21204	4.01	ug/L	96
84) Isopropylbenzene	11.914	105	105927	4.97	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.274	53	8862	5.80	ug/L #	83
88) n-Propylbenzene	12.341	91	119399	5.27	ug/L	99
89) Bromobenzene	12.359	156	29784	5.01	ug/L	93
90) 1,1,2,2-Tetrachloroethane	12.389	83	39047	4.73	ug/L	98
91) 1,3,5-Trimethylbenzene	12.518	105	86054	5.23	ug/L	97
92) 2-Chlorotoluene	12.524	91	81376	5.25	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.591	53	7092	3.93	ug/L	86
94) 1,2,3-Trichloropropane	12.548	110	12093	4.86	ug/L	96
95) Cyclohexanone	12.615	55	11436	22.25	ug/L	92
96) 4-Chlorotoluene	12.694	91	70286	4.90	ug/L	98
97) tert-Butylbenzene	12.853	91	45274	5.16	ug/L	96
98) 1,2,4-Trimethylbenzene	12.932	105	83406	5.16	ug/L	97
99) Pentachloroethane	12.902	167	20473	6.08	ug/L	97
100) sec-Butylbenzene	13.042	105	99567	5.23	ug/L	98
101) 4-Isopropyltoluene	13.170	119	85840	5.20	ug/L	98
102) 1,3-Dichlorobenzene	13.310	146	50680	4.92	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	87732	5.18	ug/L	93
104) 1,4-Dichlorobenzene	13.389	146	54988	4.95	ug/L	98
105) n-Butylbenzene	13.627	92	40581	4.95	ug/L	90
106) Benzyl Chloride	13.633	126	11834	4.15	ug/L #	73
107) 1,2-Dichlorobenzene	13.834	146	50054	4.97	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.590	75	8368	3.85	ug/L	95
109) Hexachlorobutadiene	15.151	225	17626	5.04	ug/L	98
110) 1,2,4-Trichlorobenzene	15.200	180	36439	4.84	ug/L	98
111) Naphthalene	15.468	128	102592	4.38	ug/L	98
112) 1,2,3-Trichlorobenzene	15.633	180	36500	4.84	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed





# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757262.D  
**Injection Time:** 06/15/23 11:16

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.90	Poor instrument integration

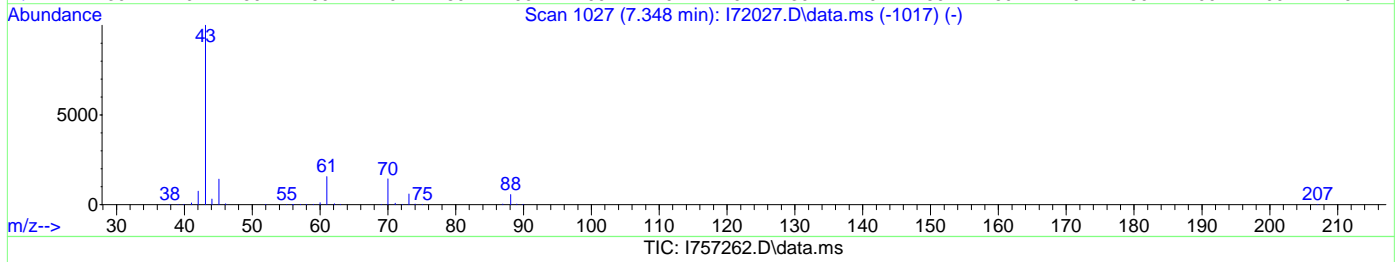
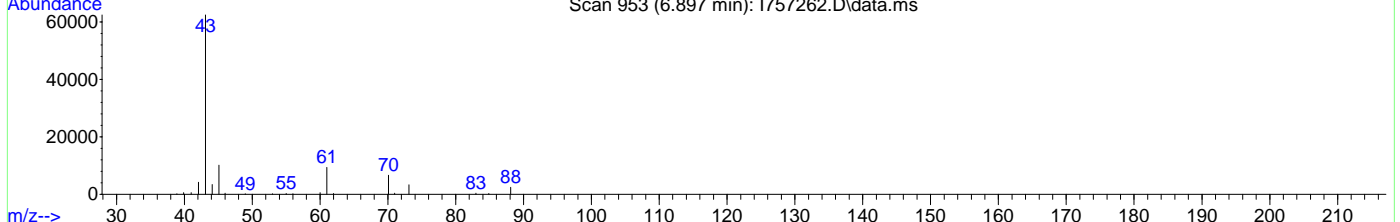
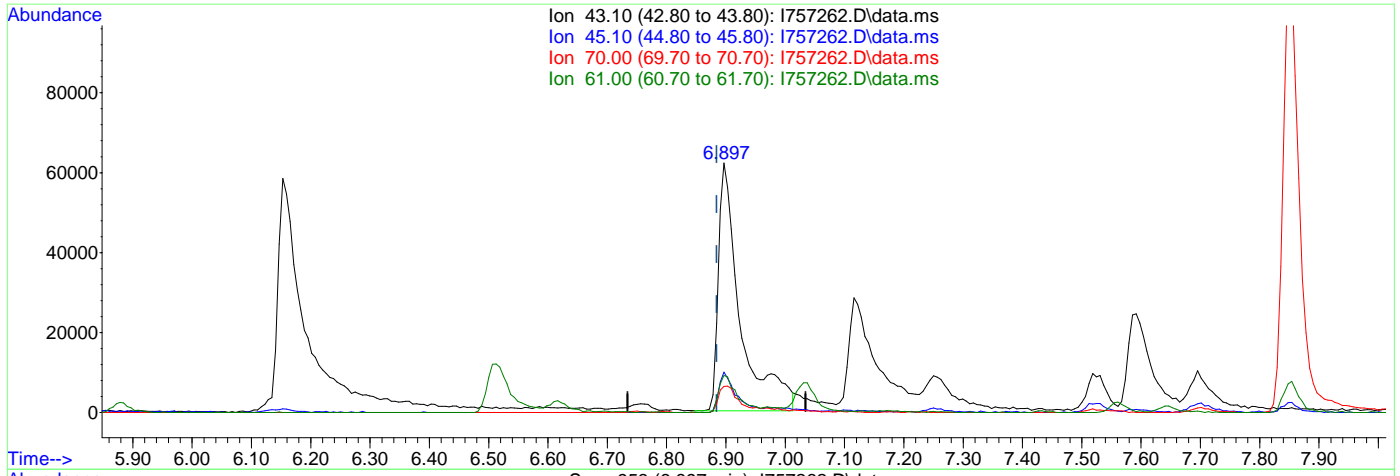
7.6.13.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:17:32 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.897min (+0.012) 20.52ug/L  
 response 158851

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	16.33
70.00	11.10	10.57
61.00	15.10	14.97

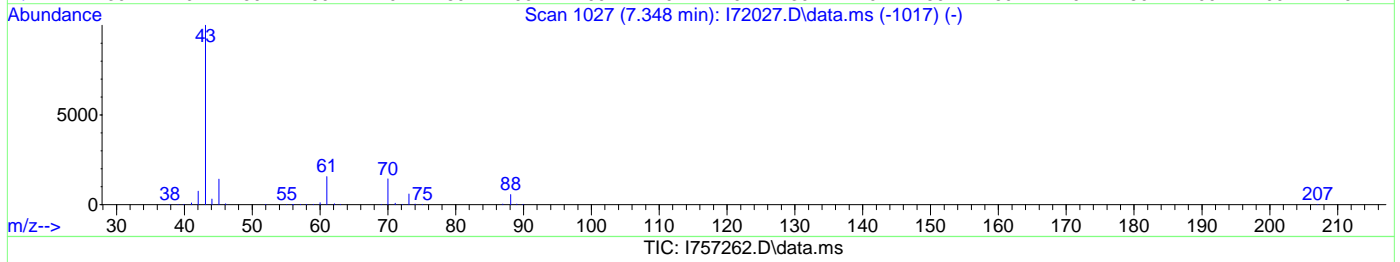
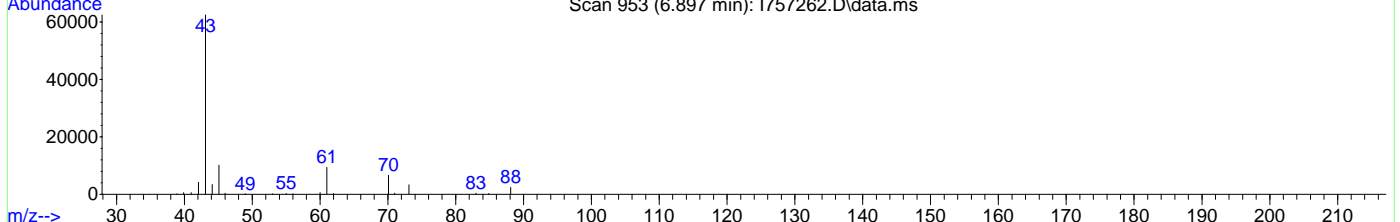
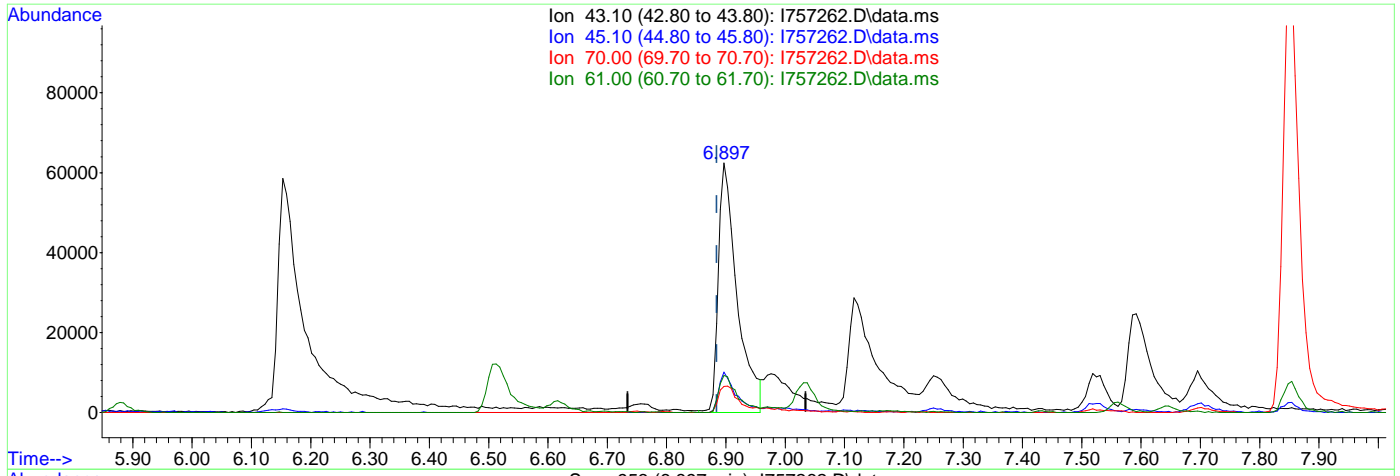
7.6.13.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:17:32 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.897min (+0.012) 17.74ug/L m

response 137371

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	16.20
70.00	11.10	10.49
61.00	15.10	14.86

7.6.13.3

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1170277	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	851480	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	514226	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	327625	49.17	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.34%	
49) 1,2-Dichloroethane-d4	7.561	65	304694	50.45	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	100.90%	
63) Toluene-d8	9.445	98	1220760	50.48	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	100.96%	
86) 4-Bromofluorobenzene	12.219	174	428509	49.34	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.68%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	50867	16.31	ug/L		99
3) Chloromethane	2.641	50	54614	11.47	ug/L		98
4) Vinyl Chloride	2.769	62	50988	11.62	ug/L		96
5) 1,3-Butadiene	2.800	39	45402	10.12	ug/L		100
6) Bromomethane	3.233	94	17396	10.34	ug/L		92
7) Chloroethane	3.397	64	27335	9.48	ug/L		92
8) Trichlorofluoromethane	3.605	101	70922	11.65	ug/L		98
9) Ethyl Ether	4.019	59	32290	8.64	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	45018	9.30	ug/L		98
11) 1,1-Dichloroethene	4.275	61	57814	8.99	ug/L		98
12) Ethanol	4.202	45	36754	213.22	ug/L		90
13) Freon 113	4.324	101	37005	9.67	ug/L		94
14) Carbon Disulfide	4.336	76	114753	8.75	ug/L		99
15) Iodomethane	4.458	142	18992	5.88	ug/L		99
16) Acrolein	4.678	56	86223	52.83	ug/L		96
17) Allyl chloride	4.860	41	59002	10.23	ug/L		97
18) Methylene Chloride	4.982	49	60337	7.94	ug/L		97
19) Acetone	5.025	43	184931	57.34	ug/L		95
20) Methyl acetate	5.171	43	300019	43.88	ug/L		99
21) trans-1,2-Dichloroethene	5.190	61	59576	8.81	ug/L		97
22) Hexane	5.281	56	28978	8.98	ug/L		86
23) Methyl Tert Butyl Ether	5.299	73	127238	8.69	ug/L		90
24) Tert butyl alcohol	5.391	59	175816	82.74	ug/L		96
25) Acetonitrile	5.568	41	138301	116.42	ug/L		99
26) Di-isopropyl ether	5.726	45	132488	8.79	ug/L		97
27) Chloroprene	5.872	53	61364	10.43	ug/L		94
28) 1,1-Dichloroethane	5.885	63	78260	8.74	ug/L		99
29) Acrylonitrile	5.933	53	161854	51.57	ug/L		97
30) ETBE	6.141	59	125270	8.50	ug/L		99
31) Vinyl acetate	6.147	43	418057	51.39	ug/L		99
32) cis-1,2-Dichloroethene	6.513	96	46021	8.75	ug/L		91
33) 2,2-Dichloropropane	6.622	77	59693	8.74	ug/L		96
34) Bromochloromethane	6.738	128	24652	9.08	ug/L		90
35) Cyclohexane	6.763	56	67766	9.67	ug/L		96
36) Chloroform	6.799	83	81335	8.75	ug/L		99
37) Ethyl acetate	6.897	43	352467m	45.34	ug/L		
38) Tetrahydrofuran	6.988	42	34187	8.74	ug/L		97
40) Carbon Tetrachloride	6.976	117	56831	8.31	ug/L		96
41) 1,1,1-Trichloroethane	7.037	97	68120	8.80	ug/L		97
42) 2-Butanone	7.110	43	268871	60.66	ug/L		99
43) 1,1-Dichloropropene	7.177	75	55032	9.00	ug/L		97
44) tert-Butyl Formate	7.256	59	168473	43.74	ug/L		95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	152952	105.12	ug/L	95
46) Methacrylonitrile	7.439	41	458306	107.46	ug/L	98
47) Benzene	7.433	78	168632	9.03	ug/L	98
48) TAME	7.525	73	121623	8.51	ug/L	99
50) Isobutyl alcohol	7.592	42	75064	184.72	ug/L	98
51) 1,2-Dichloroethane	7.646	62	57615	8.88	ug/L	99
52) Tert Amyl Alcohol	7.701	59	143320	81.40	ug/L	97
53) Trichloroethene	8.055	95	44437	8.66	ug/L	93
54) Methylcyclohexane	8.055	83	61576	9.63	ug/L	94
55) Dibromomethane	8.494	93	28982	8.58	ug/L	91
56) 1,2-Dichloropropane	8.573	63	42298	8.80	ug/L	95
57) Bromodichloromethane	8.628	83	58550	8.56	ug/L	99
58) Methyl methacrylate	8.756	41	43238	9.03	ug/L	97
59) 1,4-Dioxane	8.823	88	27052	180.67	ug/L	90
60) 2-Chloroethyl vinyl ether	9.164	63	135939	52.97	ug/L	99
61) cis-1,3-Dichloropropene	9.256	75	64922	8.62	ug/L	99
64) Toluene	9.506	91	177013	8.78	ug/L	99
65) 2-Nitropropane	9.701	41	76063	33.94	ug/L #	89
66) 4-Methyl-2-pentanone	9.829	43	504936	62.51	ug/L	99
67) trans-1,3-Dichloropropene	9.908	75	56069	8.51	ug/L	90
68) Tetrachloroethene	9.908	166	55047	9.07	ug/L	95
69) Ethyl methacrylate	10.024	69	54525	9.81	ug/L	97
70) 1,1,2-Trichloroethane	10.061	83	36759	8.91	ug/L	95
71) Dibromochloromethane	10.262	129	48493	8.29	ug/L	95
72) 1,3-Dichloropropane	10.341	76	62625	8.77	ug/L	98
73) 1,2-Dibromoethane	10.524	107	46419	8.76	ug/L	97
74) 3,3-dimethyl-1-butanol	10.609	57	680895	417.66	ug/L	99
75) 2-hexanone	10.658	43	398553	64.16	ug/L	98
76) 1-Chlorohexane	10.969	91	50488	8.93	ug/L	99
77) Ethylbenzene	11.030	91	192534	9.06	ug/L	98
78) Chlorobenzene	11.024	112	119704	8.95	ug/L	96
79) 1,1,1,2-Tetrachloroethane	11.073	131	44223	8.46	ug/L	93
80) m,p-Xylene	11.170	91	290829	17.88	ug/L	99
81) o-Xylene	11.609	91	157079	9.01	ug/L	96
82) Styrene	11.664	104	104123	8.68	ug/L	97
83) Bromoform	11.713	173	40786	8.05	ug/L	97
84) Isopropylbenzene	11.914	105	183878	9.02	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.268	53	16022	10.30	ug/L #	84
88) n-Propylbenzene	12.335	91	204965	8.89	ug/L	99
89) Bromobenzene	12.353	156	52703	8.72	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	72475	8.63	ug/L	98
91) 1,3,5-Trimethylbenzene	12.517	105	149136	8.91	ug/L	98
92) 2-Chlorotoluene	12.524	91	143165	9.07	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.578	53	15072	8.20	ug/L #	84
94) 1,2,3-Trichloropropane	12.548	110	22730	8.98	ug/L	95
95) Cyclohexanone	12.609	55	26818	51.28	ug/L	97
96) 4-Chlorotoluene	12.688	91	126546	8.67	ug/L	97
97) tert-Butylbenzene	12.853	91	80686	9.04	ug/L	95
98) 1,2,4-Trimethylbenzene	12.926	105	143502	8.72	ug/L	97
99) Pentachloroethane	12.902	167	30722	8.97	ug/L	97
100) sec-Butylbenzene	13.042	105	175674	9.06	ug/L	97
101) 4-Isopropyltoluene	13.170	119	148157	8.82	ug/L	98
102) 1,3-Dichlorobenzene	13.310	146	89376	8.53	ug/L	97
103) 1,2,3-Trimethylbenzene	13.383	105	150887	8.76	ug/L	98
104) 1,4-Dichlorobenzene	13.389	146	96932	8.58	ug/L	98
105) n-Butylbenzene	13.621	92	72015	8.63	ug/L	91
106) Benzyl Chloride	13.633	126	22829	7.88	ug/L #	73
107) 1,2-Dichlorobenzene	13.828	146	88799	8.66	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

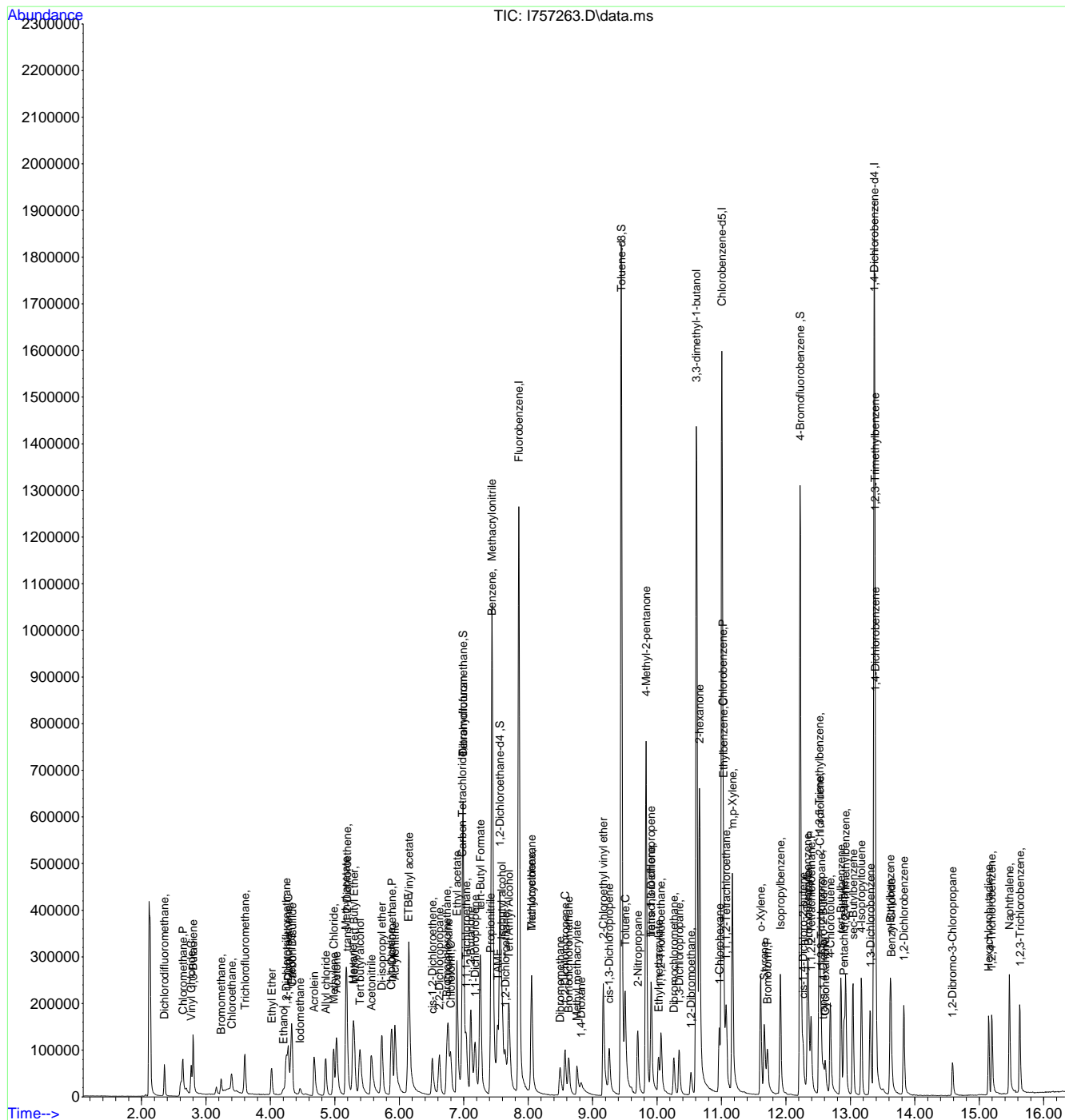
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	17681	7.99	ug/L	97
109) Hexachlorobutadiene	15.145	225	30612	8.61	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	63602	8.31	ug/L	98
111) Naphthalene	15.468	128	199734	8.37	ug/L	100
112) 1,2,3-Trichlorobenzene	15.633	180	62659	8.16	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
Data File : I757263.D  
Acq On : 15 Jun 2023 11:40 am  
Operator : joannel  
Sample : IC2948-3  
Misc : MS54130,VI2948,,,,,  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 07:44:06 2023  
Response via : Initial Calibration



7.6.14  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948

**Method:** SW846 8260D

**Lab FileID:** I757263.D

**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus

**Injection Time:** 06/15/23 11:40

**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.90	Poor instrument integration

7.6.14.1

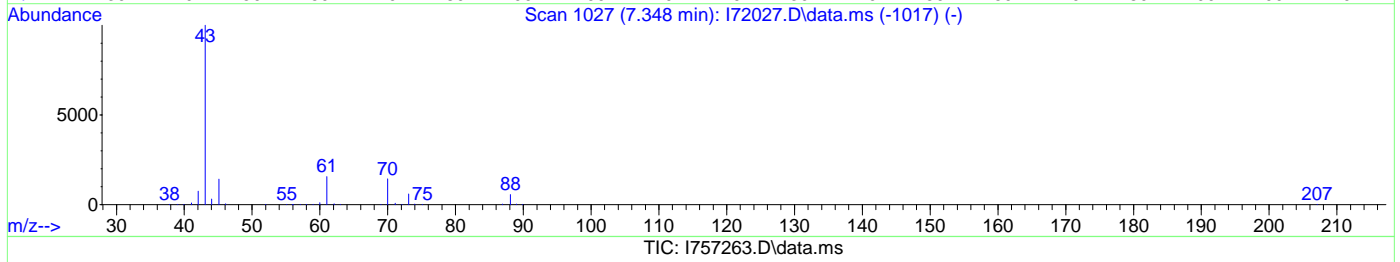
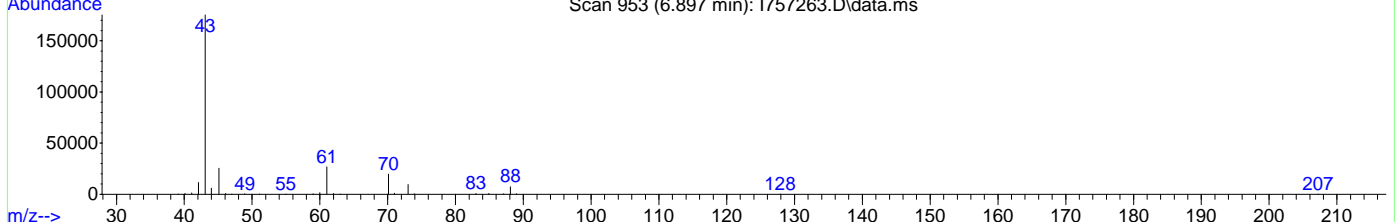
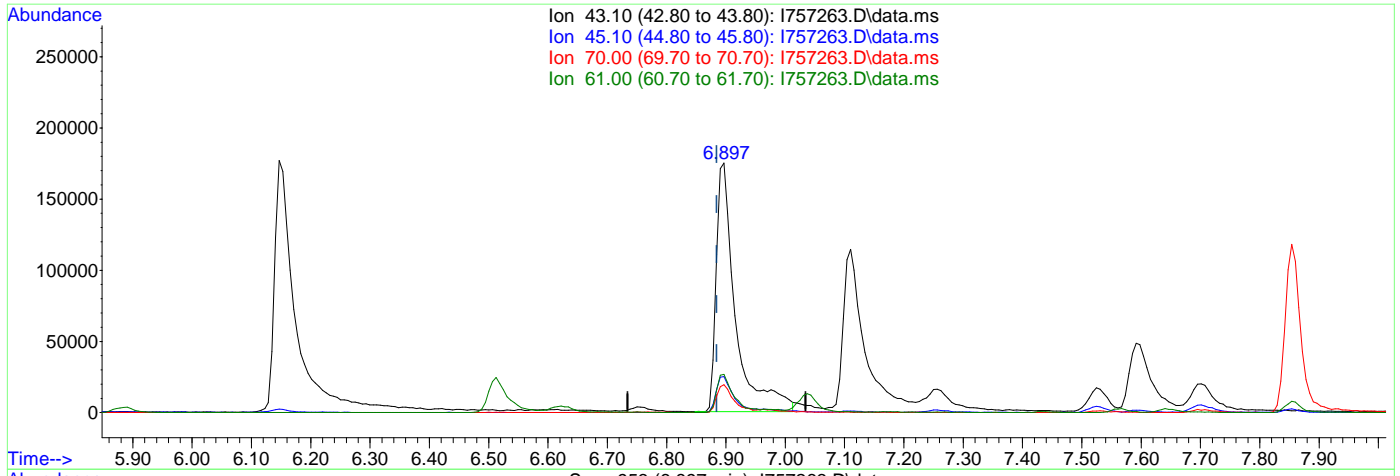
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:17:34 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.897min (+0.012) 50.83ug/L

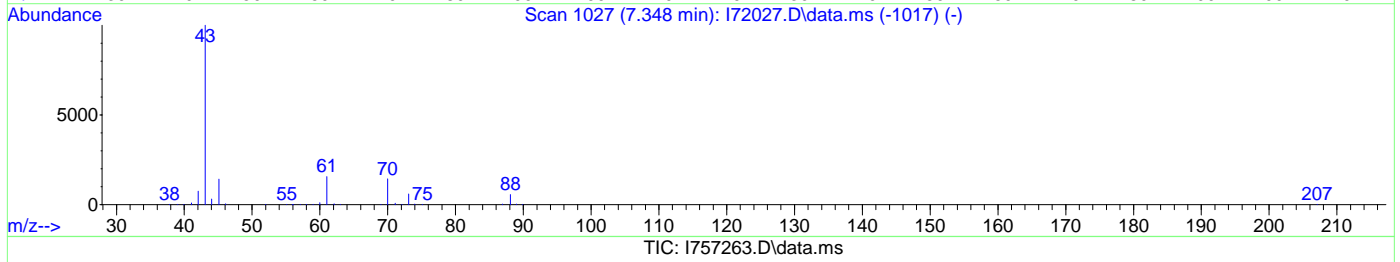
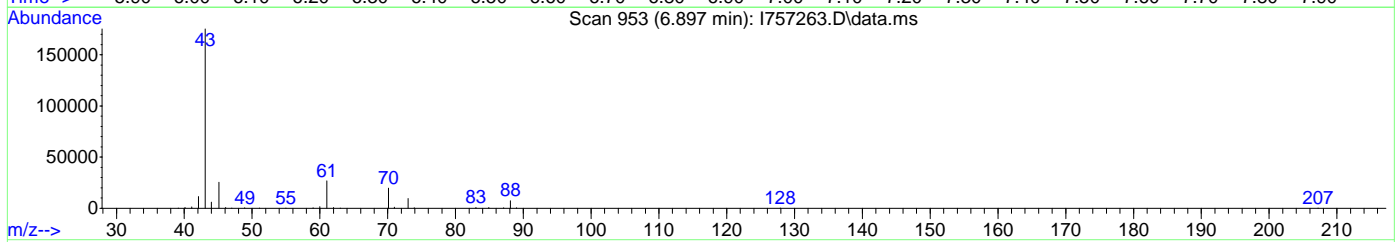
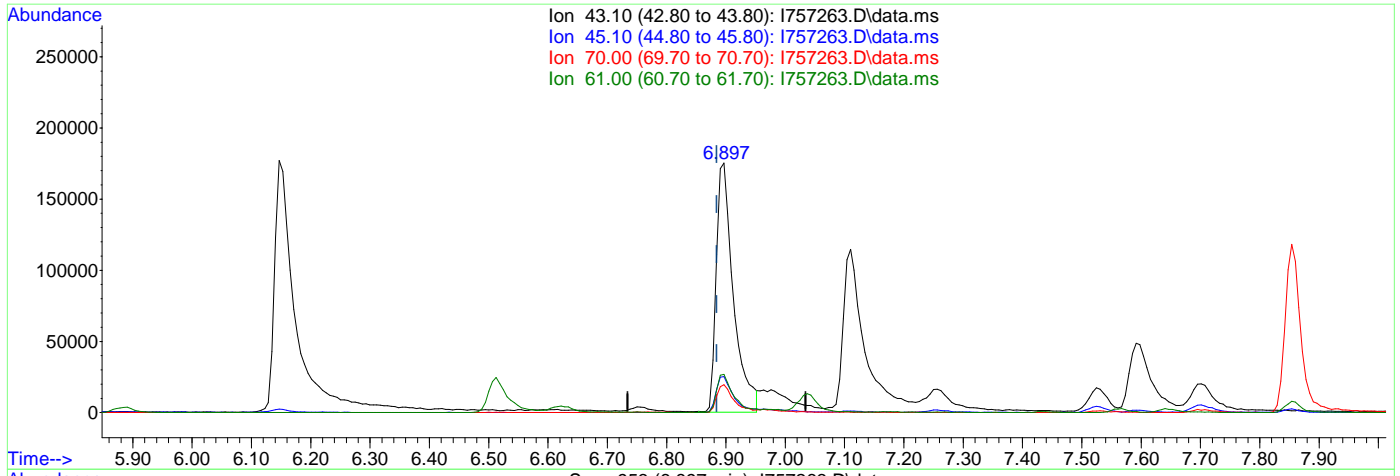
response 395126

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.44
70.00	11.10	11.24
61.00	15.10	15.26

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:17:34 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.897min (+0.012) 45.34ug/L m

response 352467

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.39
70.00	11.10	11.20
61.00	15.10	15.30

7.6.14.3

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1142073	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	841453	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	519559	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	331108	50.92	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.84%	
49) 1,2-Dichloroethane-d4	7.561	65	307520	52.18	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	104.36%	
63) Toluene-d8	9.445	98	1216135	50.88	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	101.76%	
86) 4-Bromofluorobenzene	12.219	174	435484	49.63	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.26%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	123401	40.54	ug/L		98
3) Chloromethane	2.635	50	122259	26.30	ug/L		97
4) Vinyl Chloride	2.763	62	120249	28.08	ug/L		99
5) 1,3-Butadiene	2.794	39	116957	26.71	ug/L		94
6) Bromomethane	3.233	94	39672	24.16	ug/L		96
7) Chloroethane	3.391	64	54467	19.36	ug/L		99
8) Trichlorofluoromethane	3.598	101	165259	27.82	ug/L		99
9) Ethyl Ether	4.013	59	87674	24.04	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	118357	25.05	ug/L		97
11) 1,1-Dichloroethene	4.275	61	157664	25.12	ug/L		100
12) Ethanol	4.208	45	88728	527.45	ug/L		99
13) Freon 113	4.318	101	98252	26.32	ug/L		96
14) Carbon Disulfide	4.330	76	310548	24.26	ug/L		99
15) Iodomethane	4.458	142	75491	23.95	ug/L		95
16) Acrolein	4.671	56	203351	127.67	ug/L		97
17) Allyl chloride	4.854	41	149089	26.48	ug/L		98
18) Methylene Chloride	4.976	49	152960	20.63	ug/L		97
19) Acetone	5.025	43	367279	116.69	ug/L		98
20) Methyl acetate	5.165	43	829278	124.29	ug/L		100
21) trans-1,2-Dichloroethene	5.183	61	159712	24.21	ug/L		97
22) Hexane	5.275	56	83397	26.49	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	343713	24.04	ug/L		82
24) Tert butyl alcohol	5.385	59	487856	235.26	ug/L		99
25) Acetonitrile	5.561	41	320957	276.85	ug/L		97
26) Di-isopropyl ether	5.726	45	358030	24.33	ug/L		99
27) Chloroprene	5.866	53	159981	27.86	ug/L		99
28) 1,1-Dichloroethane	5.885	63	212657	24.35	ug/L		100
29) Acrylonitrile	5.921	53	432255	141.12	ug/L		98
30) ETBE	6.135	59	341706	23.74	ug/L		99
31) Vinyl acetate	6.141	43	1183685	149.11	ug/L		100
32) cis-1,2-Dichloroethene	6.506	96	126101	24.58	ug/L		96
33) 2,2-Dichloropropane	6.622	77	159756	23.98	ug/L		98
34) Bromochloromethane	6.732	128	65120	24.58	ug/L		95
35) Cyclohexane	6.756	56	181525	26.54	ug/L		97
36) Chloroform	6.793	83	216996	23.92	ug/L		95
37) Ethyl acetate	6.884	43	987700m	130.20	ug/L		
38) Tetrahydrofuran	6.976	42	88860	23.29	ug/L		98
40) Carbon Tetrachloride	6.976	117	157358	23.58	ug/L		96
41) 1,1,1-Trichloroethane	7.037	97	183726	24.32	ug/L		98
42) 2-Butanone	7.104	43	566161	130.89	ug/L		99
43) 1,1-Dichloropropene	7.171	75	147933	24.78	ug/L		97
44) tert-Butyl Formate	7.256	59	428195	113.90	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	401271	282.59	ug/L	99
46) Methacrylonitrile	7.439	41	1114582	267.79	ug/L	99
47) Benzene	7.433	78	439315	24.11	ug/L	96
48) TAME	7.524	73	328029	23.53	ug/L	99
50) Isobutyl alcohol	7.585	42	207501	523.25	ug/L	100
51) 1,2-Dichloroethane	7.634	62	151370	23.90	ug/L	96
52) Tert Amyl Alcohol	7.695	59	405886	236.21	ug/L	99
53) Trichloroethene	8.049	95	119791	23.91	ug/L	99
54) Methylcyclohexane	8.049	83	163775	26.25	ug/L	98
55) Dibromomethane	8.488	93	76487	23.19	ug/L	96
56) 1,2-Dichloropropane	8.567	63	111693	23.80	ug/L	98
57) Bromodichloromethane	8.628	83	155691	23.33	ug/L	95
58) Methyl methacrylate	8.744	41	129240	27.67	ug/L	98
59) 1,4-Dioxane	8.817	88	75260	515.05	ug/L	97
60) 2-Chloroethyl vinyl ether	9.158	63	340084	135.80	ug/L	99
61) cis-1,3-Dichloropropene	9.256	75	177893	24.19	ug/L	100
64) Toluene	9.500	91	471742	23.67	ug/L	99
65) 2-Nitropropane	9.695	41	224988	101.59	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	1021421	127.95	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	163612	25.12	ug/L	92
68) Tetrachloroethene	9.908	166	145008	24.19	ug/L	97
69) Ethyl methacrylate	10.012	69	156321	28.46	ug/L	100
70) 1,1,2-Trichloroethane	10.061	83	96404	23.64	ug/L	94
71) Dibromochloromethane	10.256	129	136522	23.61	ug/L	99
72) 1,3-Dichloropropane	10.341	76	173025	24.53	ug/L	98
73) 1,2-Dibromoethane	10.518	107	127526	24.36	ug/L	96
74) 3,3-dimethyl-1-butanol	10.609	57	1847436m	1146.73	ug/L	
75) 2-hexanone	10.658	43	813108	132.46	ug/L	98
76) 1-Chlorohexane	10.963	91	134403	24.06	ug/L	98
77) Ethylbenzene	11.024	91	508587	24.23	ug/L	99
78) Chlorobenzene	11.024	112	315624	23.89	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	121277	23.49	ug/L	98
80) m,p-Xylene	11.164	91	778912	48.47	ug/L	99
81) o-Xylene	11.603	91	410697	23.84	ug/L	99
82) Styrene	11.658	104	295497	24.91	ug/L	98
83) Bromoform	11.713	173	114341	22.84	ug/L	97
84) Isopropylbenzene	11.914	105	489514	24.29	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.261	53	45480	28.94	ug/L	96
88) n-Propylbenzene	12.335	91	555114	23.84	ug/L	99
89) Bromobenzene	12.347	156	141780	23.21	ug/L	94
90) 1,1,2,2-Tetrachloroethane	12.389	83	194524	22.93	ug/L	99
91) 1,3,5-Trimethylbenzene	12.517	105	398464	23.57	ug/L	97
92) 2-Chlorotoluene	12.517	91	381256	23.91	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.572	53	48134	25.92	ug/L	91
94) 1,2,3-Trimethylpropane	12.548	110	61620	24.09	ug/L	98
95) Cyclohexanone	12.609	55	70530	133.49	ug/L	95
96) 4-Chlorotoluene	12.682	91	338272	22.94	ug/L	98
97) tert-Butylbenzene	12.853	91	208752	23.16	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	389813	23.44	ug/L	98
99) Pentachloroethane	12.901	167	86066	24.86	ug/L	97
100) sec-Butylbenzene	13.036	105	457129	23.34	ug/L	100
101) 4-Isopropyltoluene	13.170	119	398818	23.49	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	246261	23.25	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	399815	22.97	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	258090	22.61	ug/L	99
105) n-Butylbenzene	13.615	92	201890	23.95	ug/L	87
106) Benzyl Chloride	13.627	126	68414	23.36	ug/L #	78
107) 1,2-Dichlorobenzene	13.828	146	238098	22.98	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

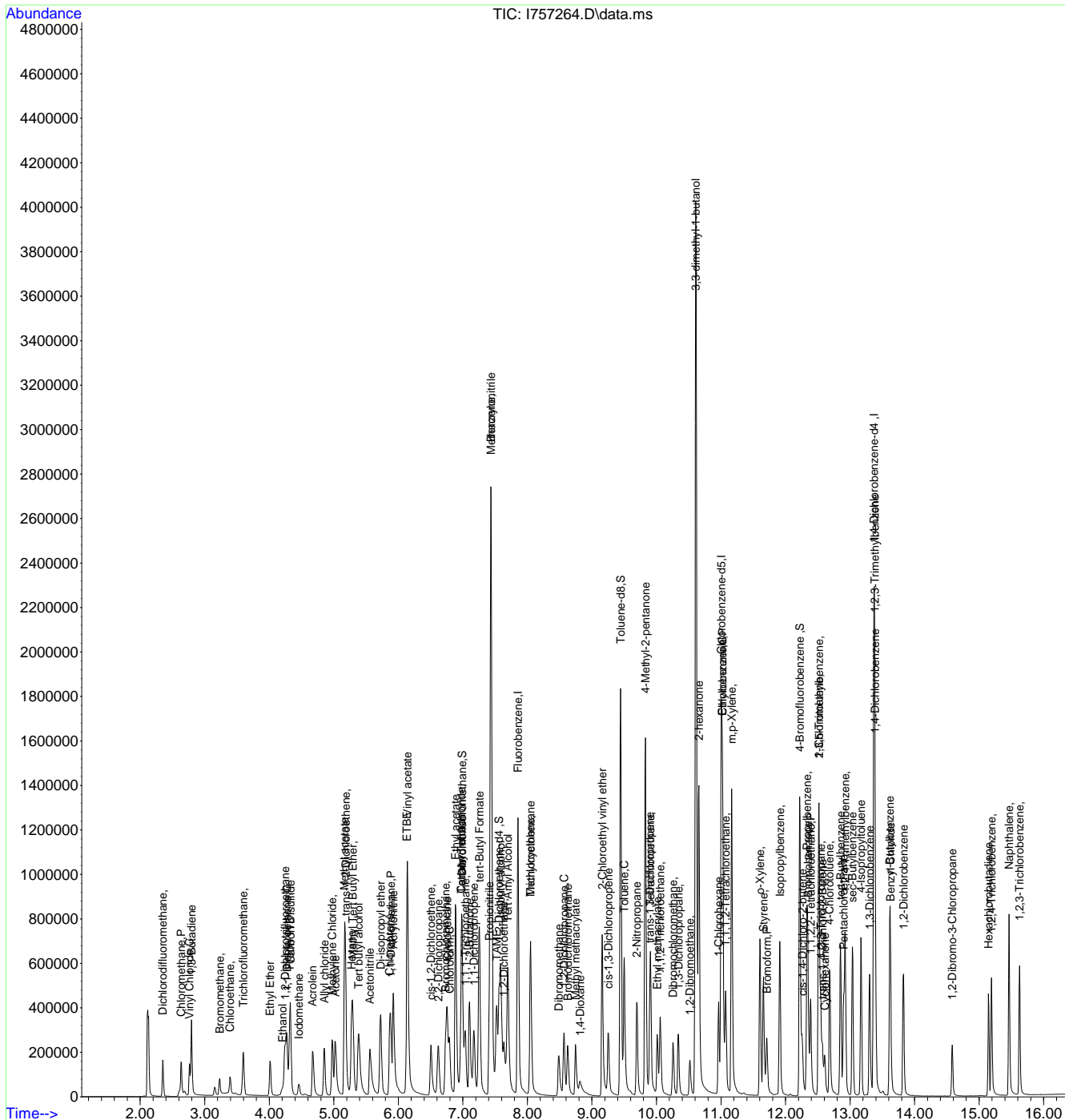
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	49786	22.27	ug/L	88
109) Hexachlorobutadiene	15.145	225	81164	22.60	ug/L	95
110) 1,2,4-Trichlorobenzene	15.194	180	175341	22.66	ug/L	98
111) Naphthalene	15.462	128	565147	23.44	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	174154	22.44	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7.6.15  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757264.D  
**Injection Time:** 06/15/23 12:04

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.61	Overlapping peak

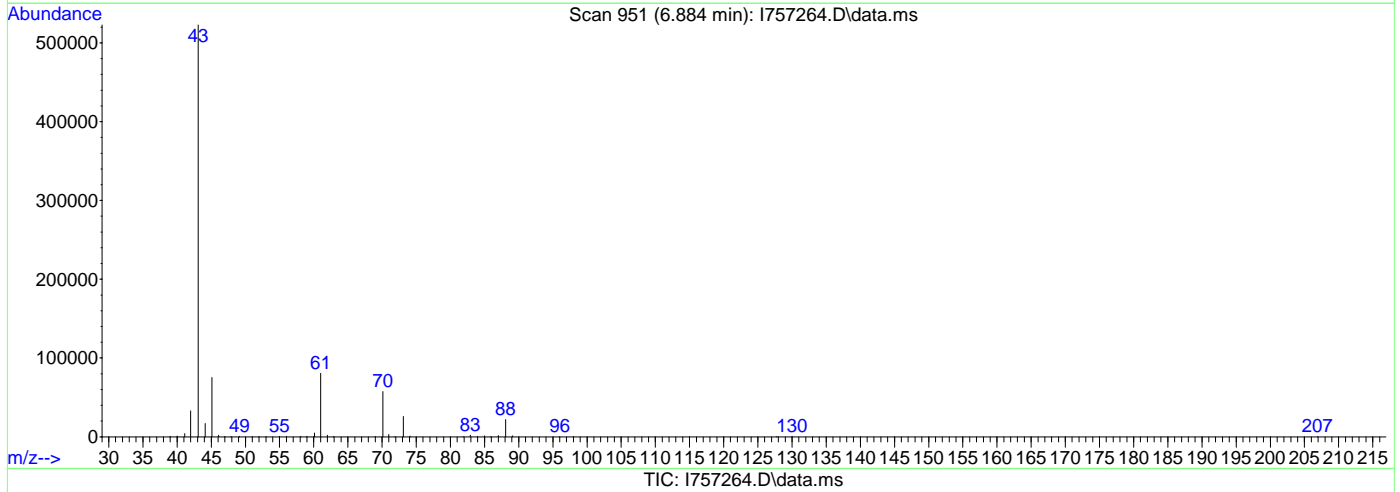
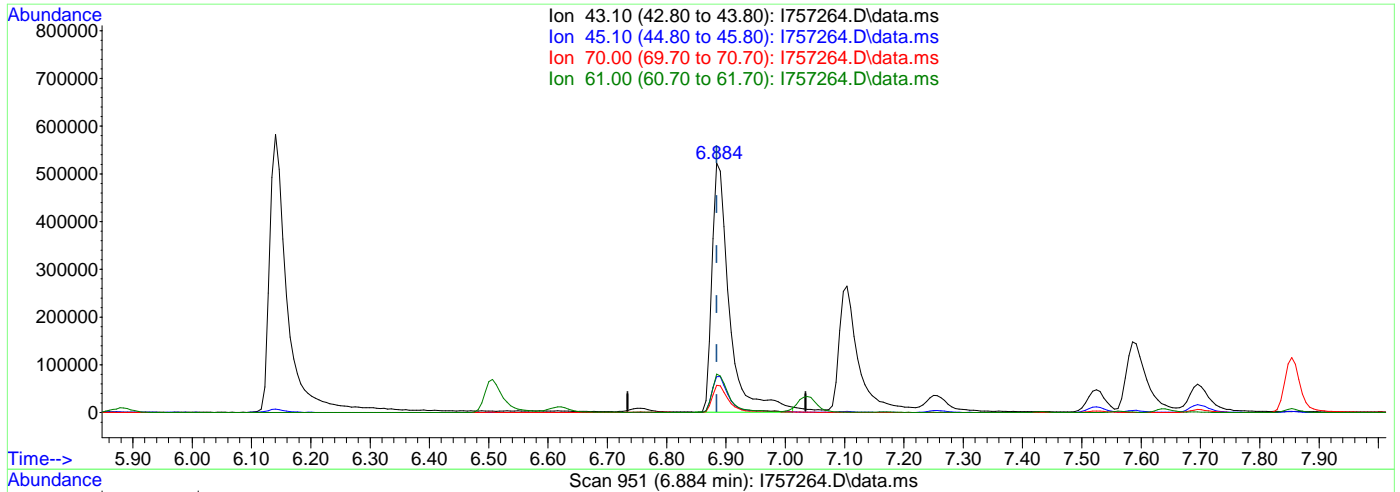
7.6.15.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 140.54ug/L

response 1066129

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.41
70.00	11.10	11.01
61.00	15.10	15.43

7.6.15.2

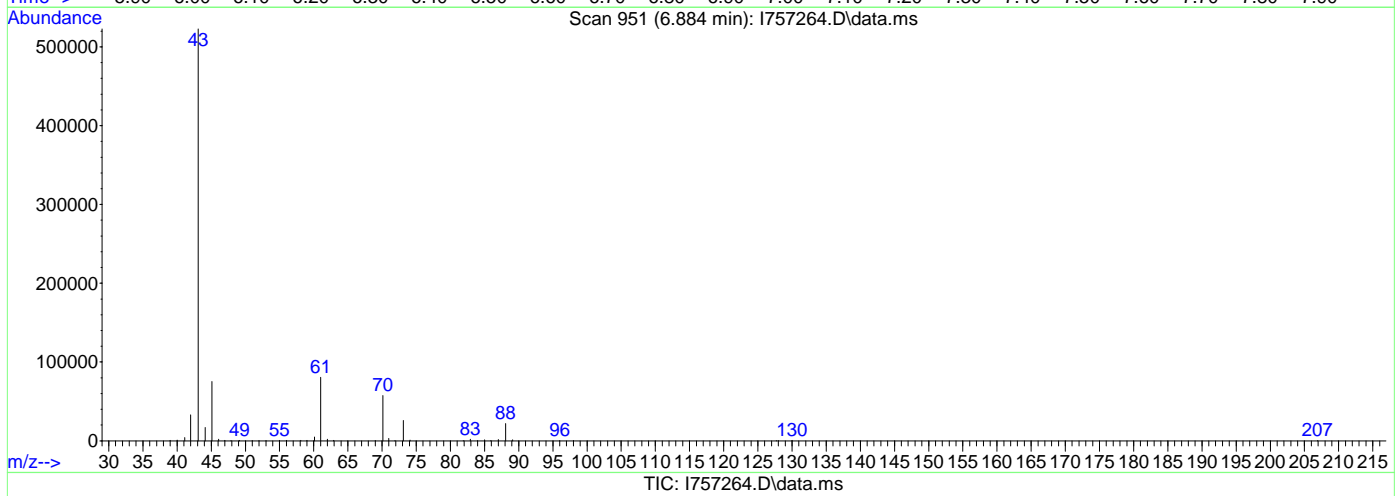
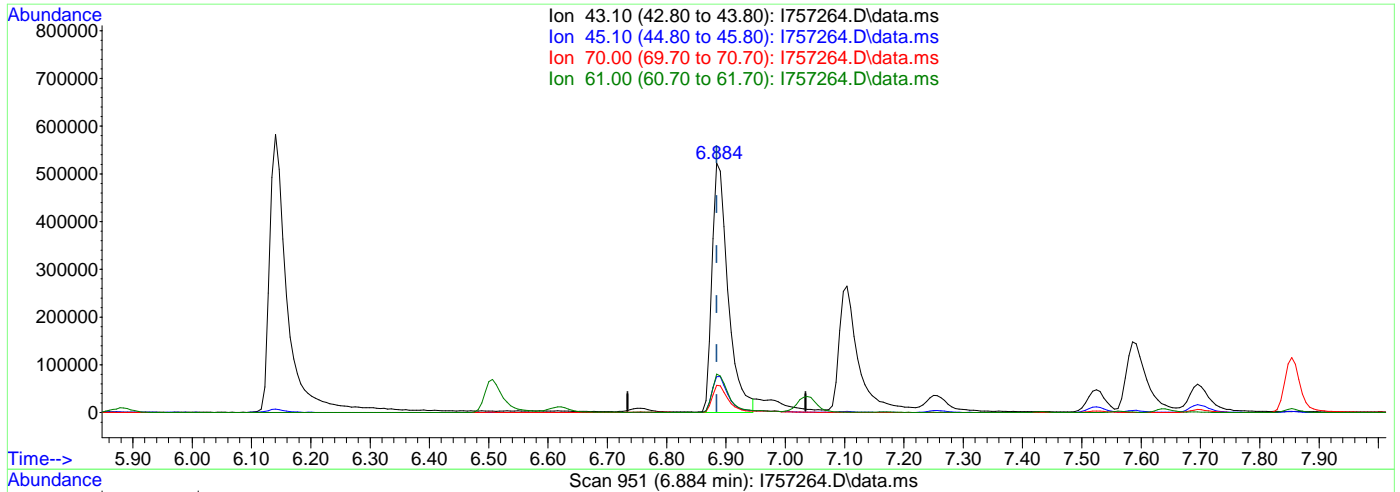
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 130.20ug/L m

response 987700

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.38
70.00	11.10	10.99
61.00	15.10	15.40

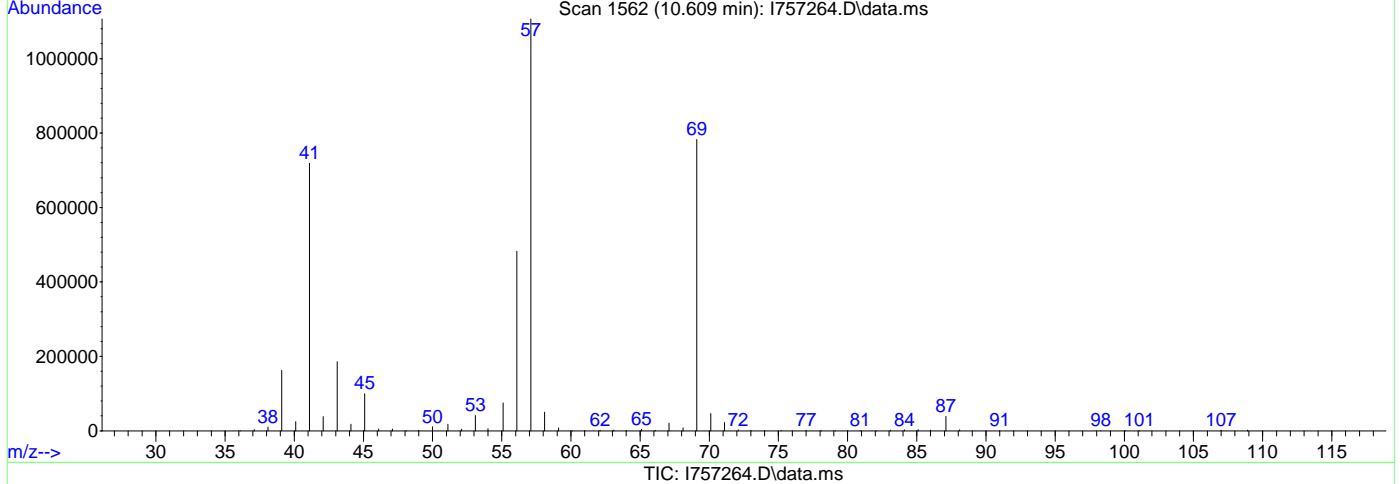
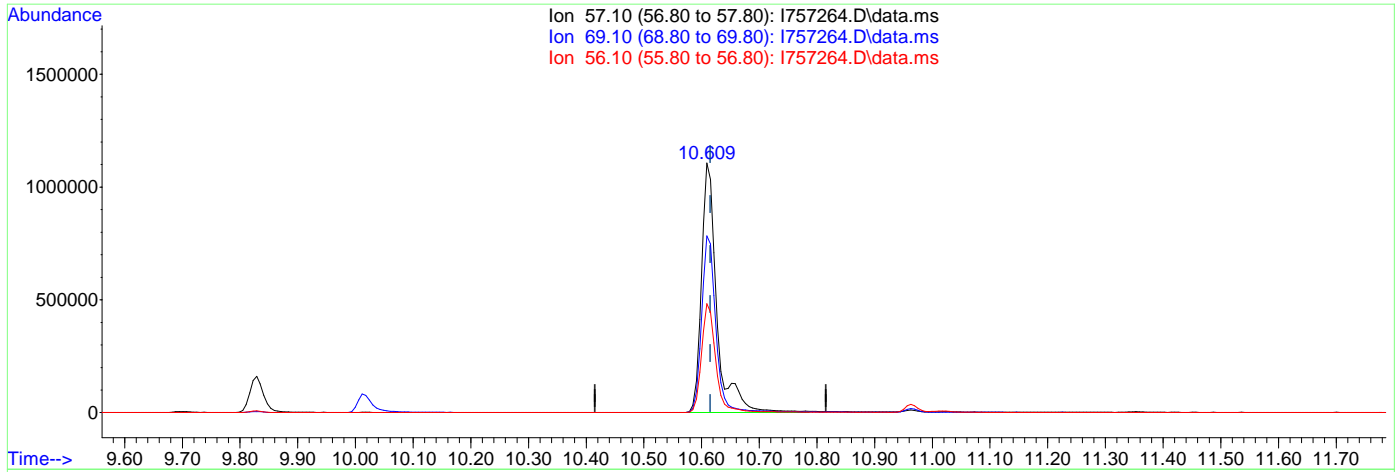
7.6.15.3

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.609min (-0.006) 1292.29ug/L

response 2081939

Ion	Exp%	Act%
-----	------	------

57.10	100	100
-------	-----	-----

69.10	72.40	70.72
-------	-------	-------

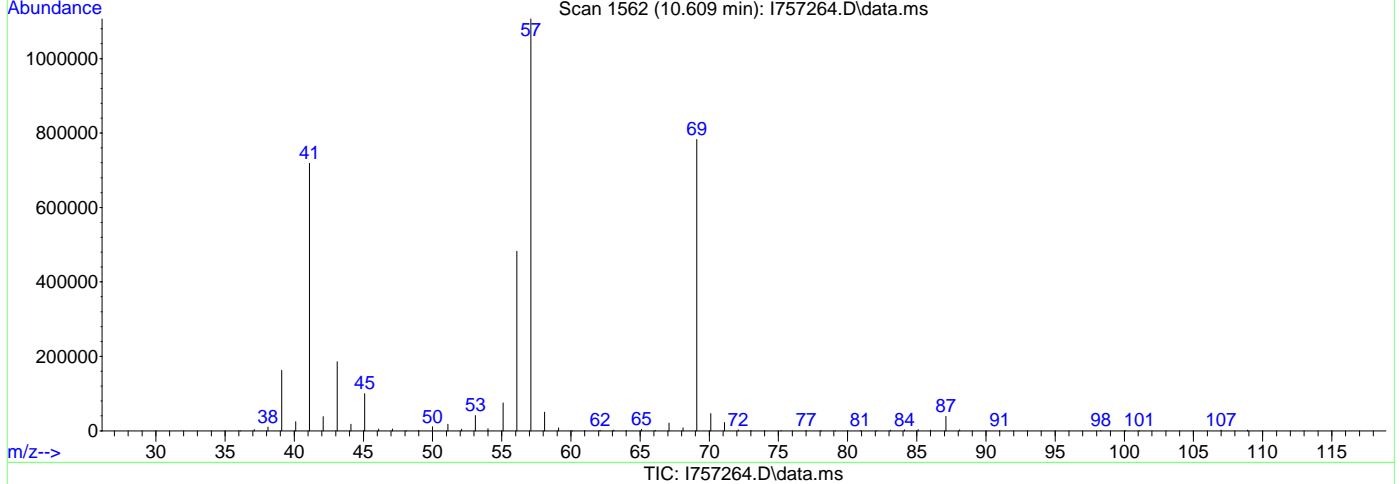
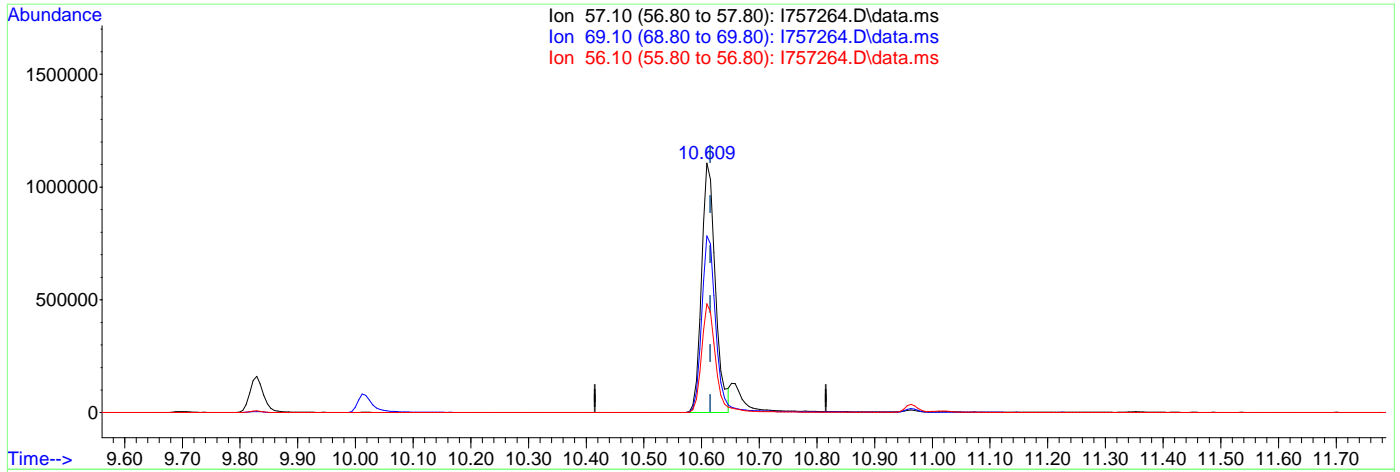
56.10	43.50	43.61
-------	-------	-------

0.00	0.00	0.00
------	------	------

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.609min (-0.006) 1146.73ug/L m

response 1847436

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	70.72
56.10	43.50	43.61
0.00	0.00	0.00

7.6.15.5

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1166537	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	854326	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	520019	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	334259	50.33	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.66%	
49) 1,2-Dichloroethane-d4	7.561	65	296036	49.17	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	98.34%	
63) Toluene-d8	9.445	98	1244986	51.31	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.62%	
86) 4-Bromofluorobenzene	12.219	174	444507	50.61	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.22%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	182621	58.74	ug/L		96
3) Chloromethane	2.641	50	201944	42.53	ug/L		97
4) Vinyl Chloride	2.769	62	191363	43.75	ug/L		100
5) 1,3-Butadiene	2.800	39	154425	34.52	ug/L		99
6) Bromomethane	3.233	94	68110	40.60	ug/L		97
7) Chloroethane	3.397	64	82605	28.74	ug/L		97
8) Trichlorofluoromethane	3.599	101	258761	42.65	ug/L		99
9) Ethyl Ether	4.019	59	142761	38.33	ug/L		99
10) 1,2-Dichlorotrifluoro...	4.245	67	170607	35.35	ug/L		100
11) 1,1-Dichloroethene	4.275	61	229523	35.80	ug/L		99
12) Ethanol	4.214	45	123696	719.90	ug/L		92
13) Freon 113	4.324	101	136435	35.78	ug/L		97
14) Carbon Disulfide	4.330	76	455867	34.87	ug/L		99
15) Iodomethane	4.464	142	131799	40.93	ug/L		94
16) Acrolein	4.678	56	317529	195.17	ug/L		98
17) Allyl chloride	4.854	41	223193	38.82	ug/L		100
18) Methylene Chloride	4.982	49	243443	32.14	ug/L		97
19) Acetone	5.025	43	592210	184.21	ug/L		99
20) Methyl acetate	5.171	43	1339516	196.56	ug/L		100
21) trans-1,2-Dichloroethene	5.184	61	250466	37.17	ug/L		98
22) Hexane	5.275	56	115096	35.79	ug/L		99
23) Methyl Tert Butyl Ether	5.299	73	556704	38.12	ug/L		99
24) Tert butyl alcohol	5.391	59	773591	365.23	ug/L		99
25) Acetonitrile	5.562	41	464909	392.62	ug/L		99
26) Di-isopropyl ether	5.726	45	579224	38.54	ug/L		99
27) Chloroprene	5.866	53	231638	39.50	ug/L		98
28) 1,1-Dichloroethane	5.885	63	333379	37.37	ug/L		99
29) Acrylonitrile	5.921	53	650048	207.77	ug/L		99
30) ETBE	6.141	59	554989	37.76	ug/L		99
31) Vinyl acetate	6.141	43	1888225	232.87	ug/L		100
32) cis-1,2-Dichloroethene	6.507	96	204398	39.00	ug/L		98
33) 2,2-Dichloropropane	6.616	77	245669	36.10	ug/L		99
34) Bromochloromethane	6.732	128	106603	39.39	ug/L		97
35) Cyclohexane	6.756	56	247299	35.40	ug/L		99
36) Chloroform	6.793	83	344379	37.16	ug/L		99
37) Ethyl acetate	6.884	43	1529158m	197.35	ug/L		
38) Tetrahydrofuran	6.982	42	139307	35.75	ug/L		96
40) Carbon Tetrachloride	6.976	117	230609	33.84	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	278496	36.09	ug/L		98
42) 2-Butanone	7.104	43	952122	215.50	ug/L		98
43) 1,1-Dichloropropene	7.171	75	222199	36.44	ug/L		98
44) tert-Butyl Formate	7.256	59	740909	192.96	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	598918	412.93	ug/L	99
46) Methacrylonitrile	7.439	41	1697753	399.35	ug/L	99
47) Benzene	7.433	78	692390	37.21	ug/L	98
48) TAME	7.525	73	535664	37.62	ug/L	99
50) Isobutyl alcohol	7.592	42	309173	763.28	ug/L	99
51) 1,2-Dichloroethane	7.634	62	242762	37.52	ug/L	98
52) Tert Amyl Alcohol	7.701	59	640815	365.11	ug/L	99
53) Trichloroethene	8.043	95	185862	36.32	ug/L	96
54) Methylcyclohexane	8.049	83	221748	34.79	ug/L	96
55) Dibromomethane	8.482	93	129050	38.31	ug/L	97
56) 1,2-Dichloropropane	8.567	63	183980	38.38	ug/L	97
57) Bromodichloromethane	8.622	83	257539	37.78	ug/L	97
58) Methyl methacrylate	8.744	41	210861	44.19	ug/L	99
59) 1,4-Dioxane	8.817	88	117028	784.10	ug/L	99
60) 2-Chloroethyl vinyl ether	9.158	63	593745	232.12	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	295539	39.35	ug/L	98
64) Toluene	9.500	91	750341	37.08	ug/L	100
65) 2-Nitropropane	9.695	41	379148	168.62	ug/L	95
66) 4-Methyl-2-pentanone	9.829	43	1678825	207.13	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	271105	40.99	ug/L	99
68) Tetrachloroethene	9.908	166	219030	35.98	ug/L	99
69) Ethyl methacrylate	10.012	69	248557	44.57	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	158587	38.29	ug/L	96
71) Dibromochloromethane	10.256	129	225563	38.43	ug/L	99
72) 1,3-Dichloropropane	10.335	76	288197	40.24	ug/L	98
73) 1,2-Dibromoethane	10.512	107	209118	39.35	ug/L	98
74) 3,3-dimethyl-1-butanol	10.615	57	3131387m	1914.41	ug/L	
75) 2-hexanone	10.652	43	1339111	214.87	ug/L	99
76) 1-Chlorohexane	10.963	91	199880	35.24	ug/L	98
77) Ethylbenzene	11.024	91	798640	37.48	ug/L	99
78) Chlorobenzene	11.024	112	502093	37.43	ug/L	100
79) 1,1,1,2-Tetrachloroethane	11.073	131	196579	37.50	ug/L	97
80) m,p-Xylene	11.164	91	1239446	75.96	ug/L	99
81) o-Xylene	11.603	91	657175	37.56	ug/L	100
82) Styrene	11.652	104	486047	40.36	ug/L	98
83) Bromoform	11.707	173	196079	38.58	ug/L	98
84) Isopropylbenzene	11.908	105	761094	37.20	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	75622	48.08	ug/L	97
88) n-Propylbenzene	12.329	91	862714	37.02	ug/L	99
89) Bromobenzene	12.347	156	229940	37.61	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	314457	37.03	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	628043	37.11	ug/L	98
92) 2-Chlorotoluene	12.518	91	594873	37.27	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.572	53	80234	43.16	ug/L	88
94) 1,2,3-Trichloropropane	12.548	110	97844	38.21	ug/L	96
95) Cyclohexanone	12.609	55	103175	195.11	ug/L	95
96) 4-Chlorotoluene	12.682	91	553528	37.50	ug/L	99
97) tert-Butylbenzene	12.853	91	326827	36.23	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	628585	37.77	ug/L	100
99) Pentachloroethane	12.902	167	135998	39.26	ug/L	99
100) sec-Butylbenzene	13.036	105	694898	35.45	ug/L	99
101) 4-Isopropyltoluene	13.170	119	621444	36.57	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	402322	37.95	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	651749	37.41	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	416829	36.49	ug/L	98
105) n-Butylbenzene	13.615	92	314533	37.28	ug/L	98
106) Benzyl Chloride	13.627	126	117131	39.96	ug/L	95
107) 1,2-Dichlorobenzene	13.822	146	390846	37.69	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

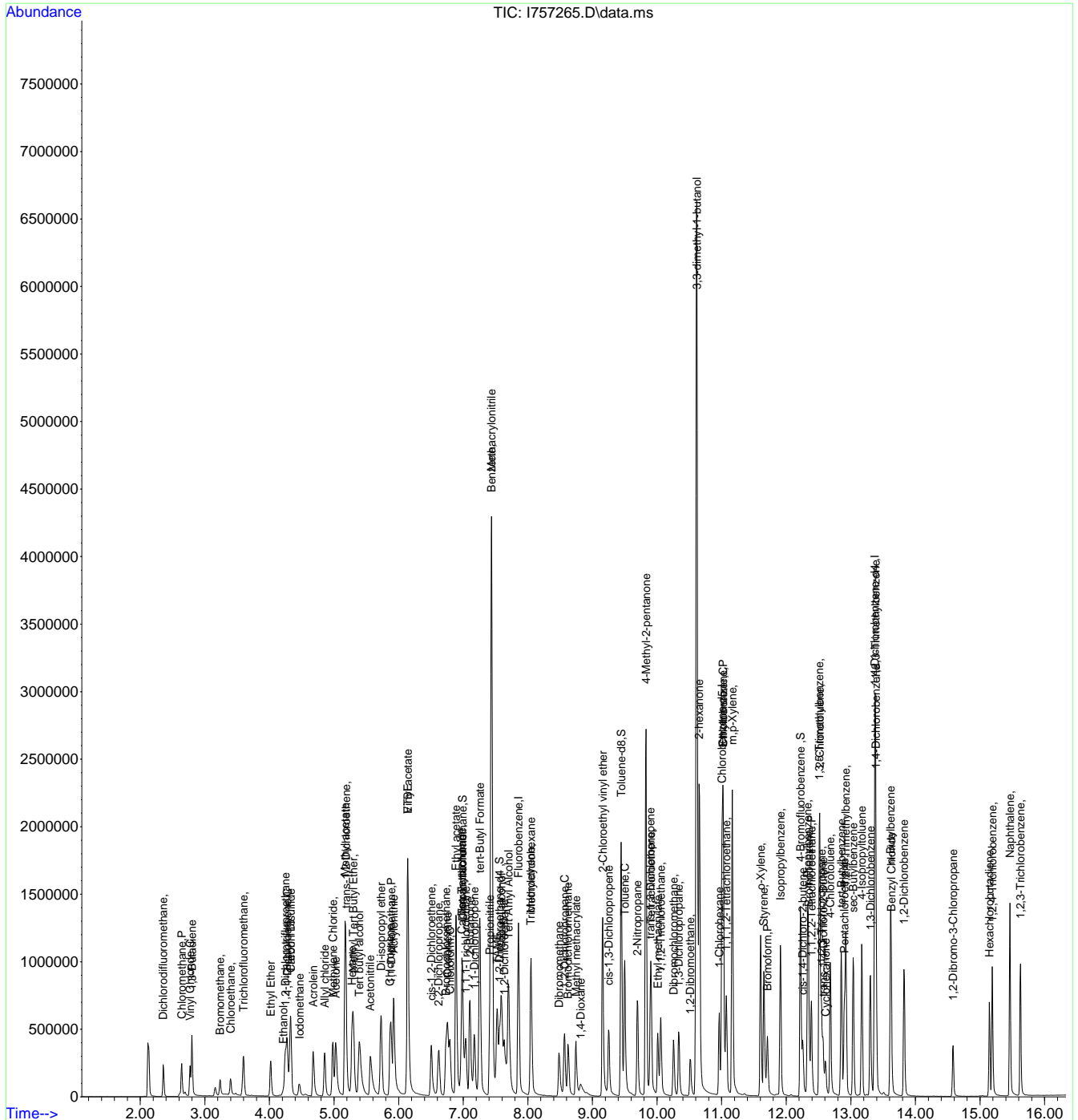
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	82482	36.86	ug/L	85
109) Hexachlorobutadiene	15.145	225	122217	33.99	ug/L	99
110) 1,2,4-Trichlorobenzene	15.188	180	291468	37.64	ug/L	99
111) Naphthalene	15.462	128	943187	39.09	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	288419	37.13	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7  
91.6.7



# Manual Integration Approval Summary

**Sample Number:** VI2948-ICC2948      **Method:** SW846 8260D  
**Lab FileID:** I757265.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 12:28      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

7.6.16.1

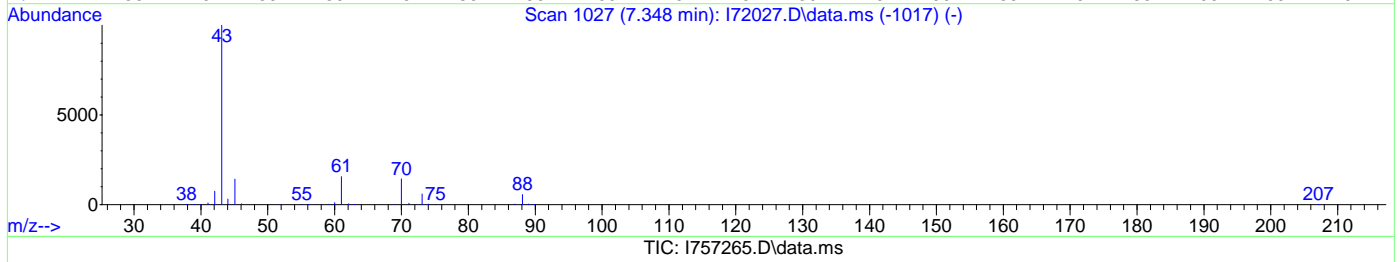
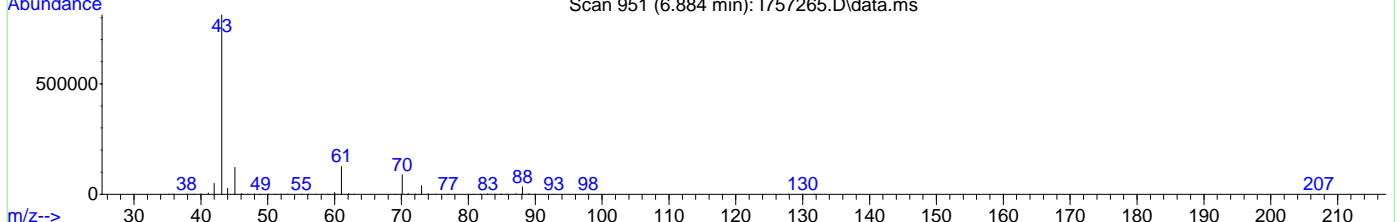
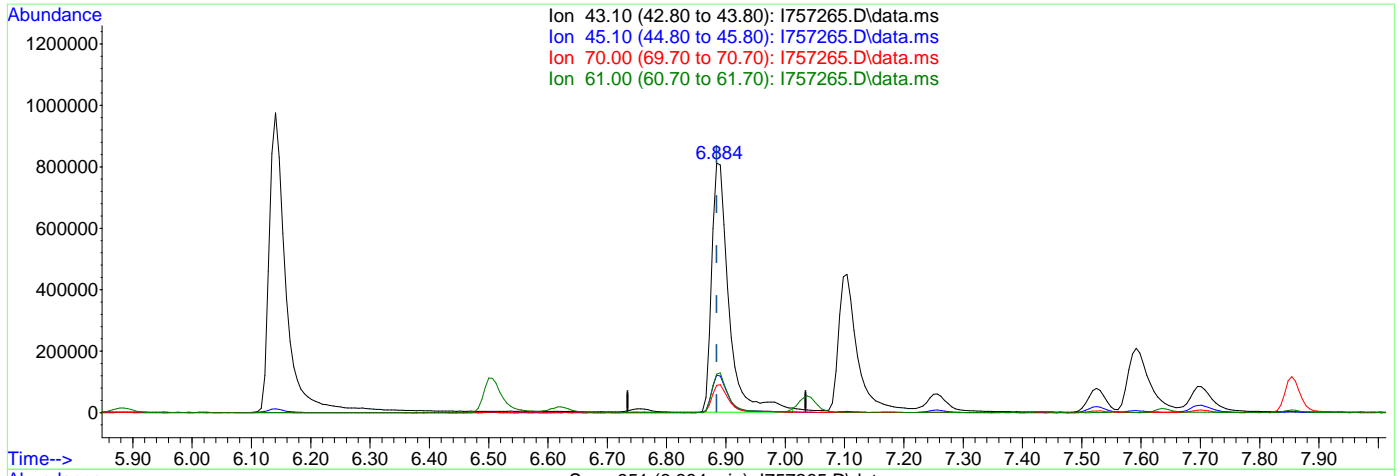
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (0.000) 212.10ug/L

response 1643408

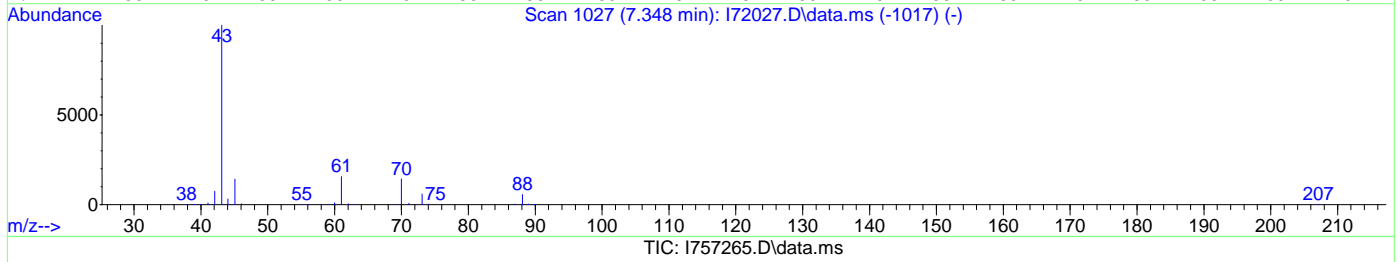
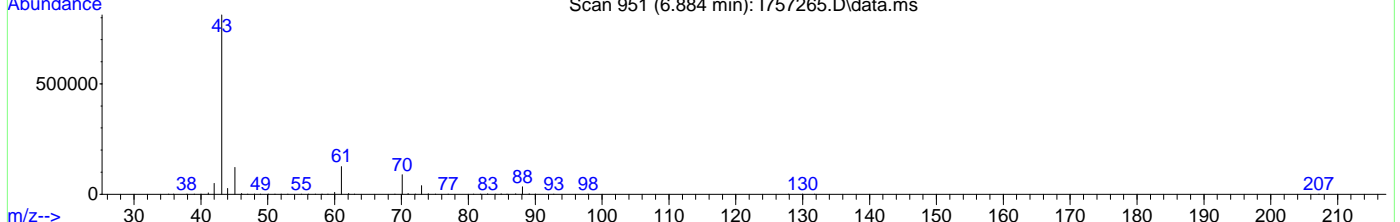
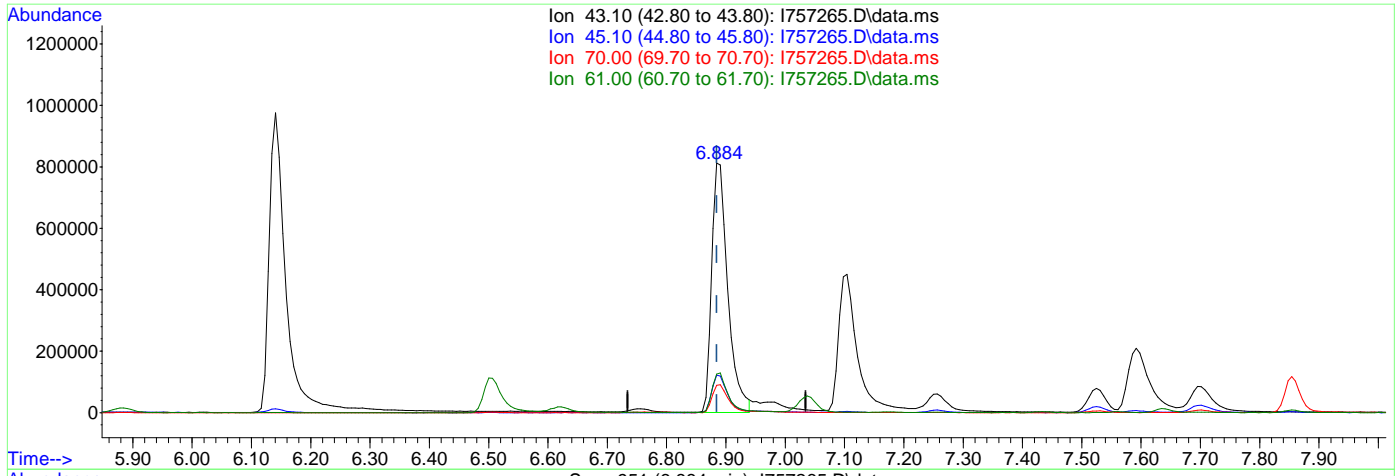
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	15.03
70.00	11.10	10.95
61.00	15.10	15.39

7.6.16.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (0.000) 197.35ug/L m

response 1529158

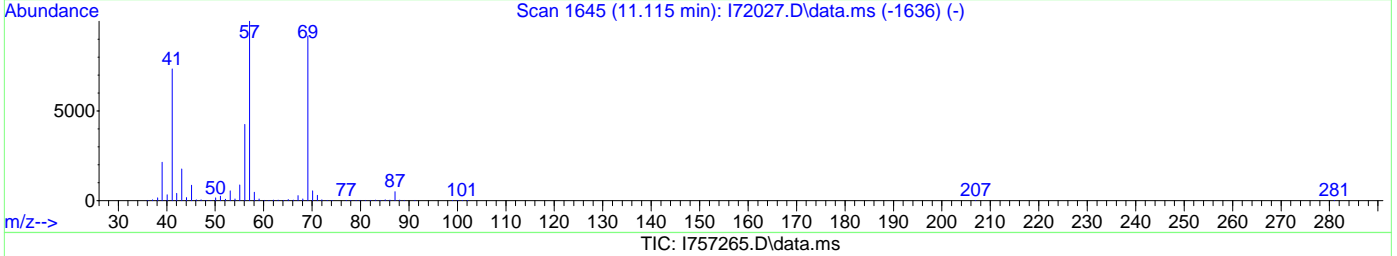
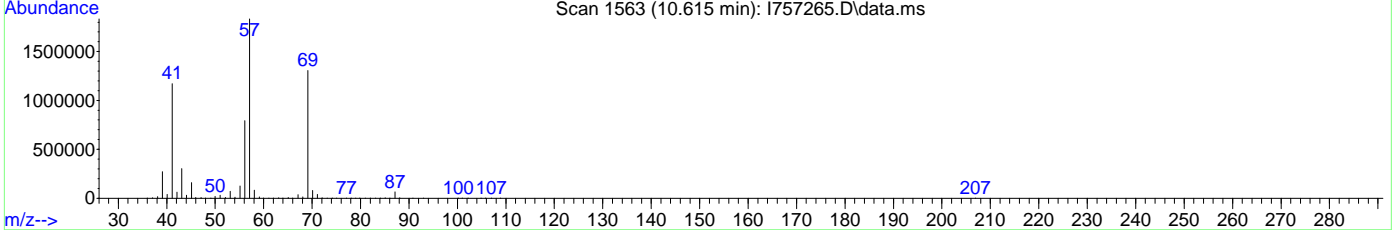
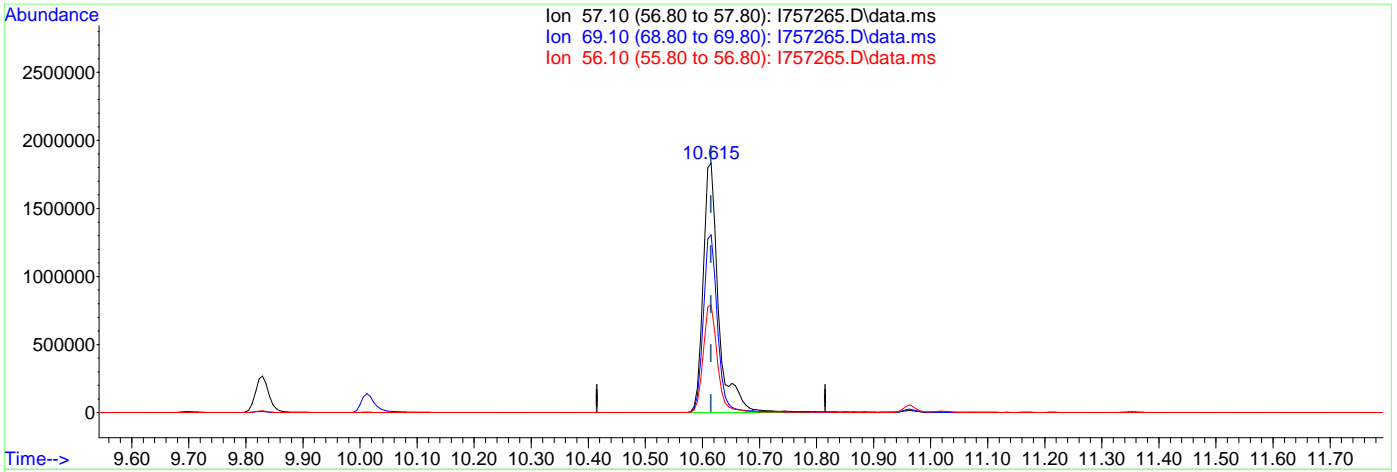
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	15.00
70.00	11.10	10.94
61.00	15.10	15.40

7.6.16.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (0.000) 2122.75ug/L

response 3472164

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.16
56.10	43.50	43.16
0.00	0.00	0.00

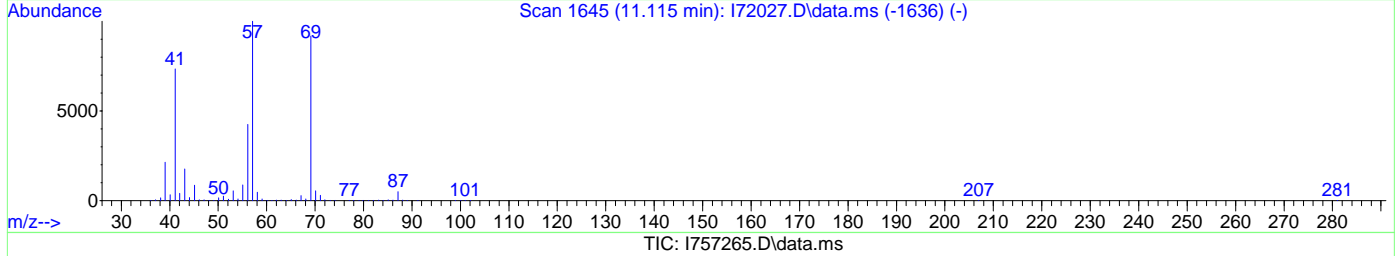
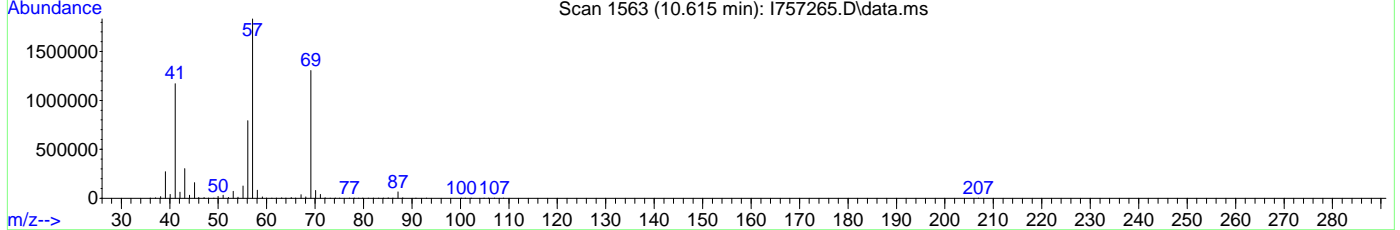
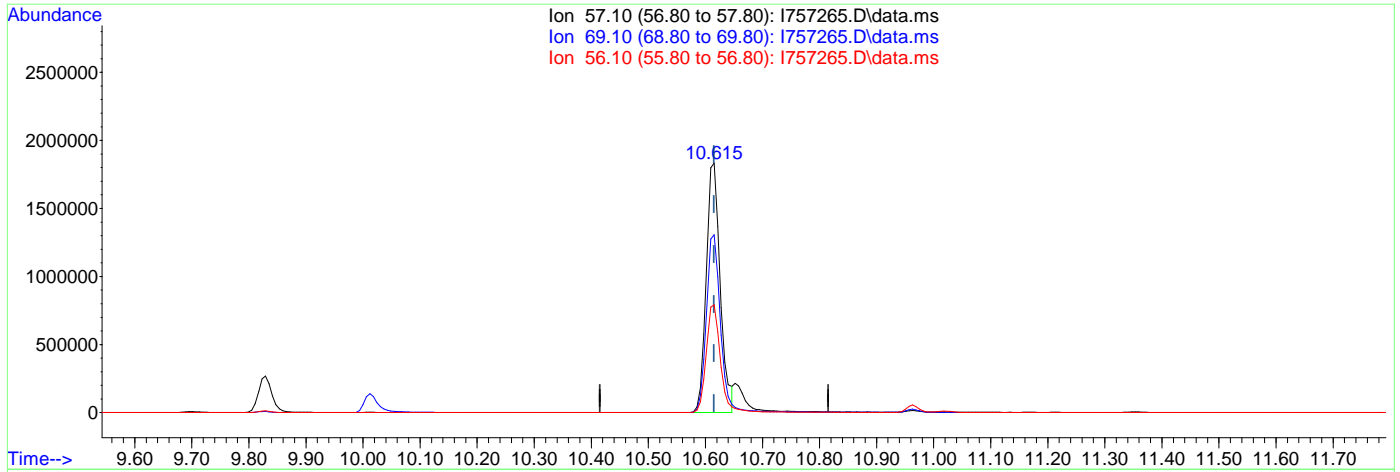
7.6.16.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (0.000) 1914.41ug/L m

response 3131387

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.17
56.10	43.50	43.16
0.00	0.00	0.00

7.6.16.5

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1138029	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	831988	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	503532	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	323610	49.95	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.90%		
49) 1,2-Dichloroethane-d4	7.561	65	282841	48.16	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	96.32%		
63) Toluene-d8	9.445	98	1218241	51.55	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	103.10%		
86) 4-Bromofluorobenzene	12.219	174	431197	50.70	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.40%		
Target Compounds							
2) Dichlorodifluoromethane	2.355	85	344607	113.62	ug/L	98	
3) Chloromethane	2.641	50	361058	77.95	ug/L	96	
4) Vinyl Chloride	2.769	62	353817	82.91	ug/L	100	
5) 1,3-Butadiene	2.794	39	293190	67.19	ug/L	96	
6) Bromomethane	3.233	94	128964	78.80	ug/L	97	
7) Chloroethane	3.397	64	146142	52.12	ug/L	98	
8) Trichlorofluoromethane	3.586	101	474370	80.15	ug/L	99	
9) Ethyl Ether	4.019	59	267331	73.57	ug/L	99	
10) 1,2-Dichlorotrifluoro...	4.245	67	341824	72.61	ug/L	99	
11) 1,1-Dichloroethene	4.269	61	457067	73.08	ug/L	99	
12) Ethanol	4.239	45	242106	1444.33	ug/L	96	
13) Freon 113	4.312	101	283774	76.29	ug/L	96	
14) Carbon Disulfide	4.324	76	914181	71.67	ug/L	99	
15) Iodomethane	4.458	142	224443	71.45	ug/L	95	
16) Acrolein	4.678	56	638813	402.48	ug/L	98	
17) Allyl chloride	4.848	41	423106	75.42	ug/L	99	
18) Methylene Chloride	4.976	49	437203	59.17	ug/L	97	
19) Acetone	5.025	43	1118484	356.63	ug/L	99	
20) Methyl acetate	5.171	43	2574551	387.25	ug/L	99	
21) trans-1,2-Dichloroethene	5.178	61	479133	72.89	ug/L	96	
22) Hexane	5.275	56	229392	73.12	ug/L	94	
23) Methyl Tert Butyl Ether	5.299	73	1032320	72.46	ug/L	94	
24) Tert butyl alcohol	5.409	59	1502043	726.91	ug/L	98	
25) Acetonitrile	5.562	41	850057	735.86	ug/L	99	
26) Di-isopropyl ether	5.726	45	1070915	73.04	ug/L	99	
27) Chloroprene	5.860	53	464523	81.19	ug/L	100	
28) 1,1-Dichloroethane	5.885	63	633303	72.76	ug/L	99	
29) Acrylonitrile	5.921	53	1219243	399.46	ug/L	99	
30) ETBE	6.141	59	1022168	71.28	ug/L	99	
31) Vinyl acetate	6.141	43	3548188	448.56	ug/L	100	
32) cis-1,2-Dichloroethene	6.500	96	385851	75.46	ug/L	99	
33) 2,2-Dichloropropane	6.616	77	476079	71.72	ug/L	99	
34) Bromochloromethane	6.726	128	192102	72.77	ug/L	96	
35) Cyclohexane	6.750	56	501334	73.57	ug/L	99	
36) Chloroform	6.787	83	650004	71.90	ug/L	98	
37) Ethyl acetate	6.885	43	2921852m	386.54	ug/L		
38) Tetrahydrofuran	6.982	42	261201	68.70	ug/L	96	
40) Carbon Tetrachloride	6.970	117	464975	69.93	ug/L	99	
41) 1,1,1-Trichloroethane	7.037	97	542706	72.10	ug/L	99	
42) 2-Butanone	7.098	43	1843738	427.76	ug/L	100	
43) 1,1-Dichloropropene	7.171	75	434784	73.09	ug/L	98	
44) tert-Butyl Formate	7.256	59	1403769	374.74	ug/L	99	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	1154960	816.26	ug/L	83
46) Methacrylonitrile	7.439	41	3182848	767.43	ug/L	99
47) Benzene	7.427	78	1297518	71.47	ug/L	89
48) TAME	7.525	73	981413	70.64	ug/L	98
50) Isobutyl alcohol	7.604	42	631882	1599.05	ug/L	98
51) 1,2-Dichloroethane	7.634	62	450262	71.34	ug/L	99
52) Tert Amyl Alcohol	7.708	59	1260145	735.96	ug/L	99
53) Trichloroethene	8.043	95	360443	72.20	ug/L	99
54) Methylcyclohexane	8.049	83	459897	73.96	ug/L	99
55) Dibromomethane	8.476	93	238778	72.66	ug/L	98
56) 1,2-Dichloropropane	8.561	63	345024	73.78	ug/L	99
57) Bromodichloromethane	8.622	83	485805	73.05	ug/L	96
58) Methyl methacrylate	8.738	41	408012	87.65	ug/L	99
59) 1,4-Dioxane	8.829	88	229753	1577.92	ug/L	98
60) 2-Chloroethyl vinyl ether	9.152	63	1097713	439.90	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	558566	76.23	ug/L	98
64) Toluene	9.500	91	1432135	72.67	ug/L	100
65) 2-Nitropropane	9.695	41	745934	340.64	ug/L	96
66) 4-Methyl-2-pentanone	9.829	43	3107190	393.66	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	507733	78.83	ug/L	96
68) Tetrachloroethene	9.908	166	433434	73.12	ug/L	97
69) Ethyl methacrylate	10.012	69	474305	87.33	ug/L	98
70) 1,1,2-Trichloroethane	10.055	83	290597	72.06	ug/L	96
71) Dibromochloromethane	10.256	129	421938	73.81	ug/L	99
72) 1,3-Dichloropropane	10.335	76	535153	76.73	ug/L	98
73) 1,2-Dibromoethane	10.512	107	392246	75.79	ug/L	99
74) 3,3-dimethyl-1-butanol	10.615	57	6151707m	3861.90	ug/L	
75) 2-hexanone	10.652	43	2524363	415.92	ug/L	99
76) 1-Chlorohexane	10.963	91	402985	72.95	ug/L	99
77) Ethylbenzene	11.024	91	1523886	73.43	ug/L	100
78) Chlorobenzene	11.024	112	934436	71.54	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	368005	72.08	ug/L	99
80) m,p-Xylene	11.164	91	2364447	148.80	ug/L	99
81) o-Xylene	11.603	91	1249153	73.32	ug/L	100
82) Styrene	11.652	104	932212	79.49	ug/L	98
83) Bromoform	11.707	173	368661	74.49	ug/L	97
84) Isopropylbenzene	11.908	105	1460080	73.28	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.255	53	149492	98.16	ug/L	97
88) n-Propylbenzene	12.329	91	1669815	73.99	ug/L	99
89) Bromobenzene	12.347	156	432978	73.14	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.390	83	580080	70.54	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	1201076	73.30	ug/L	100
92) 2-Chlorotoluene	12.518	91	1130642	73.15	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.566	53	159386	88.56	ug/L	91
94) 1,2,3-Trichloropropane	12.542	110	186108	75.06	ug/L	96
95) Cyclohexanone	12.609	55	202566	395.60	ug/L	96
96) 4-Chlorotoluene	12.682	91	1045465	73.14	ug/L	98
97) tert-Butylbenzene	12.853	91	630556	72.19	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	1194761	74.14	ug/L	100
99) Pentachloroethane	12.902	167	260072	77.53	ug/L	98
100) sec-Butylbenzene	13.036	105	1362107	71.76	ug/L	99
101) 4-Isopropyltoluene	13.170	119	1205156	73.25	ug/L	99
102) 1,3-Dichlorobenzene	13.298	146	759677	74.01	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	1231796	73.03	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	780749	70.59	ug/L	99
105) n-Butylbenzene	13.615	92	613352	75.08	ug/L	90
106) Benzyl Chloride	13.621	126	229224	80.76	ug/L #	59
107) 1,2-Dichlorobenzene	13.822	146	738521	73.54	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

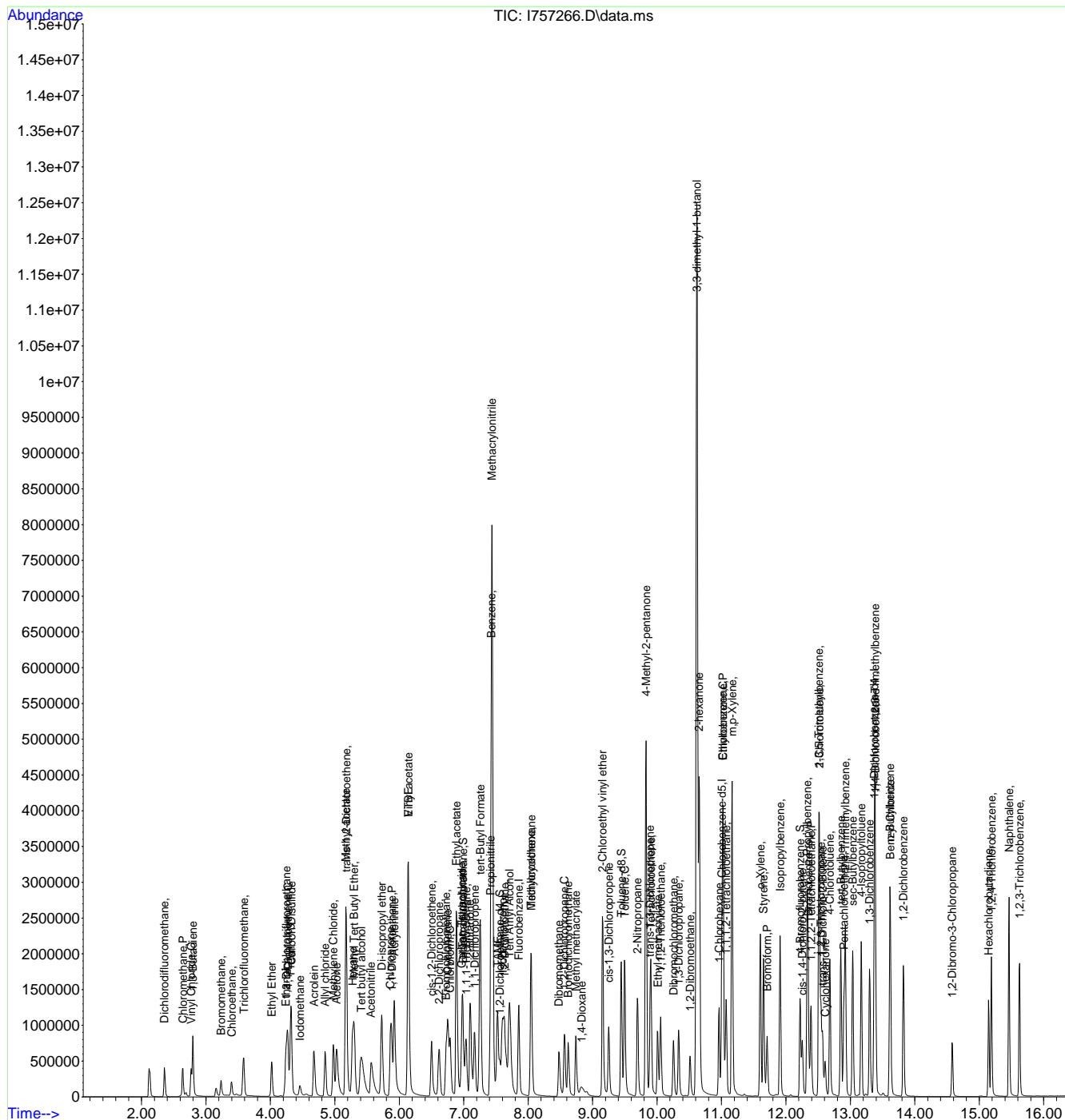
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	161309	74.44	ug/L	98
109) Hexachlorobutadiene	15.145	225	235828	67.74	ug/L	98
110) 1,2,4-Trichlorobenzene	15.188	180	562734	75.05	ug/L	98
111) Naphthalene	15.462	128	1810859	77.51	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	547047	72.74	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7.6.17  
7



# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948      **Method:** SW846 8260D  
**Lab FileID:** I757266.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 12:52      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

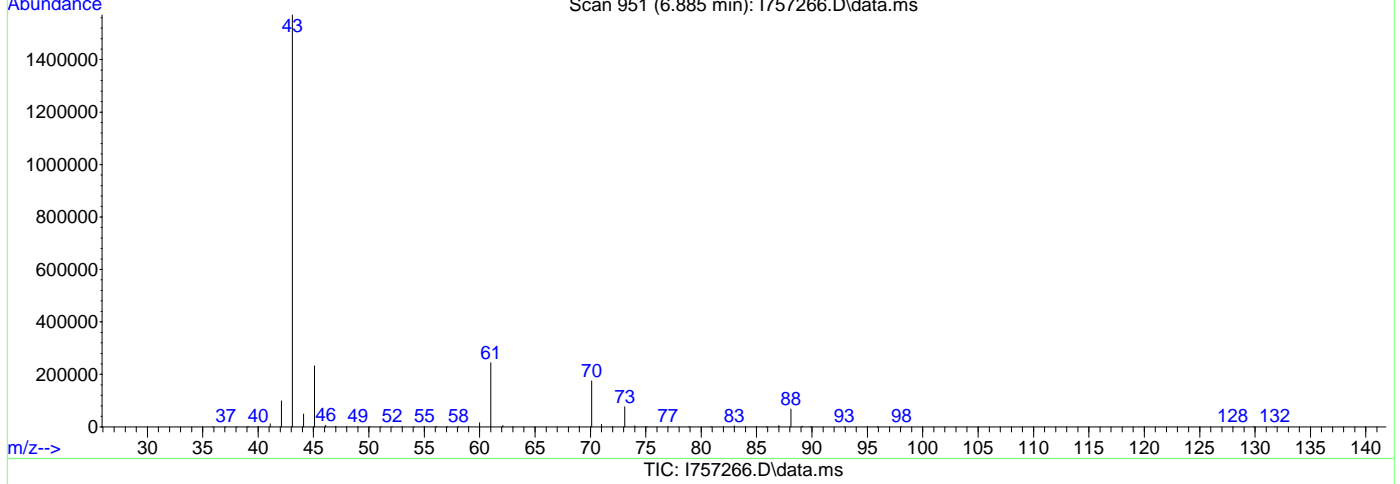
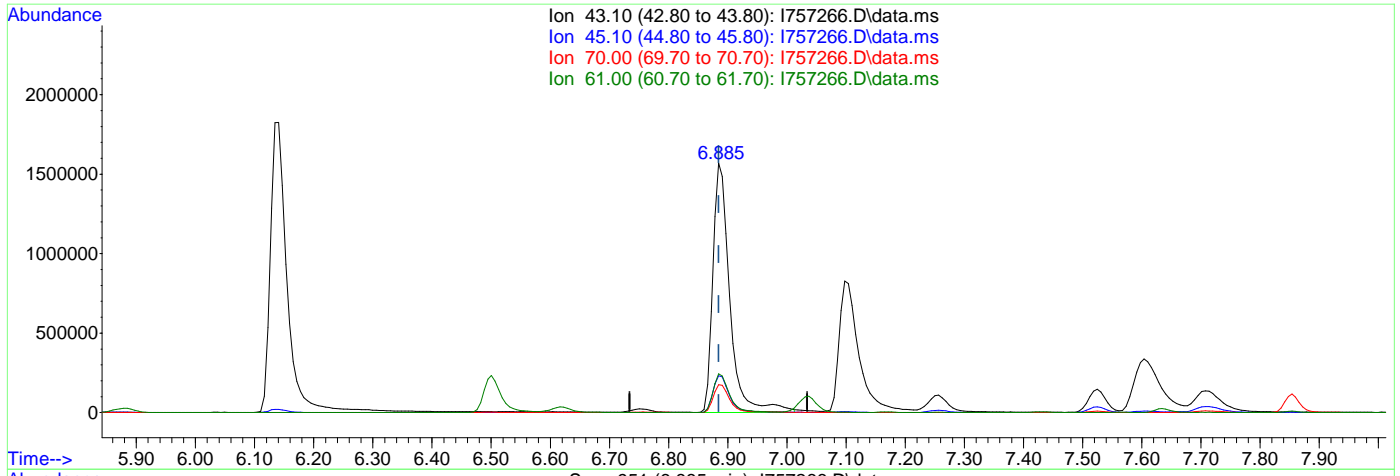
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

7.6.17.1  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.885min (+0.000) 411.74ug/L

response 3112331

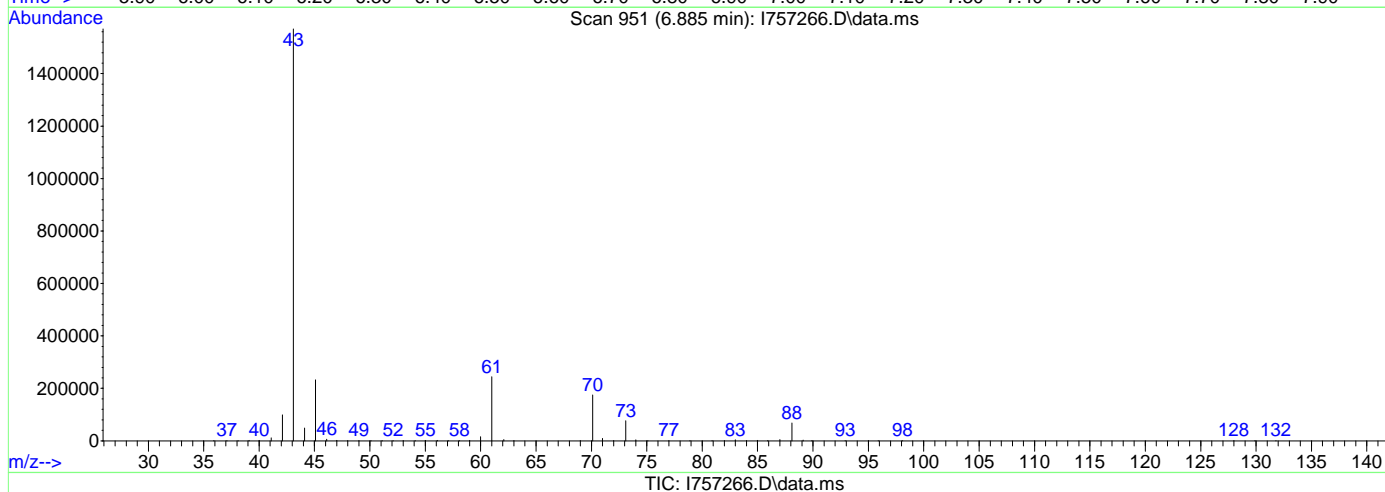
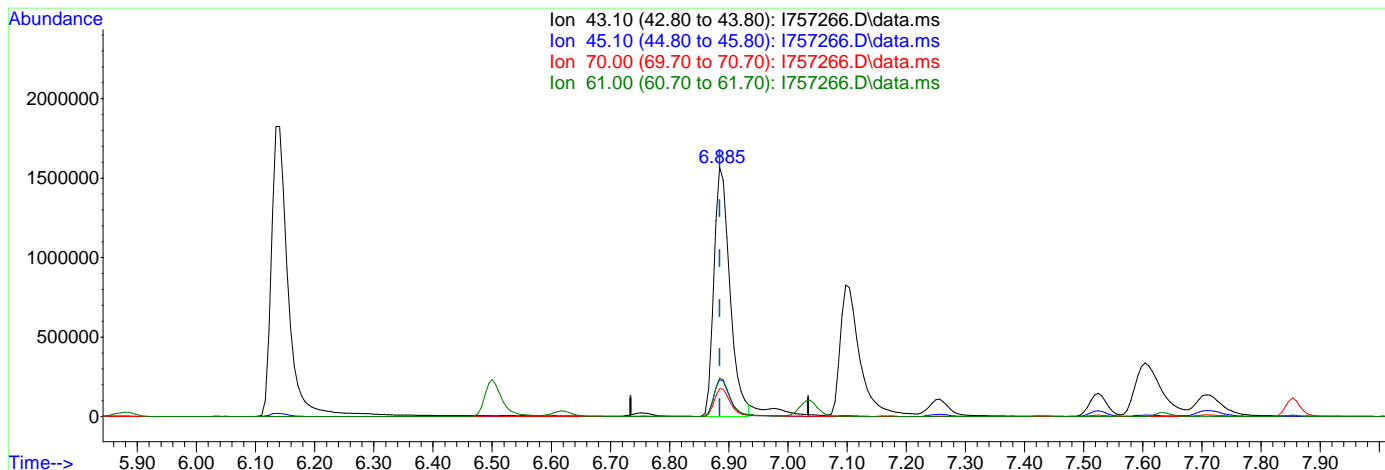
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.81
70.00	11.10	11.13
61.00	15.10	15.52

7.6.17.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.000) 386.54ug/L m

response 2921852

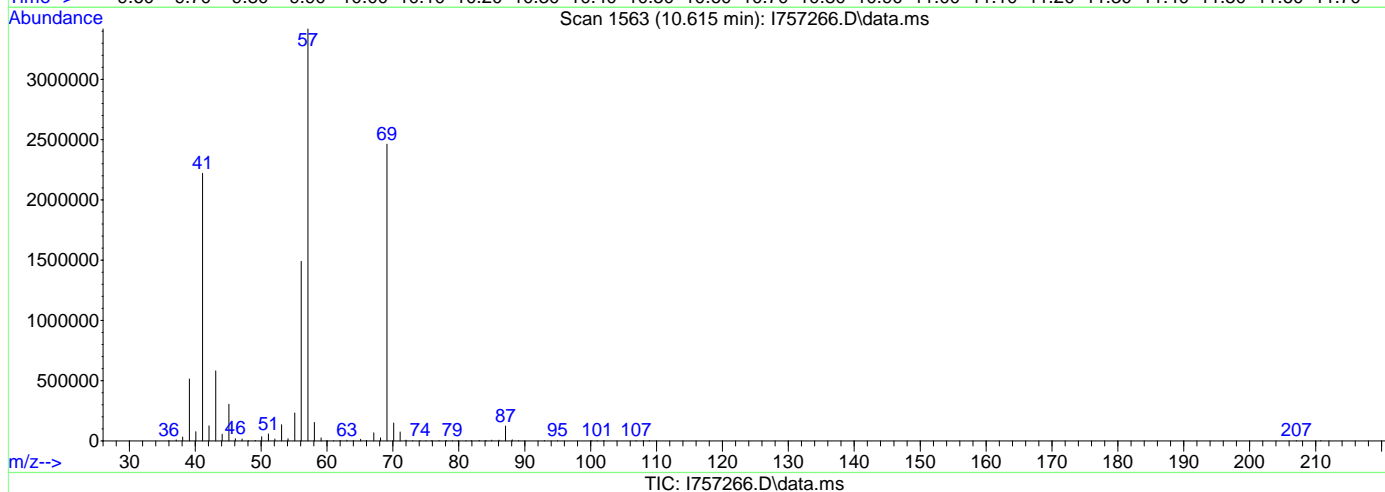
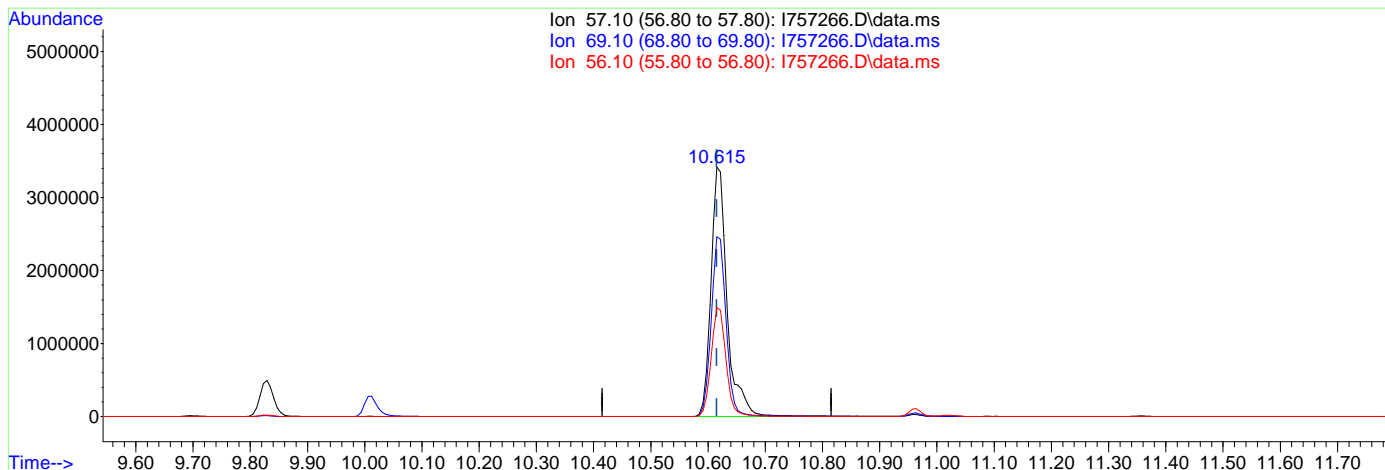
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.79
70.00	11.10	11.11
61.00	15.10	15.53

7.6.17.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (+0.000) 4231.25ug/L

response 6740063

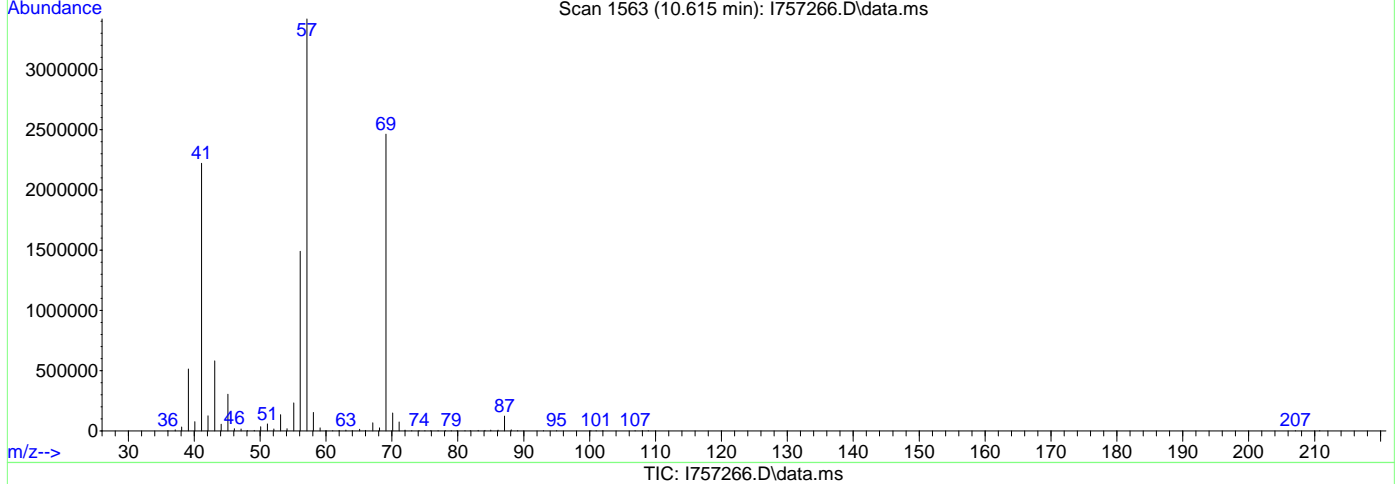
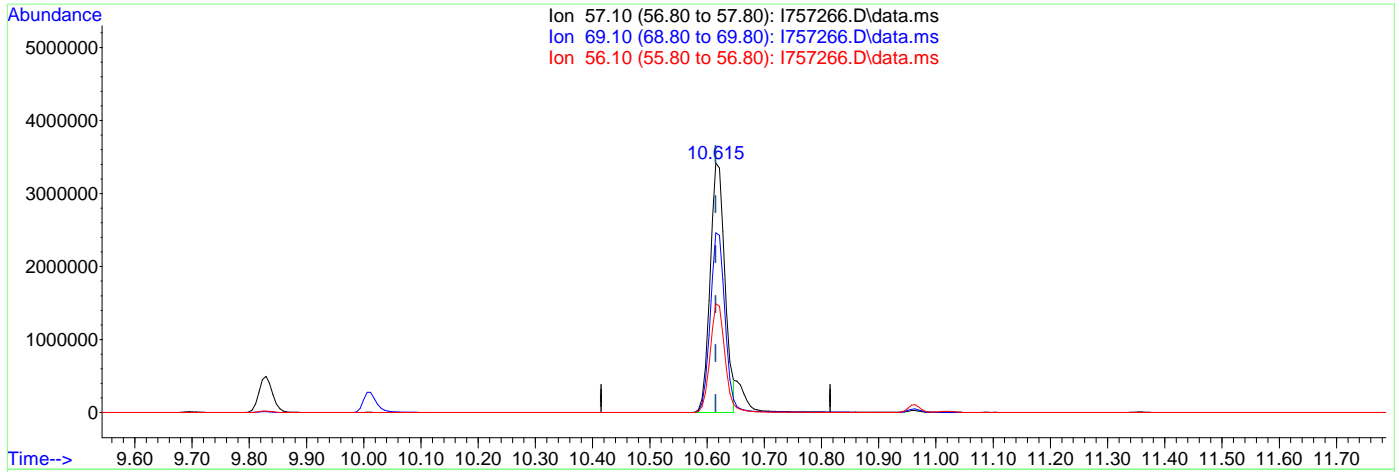
Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.99
56.10	43.50	43.60
0.00	0.00	0.00

7.6.17.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (+0.000) 3861.90ug/L m

response 6151707

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.00
56.10	43.50	43.61
0.00	0.00	0.00

7.6.17.5

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1163059	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	862083	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	537542	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	336095	50.76	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.52%	
49) 1,2-Dichloroethane-d4	7.561	65	301448	50.22	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	100.44%	
63) Toluene-d8	9.445	98	1250824	51.08	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.16%	
86) 4-Bromofluorobenzene	12.219	174	452518	49.84	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.68%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	529244	170.75	ug/L		98
3) Chloromethane	2.635	50	521828	110.23	ug/L		97
4) Vinyl Chloride	2.769	62	529502	121.41	ug/L		97
5) 1,3-Butadiene	2.794	39	429214	96.24	ug/L		97
6) Bromomethane	3.233	94	179016	107.03	ug/L		99
7) Chloroethane	3.397	64	208208	72.66	ug/L		97
8) Trichlorofluoromethane	3.574	101	697463	115.31	ug/L		98
9) Ethyl Ether	4.019	59	379472	102.18	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.239	67	507581	105.49	ug/L		98
11) 1,1-Dichloroethene	4.263	61	679956	106.37	ug/L		99
12) Ethanol	4.263	45	313130	1827.84	ug/L		98
13) Freon 113	4.306	101	442236	116.33	ug/L		99
14) Carbon Disulfide	4.318	76	1357153	104.11	ug/L		99
15) Iodomethane	4.458	142	287045	89.41	ug/L		97
16) Acrolein	4.678	56	899828	554.73	ug/L		99
17) Allyl chloride	4.848	41	596205	103.99	ug/L		98
18) Methylene Chloride	4.976	49	605660	80.21	ug/L		95
19) Acetone	5.031	43	1548512	483.12	ug/L		100
20) Methyl acetate	5.171	43	3562244	524.29	ug/L		99
21) trans-1,2-Dichloroethene	5.177	61	692478	103.08	ug/L		99
22) Hexane	5.269	56	343966	107.27	ug/L		84
23) Methyl Tert Butyl Ether	5.299	73	1461102	100.36	ug/L		88
24) Tert butyl alcohol	5.421	59	2052291	971.82	ug/L		99
25) Acetonitrile	5.568	41	1096962	929.16	ug/L		99
26) Di-isopropyl ether	5.726	45	1506731	100.56	ug/L		100
27) Chloroprene	5.860	53	699682	119.66	ug/L		99
28) 1,1-Dichloroethane	5.879	63	895568	100.68	ug/L		99
29) Acrylonitrile	5.921	53	1704371	546.38	ug/L		100
30) ETBE	6.141	59	1442194	98.41	ug/L		100
31) Vinyl acetate	6.135	43	5016217	620.50	ug/L		100
32) cis-1,2-Dichloroethene	6.500	96	549435	105.15	ug/L		99
33) 2,2-Dichloropropane	6.616	77	692469	102.07	ug/L		98
34) Bromochloromethane	6.726	128	270176	100.14	ug/L		95
35) Cyclohexane	6.750	56	772375	110.91	ug/L		99
36) Chloroform	6.787	83	923907	100.00	ug/L		99
37) Ethyl acetate	6.884	43	4168769m	539.63	ug/L		
38) Tetrahydrofuran	6.982	42	364903	93.91	ug/L		98
40) Carbon Tetrachloride	6.970	117	704052	103.61	ug/L		97
41) 1,1,1-Trichloroethane	7.037	97	798981	103.86	ug/L		99
42) 2-Butanone	7.104	43	2643762	600.17	ug/L		98
43) 1,1-Dichloropropene	7.165	75	640799	105.40	ug/L		98
44) tert-Butyl Formate	7.256	59	1988701	519.47	ug/L		98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	1624190	1123.18	ug/L	78
46) Methacrylonitrile	7.439	41	4480633	1057.09	ug/L	99
47) Benzene	7.427	78	1855895	100.03	ug/L	83
48) TAME	7.525	73	1380755	97.25	ug/L	98
50) Isobutyl alcohol	7.616	42	994842	2463.39	ug/L	99
51) 1,2-Dichloroethane	7.634	62	637209	98.79	ug/L	98
52) Tert Amyl Alcohol	7.720	59	1795079	1025.82	ug/L	98
53) Trichloroethene	8.043	95	526130	103.13	ug/L	99
54) Methylcyclohexane	8.049	83	704034	110.79	ug/L	99
55) Dibromomethane	8.476	93	344287	102.51	ug/L	98
56) 1,2-Dichloropropane	8.561	63	488359	102.19	ug/L	98
57) Bromodichloromethane	8.622	83	694118	102.13	ug/L	96
58) Methyl methacrylate	8.738	41	585103	122.99	ug/L	98
59) 1,4-Dioxane	8.835	88	318290	2138.94	ug/L	97
60) 2-Chloroethyl vinyl ether	9.158	63	1534053	601.53	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	791682	105.72	ug/L	98
64) Toluene	9.494	91	2040123	99.91	ug/L	100
65) 2-Nitropropane	9.695	41	1066697	470.12	ug/L	96
66) 4-Methyl-2-pentanone	9.829	43	4346515	531.45	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	723714	108.44	ug/L	96
68) Tetrachloroethene	9.908	166	632507	102.98	ug/L	97
69) Ethyl methacrylate	10.012	69	672212	119.45	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	405035	96.93	ug/L	95
71) Dibromochloromethane	10.256	129	599260	101.17	ug/L	99
72) 1,3-Dichloropropane	10.335	76	750447	103.85	ug/L	98
73) 1,2-Dibromoethane	10.512	107	557752	104.00	ug/L	99
74) 3,3-dimethyl-1-butanol	10.621	57	8540539m	5174.38	ug/L	
75) 2-hexanone	10.658	43	3631290	577.41	ug/L	98
76) 1-Chlorohexane	10.963	91	601700	105.12	ug/L	97
77) Ethylbenzene	11.024	91	2172652	101.03	ug/L	99
78) Chlorobenzene	11.024	112	1324499	97.86	ug/L	100
79) 1,1,1,2-Tetrachloroethane	11.073	131	521794	98.64	ug/L	98
80) m,p-Xylene	11.164	91	3396714	206.30	ug/L	100
81) o-Xylene	11.603	91	1777938	100.71	ug/L	100
82) Styrene	11.652	104	1329647	109.43	ug/L	98
83) Bromoform	11.707	173	521805	101.76	ug/L	98
84) Isopropylbenzene	11.908	105	2104671	101.94	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.255	53	218859	134.62	ug/L	95
88) n-Propylbenzene	12.328	91	2418127	100.37	ug/L	99
89) Bromobenzene	12.347	156	612493	96.92	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	810755	92.36	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	1714728	98.02	ug/L	98
92) 2-Chlorotoluene	12.517	91	1601779	97.08	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.566	53	230459	119.94	ug/L	88
94) 1,2,3-Trimethylpropane	12.542	110	257532	97.30	ug/L	96
95) Cyclohexanone	12.609	55	285786	522.81	ug/L	96
96) 4-Chlorotoluene	12.682	91	1488036	97.52	ug/L	99
97) tert-Butylbenzene	12.853	91	920114	98.67	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	1691330	98.32	ug/L	99
99) Pentachloroethane	12.902	167	370930	103.58	ug/L	100
100) sec-Butylbenzene	13.036	105	1984570	97.93	ug/L	99
101) 4-Isopropyltoluene	13.170	119	1745979	99.41	ug/L	100
102) 1,3-Dichlorobenzene	13.298	146	1088227	99.31	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	1727276	95.92	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	1096065	92.83	ug/L	99
105) n-Butylbenzene	13.615	92	895028	102.63	ug/L	92
106) Benzyl Chloride	13.621	126	320426	105.75	ug/L #	57
107) 1,2-Dichlorobenzene	13.822	146	1039729	96.98	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	230974	99.84	ug/L	98
109) Hexachlorobutadiene	15.145	225	362352	97.50	ug/L	99
110) 1,2,4-Trichlorobenzene	15.188	180	788632	98.53	ug/L	98
111) Naphthalene	15.462	128	2534672	101.63	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	773226	96.31	ug/L	99

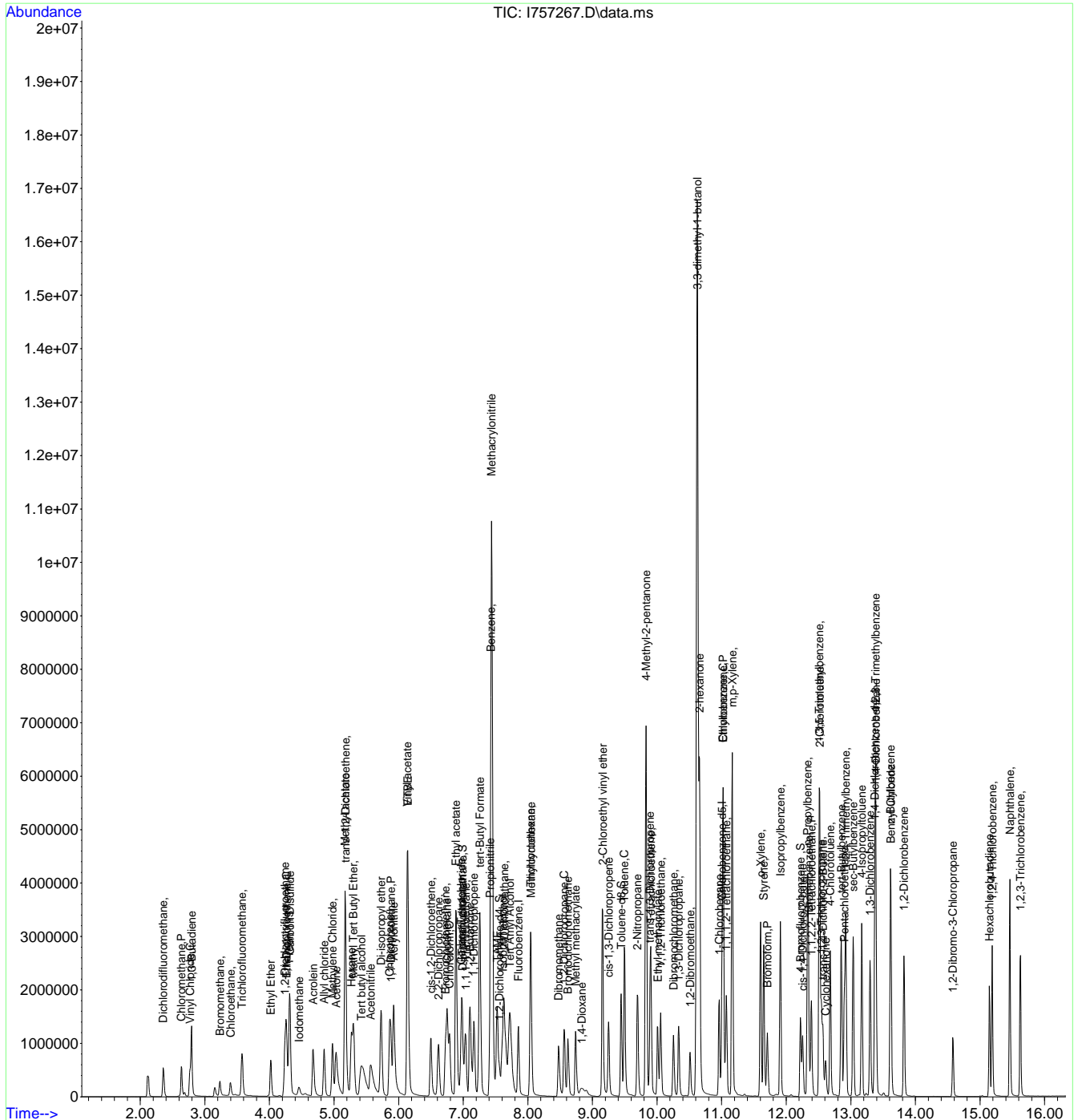
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7  
18  
6  
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# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948      **Method:** SW846 8260D  
**Lab FileID:** I757267.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 13:15      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

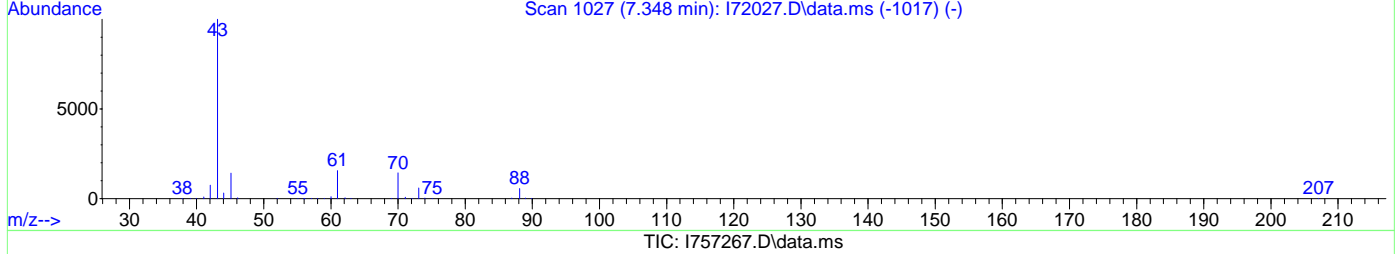
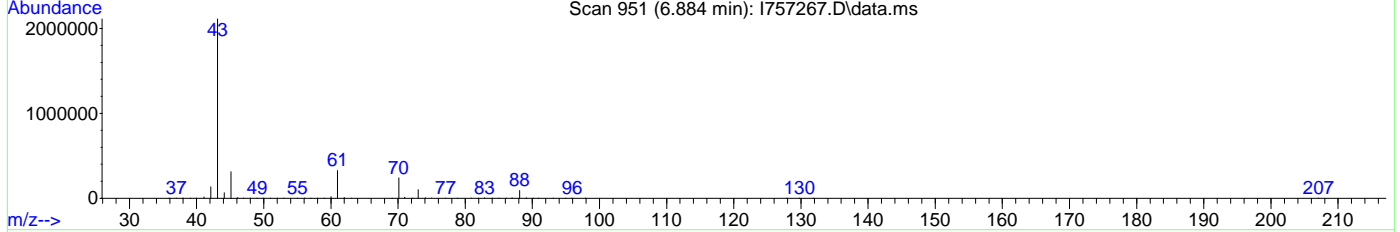
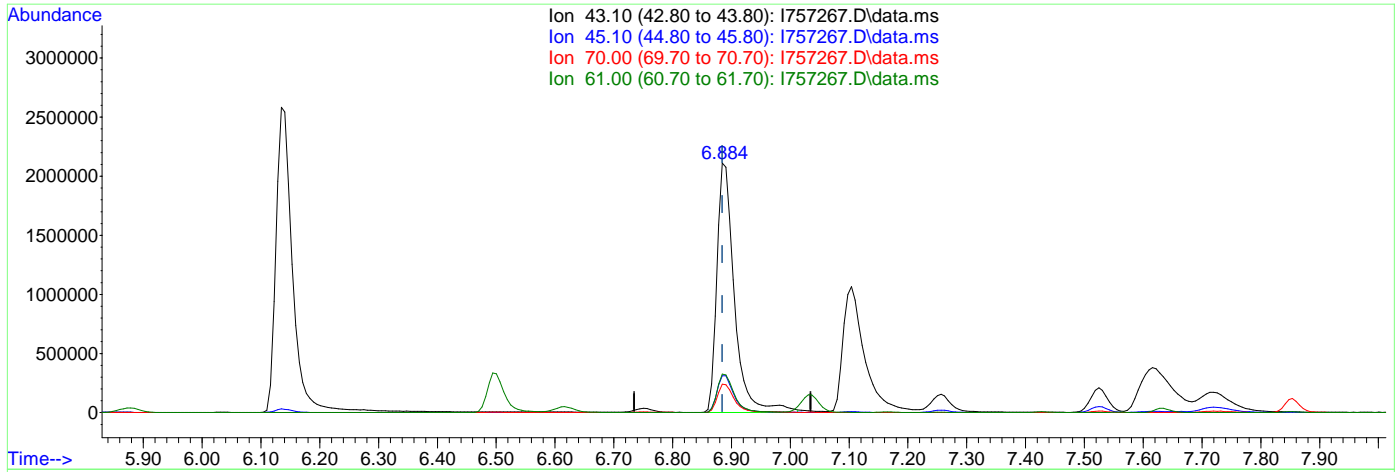
7.6.18.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 567.17ug/L

response 4381496

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.79
70.00	11.10	11.35
61.00	15.10	15.37

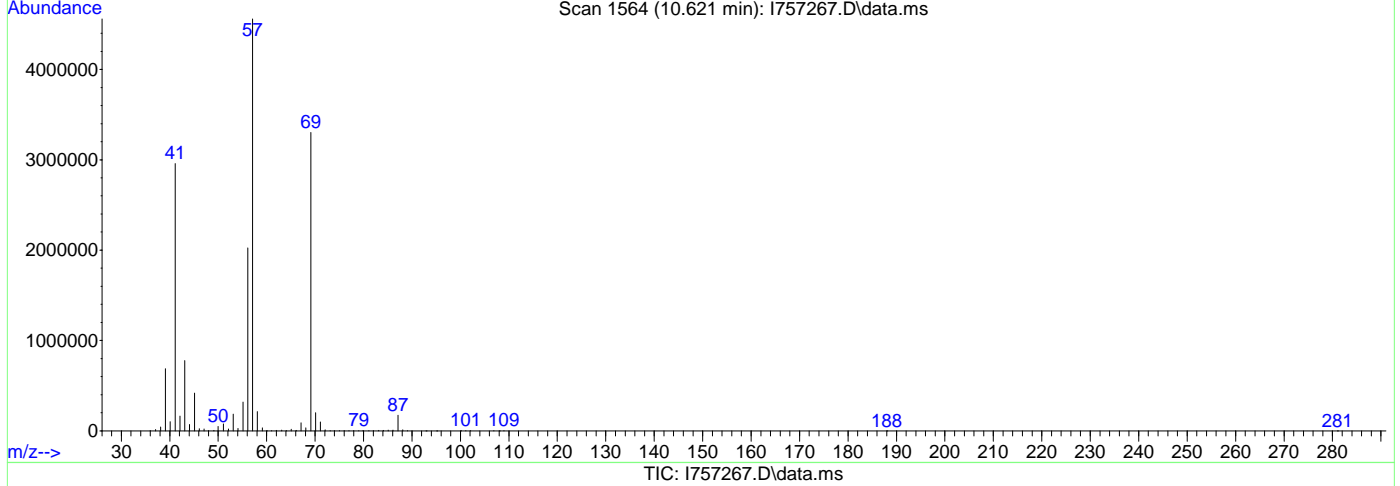
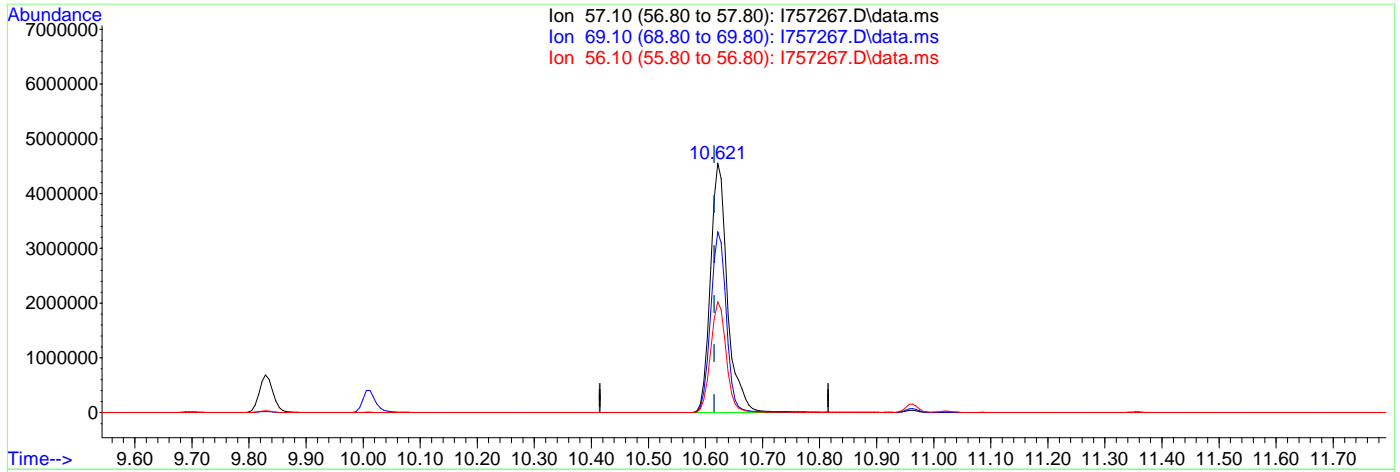
7.6.18.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.621min (+0.006) 5734.20ug/L

response 9464543

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.40
56.10	43.50	44.37
0.00	0.00	0.00

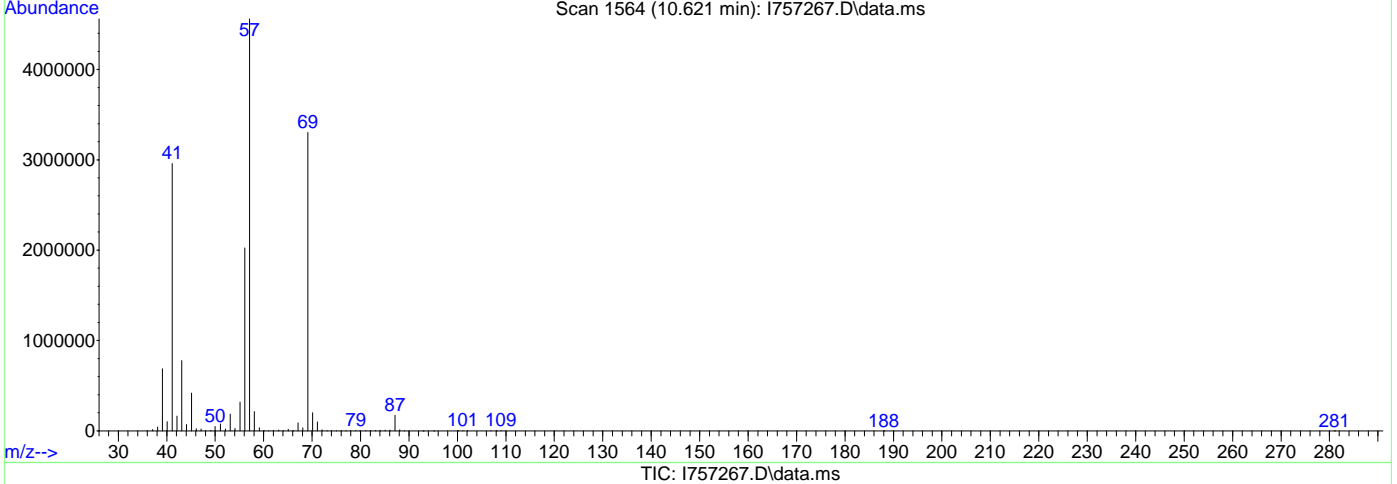
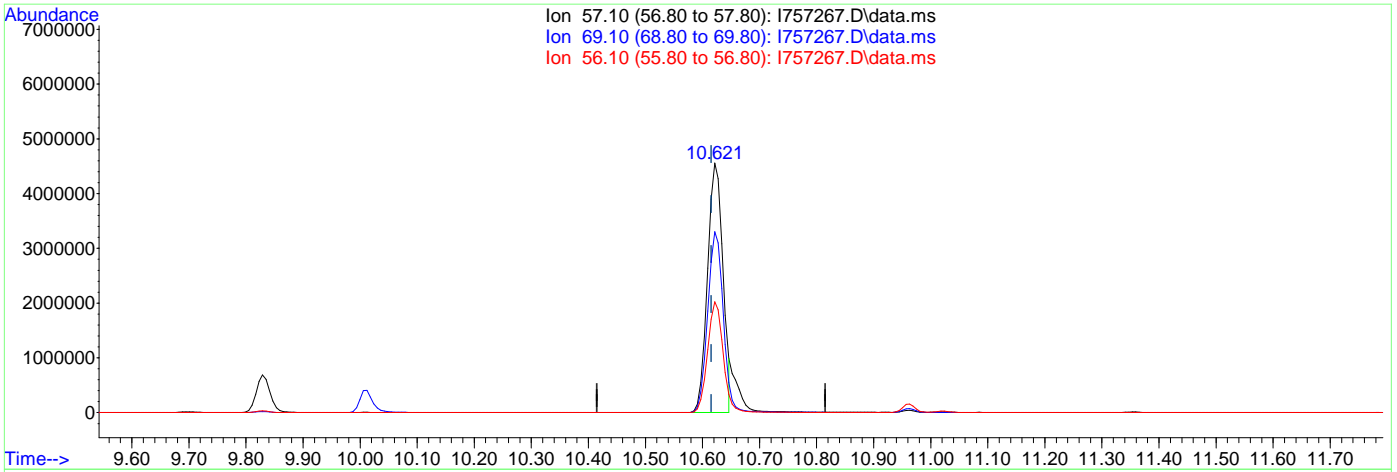
7.6.18.3

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.621min (+0.006) 5174.38ug/L m

response 8540539

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.40
56.10	43.50	44.37
0.00	0.00	0.00

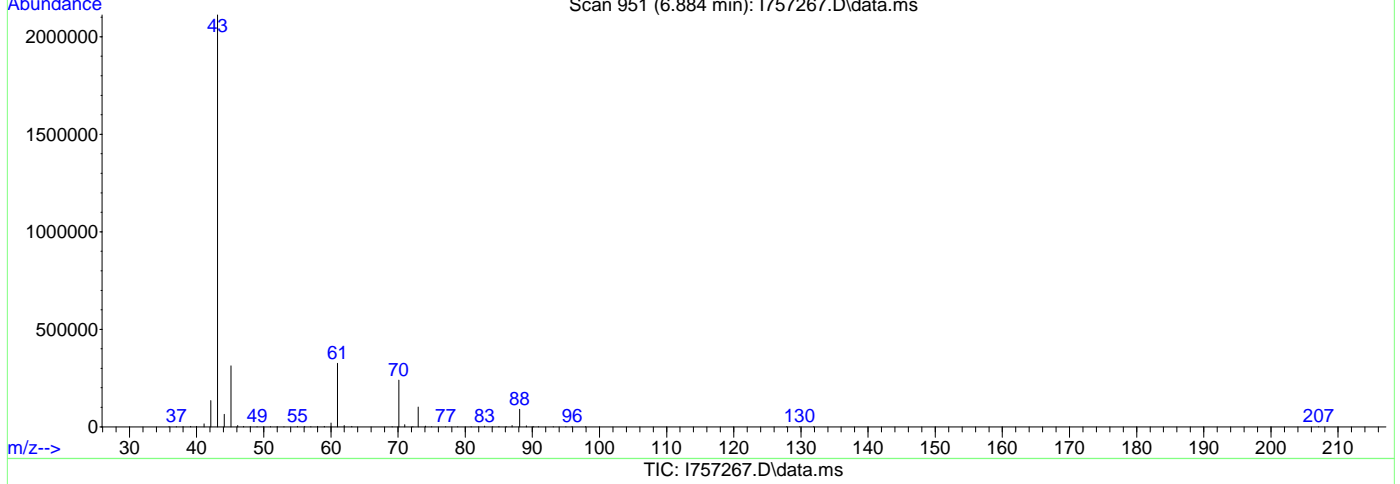
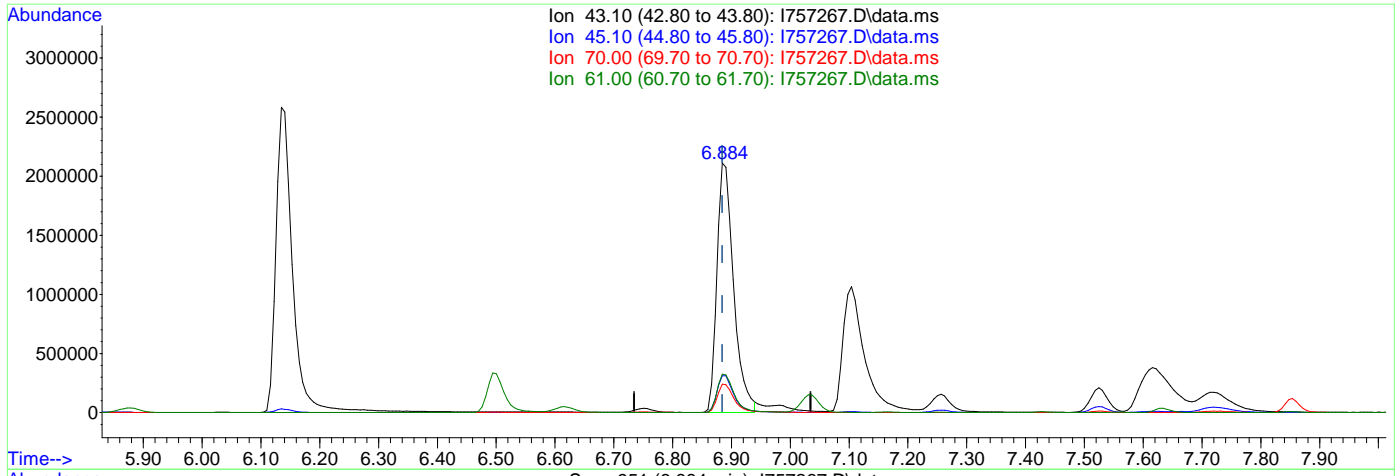
7.6.18.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:34:19 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 539.63ug/L m

response 4168769

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.78
70.00	11.10	11.35
61.00	15.10	15.40

7.6.18.5

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	1167572	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	863763	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	536859	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	338967	51.15	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	102.30%	
49) 1,2-Dichloroethane-d4	7.561	65	299738	49.74	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	99.48%	
63) Toluene-d8	9.445	98	1241290	50.39	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	100.78%	
86) 4-Bromofluorobenzene	12.219	174	452105	50.02	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.04%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.355	85	181684	35.41	ug/L	99
3) Chloromethane	2.641	50	187721	35.62	ug/L	98
4) Vinyl Chloride	2.769	62	172721	33.14	ug/L	98
6) Bromomethane	3.233	94	63922	35.86	ug/L	99
7) Chloroethane	3.397	64	71580	32.75	ug/L	99
8) Trichlorofluoromethane	3.592	101	223977	32.47	ug/L	99
9) Ethyl Ether	4.019	59	153798	42.60	ug/L	96
10) 1,2-Dichlorotrifluoro...	4.245	67	176479	36.75	ug/L	97
11) 1,1-Dichloroethene	4.275	61	216177	34.12	ug/L	99
12) Ethanol	4.208	45	132725	755.11	ug/L	90
13) Freon 113	4.318	101	140462	35.68	ug/L	98
14) Carbon Disulfide	4.330	76	429418	33.00	ug/L	100
15) Iodomethane	4.458	142	131520	41.69	ug/L	95
16) Acrolein	4.678	56	313917	185.92	ug/L	100
17) Allyl chloride	4.854	41	211809	34.77	ug/L	99
18) Methylene Chloride	4.976	49	244818	38.34	ug/L	99
19) Acetone	5.025	43	611835	194.73	ug/L	97
20) Methyl acetate	5.165	43	1300972	197.56	ug/L	99
21) trans-1,2-Dichloroethene	5.184	61	242062	36.41	ug/L	98
22) Hexane	5.275	56	115756	35.52	ug/L	98
23) Methyl Tert Butyl Ether	5.299	73	576110	41.02	ug/L	99
24) Tert butyl alcohol	5.391	59	853158	444.00	ug/L	99
25) Acetonitrile	5.562	41	503982	389.31	ug/L	100
26) Di-isopropyl ether	5.726	45	565990	38.53	ug/L	100
28) 1,1-Dichloroethane	5.885	63	316951	36.32	ug/L	99
29) Acrylonitrile	5.921	53	680139	212.48	ug/L	99
30) ETBE	6.135	59	571099	40.39	ug/L	99
31) Vinyl acetate	6.141	43	1977348	208.01	ug/L	99
32) cis-1,2-Dichloroethene	6.507	96	194512	37.09	ug/L	98
33) 2,2-Dichloropropane	6.622	77	254068	38.19	ug/L	98
34) Bromochloromethane	6.726	128	101858	37.64	ug/L	100
35) Cyclohexane	6.757	56	236994	34.41	ug/L	99
36) Chloroform	6.793	83	340867	37.45	ug/L	98
37) Ethyl acetate	6.885	43	1529328m	196.35	ug/L	
38) Tetrahydrofuran	6.982	42	142102	39.15	ug/L	99
40) Carbon Tetrachloride	6.976	117	222115	34.74	ug/L	99
41) 1,1,1-Trichloroethane	7.037	97	269977	35.85	ug/L	99
42) 2-Butanone	7.098	43	972769	199.36	ug/L	97
43) 1,1-Dichloropropene	7.171	75	218372	36.74	ug/L	96
44) tert-Butyl Formate	7.256	59	955754	261.75	ug/L	98
45) Propionitrile	7.409	54	601193	374.75	ug/L	99
46) Methacrylonitrile	7.439	41	1662190	353.39	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Benzene	7.433	78	680777	37.35	ug/L	99
48) TAME	7.525	73	537529	39.26	ug/L	98
50) Isobutyl alcohol	7.592	42	328173	772.40	ug/L	99
51) 1,2-Dichloroethane	7.634	62	240861	38.04	ug/L	99
52) Tert Amyl Alcohol	7.701	59	698196	442.70	ug/L	99
53) Trichloroethene	8.043	95	181981	35.70	ug/L	99
54) Methylcyclohexane	8.049	83	209090	33.59	ug/L	97
55) Dibromomethane	8.482	93	128744	39.55	ug/L	94
56) 1,2-Dichloropropane	8.567	63	187462	39.91	ug/L	98
57) Bromodichloromethane	8.622	83	246195	38.02	ug/L	98
58) Methyl methacrylate	8.744	41	191932	36.54	ug/L	99
59) 1,4-Dioxane	8.817	88	121911	806.02	ug/L	96
60) 2-Chloroethyl vinyl ether	9.158	63	550429	188.36	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	292980	40.14	ug/L	98
64) Toluene	9.500	91	741775	37.64	ug/L	100
65) 2-Nitropropane	9.695	41	368926	193.74	ug/L	98
66) 4-Methyl-2-pentanone	9.829	43	1652533	193.45	ug/L	100
67) trans-1,3-Dichloropropene	9.896	75	250608	37.05	ug/L	92
68) Tetrachloroethene	9.908	166	215067	36.06	ug/L	97
69) Ethyl methacrylate	10.012	69	254883	39.79	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	154290	38.39	ug/L	97
71) Dibromochloromethane	10.256	129	232080	41.74	ug/L	99
72) 1,3-Dichloropropane	10.335	76	303210	43.29	ug/L	99
73) 1,2-Dibromoethane	10.512	107	210199	40.54	ug/L	98
74) 3,3-dimethyl-1-butanol	10.616	57	3275538m	2073.24	ug/L	
75) 2-hexanone	10.652	43	1355714	194.98	ug/L	100
76) 1-Chlorohexane	10.963	91	190234	34.11	ug/L	99
77) Ethylbenzene	11.024	91	782969	36.79	ug/L	99
78) Chlorobenzene	11.024	112	490186	37.64	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	194482	38.59	ug/L	98
80) m,p-Xylene	11.164	91	1226428	76.77	ug/L	100
81) o-Xylene	11.603	91	633604	36.88	ug/L	98
82) Styrene	11.658	104	482252	39.07	ug/L	99
83) Bromoform	11.707	173	192008	40.98	ug/L	99
84) Isopropylbenzene	11.908	105	737709	36.50	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	84225	43.75	ug/L	95
88) n-Propylbenzene	12.329	91	834036	35.29	ug/L	99
89) Bromobenzene	12.347	156	239619	39.54	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	317412	38.42	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	627879	37.07	ug/L	99
92) 2-Chlorotoluene	12.518	91	604554	37.50	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.572	53	79856	36.75	ug/L	83
94) 1,2,3-Trichloropropane	12.548	110	109631	42.92	ug/L	96
95) Cyclohexanone	12.609	55	140395	245.94	ug/L	96
96) 4-Chlorotoluene	12.682	91	540789	37.27	ug/L	100
97) tert-Butylbenzene	12.853	91	316053	35.11	ug/L	99
98) 1,2,4-Trimethylbenzene	12.926	105	624952	37.46	ug/L	98
99) Pentachloroethane	12.902	167	128027	34.56	ug/L	99
100) sec-Butylbenzene	13.036	105	646080	33.78	ug/L	99
101) 4-Isopropyltoluene	13.170	119	594660	35.25	ug/L	100
102) 1,3-Dichlorobenzene	13.304	146	394162	37.75	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	658021	37.65	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	415811	37.05	ug/L	99
105) n-Butylbenzene	13.615	92	318989	38.45	ug/L	99
106) Benzyl Chloride	13.627	126	120327	40.14	ug/L	94
107) 1,2-Dichlorobenzene	13.828	146	392215	38.33	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	89508	42.87	ug/L	97
109) Hexachlorobutadiene	15.145	225	118606	34.21	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) 1,2,4-Trichlorobenzene	15.188	180	296723	39.25	ug/L	99
111) Naphthalene	15.462	128	955180	40.40	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	295060	39.13	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed



# Manual Integration Approval Summary

**Sample Number:** VI2948-ICV2948      **Method:** SW846 8260D  
**Lab FileID:** I757269.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 14:04      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

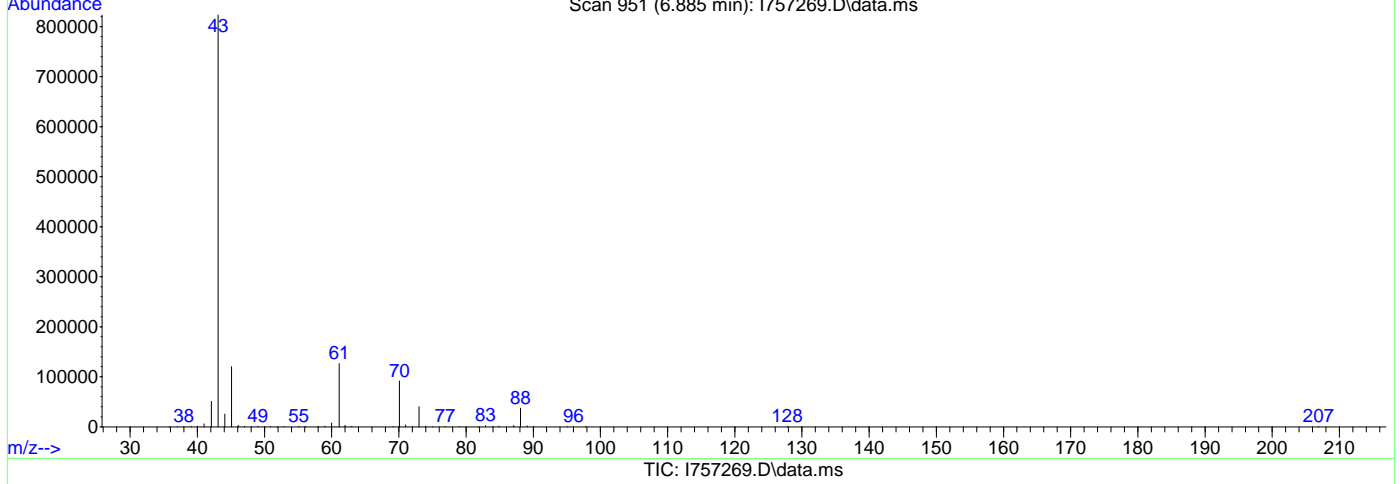
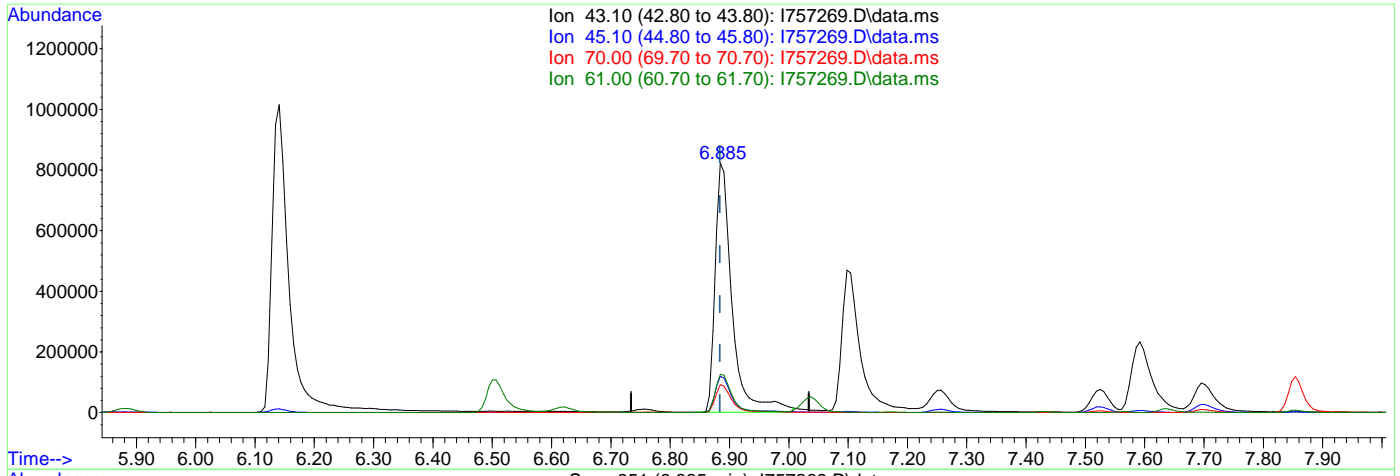
7.6.19.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.885min (+0.001) 208.54ug/L  
 response 1630659

Ion	Exp%	Act%
43.10	100	100
45.10	15.00	14.60
70.00	10.90	11.11
61.00	15.40	15.32

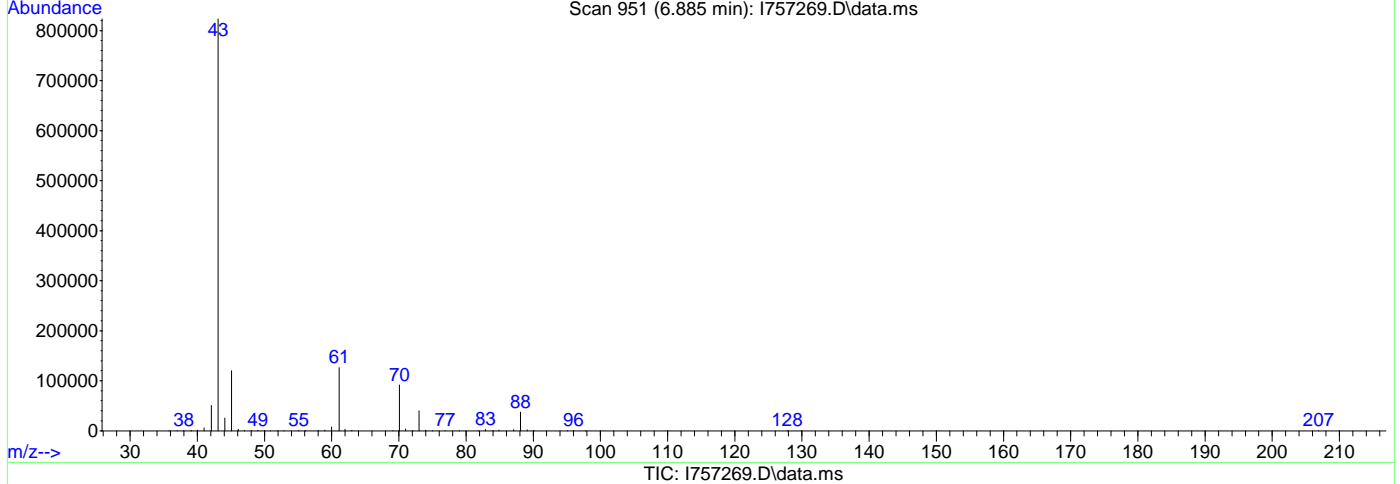
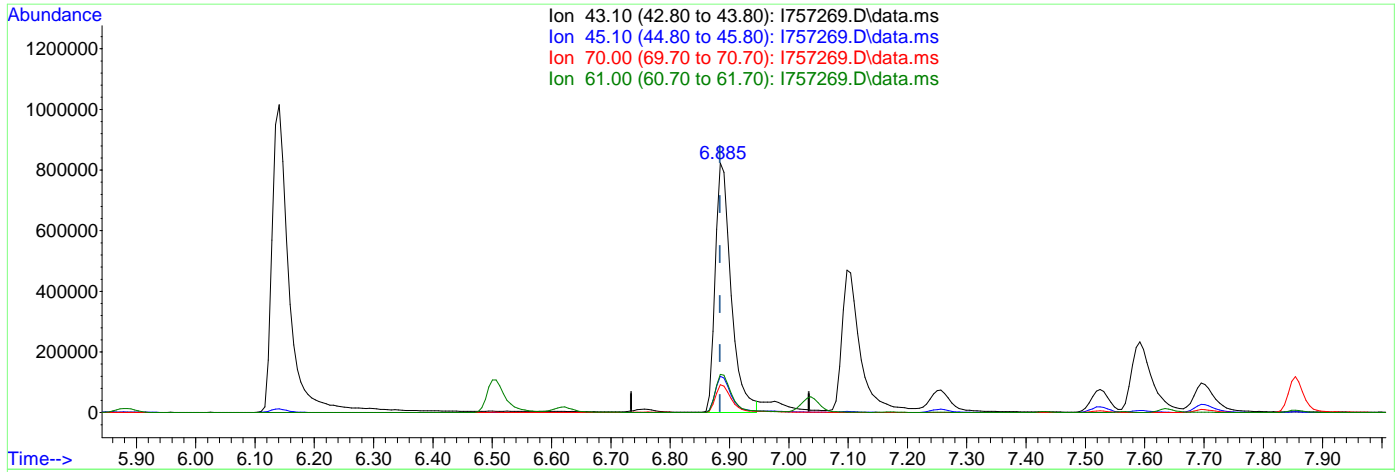
7.6.19.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.001) 196.35ug/L m

response 1529328

Ion	Exp%	Act%
43.10	100	100
45.10	15.00	14.58
70.00	10.90	11.11
61.00	15.40	15.33

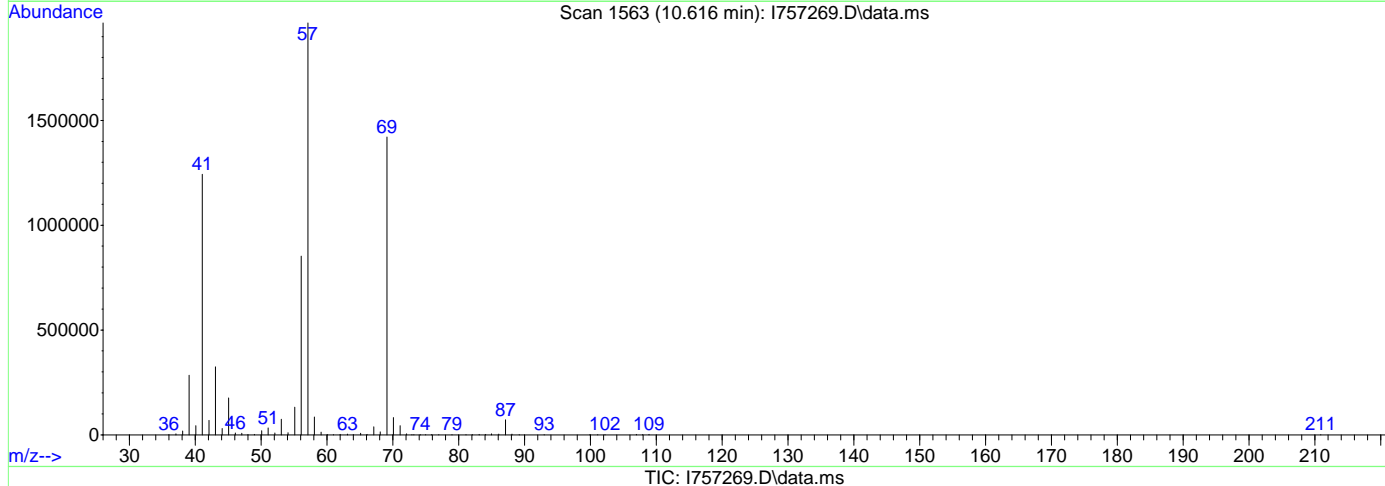
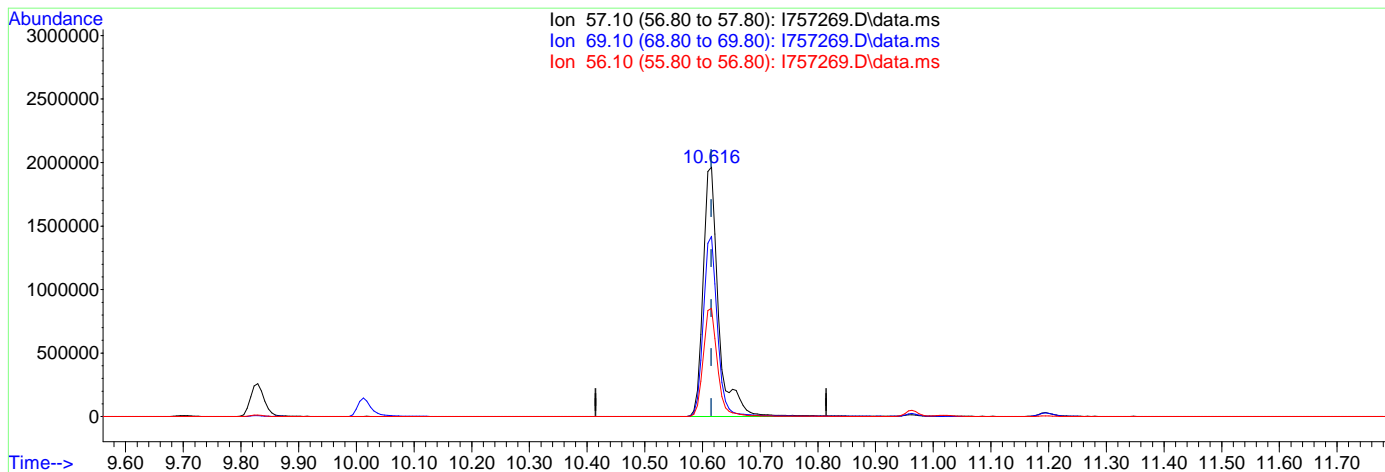
7.6.19.3

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.616min (+0.001) 2309.74ug/L

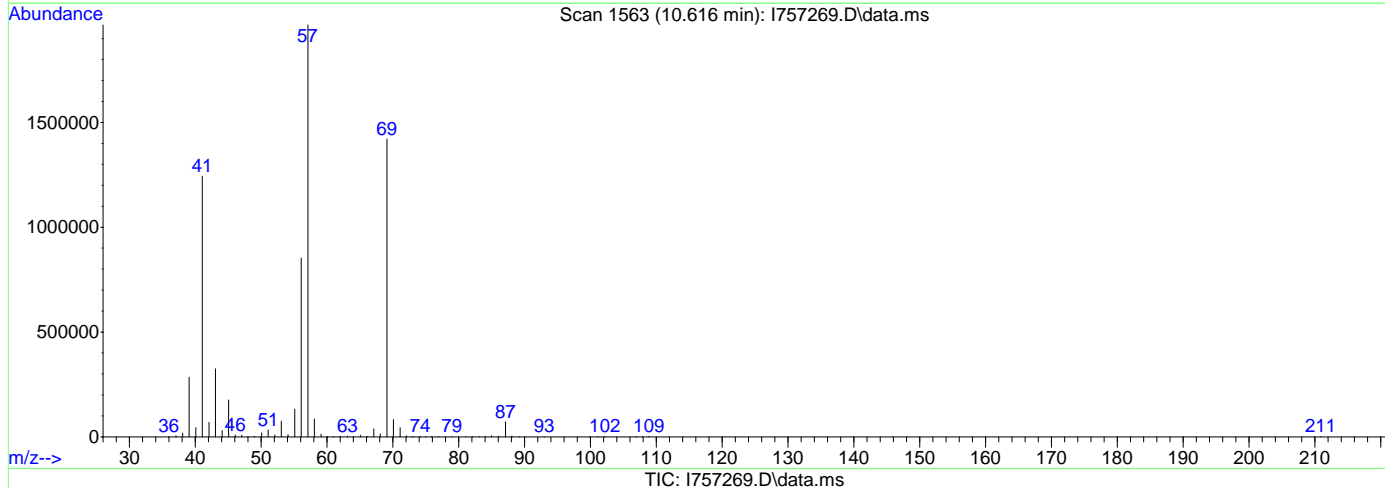
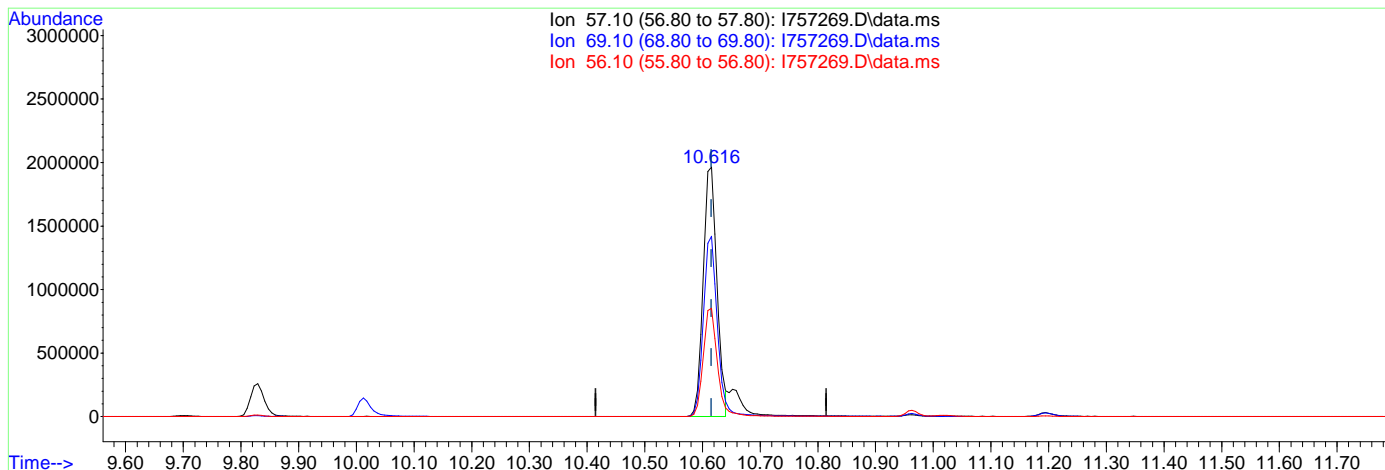
response 3686923

Ion	Exp%	Act%
57.10	100	100
69.10	71.20	72.20
56.10	43.20	43.38
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.616min (+0.001) 2073.24ug/L m

response 3275538

Ion	Exp%	Act%
57.10	100	100
69.10	71.20	72.26
56.10	43.20	43.39
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757270.D  
 Acq On : 15 Jun 2023 2:27 pm  
 Operator : joannel  
 Sample : ICV2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 14:48:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	1153831	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	850734	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	529571	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	331960	50.69	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.38%	
49) 1,2-Dichloroethane-d4	7.561	65	309281	51.94	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.88%	
63) Toluene-d8	9.445	98	1229655	50.69	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	101.38%	
86) 4-Bromofluorobenzene	12.225	174	449316	50.39	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.78%	
Target Compounds						
5) 1,3-Butadiene	2.794	39	88557	19.95	ug/L	94
27) Chloroprene	5.866	53	134410	21.66	ug/L	99
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

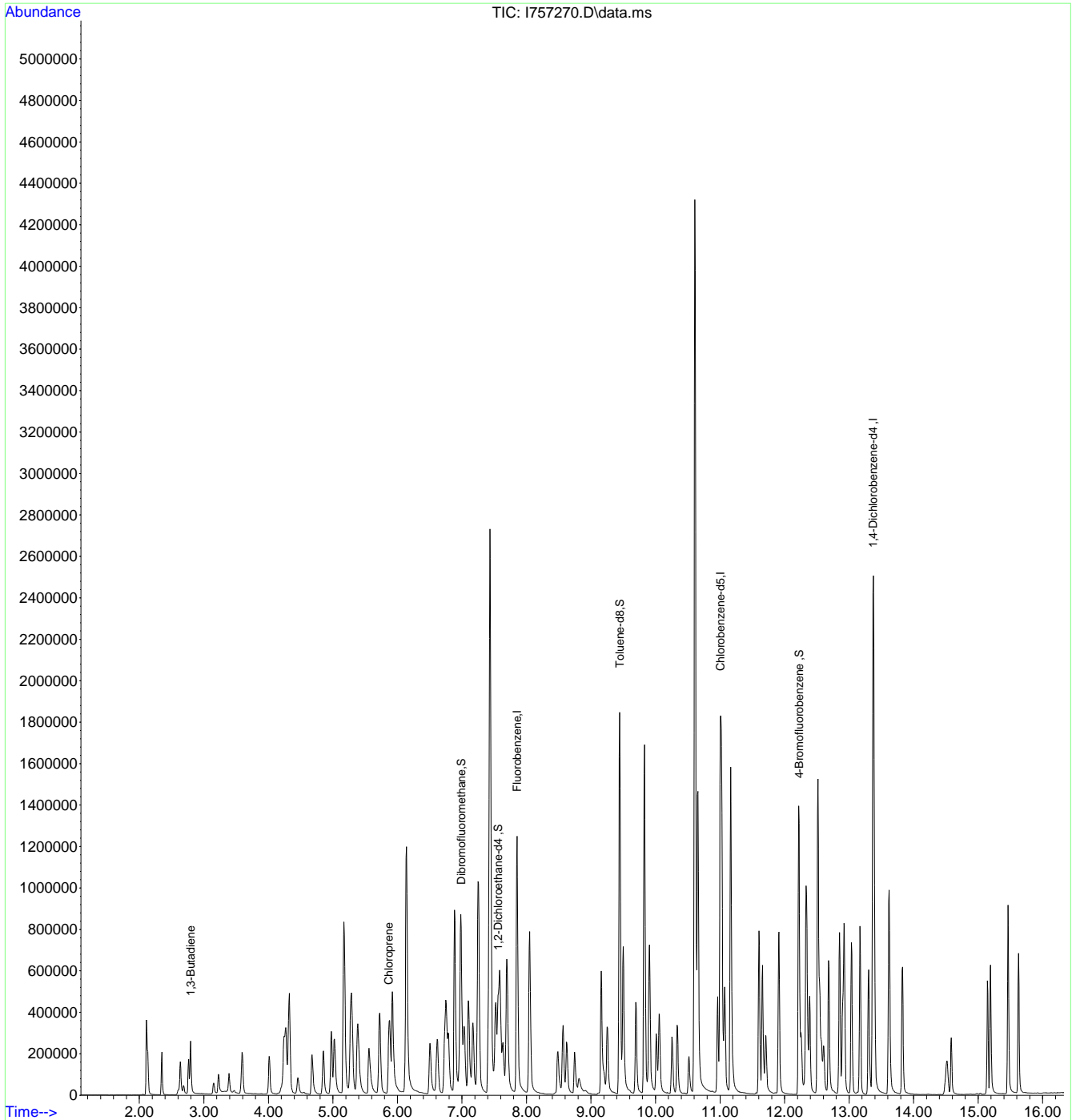
7.6.20  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757270.D  
 Acq On : 15 Jun 2023 2:27 pm  
 Operator : joannel  
 Sample : ICV2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 14:48:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.20  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757567.D  
 Acq On : 29 Jun 2023 11:27 am  
 Operator : adelardl  
 Sample : CC2948-5  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 29 12:41:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	971769	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	670516	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	419770	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	284153	51.52	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	103.04%		
49) 1,2-Dichloroethane-d4	7.561	65	260636	51.97	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.94%		
63) Toluene-d8	9.445	98	997470	52.17	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	104.34%		
86) 4-Bromofluorobenzene	12.219	174	349373	49.43	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.86%		
Target Compounds							
							Qvalue
5) 1,3-Butadiene	2.794	39	119561	32.27	ug/L		92
9) Ethyl Ether	4.013	59	114907	38.24	ug/L		99
10) 1,2-Dichlorotrifluoro...	4.245	67	163502	40.91	ug/L		99
11) 1,1-Dichloroethene	4.269	61	219707	41.67	ug/L		99
12) Ethanol	4.214	45	102949	700.83	ug/L		90
13) Freon 113	4.318	101	136899	41.79	ug/L		95
14) Carbon Disulfide	4.330	76	413169	38.15	ug/L		100
15) Iodomethane	4.458	142	72968	28.47	ug/L		93
16) Acrolein	4.678	56	213537	153.39	ug/L		97
17) Allyl chloride	4.848	41	187403	36.98	ug/L		98
18) Methylene Chloride	4.976	49	232477	43.92	ug/L		98
19) Acetone	5.019	43	495392	189.44	ug/L		99
20) Methyl acetate	5.165	43	1137104	207.47	ug/L		99
21) trans-1,2-Dichloroethene	5.178	61	222033	40.13	ug/L		99
22) Hexane	5.275	56	111335	41.04	ug/L		98
23) Methyl Tert Butyl Ether	5.293	73	437487	37.43	ug/L		86
24) Tert butyl alcohol	5.385	59	606262	379.09	ug/L		97
25) Acetonitrile	5.556	41	382590	351.91	ug/L		100
26) Di-isopropyl ether	5.726	45	456892	37.37	ug/L		98
27) Chloroprene	5.860	53	218199	40.64	ug/L		99
28) 1,1-Dichloroethane	5.879	63	285609	39.33	ug/L		99
29) Acrylonitrile	5.921	53	530618	199.17	ug/L		99
30) ETBE	6.135	59	439910	37.38	ug/L		99
31) Vinyl acetate	6.135	43	1505362	191.22	ug/L		100
32) cis-1,2-Dichloroethene	6.501	96	167212	38.31	ug/L		93
33) 2,2-Dichloropropane	6.616	77	220625	39.85	ug/L		99
34) Bromochloromethane	6.726	128	85159	37.81	ug/L		99
35) Cyclohexane	6.750	56	232988	40.23	ug/L		97
36) Chloroform	6.787	83	292098	38.56	ug/L		99
37) Ethyl acetate	6.885	43	1307947	201.44	ug/L		99
38) Tetrahydrofuran	6.976	42	111266	36.83	ug/L		96
40) Carbon Tetrachloride	6.970	117	224451	42.18	ug/L		97
41) 1,1,1-Trichloroethane	7.037	97	256898	40.99	ug/L		99
42) 2-Butanone	7.098	43	749322	185.44	ug/L		98
43) 1,1-Dichloropropene	7.171	75	201818	40.80	ug/L		97
44) tert-Butyl Formate	7.250	59	551048	181.32	ug/L		92
45) Propionitrile	7.409	54	492446	368.81	ug/L		97
46) Methacrylonitrile	7.433	41	1402748	358.32	ug/L		98
47) Benzene	7.427	78	579577	38.21	ug/L		92
48) TAME	7.525	73	413754	36.31	ug/L		98
50) Isobutyl alcohol	7.592	42	271431	767.57	ug/L		97
51) 1,2-Dichloroethane	7.634	62	198975	37.76	ug/L		99

7.6.21  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757567.D  
 Acq On : 29 Jun 2023 11:27 am  
 Operator : adelardl  
 Sample : CC2948-5  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 29 12:41:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
52) Tert Amyl Alcohol	7.695	59	487033	371.03	ug/L	96
53) Trichloroethene	8.043	95	162828	38.38	ug/L	96
54) Methylcyclohexane	8.049	83	209436	39.94	ug/L	97
55) Dibromomethane	8.482	93	103830	38.32	ug/L	98
56) 1,2-Dichloropropane	8.567	63	148948	38.10	ug/L	98
57) Bromodichloromethane	8.622	83	206617	38.34	ug/L	99
58) Methyl methacrylate	8.738	41	161663	36.94	ug/L	98
59) 1,4-Dioxane	8.811	88	77360	622.84	ug/L	99
60) 2-Chloroethyl vinyl ether	9.152	63	438329	180.59	ug/L	98
61) cis-1,3-Dichloropropene	9.250	75	235500	38.77	ug/L	100
64) Toluene	9.500	91	617991	40.40	ug/L	99
65) 2-Nitropropane	9.695	41	335491	223.47	ug/L	94
66) 4-Methyl-2-pentanone	9.823	43	1320246	199.10	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	214150	40.55	ug/L	98
68) Tetrachloroethene	9.908	166	206268	44.55	ug/L	97
69) Ethyl methacrylate	10.012	69	205633	41.27	ug/L	95
70) 1,1,2-Trichloroethane	10.055	83	126016	40.39	ug/L	96
71) Dibromochloromethane	10.256	129	184293	42.69	ug/L	99
72) 1,3-Dichloropropane	10.335	76	225618	41.49	ug/L	98
73) 1,2-Dibromoethane	10.512	107	167038	41.50	ug/L	98
74) 3,3-dimethyl-1-butanol	10.616	57	2824408	2282.09	ug/L	100
75) 2-hexanone	10.652	43	1047293	194.07	ug/L	99
76) 1-Chlorohexane	10.963	91	184743	42.68	ug/L	100
77) Ethylbenzene	11.024	91	673425	40.77	ug/L	100
78) Chlorobenzene	11.024	112	418869	41.43	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	161154	41.19	ug/L	99
80) m,p-Xylene	11.164	91	1036507	83.58	ug/L	99
81) o-Xylene	11.603	91	529638	39.71	ug/L	98
82) Styrene	11.652	104	389817	40.58	ug/L	99
83) Bromoform	11.707	173	155979	42.88	ug/L	98
84) Isopropylbenzene	11.908	105	648149	41.31	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.255	53	59733	39.68	ug/L	96
88) n-Propylbenzene	12.329	91	755109	40.86	ug/L	99
89) Bromobenzene	12.347	156	189914	40.08	ug/L	97
90) 1,1,2,2-Tetrachloroethane	12.390	83	253692	39.28	ug/L	99
91) 1,3,5-Trimethylbenzene	12.512	105	528897	39.94	ug/L	99
92) 2-Chlorotoluene	12.518	91	507884	40.29	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.573	53	61819	36.40	ug/L	97
94) 1,2,3-Trichloropropane	12.542	110	79565	39.84	ug/L	95
95) Cyclohexanone	12.603	55	72965	163.47	ug/L	96
96) 4-Chlorotoluene	12.682	91	447289	39.43	ug/L	99
97) tert-Butylbenzene	12.853	91	280202	39.81	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	520000	39.87	ug/L	99
99) Pentachloroethane	12.902	167	128080	44.22	ug/L	97
100) sec-Butylbenzene	13.036	105	622998	41.40	ug/L	99
101) 4-Isopropyltoluene	13.170	119	543536	41.20	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	335134	41.05	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	537485	39.33	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	348892	39.76	ug/L	99
105) n-Butylbenzene	13.615	92	276591	42.64	ug/L	94
106) Benzyl Chloride	13.627	126	90135	38.57	ug/L	91
107) 1,2-Dichlorobenzene	13.822	146	327712	40.96	ug/L	99
108) 1,2-Dibromo-3-Chloropr...	14.578	75	65358	40.03	ug/L	87
109) Hexachlorobutadiene	15.145	225	117064	43.19	ug/L	98
110) 1,2,4-Trichlorobenzene	15.188	180	234992	39.75	ug/L	100
111) Naphthalene	15.462	128	729361	39.45	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	235393	39.93	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757567.D  
 Acq On : 29 Jun 2023 11:27 am  
 Operator : adelardl  
 Sample : CC2948-5  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

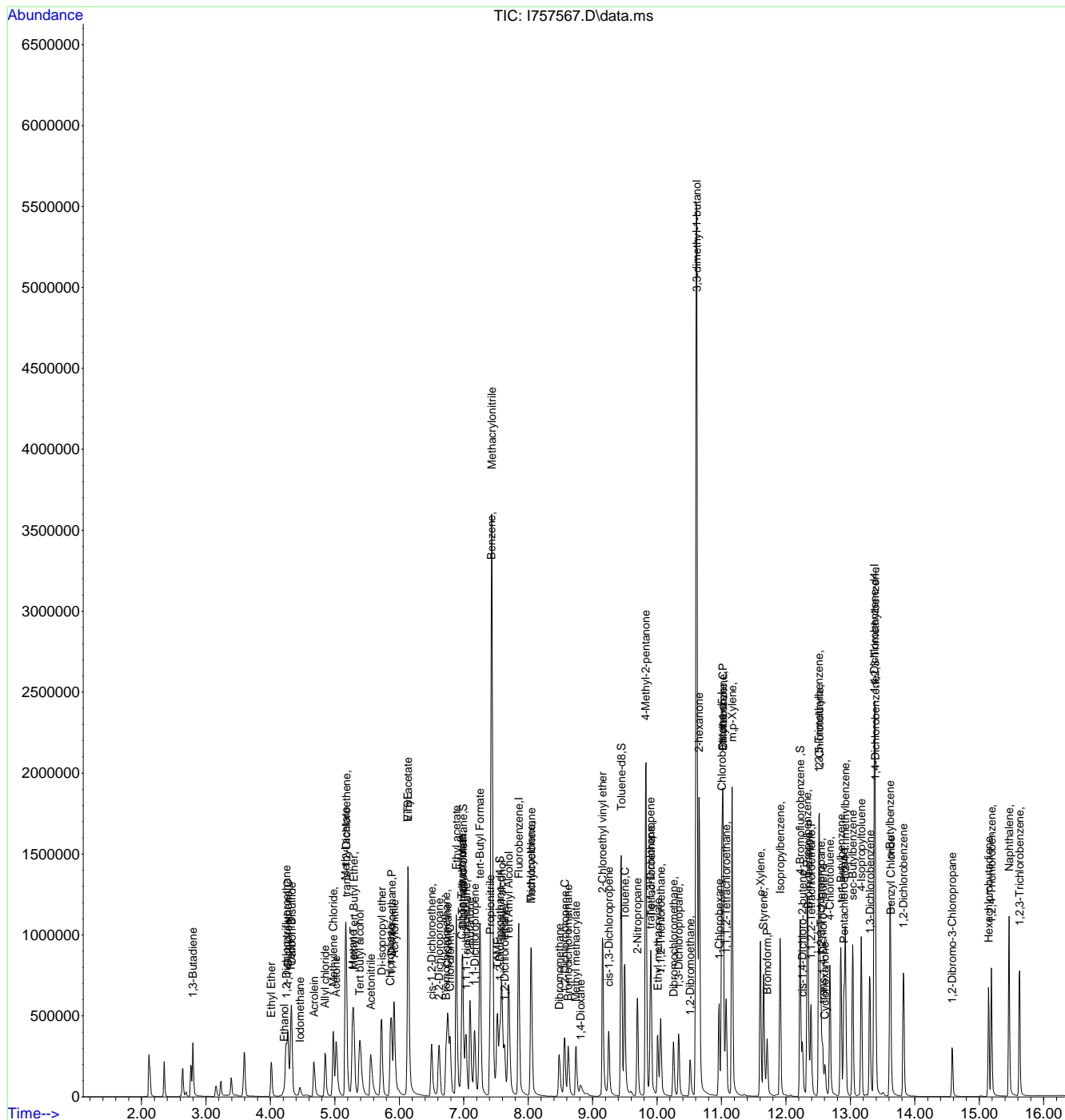
Quant Time: Jun 29 12:41:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
(#) = qualifier out of range (m) = manual integration (+) = signals summed						

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757567.D  
 Acq On : 29 Jun 2023 11:27 am  
 Operator : adelardl  
 Sample : CC2948-5  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 29 12:41:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.21  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757568.D  
 Acq On : 29 Jun 2023 12:04 pm  
 Operator : adelardl  
 Sample : CC2948-5 (gasesonly)  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 29 12:58:18 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	971766	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	678518	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	382933	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	263953	47.85	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	95.70%	
49) 1,2-Dichloroethane-d4	7.561	65	251308	50.11	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	100.22%	
63) Toluene-d8	9.445	98	963871	49.82	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	99.64%	
86) 4-Bromofluorobenzene	12.225	174	314901	48.84	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.68%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.355	85	155209	36.35	ug/L	98
3) Chloromethane	2.641	50	159411	36.35	ug/L	98
4) Vinyl Chloride	2.769	62	165210	38.09	ug/L	97
6) Bromomethane	3.233	94	54541	36.75	ug/L	96
7) Chloroethane	3.403	64	96796	53.22	ug/L	98
8) Trichlorofluoromethane	3.611	101	242281	42.21	ug/L	97
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

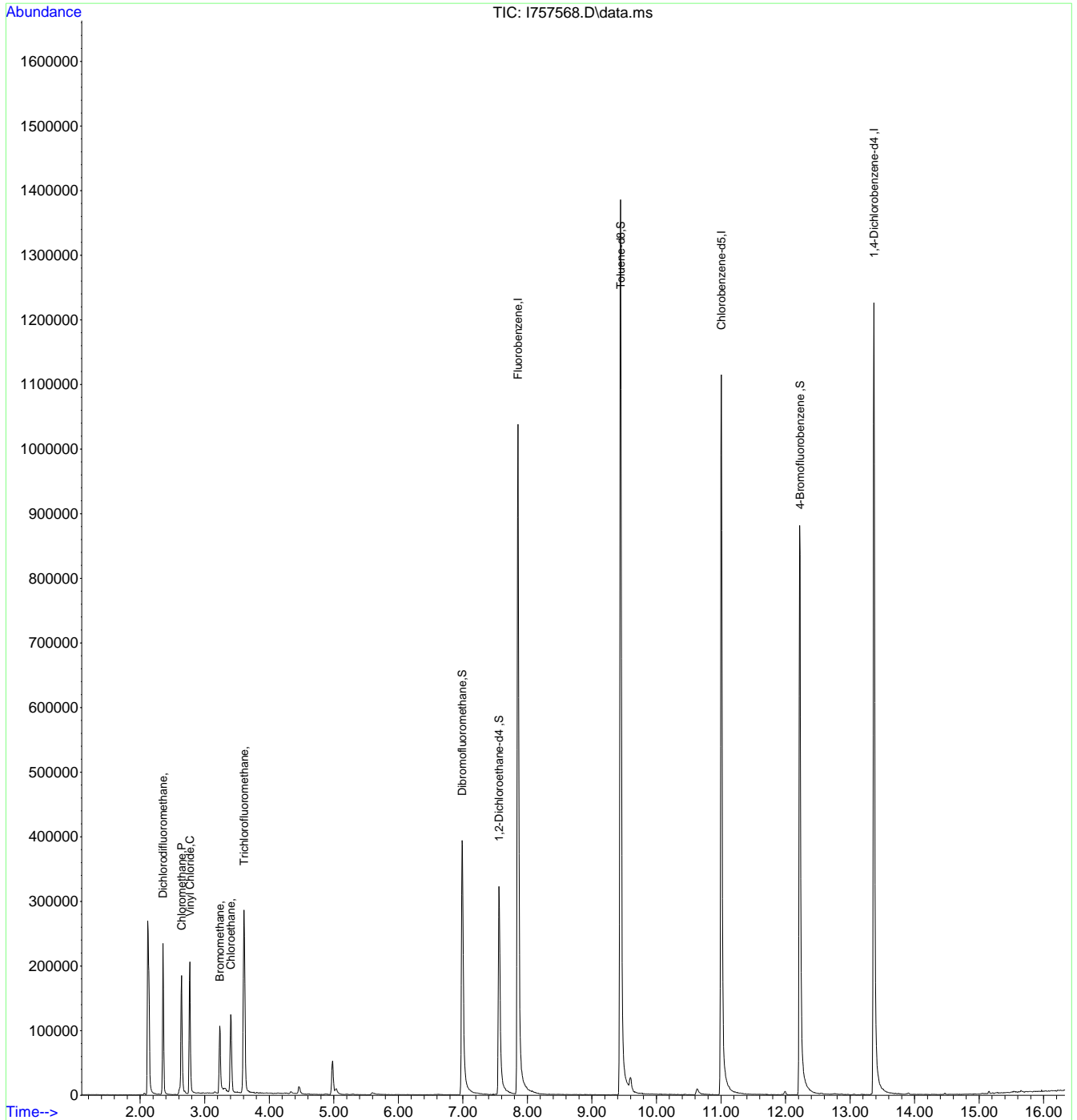
7.6.22  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757568.D  
 Acq On : 29 Jun 2023 12:04 pm  
 Operator : adelardl  
 Sample : CC2948-5 (gasesonly)  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 29 12:58:18 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.22  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757569.D  
 Acq On : 29 Jun 2023 12:34 pm  
 Operator : adelardl  
 Sample : CC2948-5 (gasesonly)  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 29 12:58:39 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	976456	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	684604	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	388143	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	268130	48.38	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.76%	
49) 1,2-Dichloroethane-d4	7.561	65	254143	50.43	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	100.86%	
63) Toluene-d8	9.445	98	974514	49.92	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	99.84%	
86) 4-Bromofluorobenzene	12.225	174	321189	49.15	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.30%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.349	85	174028	40.56	ug/L	100
3) Chloromethane	2.635	50	171117	38.85	ug/L	99
4) Vinyl Chloride	2.763	62	174068	39.94	ug/L	100
6) Bromomethane	3.233	94	68037	45.50	ug/L	99
7) Chloroethane	3.397	64	105304	57.62	ug/L	97
8) Trichlorofluoromethane	3.605	101	269505	46.72	ug/L	97
-----						

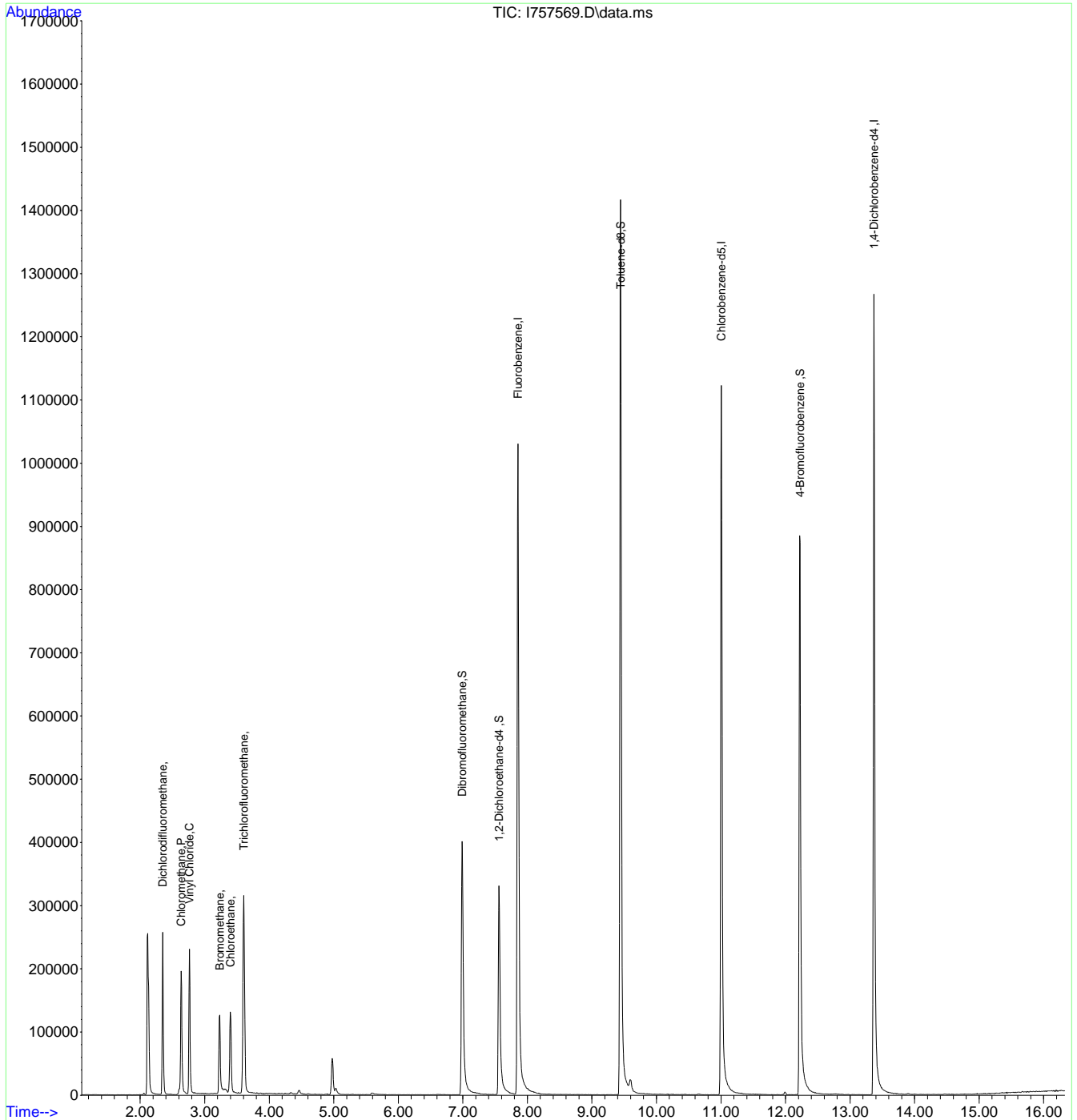
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-29\  
 Data File : I757569.D  
 Acq On : 29 Jun 2023 12:34 pm  
 Operator : adelardl  
 Sample : CC2948-5 (gasesonly)  
 Misc : MS54274,VI2958,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 29 12:58:39 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.23  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757594.d  
 Acq On : 29 Jun 2023 10:34 pm  
 Operator : adelardl  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:48:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.854	96	973536	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	677727	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	411102	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	280029	50.68	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.36%	
49) 1,2-Dichloroethane-d4	7.561	65	256148	50.98	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	101.96%	
63) Toluene-d8	9.445	98	1001196	51.80	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	103.60%	
86) 4-Bromofluorobenzene	12.219	174	347136	50.15	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.30%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.349	85	156810	36.66	ug/L	97
3) Chloromethane	2.635	50	161981	36.87	ug/L	99
4) Vinyl Chloride	2.763	62	167611	38.57	ug/L	98
5) 1,3-Butadiene	2.794	39	135297	36.56	ug/L	96
6) Bromomethane	3.227	94	76738	51.37	ug/L	98
7) Chloroethane	3.391	64	73369	40.26	ug/L	97
8) Trichlorofluoromethane	3.599	101	236726	41.16	ug/L	98
9) Ethyl Ether	4.013	59	116103	38.57	ug/L	95
10) 1,2-Dichlorotrifluoro...	4.239	67	160819	40.16	ug/L	99
11) 1,1-Dichloroethene	4.269	61	215488	40.79	ug/L	98
12) Ethanol	4.202	45	85120	572.87	ug/L	92
13) Freon 113	4.312	101	134800	41.07	ug/L	97
14) Carbon Disulfide	4.324	76	398516	36.73	ug/L	100
15) Iodomethane	4.458	142	162135	59.70	ug/L	93
16) Acrolein	4.678	56	192461	138.60	ug/L	99
17) Allyl chloride	4.848	41	176744	34.79	ug/L	97
18) Methylene Chloride	4.976	49	231739	43.70	ug/L	99
19) Acetone	5.019	43	458810	175.13	ug/L	100
20) Methyl acetate	5.165	43	1112674	202.65	ug/L	100
21) trans-1,2-Dichloroethene	5.178	61	215375	38.86	ug/L	98
22) Hexane	5.275	56	101774	37.45	ug/L	94
23) Methyl Tert Butyl Ether	5.293	73	429340	36.66	ug/L	90
24) Tert butyl alcohol	5.385	59	549251	342.82	ug/L	98
25) Acetonitrile	5.556	41	353402	322.18	ug/L	99
26) Di-isopropyl ether	5.720	45	453401	37.02	ug/L	99
27) Chloroprene	5.866	53	213449	39.73	ug/L	98
28) 1,1-Dichloroethane	5.885	63	281739	38.72	ug/L	100
29) Acrylonitrile	5.915	53	508268	190.43	ug/L	99
30) ETBE	6.135	59	433560	36.77	ug/L	99
31) Vinyl acetate	6.135	43	1433314	182.22	ug/L	99
32) cis-1,2-Dichloroethene	6.500	96	164503	37.62	ug/L	94
33) 2,2-Dichloropropane	6.616	77	186532	33.63	ug/L	99
34) Bromochloromethane	6.726	128	82442	36.53	ug/L	97
35) Cyclohexane	6.756	56	229969	39.68	ug/L	98
36) Chloroform	6.793	83	286213	37.71	ug/L	98
37) Ethyl acetate	6.885	43	1280231	197.09	ug/L	99
38) Tetrahydrofuran	6.976	42	108371	35.81	ug/L	97
40) Carbon Tetrachloride	6.970	117	219733	41.22	ug/L	99
41) 1,1,1-Trichloroethane	7.037	97	250963	39.97	ug/L	97
42) 2-Butanone	7.098	43	723899	179.23	ug/L	98
43) 1,1-Dichloropropene	7.171	75	198032	39.96	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\Vi2958\  
 Data File : I757594.d  
 Acq On : 29 Jun 2023 10:34 pm  
 Operator : adelardl  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:48:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.250	59	531383	174.53	ug/L	95
45) Propionitrile	7.409	54	472097	352.93	ug/L	97
46) Methacrylonitrile	7.433	41	1373807	350.29	ug/L	98
47) Benzene	7.427	78	569505	37.48	ug/L	94
48) TAME	7.525	73	407849	35.73	ug/L	98
50) Isobutyl alcohol	7.586	42	236933	668.80	ug/L	95
51) 1,2-Dichloroethane	7.634	62	198760	37.65	ug/L	98
52) Tert Amyl Alcohol	7.695	59	445373	338.68	ug/L	97
53) Trichloroethene	8.043	95	160291	37.71	ug/L	96
54) Methylcyclohexane	8.049	83	203753	38.86	ug/L	96
55) Dibromomethane	8.482	93	100480	37.02	ug/L	98
56) 1,2-Dichloropropane	8.567	63	145316	37.11	ug/L	99
57) Bromodichloromethane	8.622	83	201600	37.34	ug/L	97
58) Methyl methacrylate	8.744	41	165836	37.76	ug/L	99
59) 1,4-Dioxane	8.817	88	64217	520.03	ug/L	98
60) 2-Chloroethyl vinyl ether	9.158	63	371232	153.76	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	225277	37.02	ug/L	98
64) Toluene	9.500	91	620443	40.12	ug/L	98
65) 2-Nitropropane	9.695	41	328245	217.04	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	1302920	194.39	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	202683	38.12	ug/L	92
68) Tetrachloroethene	9.908	166	212850	45.48	ug/L	98
69) Ethyl methacrylate	10.012	69	201400	40.05	ug/L	100
70) 1,1,2-Trichloroethane	10.055	83	125309	39.73	ug/L	99
71) Dibromochloromethane	10.256	129	178446	40.90	ug/L	99
72) 1,3-Dichloropropane	10.335	76	225333	41.00	ug/L	99
73) 1,2-Dibromoethane	10.512	107	165905	40.78	ug/L	99
74) 3,3-dimethyl-1-butanol	10.609	57	2661479	2140.67	ug/L	99
75) 2-hexanone	10.652	43	1017900	186.90	ug/L	99
76) 1-Chlorohexane	10.963	91	174541	39.89	ug/L	98
77) Ethylbenzene	11.024	91	664325	39.79	ug/L	99
78) Chlorobenzene	11.024	112	410965	40.22	ug/L	98
79) 1,1,1,2-Tetrachloroethane	11.073	131	158976	40.20	ug/L	99
80) m,p-Xylene	11.164	91	1019638	81.34	ug/L	100
81) o-Xylene	11.603	91	524928	38.94	ug/L	100
82) Styrene	11.652	104	383634	39.58	ug/L	99
83) Bromoform	11.707	173	147487	40.12	ug/L	99
84) Isopropylbenzene	11.908	105	638318	40.25	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	43968	29.82	ug/L	94
88) n-Propylbenzene	12.329	91	734868	40.61	ug/L	98
89) Bromobenzene	12.347	156	184913	39.85	ug/L	99
90) 1,1,2,2-Tetrachloroethane	12.390	83	250873	39.66	ug/L	98
91) 1,3,5-Trimethylbenzene	12.511	105	518980	40.01	ug/L	100
92) 2-Chlorotoluene	12.518	91	498991	40.42	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.572	53	47227	28.68	ug/L	98
94) 1,2,3-Trichloropropane	12.542	110	77748	39.75	ug/L	95
95) Cyclohexanone	12.603	55	63468	145.19	ug/L	97
96) 4-Chlorotoluene	12.682	91	444130	39.98	ug/L	100
97) tert-Butylbenzene	12.853	91	277735	40.29	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	509720	39.90	ug/L	99
99) Pentachloroethane	12.902	167	113508	40.02	ug/L	98
100) sec-Butylbenzene	13.036	105	610339	41.42	ug/L	99
101) 4-Isopropyltoluene	13.170	119	527751	40.85	ug/L	100
102) 1,3-Dichlorobenzene	13.304	146	331475	41.46	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	537767	40.18	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	342130	39.81	ug/L	98
105) n-Butylbenzene	13.615	92	258399	40.68	ug/L	86

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
 Data File : I757594.d  
 Acq On : 29 Jun 2023 10:34 pm  
 Operator : adelardl  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:48:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

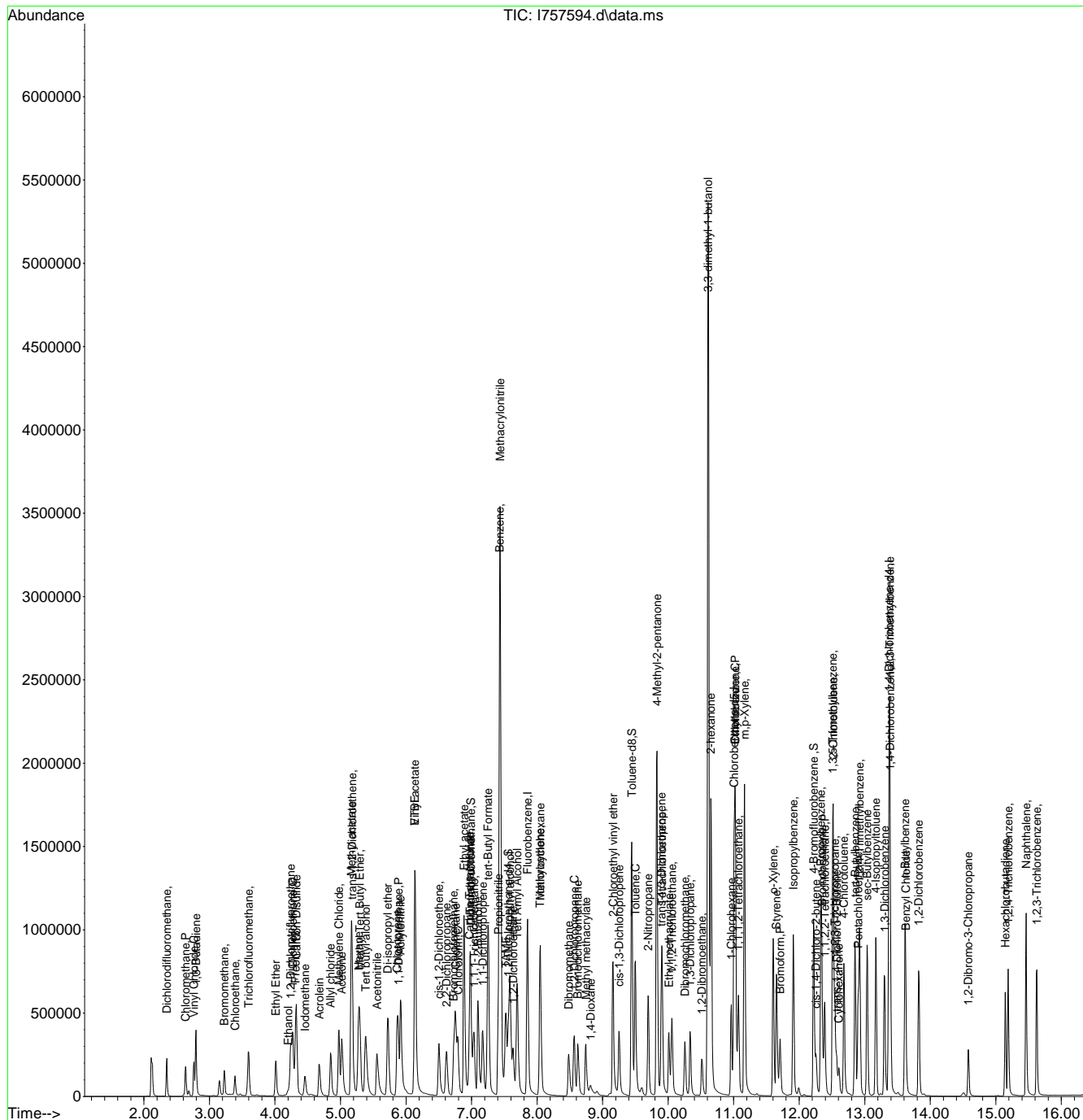
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	13.627	126	68118	30.26	ug/L #	67
107) 1,2-Dichlorobenzene	13.822	146	316132	40.35	ug/L	98
108) 1,2-Dibromo-3-Chloropr...	14.578	75	61729	38.61	ug/L	90
109) Hexachlorobutadiene	15.145	225	109238	41.15	ug/L	99
110) 1,2,4-Trichlorobenzene	15.188	180	227695	39.33	ug/L	99
111) Naphthalene	15.462	128	714804	39.48	ug/L	100
112) 1,2,3-Trichlorobenzene	15.627	180	231139	40.03	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\JenniferF\2023\06-30-2023\VI2958\  
 Data File : I757594.d  
 Acq On : 29 Jun 2023 10:34 pm  
 Operator : adelardl  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54331,VI2958,,,,,  
 ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jun 30 00:48:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.24  
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SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

Instrument:	MSVOA12-10
Date:	06/30/2023
Analyst:	ABL
Column Type	RTX/MS
Detector	5975C-MSD
Purge Pressure	1.1psi
Purge Volume	5 mL

Method(s):	8260
Method File:	V2O_06-07-2023.M
Calibration Date:	06/07/2023
Acq. Method:	8260VMS.M
EM Voltage:	1565V
Run ID:	V203013/V203014

BFB:	VS3211
ICAL/CC:	VS3199, VS3224, VS3236
VS219, VS3218, VS3247, \	
ICV/BS:	VS3238, VS3223, VS3241
VS3208, VS3242, VS3246,	
ISTD/Surr.:	VS3211

pH Paper Lot#:	230320/212521
KI Paper Lot#:	14-860 5/9/2022
AFA Lot#:	VS3075
Data processed by:	ABL / Jenifer.W
Sample ID Ver. by:	ABL
Date Verified:	06/30/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
2077326	BFB	-	-	Water	1	-	-	-	-	Autotune Passed ✓
2077327	CC2981-4	-	-	Water	2	-	-	-	-	12.5uL→50mL (OP) #40 (PBL) #49 #76 ✓
2077328	BS	-	-	Water	3	-	-	-	-	25uL→100mL (PBL) #49 #76 ✓
2077329	CC2981-1	-	-	Water	4	-	-	-	-	1uL→100mL; low peaks present ✓
2077330	MB	-	-	Water	5	-	-	-	-	AFA, ND ✓
2077331	FC7229-17	1X	1	Water	6	MS54337	1	-	-	ND ✓
2077332	FC7322-9	1X	2	Water	7	MS54337	1	-	-	ND ✓
2077333	FC7339-1	1X	2	Water	8	MS54337	1	-	-	ND ✓
2077334	FC7345-1	1X	1	Water	9	MS54337	1	-	-	Naphth hit CCV low
2077335	FC7345-2	1X	1	Water	10	MS54337	1	-	1x	Naphth hit CCV low
2077336	FC7345-3	1X	1	Water	11	MS54337	1	-	10x	Naphth OR/hit CCV low
2077337	FC7345-4	1X	1	Water	12	MS54337	1	-	1x	Naphth hit CCV low
2077338	FC7345-5	1X	1	Water	13	MS54337	1	-	1x	Naphth hit CCV low
2077339	FC7351-1	1X	1	Water	14	MS54337	1	-	-	ND ✓
2077340	FC7351-2	1X	1	Water	15	MS54337	1	-	-	
2077341	FC7351-3	1X	1	Water	16	MS54337	1	-	-	
2077342	FC7351-4	1X	1	Water	17	MS54337	1	-	-	
2077343	FC7386-3	1X	1	Water	18	MS54337	1	-	-	
2077344	FC7386-1	50X	1	Water	19	MS54337	1	-	200x	1mL(-)50mL
2077345	FC7386-2	10X	1	Water	20	MS54337	1	-	2.5x	5mL(-)50mL
2077346	FC7313-2	200X	4	Water	21	MS54337	7	-	-	.250mL(-)50mL; Ecombine ✓
2077347	FC7313-3	200X	3	Water	22	MS54337	7	-	-	.250mL(-)50mL; Ecombine ✓
2077348	FC7313-16	25X	1	Water	23	MS54337	7	-	-	2mL(-)50mL; Ecombine ✓
2077349	FC7144-1L	10X	1	Water	24	MS54338	7	-	-	5mL(-)50mL; V203014 ✓
2077350	FC7211-17	1X	4	Water	25	MS54337	1	-	-	HDSP ✓
2077351	FC7351-1MS	5X	1	Water	26	MS54337	1	-	-	20mL(-)100mL; spike 25uL(-)100mL
2077352	FC7351-1MSD	5X	1	Water	27	MS54337	1	-	-	20mL(-)100mL; spike 25uL(-)100mL
2077353	ECC2981-4	-	-	Water	28	-	-	-	-	12.5uL→50mL (OP) #40 (PBL) #49 #76 ✓

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate  
 Manual Integration Rational SOP 0A029: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PI Poor Instrument

SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

Instrument:	MSVOA-16i
Date:	06/15/2023
Analyst:	JoAnn L
Column Type	RTX/VMS
Detector	5975C MSD
Purge Pressure	1.3 psi
Purge Volume	5mL

Method(s):	8260VMS40
Method File:	VI-2023-6-15.M
Calibration Date:	06/15/2023
Acq. Method:	RTX-VMS
EM Voltage:	1306V
Run ID:	VI2948

BFB:	VS3157
ICAL/CC:	VS3199, VS3173, VS3198
VS3197, VS3190, VS3193.V	
ICV/BS:	VS3180, VS3158, VS3206
VS3208, VS3207, VS3210,	
ISTD/Surr.:	VS3157
Data processed by:	JoAnn L
Sample ID Ver. by:	JoAnn L
Date Verified:	06/15/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
I757260	BFB	-	-	Water	1	-	-	-	-	Autotune Passed✓
I757261	IC2948-1	-	-	Water	2	-	-	-	-	1uL→100mL; 100uL MeOH✓
I757262	IC2948-2	-	-	Water	3	-	-	-	-	5uL→100mL; 100uL MeOH✓
I757263	IC2948-3	-	-	Water	4	-	-	-	-	5uL→50mL; 100uL MeOH ✓
I757264	IC2948-4	-	-	Water	5	-	-	-	-	12.5uL→50mL✓
I757265	IC2948-5	-	-	Water	6	-	-	-	-	20uL→50mL✓
I757266	IC2948-6	-	-	Water	7	-	-	-	-	35uL→50mL✓
I757267	IC2948-7	-	-	Water	8	-	-	-	-	50uL→50mL✓
I757268	BLANK	-	-	Water	9	-	-	-	-	
I757269/A	ICV2948-5/CC2948	-	-	Water	10	-	-	-	-	20uL→50mL ✓
I757270/A	ICV2948-4/BS	-	-	Water	11	-	-	-	-	12.5uL→50mL✓
I757271	BSD	-	-	Water	12	-	-	-	-	12.5uL→50mL✓
I757272	BLANK	-	-	Water	13	-	-	-	-	
I757273	MB	-	-	Water	14	-	-	-	-	ND✓
I757274	FC6893-2	-	-	Water	15	MS54220	1	N	-	ND✓
I757275	FC6893-4	-	-	Water	16	MS54220	1	N	-	ND✓
I757276	FC6893-6	-	-	Water	17	MS54220	1	N	-	ND✓
I757277	FC6893-8	-	-	Water	18	MS54220	1	N	-	ND✓
I757278	FC6893-10	-	-	Water	19	MS54220	1	N	-	ND✓
I757279	FC6893-12	-	-	Water	20	MS54220	1	N	-	ND✓
I757280	FC6893-14	-	-	Water	21	MS54220	1	N	-	ND✓
I757281	FC6893-16	-	-	Water	22	MS54220	1	N	-	ND✓
I757282	FC6893-18	-	-	Water	23	MS54220	1	N	-	ND✓
I757283	FC6893-20	-	-	Water	24	MS54220	1	N	-	ND✓
I757284	FC6893-22	-	-	Water	25	MS54220	1	N	-	ND✓
I757285	FC6893-24	-	-	Water	26	MS54220	1	N	-	ND✓
I757286	ECC2948-5	-	-	Water	27	-	-	-	-	20uL→50mL✓

Matrix: Designate "W" for Water, "S" for soil, "O" for Oil, "L" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate  
 Manual Integration Rational SOP QAO29: I/P Missed Peak, O/P Overlapping Peak, S/P Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, P/I Poor Instrument



SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

Instrument:	MSVOA-161
Date:	06/29/2023
Analyst:	Adelard L.
Column Type	RTX/MS
Detector	5975C MSD
Purge Pressure	1.3 psi
Purge Volume	5mL

Method(s):	8260VMS40
Method File:	VI-2023-6-15.M
Calibration Date:	06/15/2023
Acq. Method:	RTX-VMS
EM Voltage:	1306V
Run ID:	VI2958

BFB:	VS3225	pH Paper Lot#:	206722/230320
ICAL/CC:	VS3199, VS3224, VS3236	KI Paper Lot#:	14-860 05/09/2022
VS3197, VS3218, VS3220V		AFA Lot#:	VS3075
ICV/BS:	VS3238, VS3223, VS3206		
VS3208, VS3207, VS3228,		Data processed by:	ABL / Jennifer
ISTD/Surr.:	VS3225	Sample ID Ver. by:	ABL
		Date Verified:	06/29/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
I757566	BFB	-	-	Water	1	-	-	-	-	Passed autofind ✓
I757567	CC2948-5	-	-	Water	2	-	-	-	-	40uL → 100mL ✓
I757568	CC2948-5	-	-	Water	3	-	-	-	-	20uL → 50mL (reprepared with new gases VS3245) ✓
I757569	CC2948-5	-	-	Water	4	-	-	-	-	20uL → 50mL (reprepared with new gases VS3245) ✓
I757570	BS	-	-	Water	5	-	-	-	-	12.5uL → 50mL ✓
I757571	MB(AFA)	-	-	Water	6	-	-	-	-	MB hit ✓
I757572	FC7229-17	1X	2	Water	7	MS54331	1	N	-	ND ✓
I757573	FC7322-9	1X	1	Water	8	MS54331	1	N	1x	MB hit
I757574	FC7339-1	1X	1	Water	9	MS54331	1	N	1x	MB hit
I757575	FC7339-5	1X	1	Water	10	MS54331	1	N	-	ND ✓
I757576	FC7322-5	2X	1	Water	11	MS54331	1	N	-	25mL(-)50mL ✓
I757577	FC7322-1	1X	18	Water	12	MS54331	1	N	-	✓
I757578	FC7322-2	1X	1	Water	13	MS54331	1	N	-	✓
I757579	FC7322-3	1X	1	Water	14	MS54331	1	N	-	✓
I757580	FC7322-4	10X	1	Water	15	MS54331	1	N	-	5mL(-)50mL ✓
I757581	FC7322-6	1X	7	Water	16	MS54331	1	N	-	✓
I757582	FC7322-8	1X	1	Water	17	MS54331	1	N	-	✓
I757583	FC7322-10	10X	1	Water	18	MS54331	1	N	-	5mL(-)50mL ✓
I757584	FC7339-2	1X	1	Water	19	MS54331	1	N	1x	possible TCE carryover (j-value)
I757585	FC7339-3	1X	2	Water	20	MS54331	1	N	-	✓
I757586	FC7339-4	1X	1	Water	21	MS54331	1	N	-	ND ✓
I757587	FC7339-6	1X	1	Water	22	MS54331	1	N	-	ND ✓
I757588	FC7339-7	1X	1	Water	23	MS54331	1	N	-	ND ✓
I757589	FC7339-8	1X	1	Water	24	MS54331	1	N	-	✓
I757590	FC7322-5MS	2.5X	1	Water	25	MS54331	1	N	-	40mL(-)100mL; 25uL(-)100mL ✓
I757591	FC7322-5MSD	2.5X	1	Water	26	MS54331	1	N	-	40mL(-)100mL; 25uL(-)100mL ✓
I757592	FC7339-5MS	1X	2	Water	27	MS54331	1	N	-	10.5uL(-)40mL ✓
I757593	FC7339-5MSD	1X	3	Water	28	MS54331	1	N	-	10.5uL(-)40mL ✓
I757594	ECC2948-5	-	-	Water	29	-	-	-	-	40uL(-)100mL ✓

Matrix: Designate "W" for Water, "S" for soil, "O" for Oil, "L" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate  
 Manual Integration Rational SOP QAO29: I/P Missed Peak, O/P Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, P/I Poor Instrument

## GC Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

**Method Blank Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2899-MB	LL83494.D	1	07/06/23	SS	n/a	n/a	GLL2899

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7322-1, FC7322-6, FC7322-7

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2899-BS	LL83491.D	1	07/06/23	SS	n/a	n/a	GLL2899
GLL2899-BSD	LL83492.D	1	07/06/23	SS	n/a	n/a	GLL2899

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7322-1, FC7322-6, FC7322-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits
								Rec/RPD
74-82-8	Methane	108	116	107	113	105	3	62-139/30
74-84-0	Ethane	219	231	105	224	102	3	67-141/30
74-85-1	Ethene	290	311	107	303	104	3	68-141/30

8.2.1  
8

\* = Outside of Control Limits.

**Matrix Spike Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7322-1MS	LL83522.D	1	07/06/23	SS	n/a	n/a	GLL2899
FC7322-1	LL83505.D	1	07/06/23	SS	n/a	n/a	GLL2899
FC7322-1	LL83506.D	20	07/06/23	SS	n/a	n/a	GLL2899

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7322-1, FC7322-6, FC7322-7

CAS No.	Compound	FC7322-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	12300 <sup>b</sup>	108	780	-10667*	62-139	
74-84-0	Ethane	20 U <sup>b</sup>	219	233	106	67-141	
74-85-1	Ethene	20 U <sup>b</sup>	290	309	107	68-141	

(a) Outside control limits due to high level in sample relative to spike amount.

(b) Result is from Run #2.

\* = Outside of Control Limits.

**Duplicate Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7322-1DUP	LL83507.D	20	07/06/23	SS	n/a	n/a	GLL2899
FC7322-1	LL83505.D	1	07/06/23	SS	n/a	n/a	GLL2899
FC7322-1	LL83506.D	20	07/06/23	SS	n/a	n/a	GLL2899

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7322-1, FC7322-6, FC7322-7

CAS No.	Compound	FC7322-1 ug/l	DUP Q ug/l	Q RPD	Limits
74-82-8	Methane	12300 <sup>a</sup>	13900	12	30
74-84-0	Ethane	20 U <sup>a</sup>	ND	nc	30
74-85-1	Ethene	20 U <sup>a</sup>	ND	nc	30

(a) Result is from Run #2.

\* = Outside of Control Limits.

# Initial Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2678-ICC2678  
**Lab FileID:** LL77119.D

## Response Factor Report FID4-LL

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration

### Calibration Files

1 =LL77115.D 2 =LL77116.D 3 =LL77117.D 4 =LL77118.D  
 5 =LL77119.D 6 =LL77120.D 7 =LL77121.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) Methane	8.147	7.784	5.707	6.267	6.226	6.254	6.064	6.636	E5 14.09
---- Linear regr., Force(0,0) ---- Coefficient = 0.9998									
Response Ratio = 0.00000 + 610295.04174 *A									
2) Acetylene	0.876	1.146	1.052	1.258	1.278	1.267	1.366	1.177	E6 14.18
---- Linear regr., Force(0,0) ---- Coefficient = 0.9989									
Response Ratio = 0.00000 + 1345065.34207 *A									
3) Ethylene	0.806	0.993	0.972	1.105	1.114	1.088	1.088	1.024	E6 10.84
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 1087940.04642 *A									
4) Ethane	0.897	1.013	0.978	1.114	1.120	1.125	1.117	1.052	E6 8.60
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 1118890.75720 *A									
5) Propane	1.625	2.081	1.200	1.396	1.465	1.462	1.488	1.531	E6 17.89
---- Linear regr., Force(0,0) ---- Coefficient = 0.9999									
Response Ratio = 0.00000 + 1482646.11599 *A									

-----  
 (#) = Out of Range

RSK122321B.M

Tue Dec 28 15:06:18 2021

8.5.1  
8

# Initial Calibration Verification

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2678-ICV2678  
**Lab FileID:** LL77123.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15  
 Acq On : 12-23-2021 03:20:03 PM Operator: trangd  
 Sample : icv2678-5 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1023.341	-2.3	100	0.00	0.02	0.55
2 Acetylene	1000.000	963.101	3.7	101	0.00	0.28	0.88
3 Ethylene	1000.000	1024.733	-2.5	100	0.00	0.38	1.18
4 Ethane	1000.000	1017.149	-1.7	102	0.00	0.61	1.41
5 Propane	1000.000	1057.495	-5.7	107	0.00	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Thu Dec 30 10:09:01 2021

8.52  
8



**Continuing Calibration Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2899-CC2678  
**Lab FileID:** LL83490.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\070623\LL83490.D Vial: 2  
 Acq On : 7-6-2023 08:34:19 AM Operator: samantha  
 Sample : CC2678-5 Inst : FID4-LL  
 Misc : gc24239,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1122.776	-12.3	110	0.00	0.02	0.55
2 Acetylene	1000.000	1169.199	-16.9#	123	0.00	0.28	0.88
3 Ethylene	1000.000	1064.018	-6.4	104	0.00	0.38	1.18
4 Ethane	1000.000	1084.417	-8.4	108	-0.02	0.61	1.41
5 Propane	1000.000	1041.693	-4.2	105	-0.05	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Thu Jul 06 08:40:03 2023

**Continuing Calibration Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2899-CC2678  
**Lab FileID:** LL83502.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\070623\LL83502.D Vial: 14  
 Acq On : 06 Jul 2023 10:56 am Operator: samantha  
 Sample : CC2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Methane	500.000	572.301	-14.5	111	0.00	0.02- 0.55
2	Acetylene	500.000	604.273	-20.9#	129	0.00	0.28- 0.88
3	Ethylene	500.000	550.537	-10.1	108	0.00	0.38- 1.18
4	Ethane	500.000	567.407	-13.5	114	-0.01	0.61- 1.41
5	Propane	500.000	533.429	-6.7	113	-0.04	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Thu Jul 06 11:10:41 2023

**Continuing Calibration Summary**

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2899-CC2678  
**Lab FileID:** LL83513.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\070623\LL83513.D Vial: 25  
 Acq On : 7-6-2023 01:27:51 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	500.000	552.842	-10.6	108	0.00	0.02-	0.55
2 Acetylene	500.000	584.328	-16.9#	125	0.00	0.28-	0.88
3 Ethylene	500.000	536.067	-7.2	106	0.00	0.38-	1.18
4 Ethane	500.000	558.821	-11.8	112	-0.02	0.61-	1.41
5 Propane	500.000	536.258	-7.3	114	-0.04	0.01-	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Thu Jul 06 15:56:52 2023

# Continuing Calibration Summary

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2899-ECC2678  
**Lab FileID:** LL83523.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\070623\LL83523.D Vial: 9  
 Acq On : 7-6-2023 03:48:39 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 Methane	1000.000	995.531	0.4	98	0.00	0.02- 0.55
2 Acetylene	1000.000	1054.920	-5.5	111	0.00	0.28- 0.88
3 Ethylene	1000.000	957.957	4.2	94	0.00	0.38- 1.18
4 Ethane	1000.000	983.208	1.7	98	-0.02	0.61- 1.41
5 Propane	1000.000	966.492	3.4	98	-0.05	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Thu Jul 06 15:54:58 2023

8.5.6  
8

## Run Sequence Report

**Job Number:** FC7322  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> GLL2678	<b>Method:</b> RSKSOP-147/175	<b>Instrument ID:</b> GCLL
------------------------	-------------------------------	----------------------------

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2678-IC2678	LL77115.D	12/23/21 11:44	n/a	Initial cal 1
GLL2678-IC2678	LL77116.D	12/23/21 11:53	n/a	Initial cal 2
GLL2678-IC2678	LL77117.D	12/23/21 12:43	n/a	Initial cal 3
GLL2678-IC2678	LL77118.D	12/23/21 12:54	n/a	Initial cal 4
GLL2678-ICC2678	LL77119.D	12/23/21 13:01	n/a	Initial cal 5
GLL2678-IC2678	LL77120.D	12/23/21 14:24	n/a	Initial cal 6
GLL2678-IC2678	LL77121.D	12/23/21 14:39	n/a	Initial cal 7
GLL2678-ICV2678	LL77123.D	12/23/21 15:20	n/a	Initial cal verification 5

## Run Sequence Report

Job Number: FC7322  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot; NY

Run ID: GLL2899	Method: RSKSOP-147/175	Instrument ID: GCLL
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2899-CC2678	LL83490.D	07/06/23 08:34	n/a	Continuing cal 5
GLL2899-BS	LL83491.D	07/06/23 08:42	n/a	Blank Spike
GLL2899-BSD	LL83492.D	07/06/23 08:52	n/a	Blank Spike Duplicate
GLL2899-MB	LL83494.D	07/06/23 09:13	n/a	Method Blank
ZZZZZZ	LL83495.D	07/06/23 09:50	n/a	(unrelated sample)
ZZZZZZ	LL83496.D	07/06/23 10:09	n/a	(unrelated sample)
ZZZZZZ	LL83497.D	07/06/23 10:16	n/a	(unrelated sample)
ZZZZZZ	LL83498.D	07/06/23 10:25	n/a	(unrelated sample)
ZZZZZZ	LL83499.D	07/06/23 10:34	n/a	(unrelated sample)
ZZZZZZ	LL83500.D	07/06/23 10:42	n/a	(unrelated sample)
ZZZZZZ	LL83501.D	07/06/23 10:49	n/a	(unrelated sample)
GLL2899-CC2678	LL83502.D	07/06/23 10:56	n/a	Continuing cal 4
ZZZZZZ	LL83504.D	07/06/23 11:21	n/a	(unrelated sample)
FC7322-1	LL83505.D	07/06/23 11:30	n/a	SEAD-AL-MWT-23-20230627
FC7322-1	LL83506.D	07/06/23 11:46	n/a	SEAD-AL-MWT-23-20230627
FC7322-1DUP	LL83507.D	07/06/23 11:54	n/a	Duplicate
FC7322-6	LL83508.D	07/06/23 12:38	n/a	SEAD-AL-PT-17-20230627
FC7322-7	LL83509.D	07/06/23 12:45	n/a	DUP-02-20230627
ZZZZZZ	LL83510.D	07/06/23 12:56	n/a	(unrelated sample)
ZZZZZZ	LL83511.D	07/06/23 13:04	n/a	(unrelated sample)
ZZZZZZ	LL83512.D	07/06/23 13:18	n/a	(unrelated sample)
GLL2899-CC2678	LL83513.D	07/06/23 13:27	n/a	Continuing cal 4
ZZZZZZ	LL83515.D	07/06/23 14:39	n/a	(unrelated sample)
ZZZZZZ	LL83516.D	07/06/23 14:46	n/a	(unrelated sample)
ZZZZZZ	LL83517.D	07/06/23 14:55	n/a	(unrelated sample)
ZZZZZZ	LL83518.D	07/06/23 15:03	n/a	(unrelated sample)
ZZZZZZ	LL83519.D	07/06/23 15:13	n/a	(unrelated sample)
FC7322-1MS	LL83522.D	07/06/23 15:41	n/a	Matrix Spike
GLL2899-ECC2678	LL83523.D	07/06/23 15:48	n/a	Ending cal 5

GC Volatiles

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Raw Data

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Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83505.D Vial: 17  
 Acq On : 06 Jul 2023 11:30 am Operator: samantha  
 Sample : fc7322-1 Inst : FID4-LL  
 Misc : gc24240,g112899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 11:35:43 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	33811573938	55402.013 ppmv
2) Acetylene	0.00	0	N.D. ppmv d
3) Ethylene	0.76	31056430	28.546 ppmv
4) Ethane	1.00	45642223	40.792 ppmv
5) Propane	2.89	-21114	N.D. ppmv

9.1.1  
 9

-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83505.D RSK122321B.M Fri Jul 07 11:11:22 2023

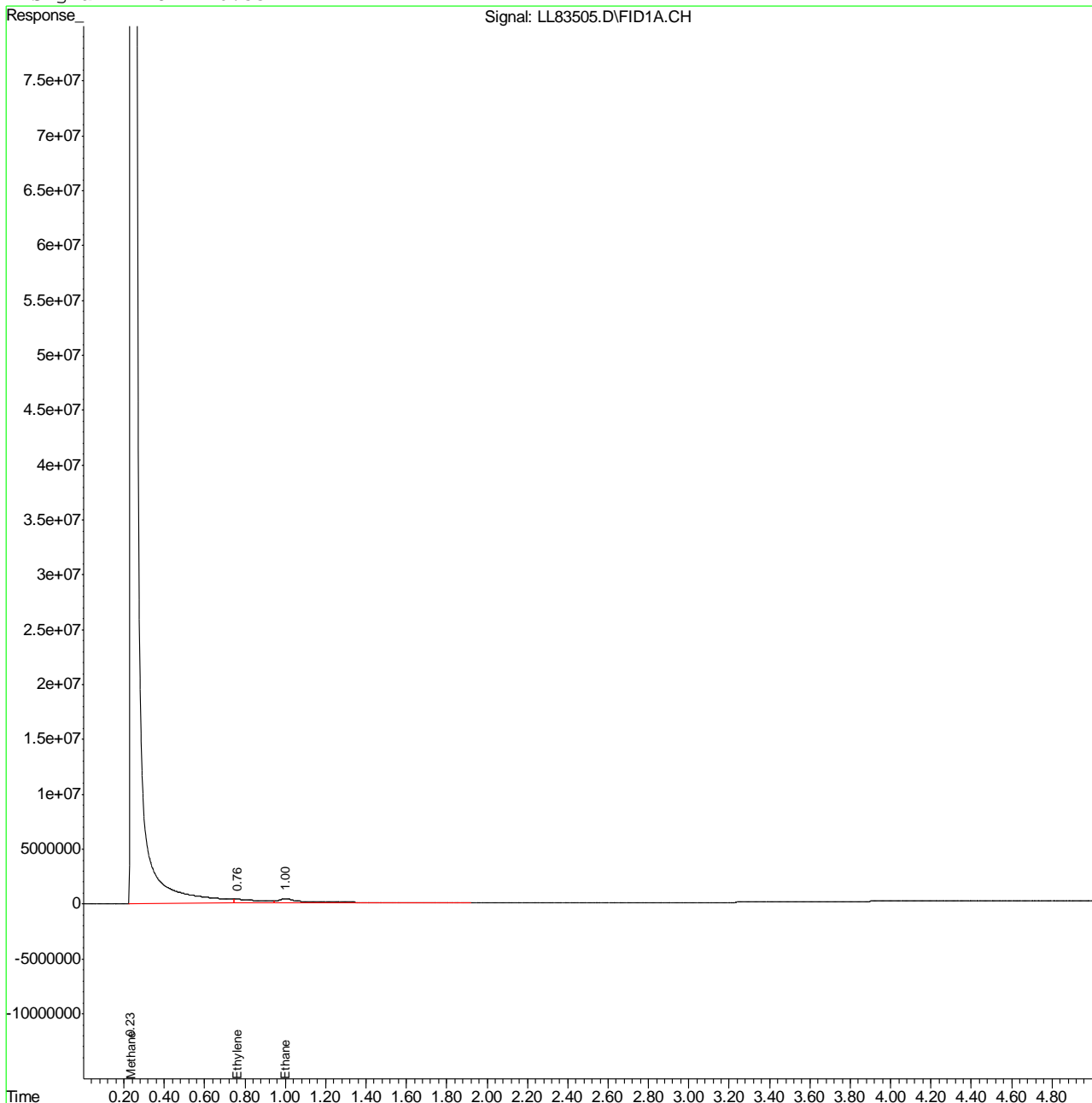


Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83505.D Vial: 17  
Acq On : 06 Jul 2023 11:30 am Operator: samantha  
Sample : fc7322-1 Inst : FID4-LL  
Misc : gc24240,g112899,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 6 11:38 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.1.1  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7322-1      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83505.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/06/23 11:30      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	55402.01	37600	6160	ug/l
Ethane	74-84-0	30	40.79	26300	9.3	ug/l
Ethene	74-85-1	28	28.55	10200	8.7	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83506.D Vial: 18  
 Acq On : 06 Jul 2023 11:46 am Operator: samantha  
 Sample : fc7322-1 Inst : FID4-LL  
 Misc : gc24240,g112899,38,20,500,5,20 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 11:51:52 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	3386180828	5548.432	ppmv
2) Acetylene	0.00	0	N.D.	ppmv d
3) Ethylene	0.76	979675	0.900	ppmv
4) Ethane	1.00	535730	0.479	ppmv
5) Propane	0.00	0	N.D.	ppmv

9.12  
9

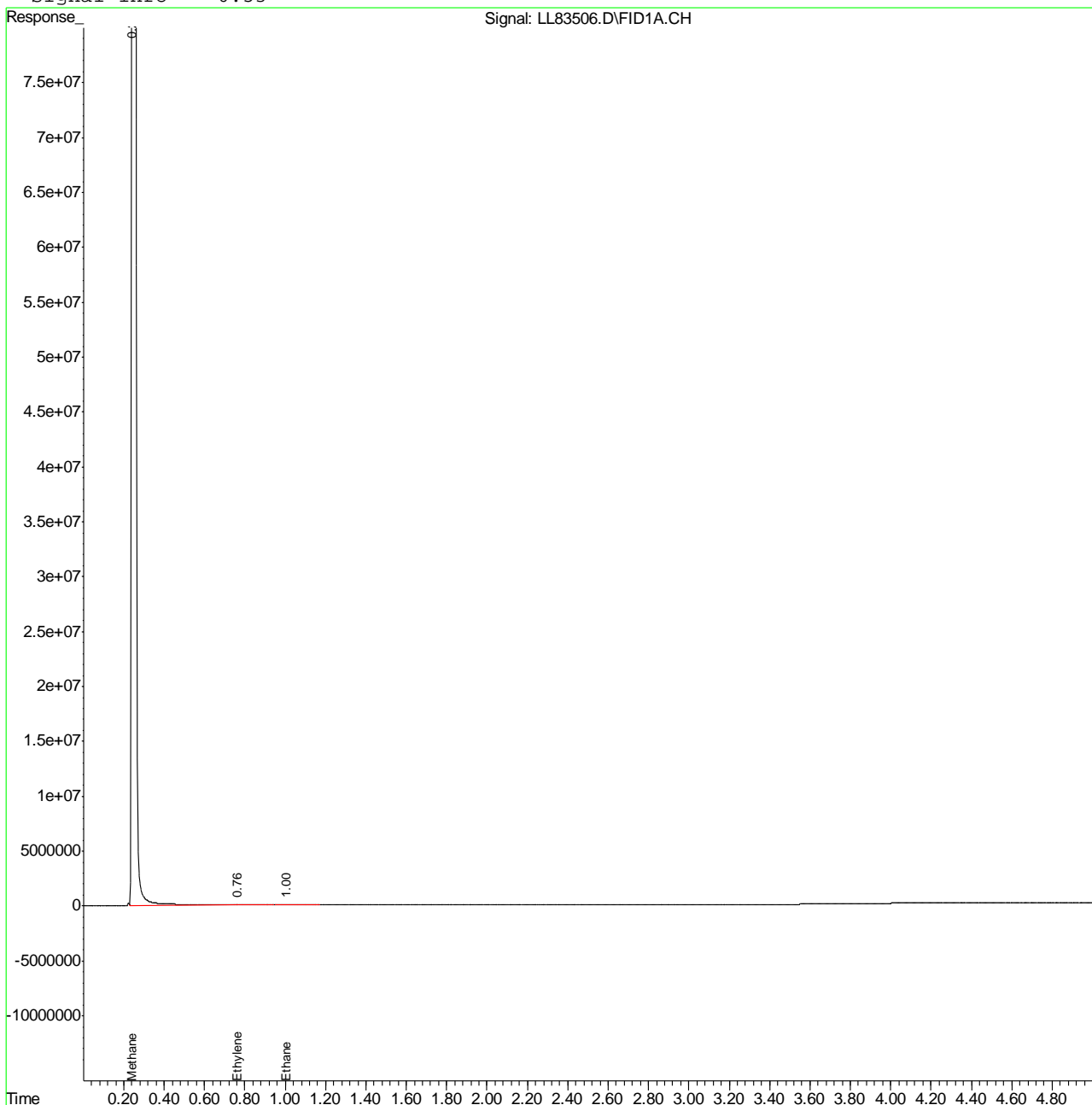
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 LL83506.D RSK122321B.M Fri Jul 07 11:11:23 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83506.D Vial: 18
Acq On : 06 Jul 2023 11:46 am Operator: samantha
Sample : fc7322-1 Inst : FID4-LL
Misc : gc24240,g112899,38,20,500,5,20 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 6 11:51 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



9.12
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7322-1      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83506.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/06/23 11:46      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	5548.43	37600	12300	ug/l
Ethane	74-84-0	30	0.48	26300	0.0	ug/l
Ethene	74-85-1	28	0.9	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.2.1

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83508.D Vial: 20  
 Acq On : 06 Jul 2023 12:38 pm Operator: samantha  
 Sample : fc7322-6 Inst : FID4-LL  
 Misc : gc24240,g112899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 12:44:22 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	1147867454	1880.840 ppmv
2) Acetylene	0.77f	396266	0.295 ppmv
3) Ethylene	0.77	396266	0.364 ppmv
4) Ethane	1.00	2092213	1.870 ppmv
5) Propane	0.00	0	N.D. ppmv

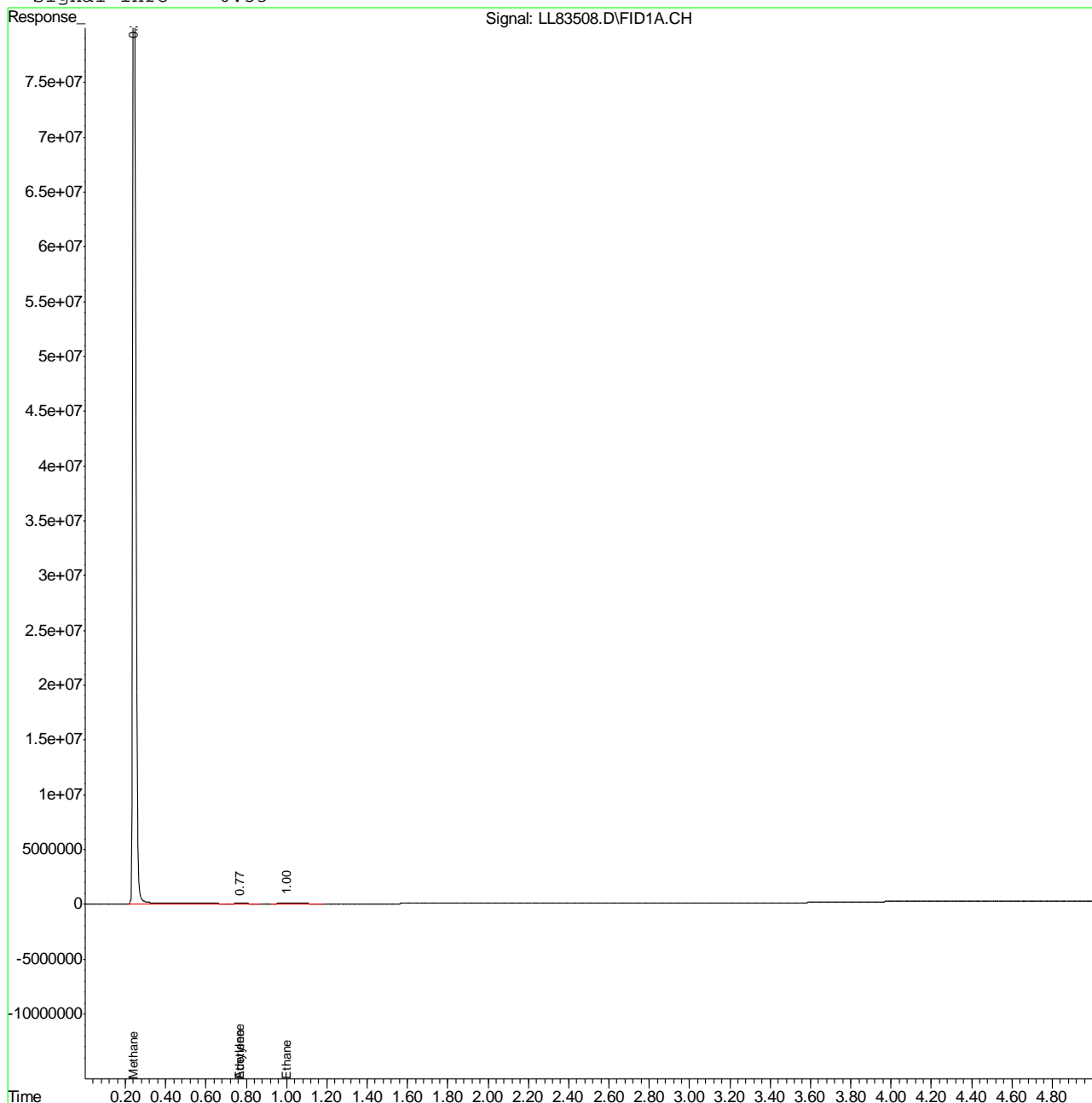
9.1.3  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83508.D Vial: 20  
Acq On : 06 Jul 2023 12:38 pm Operator: samantha  
Sample : fc7322-6 Inst : FID4-LL  
Misc : gc24240,g112899,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 6 12:44 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.1.3  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7322-6      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83508.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/06/23 12:38      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1880.84	37600	209	ug/l
Ethane	74-84-0	30	1.87	26300	0.43	ug/l
Ethene	74-85-1	28	0.36	10200	0.0	ug/l
Acetylene	74-86-2	26	0.29	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.3.1

9



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83509.D Vial: 21  
 Acq On : 06 Jul 2023 12:45 pm Operator: samantha  
 Sample : fc7322-7 Inst : FID4-LL  
 Misc : gc24240,g112899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 12:55:13 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	1254321095	2055.270 ppmv
2) Acetylene	0.54	880926	0.655 ppmv
3) Ethylene	0.77	423984	0.390 ppmv
4) Ethane	1.00	2194132	1.961 ppmv
5) Propane	0.00	0	N.D. ppmv

9.1.4  
9

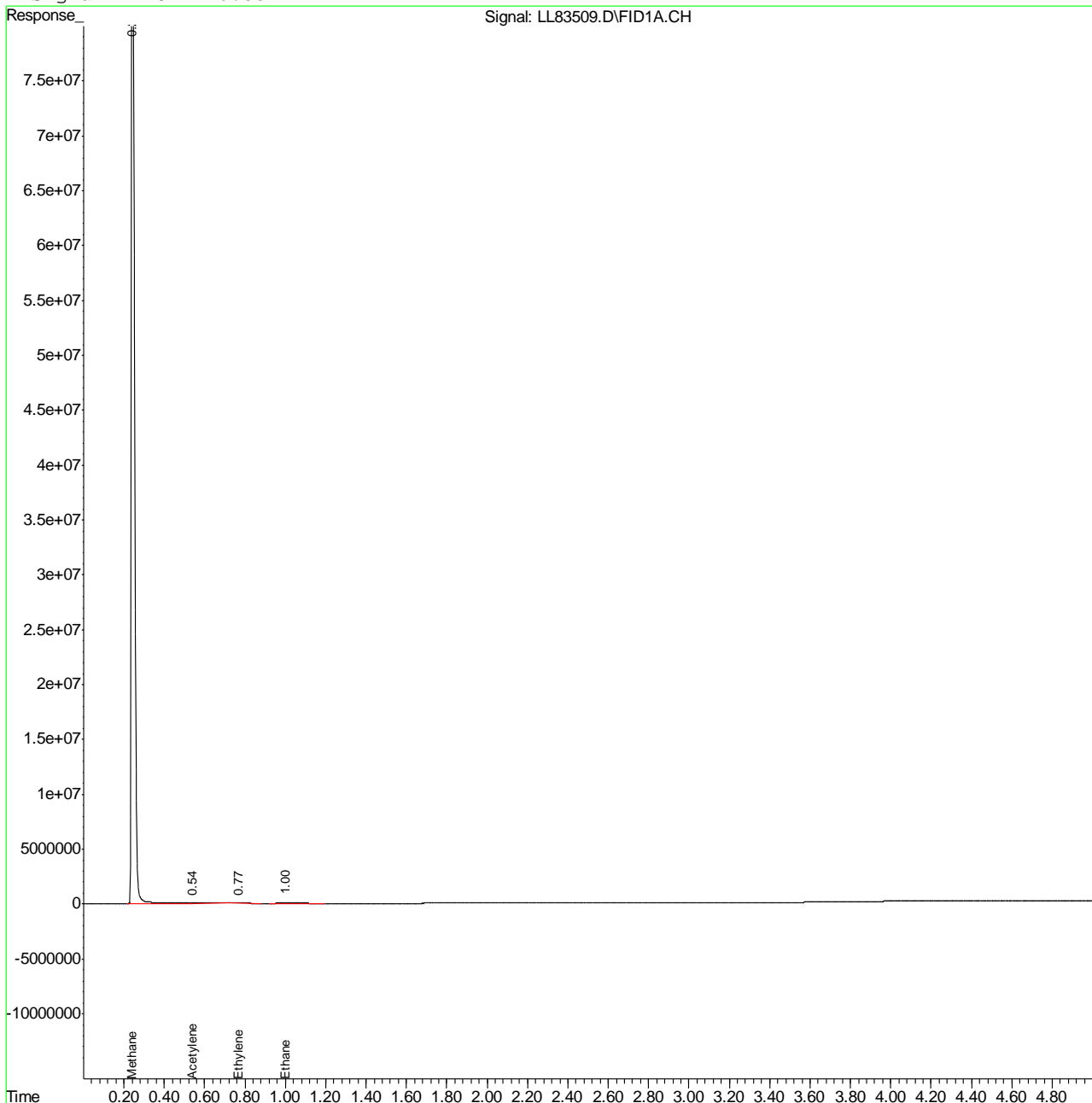
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 LL83509.D RSK122321B.M Fri Jul 07 11:18:46 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83509.D Vial: 21
Acq On : 06 Jul 2023 12:45 pm Operator: samantha
Sample : fc7322-7 Inst : FID4-LL
Misc : gc24240,g112899,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 6 12:55 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



9.1.4
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7322-7      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83509.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/06/23 12:45      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	2055.27	37600	229	ug/l
Ethane	74-84-0	30	1.96	26300	0.45	ug/l
Ethene	74-85-1	28	0.39	10200	0.0	ug/l
Acetylene	74-86-2	26	0.65	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.4.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83494.D Vial: 6  
 Acq On : 7-6-2023 09:13:20 AM Operator: samantha  
 Sample : MB Inst : FID4-LL  
 Misc : gc24239,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 09:56:45 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	265465	0.435 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv
4) Ethane	0.00	0	N.D. ppmv
5) Propane	0.00	0	N.D. ppmv

9.2.1  
 9

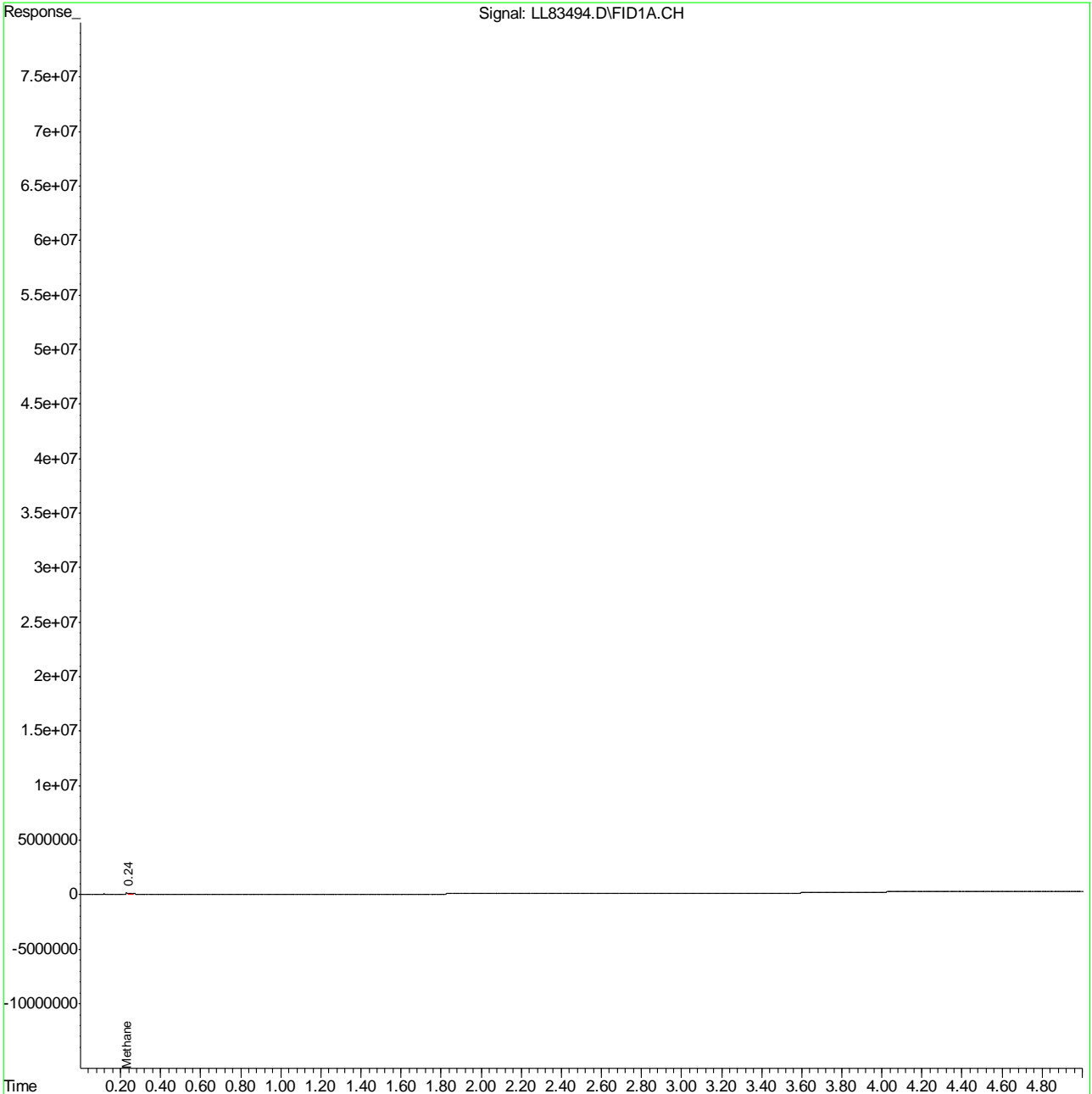
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 LL83494.D RSK122321B.M Thu Jul 06 10:07:48 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83494.D Vial: 6  
 Acq On : 7-6-2023 09:13:20 AM Operator: samantha  
 Sample : MB Inst : FID4-LL  
 Misc : gc24239,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 6 9:56 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.2.1  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2899-MB      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83494.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/06/23 09:13      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.43	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.2.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83491.D Vial: 3  
 Acq On : 7-6-2023 08:42:17 AM Operator: samantha  
 Sample : BS Inst : FID4-LL  
 Misc : gc24239,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 08:50:54 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	636188256	1042.427	ppmv
2) Acetylene	0.58	1390581674	1033.839	ppmv
3) Ethylene	0.77	1107561610	1018.036	ppmv
4) Ethane	1.00	1136491052	1015.730	ppmv
5) Propane	3.22	1502821790	1013.608	ppmv

9.3.1  
9

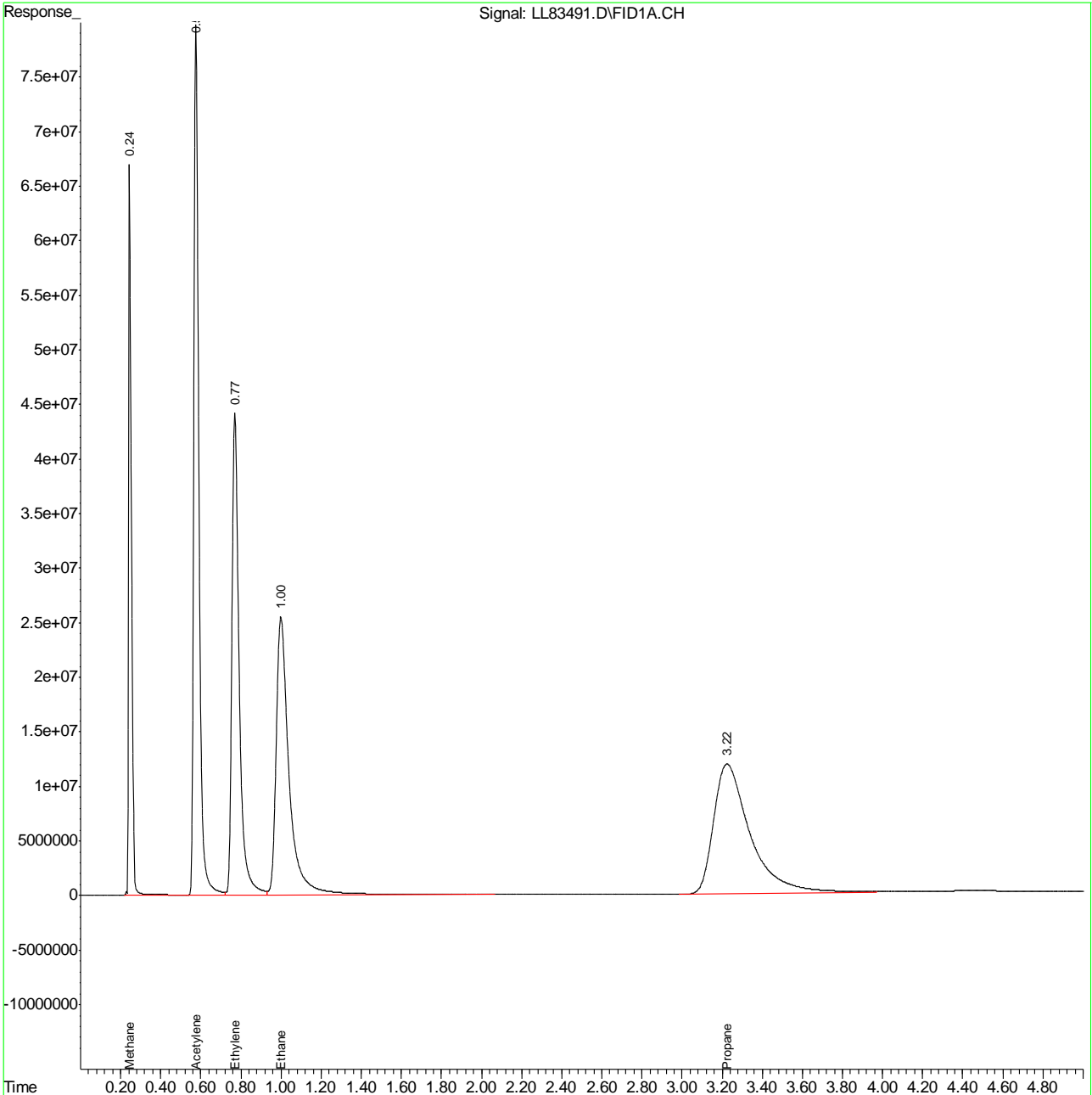
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 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83491.D RSK122321B.M Fri Jul 07 11:11:12 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83491.D Vial: 3  
Acq On : 7-6-2023 08:42:17 AM Operator: samantha  
Sample : BS Inst : FID4-LL  
Misc : gc24239,gll2899,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 6 8:50 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.3.1  
9





# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2899-BS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83491.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/06/23 08:42      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1042.43	37600	116	ug/l
Ethane	74-84-0	30	1015.73	26300	231	ug/l
Ethene	74-85-1	28	1018.04	10200	311	ug/l
Acetylene	74-86-2	26	1033.84	11940	272	ug/l
Propane	74-98-6	44	1013.61	31474	323	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.1.1  
9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83492.D Vial: 4  
 Acq On : 7-6-2023 08:52:00 AM Operator: samantha  
 Sample : BSD Inst : FID4-LL  
 Misc : gc24239,g112899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 08:57:14 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	618123868	1012.828	ppmv
2) Acetylene	0.57	1364585756	1014.513	ppmv
3) Ethylene	0.76	1079820239	992.537	ppmv
4) Ethane	1.00	1102639602	985.476	ppmv
5) Propane	3.22	1465152452	988.201	ppmv

9.3.2  
9

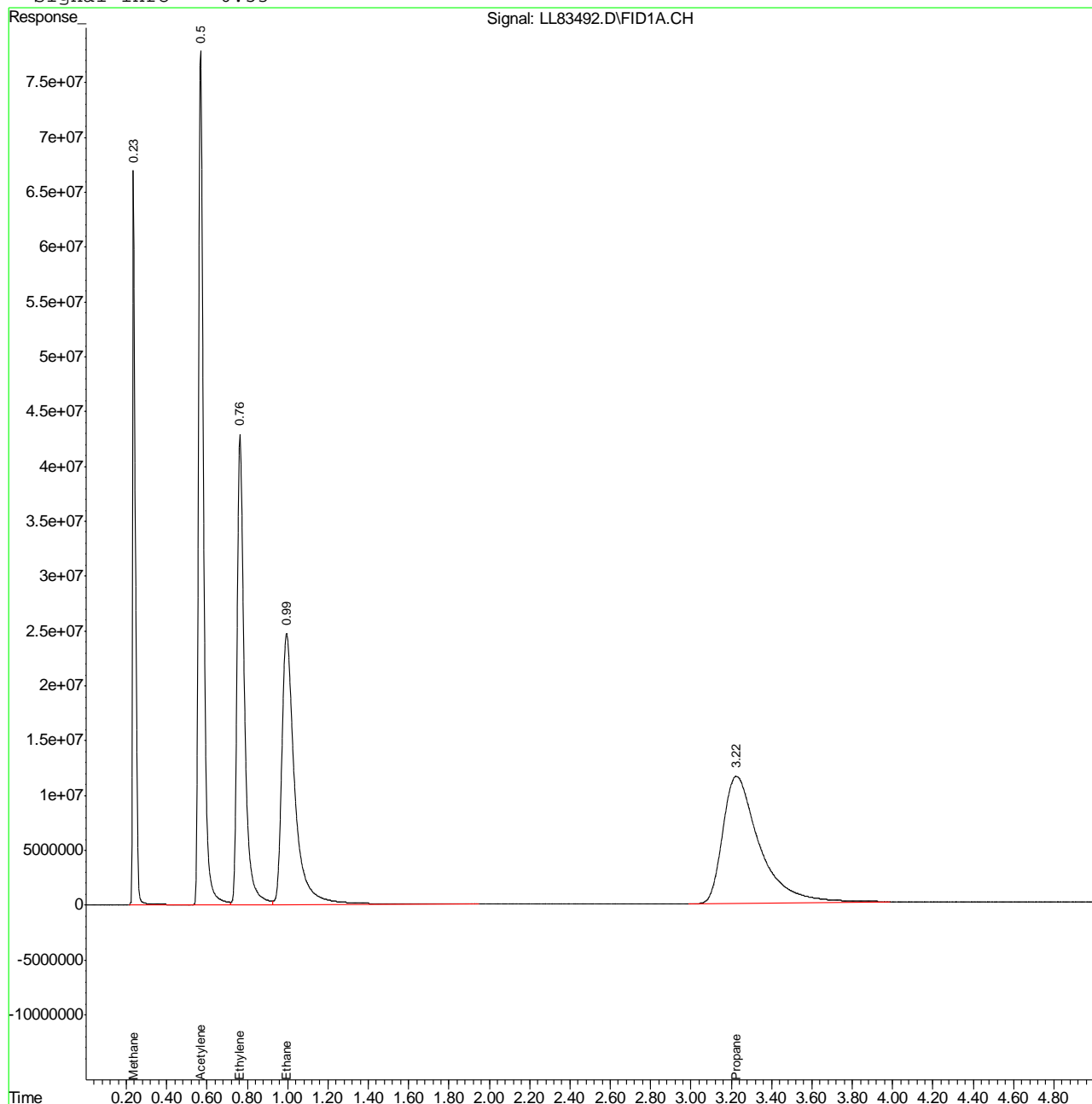
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 LL83492.D RSK122321B.M Fri Jul 07 11:11:13 2023

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83492.D Vial: 4  
Acq On : 7-6-2023 08:52:00 AM Operator: samantha  
Sample : BSD Inst : FID4-LL  
Misc : gc24239,gll2899,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 6 8:57 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2899-BSD      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83492.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/06/23 08:52      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1012.83	37600	113	ug/l
Ethane	74-84-0	30	985.48	26300	224	ug/l
Ethene	74-85-1	28	992.54	10200	303	ug/l
Acetylene	74-86-2	26	1014.51	11940	267	ug/l
Propane	74-98-6	44	988.2	31474	315	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.2.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83522.D Vial: 8  
 Acq On : 7-6-2023 03:41:20 PM Operator: samantha  
 Sample : fc7322-1ms Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 15:46:38 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	4282952489	7017.839	ppmv
2) Acetylene	0.57	1290880901	959.716	ppmv
3) Ethylene	0.77	1100039041	1011.121	ppmv
4) Ethane	1.00	1144604285	1022.981	ppmv
5) Propane	3.22	1510142152	1018.545	ppmv

9.4.1  
9

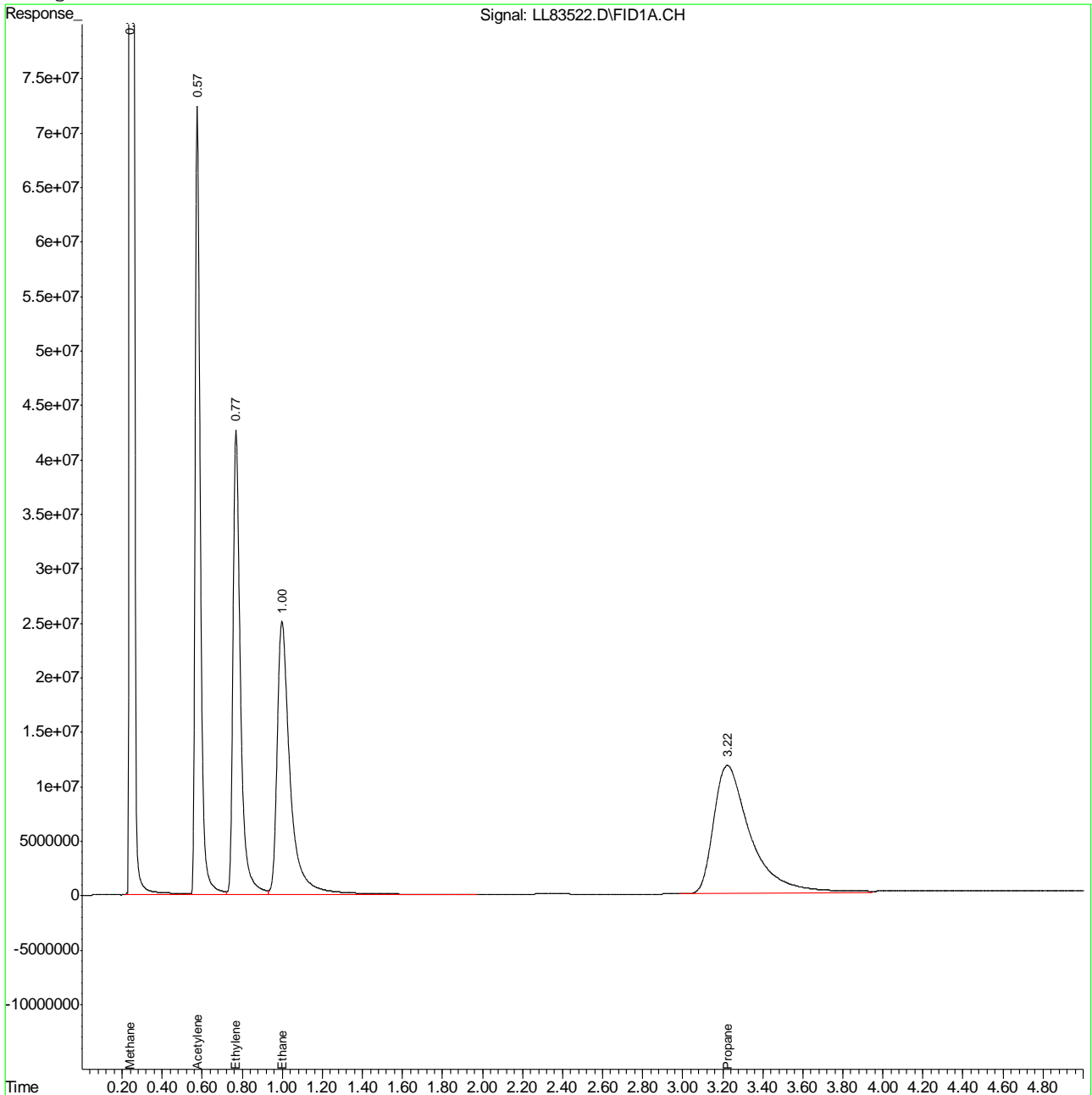
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 LL83522.D RSK122321B.M Fri Jul 07 11:11:35 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83522.D Vial: 8  
 Acq On : 7-6-2023 03:41:20 PM Operator: samantha  
 Sample : fc7322-1ms Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 6 15:46 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.4.1  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7322-1MS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83522.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/06/23 15:41      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	7017.84	37600	780	ug/l
Ethane	74-84-0	30	1022.98	26300	233	ug/l
Ethene	74-85-1	28	1011.12	10200	309	ug/l
Acetylene	74-86-2	26	959.72	11940	253	ug/l
Propane	74-98-6	44	1018.55	31474	324	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.4.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83507.D Vial: 19  
 Acq On : 06 Jul 2023 11:54 am Operator: samantha  
 Sample : fc7322-1dup Inst : FID4-LL  
 Misc : gc24240,g112899,38,20,500,5,20 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 12:39:29 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	3827987405	6272.355	ppmv
2) Acetylene	0.00	0	N.D.	ppmv
3) Ethylene	0.00	0	N.D.	ppmv d
4) Ethane	1.00	1507403	1.347	ppmv
5) Propane	0.00	0	N.D.	ppmv

9.5.1  
9

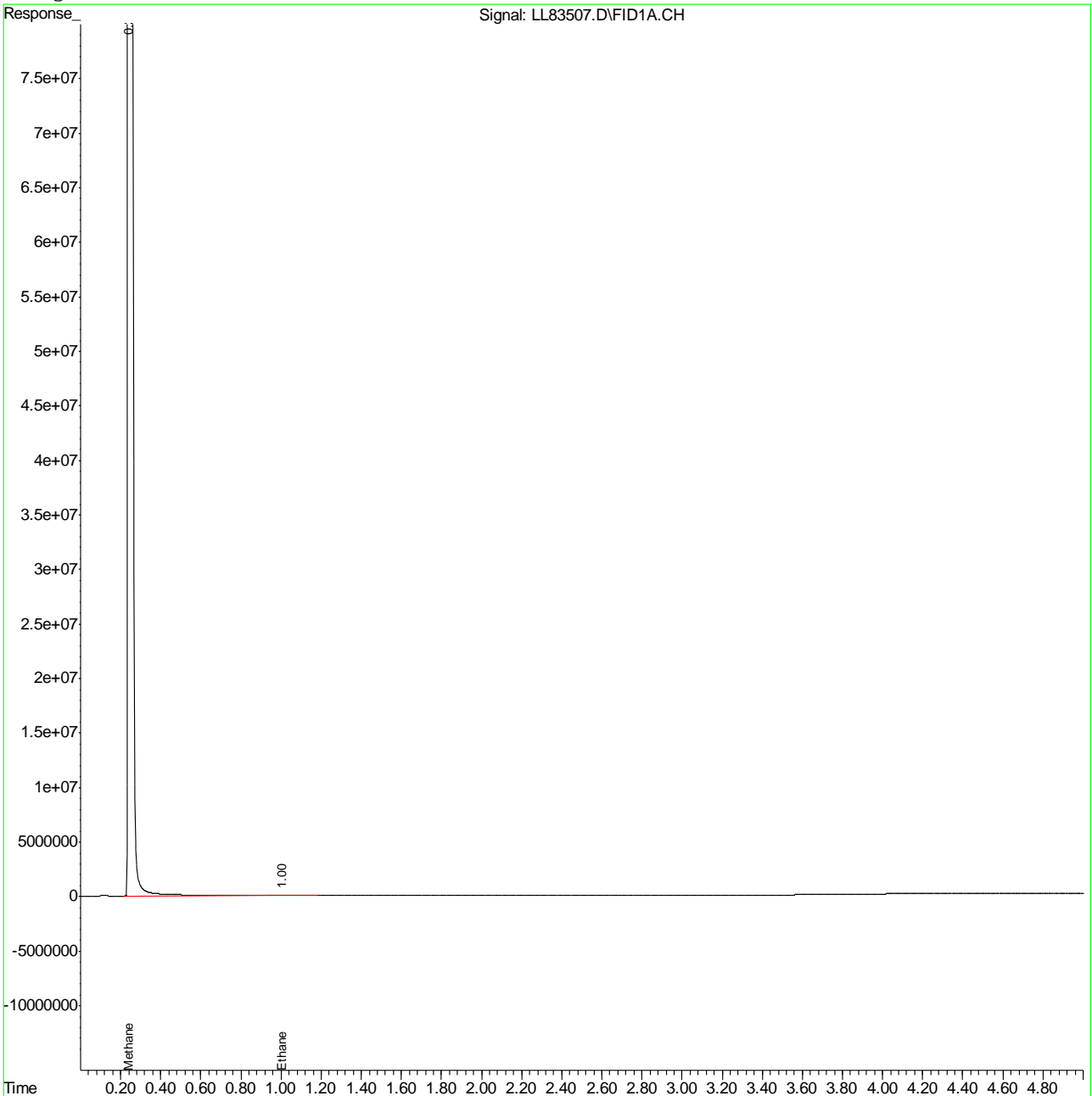


Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83507.D Vial: 19  
Acq On : 06 Jul 2023 11:54 am Operator: samantha  
Sample : fc7322-1dup Inst : FID4-LL  
Misc : gc24240,gll2899,38,20,500,5,20 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 6 12:39 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.5.1  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7322-1DUP      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83507.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/06/23 11:54      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	6272.36	37600	13900	ug/l
Ethane	74-84-0	30	1.35	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.5.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77115.D Vial: 7  
 Acq On : 23 Dec 2021 11:44 am Operator: trangd  
 Sample : IC2678-1 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:37 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.25	1222064	2.351 ppmv m
2) Acetylene	0.58	1314517	1.290 ppmv
3) Ethylene	0.78	1209561	1.131 ppmv
4) Ethane	1.02	1345578	1.229 ppmv
5) Propane	3.32	2438213	1.652 ppmv m

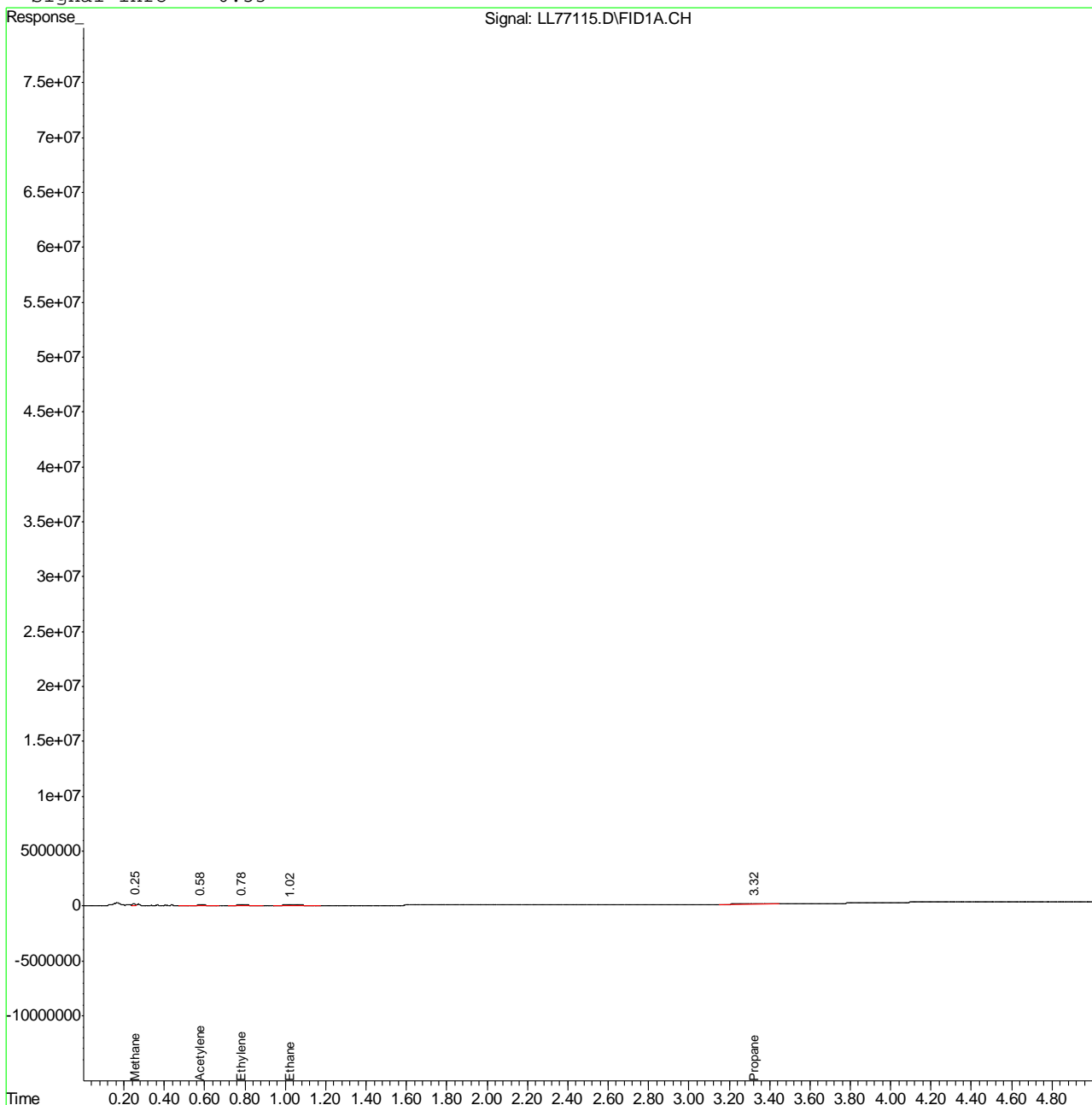
9.6.1  
**9**

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77115.D Vial: 7  
 Acq On : 23 Dec 2021 11:44 am Operator: trangd  
 Sample : IC2678-1 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:33 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.1  
9

# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77115.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 11:44      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	0.25	Poor instrument integration
Propane	74-98-6	1	3.32	Poor instrument integration

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77116.D Vial: 8  
 Acq On : 23 Dec 2021 11:53 am Operator: trangd  
 Sample : IC2678-2 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:38 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

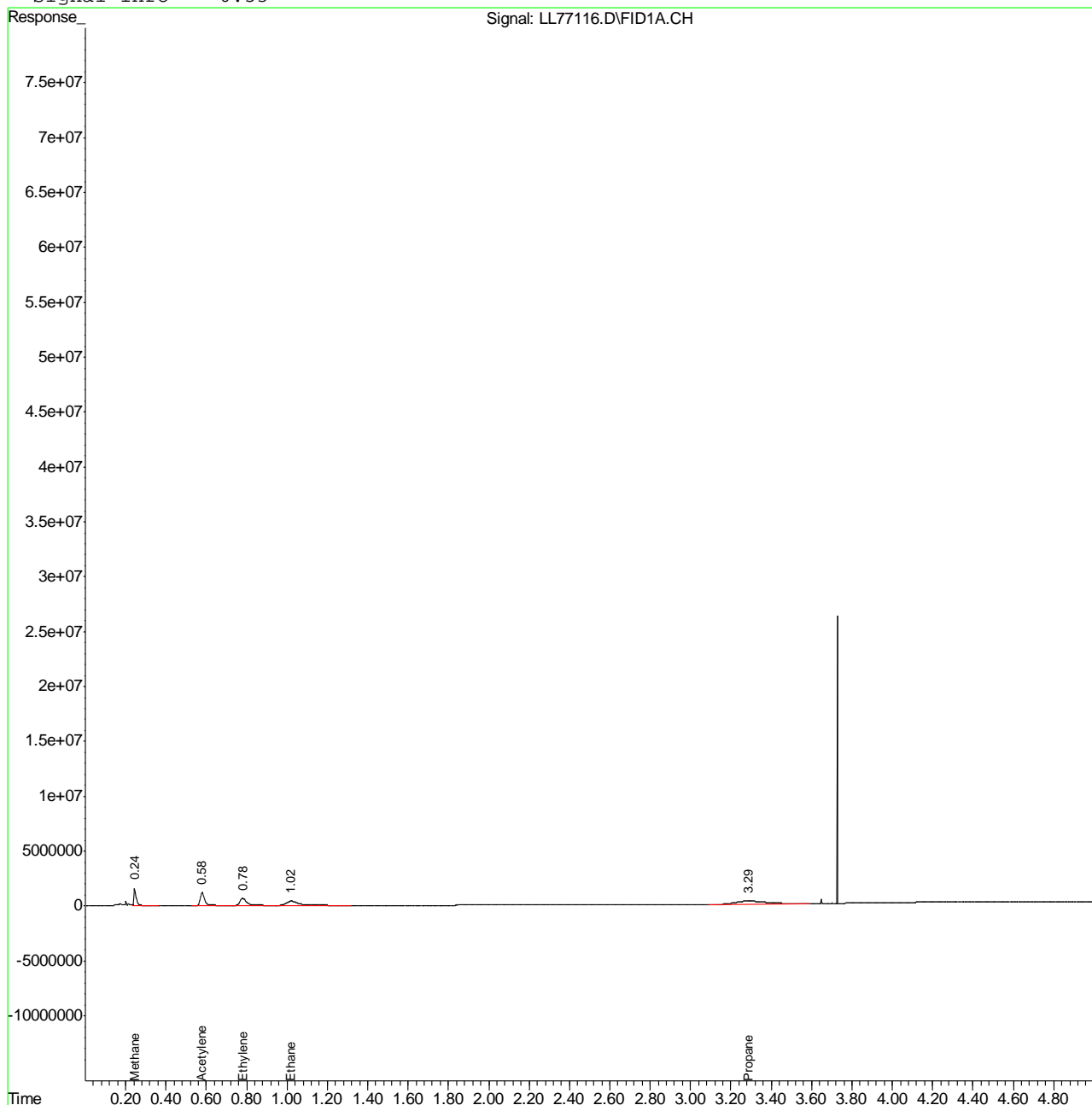
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.25	11676132	22.458 ppmv
2) Acetylene	0.58	17192128	16.867 ppmv
3) Ethylene	0.78	14889046	13.923 ppmv
4) Ethane	1.02	15188973	13.873 ppmv
5) Propane	3.29	31221296	21.155 ppmv m

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77116.D Vial: 8  
Acq On : 23 Dec 2021 11:53 am Operator: trangd  
Sample : IC2678-2 Inst : FID4-LL  
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77116.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 11:53      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.29	Poor instrument integration



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77117.D Vial: 9  
 Acq On : 23 Dec 2021 12:43 pm Operator: trangd  
 Sample : IC2678-3 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:39 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

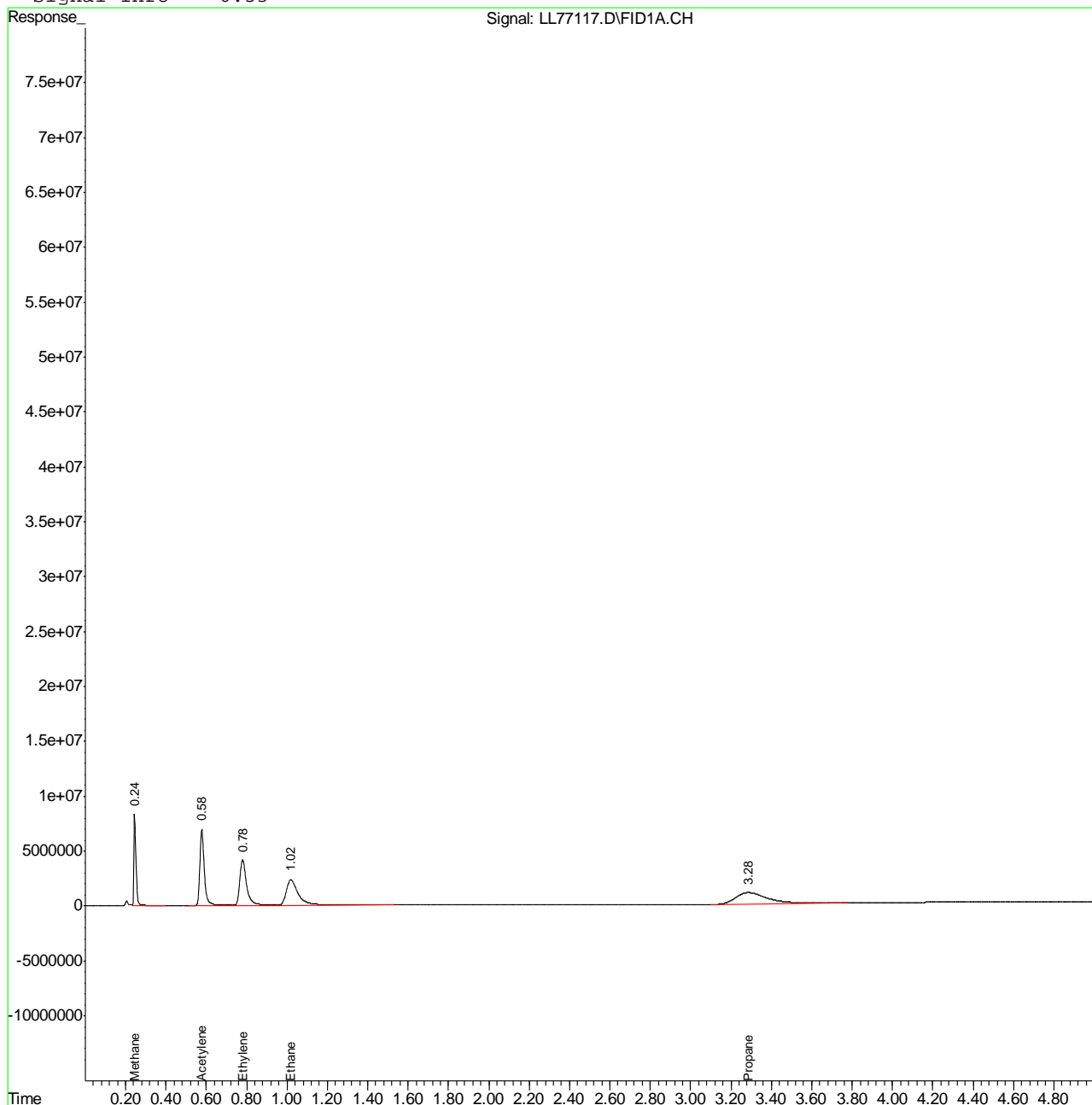
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.25	57068216	109.623 ppmv
2) Acetylene	0.58	105203176	102.861 ppmv
3) Ethylene	0.78	97229155	90.919 ppmv
4) Ethane	1.02	97815788	89.344 ppmv
5) Propane	3.28	120041232	81.337 ppmv m

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77117.D Vial: 9  
Acq On : 23 Dec 2021 12:43 pm Operator: trangd  
Sample : IC2678-3 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77117.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 12:43      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.28	Poor instrument integration

9.6.3.1  
9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77118.D Vial: 10  
 Acq On : 23 Dec 2021 12:54 pm Operator: trangd  
 Sample : IC2678-4 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:40 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

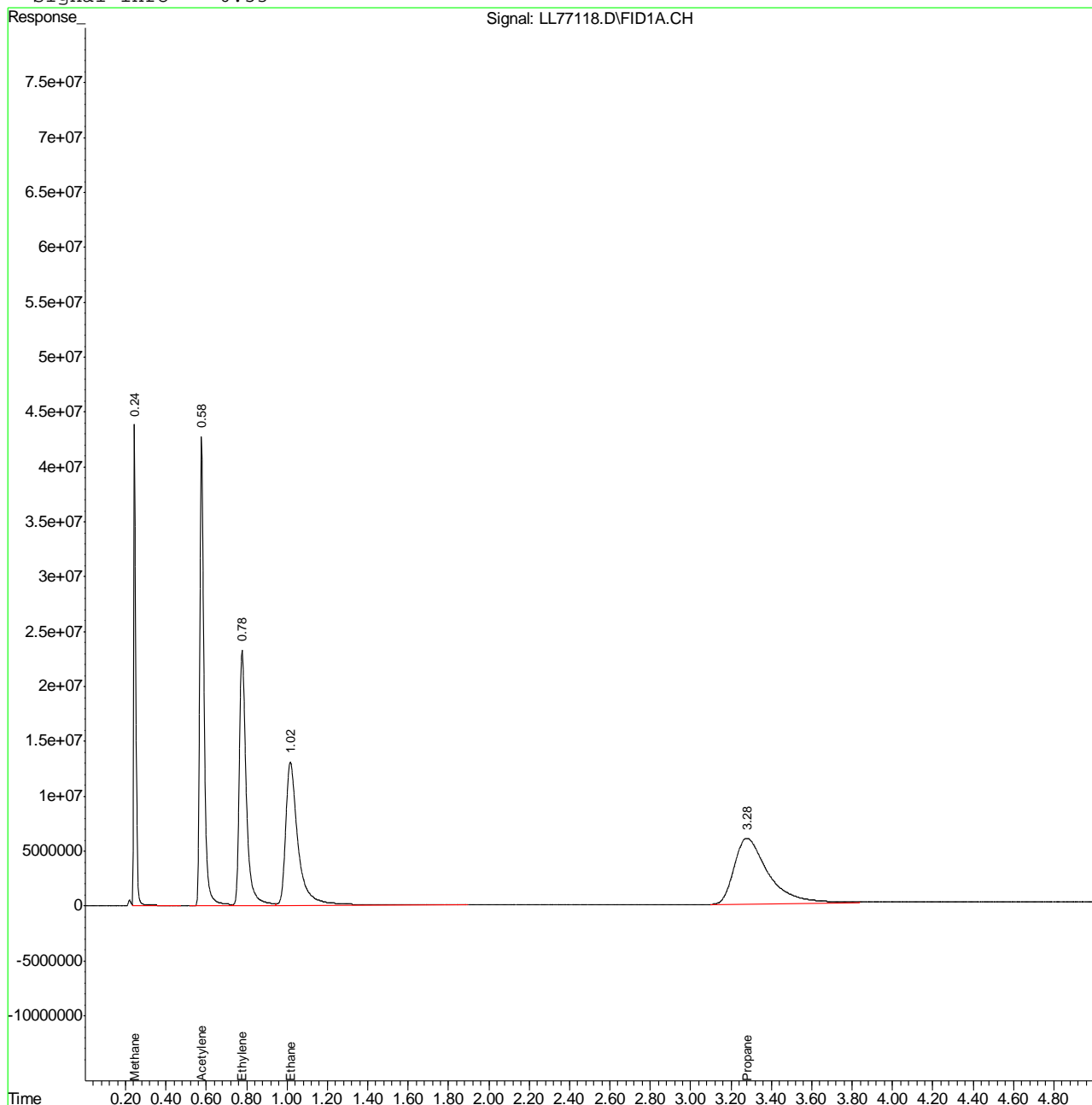
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	313371378	597.545 ppmv
2) Acetylene	0.58	628819108	602.808 ppmv
3) Ethylene	0.78	552483232	516.628 ppmv
4) Ethane	1.02	557176327	508.920 ppmv
5) Propane	3.28	698198981	473.084 ppmv m

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77118.D Vial: 10  
Acq On : 23 Dec 2021 12:54 pm Operator: trangd  
Sample : IC2678-4 Inst : FID4-LL  
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77118.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 12:54      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.28	Poor instrument integration

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77119.D Vial: 11  
 Acq On : 12-23-2021 01:01:40 PM Operator: trangd  
 Sample : ICC2678-5 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:41 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

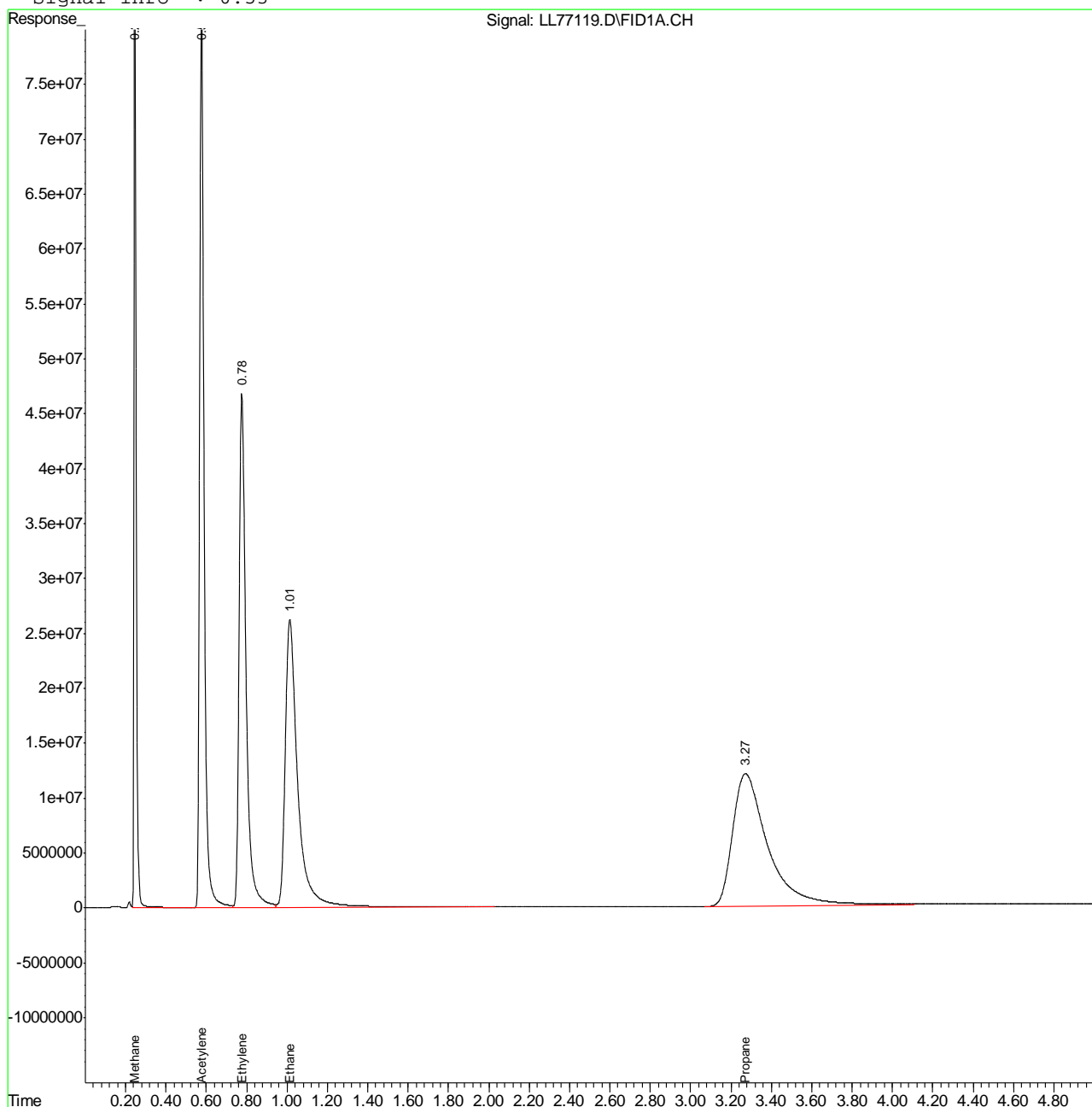
Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.25	622614864	1176.969	ppmv
2) Acetylene	0.58	1277889494	1197.217	ppmv
3) Ethylene	0.78	1114273972	1041.959	ppmv
4) Ethane	1.01	1119942427	1022.946	ppmv
5) Propane	3.27	1464950772	992.619	ppmv m

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77119.D Vial: 11  
Acq On : 12-23-2021 01:01:40 PM Operator: trangd  
Sample : ICC2678-5 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53





# Manual Integration Approval Summary

**Sample Number:** GLL2678-ICC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77119.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 13:01      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.27	Poor instrument integration

9.6.5.1

9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77120.D Vial: 12  
 Acq On : 12-23-2021 02:24:22 PM Operator: trangd  
 Sample : IC2678-6 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:42 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

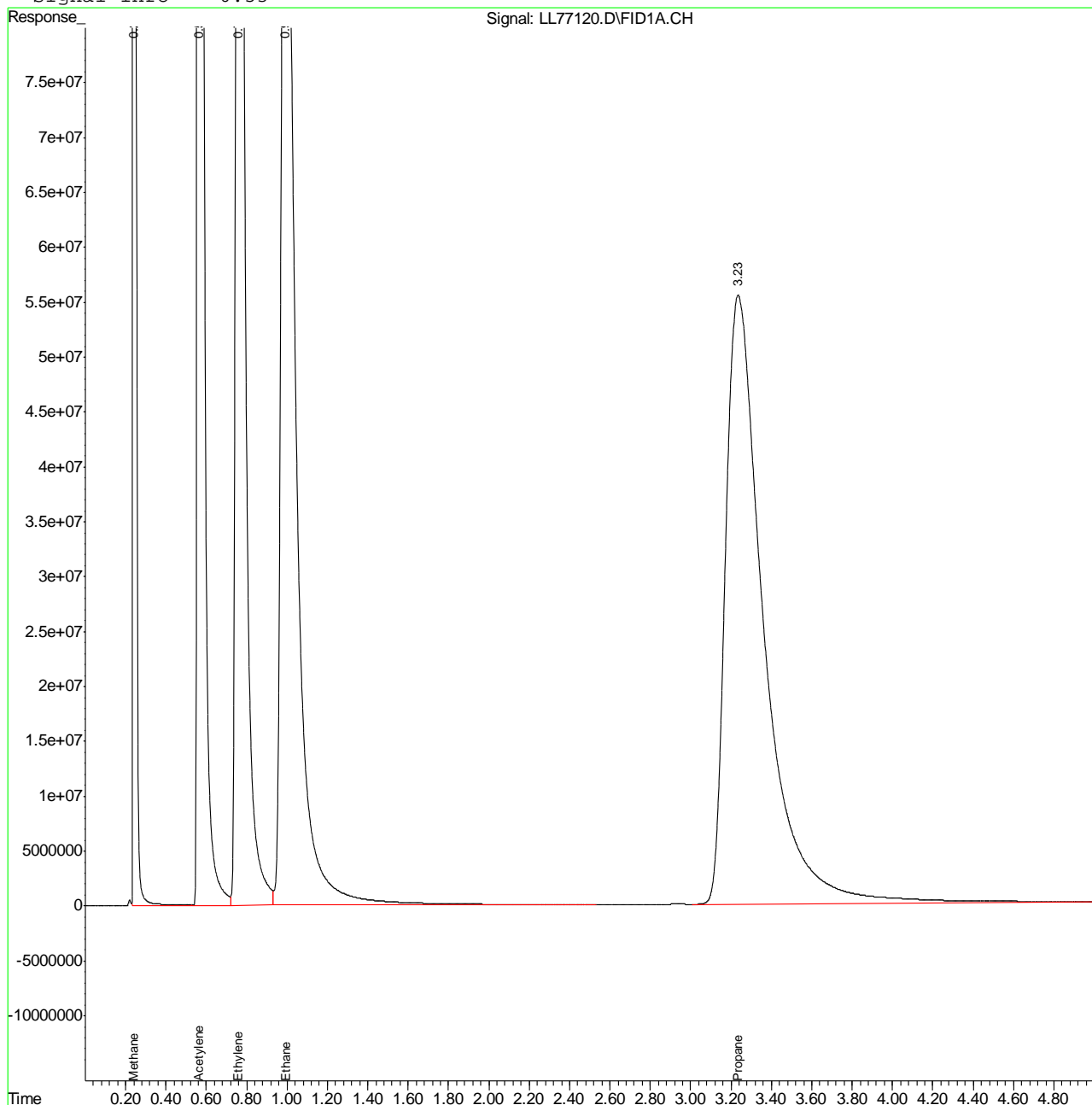
Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	3127094366	5549.763	ppmv
2) Acetylene	0.57	6334260778	5155.089	ppmv
3) Ethylene	0.76	5440050642	5086.999	ppmv
4) Ethane	0.99	5622997301	5135.999	ppmv
5) Propane	3.23	7311594809	4954.177	ppmv

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77120.D Vial: 12  
Acq On : 12-23-2021 02:24:22 PM Operator: trangd  
Sample : IC2678-6 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:27 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77121.D Vial: 13  
 Acq On : 12-23-2021 02:39:43 PM Operator: trangd  
 Sample : IC2678-7 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:43 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	6063533448	10115.185 ppmv
2) Acetylene	0.56	13655387265	9666.436 ppmv
3) Ethylene	0.74	10876284063	10170.428 ppmv
4) Ethane	0.98	11174787274	10206.958 ppmv
5) Propane	3.19	14881473513	10083.362 ppmv

9.6.7  
9

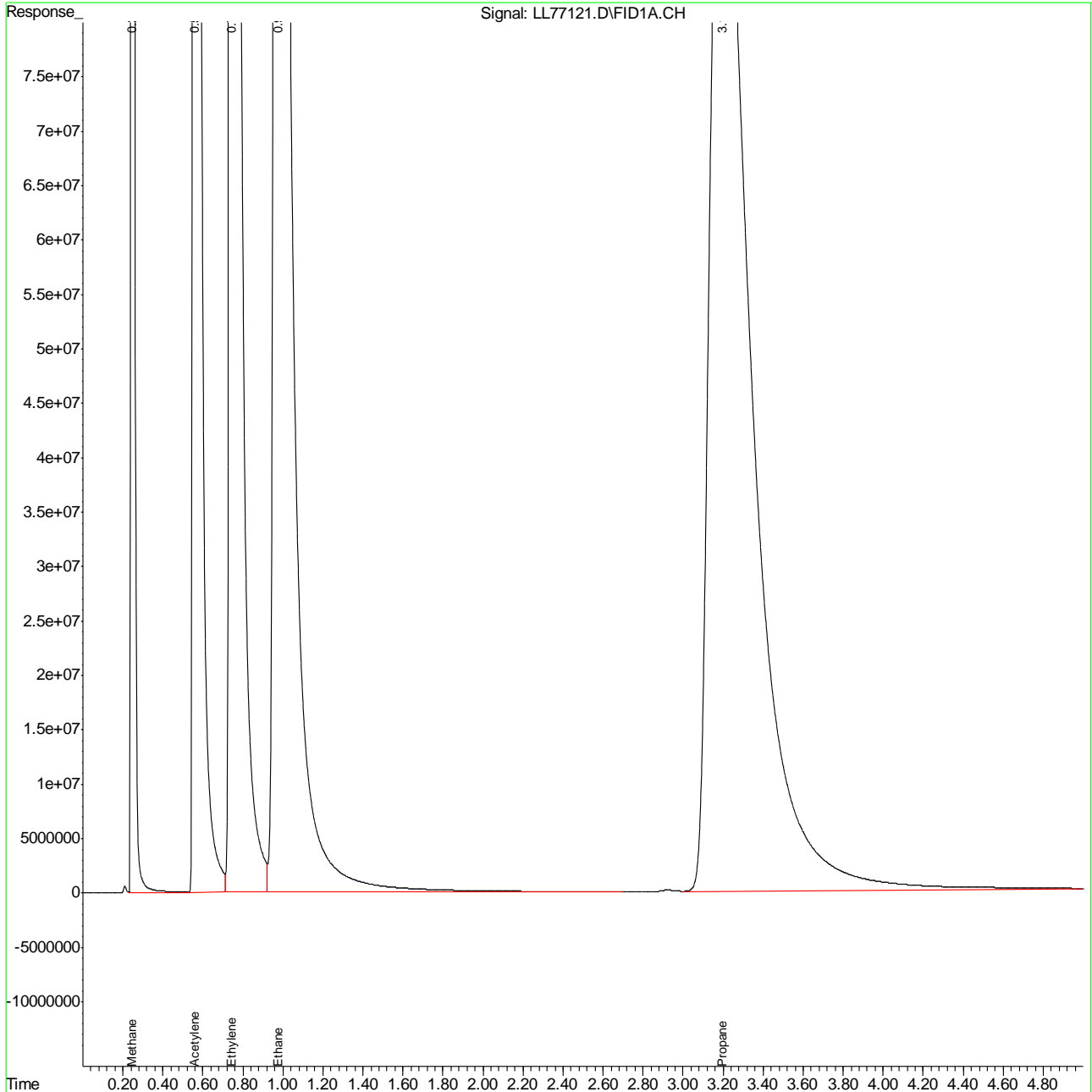
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL77121.D RSK122321B.M Thu Dec 30 10:08:19 2021

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77121.D Vial: 13  
Acq On : 12-23-2021 02:39:43 PM Operator: trangd  
Sample : IC2678-7 Inst : FID4-LL  
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:27 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15  
 Acq On : 12-23-2021 03:20:03 PM Operator: trangd  
 Sample : icv2678-5 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 28 15:03:54 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.25	624539960	1023.341	ppmv
2) Acetylene	0.58	1295434265	963.101	ppmv
3) Ethylene	0.78	1114848289	1024.733	ppmv
4) Ethane	1.02	1138078608	1017.149	ppmv
5) Propane	3.27	1567891284	1057.495	ppmv m

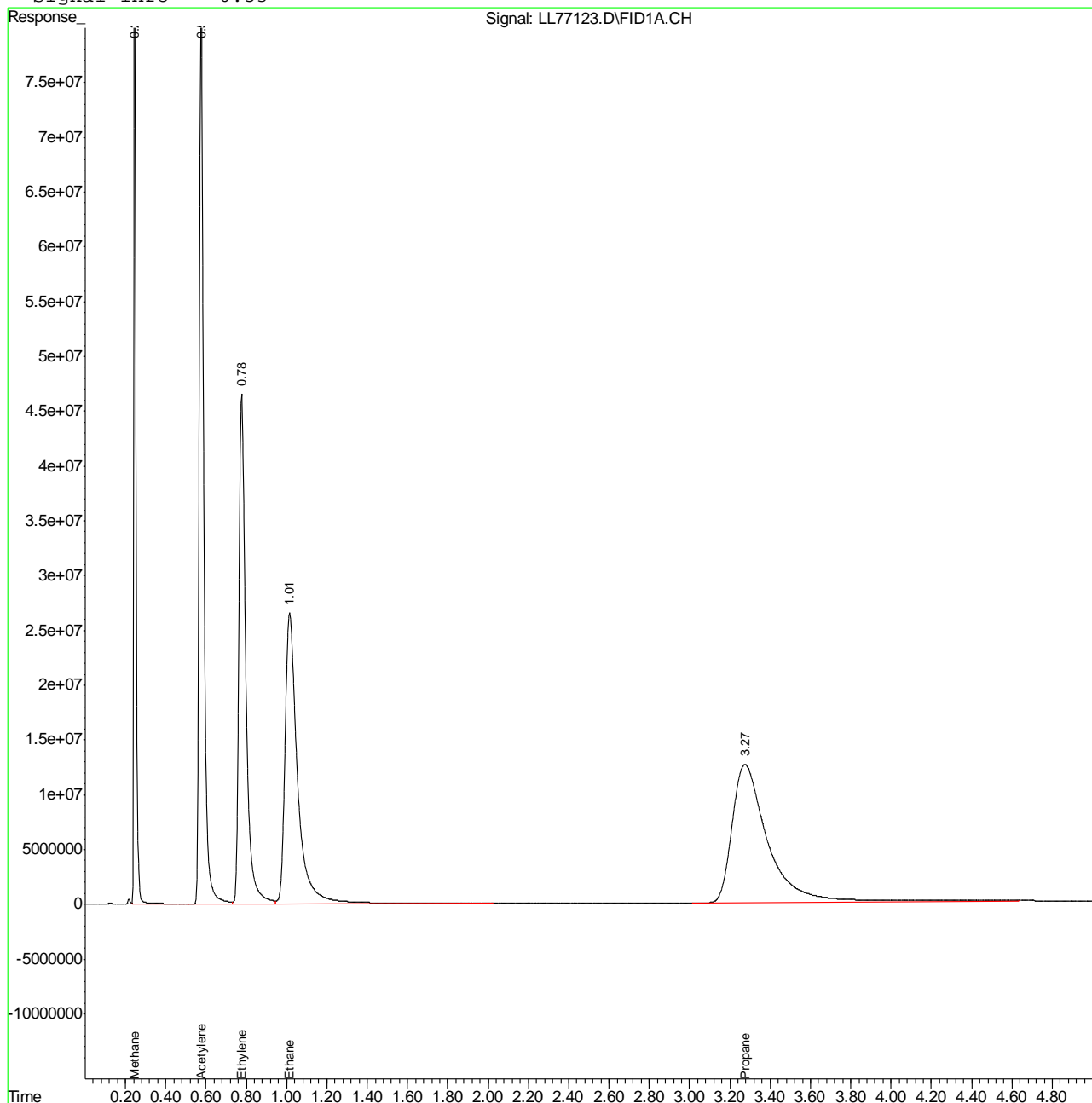
6 8.9.6

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15  
 Acq On : 12-23-2021 03:20:03 PM Operator: trangd  
 Sample : icv2678-5 Inst : FID4-LL  
 Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 28 15:04 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



6 896

# Manual Integration Approval Summary

**Sample Number:** GLL2678-ICV2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77123.D      **Analyst approved:** 12/30/21 10:10 Trang Diep  
**Injection Time:** 12/23/21 15:20      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.27	Poor instrument integration

9.6.8.1

9



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83490.D Vial: 2  
 Acq On : 7-6-2023 08:34:19 AM Operator: samantha  
 Sample : CC2678-5 Inst : FID4-LL  
 Misc : gc24239,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 08:39:43 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	685224676	1122.776	ppmv
2) Acetylene	0.57	1572649145	1169.199	ppmv
3) Ethylene	0.77	1157588328	1064.018	ppmv
4) Ethane	1.00	1213343790	1084.417	ppmv
5) Propane	3.23	1544462113	1041.693	ppmv

6.9.6  
6

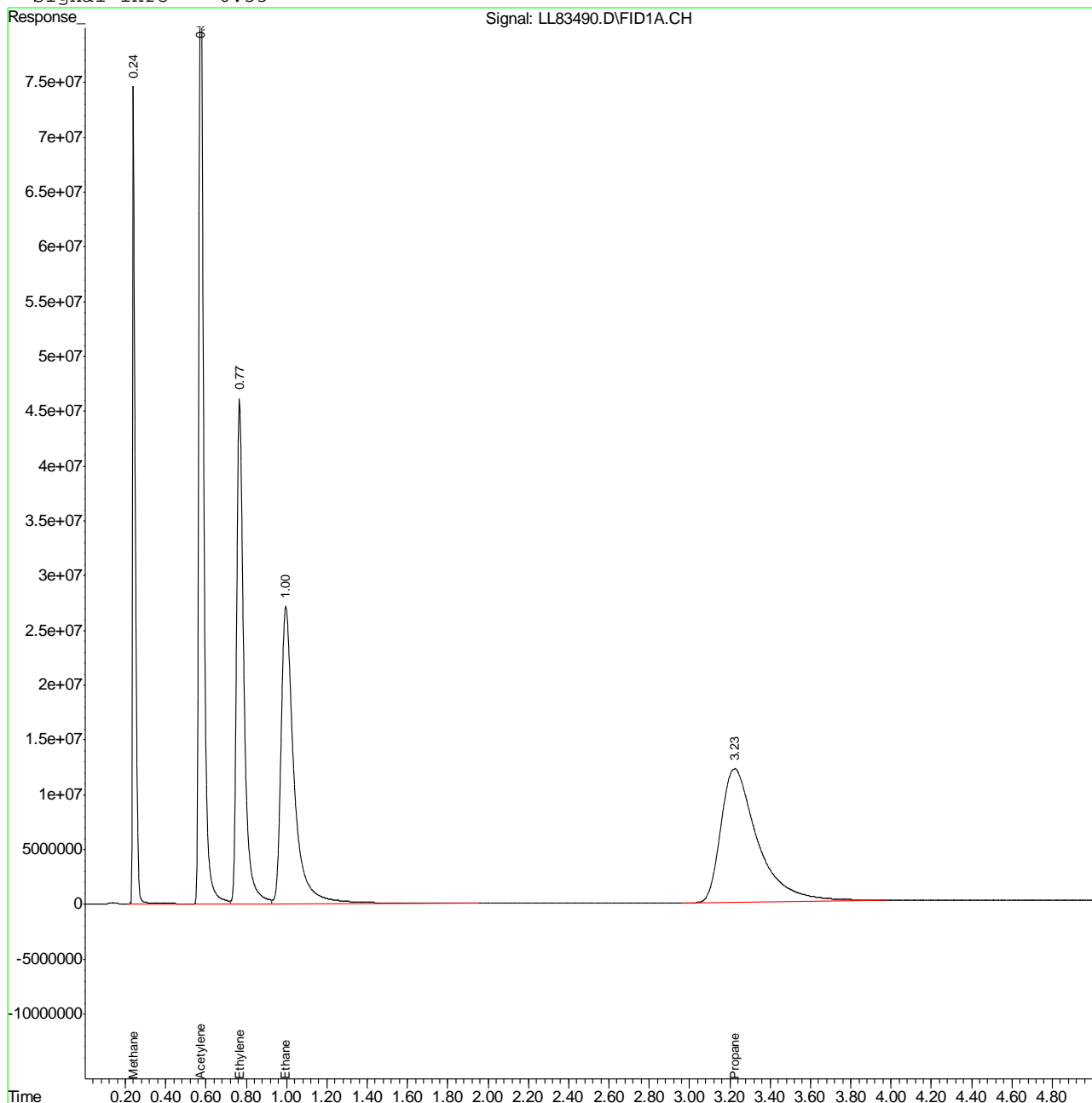
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83490.D RSK122321B.M Thu Jul 06 08:40:24 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83490.D Vial: 2  
 Acq On : 7-6-2023 08:34:19 AM Operator: samantha  
 Sample : CC2678-5 Inst : FID4-LL  
 Misc : gc24239,g112899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 6 8:39 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



6 696

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83502.D Vial: 14  
 Acq On : 06 Jul 2023 10:56 am Operator: samantha  
 Sample : CC2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 11:10:13 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	349272279	572.301 ppmv
2) Acetylene	0.58	812786558	604.273 ppmv
3) Ethylene	0.77	598951528	550.537 ppmv
4) Ethane	1.00	634866482	567.407 ppmv
5) Propane	3.23	790886992	533.429 ppmv

9.6.10  
9

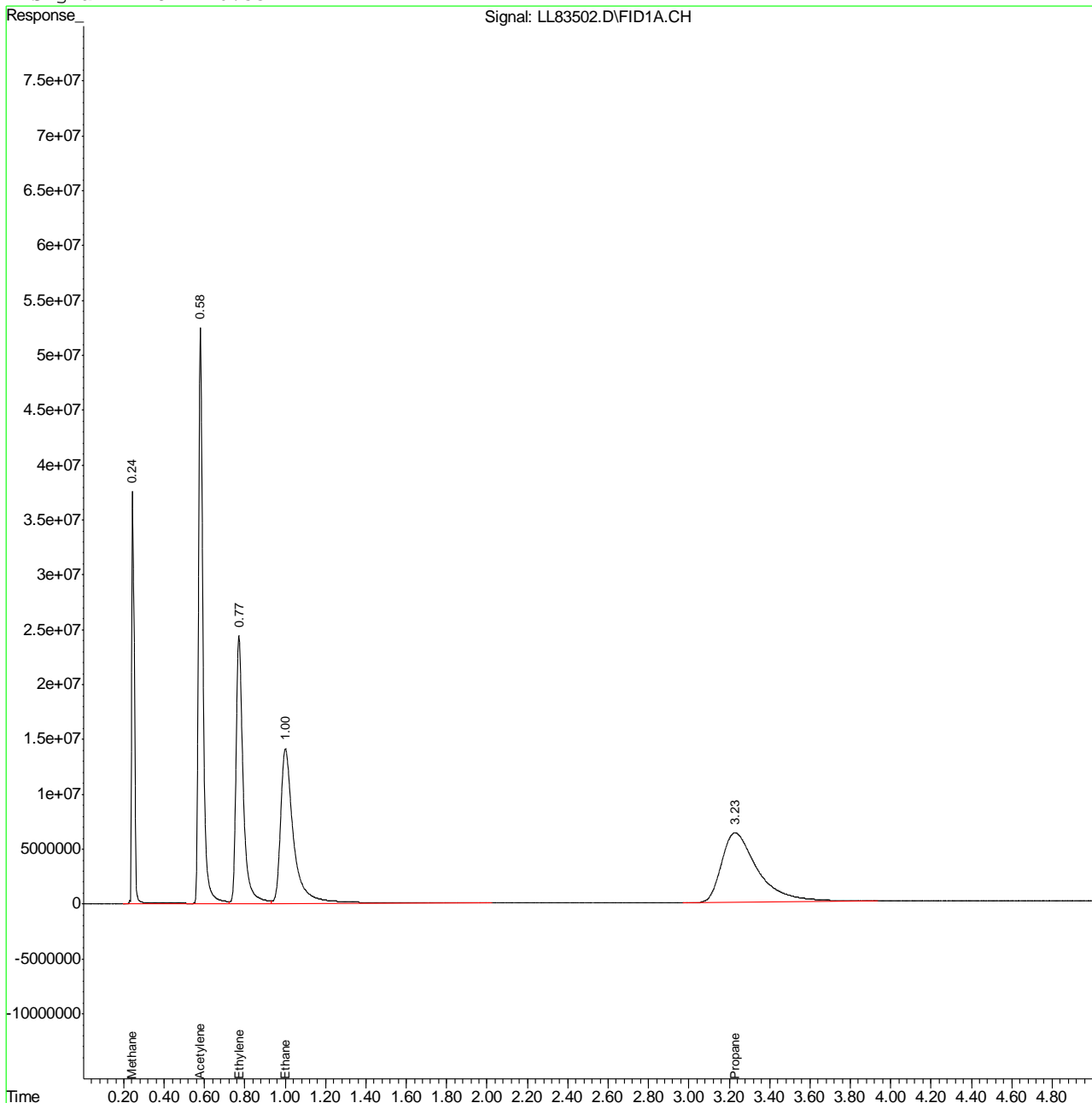
-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83502.D RSK122321B.M Thu Jul 06 11:11:01 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83502.D Vial: 14  
 Acq On : 06 Jul 2023 10:56 am Operator: samantha  
 Sample : CC2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 6 11:10 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6-10  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83513.D Vial: 25  
 Acq On : 7-6-2023 01:27:51 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 13:38:50 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	337396561	552.842 ppmv
2) Acetylene	0.58	785959829	584.328 ppmv
3) Ethylene	0.77	583209073	536.067 ppmv
4) Ethane	1.00	625259469	558.821 ppmv
5) Propane	3.23	795081100	536.258 ppmv

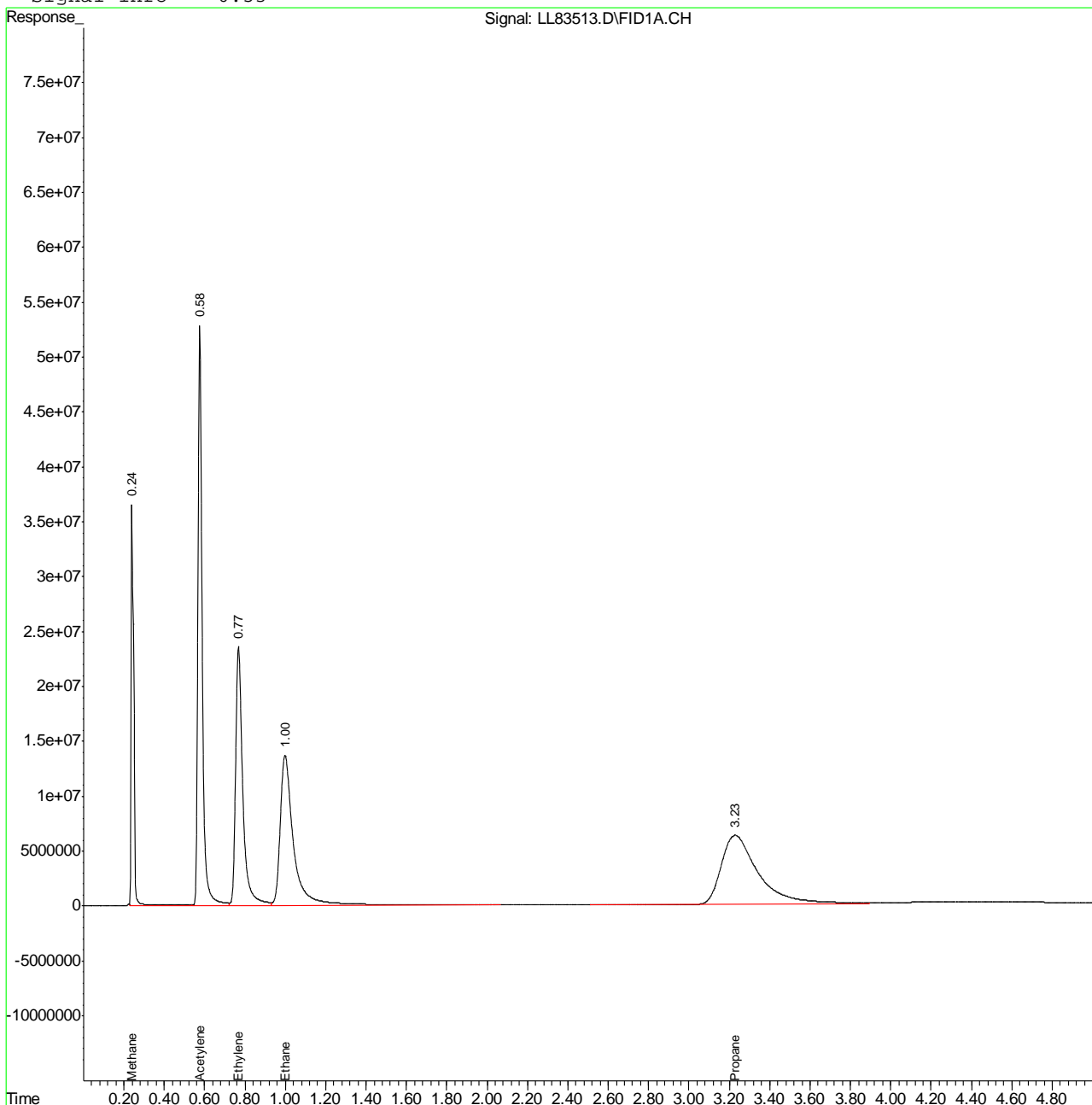
9.6.11  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83513.D Vial: 25  
 Acq On : 7-6-2023 01:27:51 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 6 13:38 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.11  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83523.D Vial: 9  
 Acq On : 7-6-2023 03:48:39 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 06 15:54:36 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	607567646	995.531 ppmv
2) Acetylene	0.58	1418936915	1054.920 ppmv
3) Ethylene	0.77	1042199532	957.957 ppmv
4) Ethane	1.00	1100102310	983.208 ppmv
5) Propane	3.22	1432966038	966.492 ppmv

9.6.12  
9

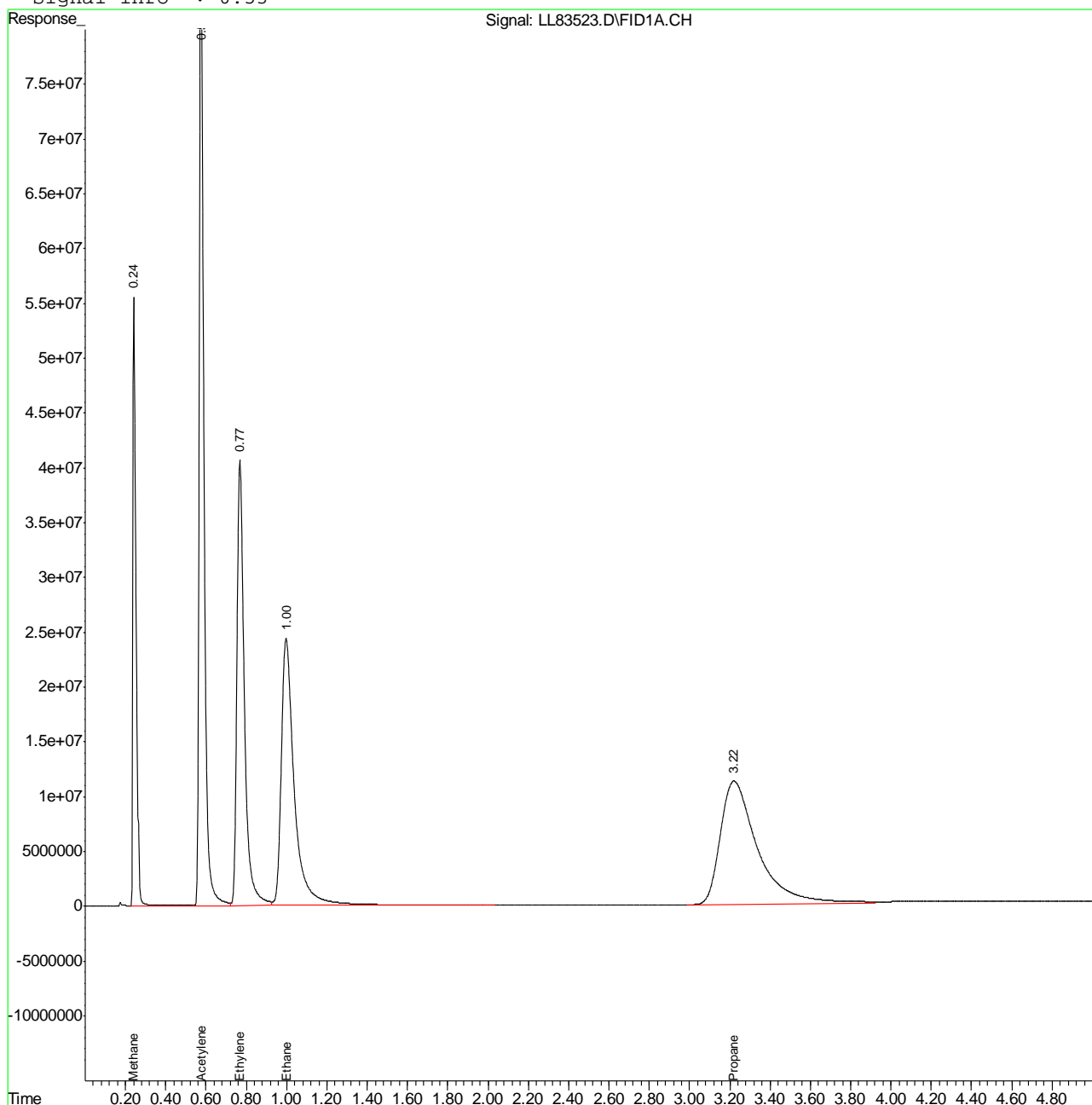
-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83523.D RSK122321B.M Fri Jul 07 11:11:36 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070623\LL83523.D Vial: 9  
 Acq On : 7-6-2023 03:48:39 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2899,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 6 15:54 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.12  
9



SGS -ORLANDO

GC VOA4-LL ANALYSIS LOG

DATE: 12/23/21
COLUMN TYPE: C1006
DETECTOR: FID
INSTRUMENT: FID4-LL
ANALYST: trand

METHODS: NEWRSK 147175
METHOD FILE: RSK122321B.M
CALIB. DATE: 12/23/21
DataAcqMeth: DGMEE3.M
RUN ID: GLL2678

STANDARDS:
ICAL/CCV: 9808, 10447A, 10395B
ISTD/SURR: NA
ICV/QC: 10456A, 9513

PH LOT: 225320
KI PAPER LOT: 011819
AMBIENT TEMP.: 18C-20°C
THERM ID: 170563927
Sample ID Verified: trand
DATE VERIFIED: 12/23/21

Data File	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Manually Integrated Peaks Rationale, Peak#	pH	CI	RR	Comments
LL77103	-	-	-	-	-		-	-	-	
LL77104	-	-	W	500	1000		-	-	-	Low; not used
LL77105	-	-	-	500	10000		-	-	-	Low; not used
LL77106	-	-	W	500	1000		-	-	-	change gases septa; restart
LL77107	-	-	W	500			-	-	-	
LL77108	-	-	W	500	1000		-	-	-	high; not used
LL77109	-	-	W	500	1000		-	-	-	high; not used
LL77110	-	-	W	500			-	-	-	
LL77111	-	-	W	500	10000		-	-	-	test std; not used
LL77112	-	-	W	500	1000		-	-	-	test std; not used
LL77113	-	-	W	500			-	-	-	
LL77114	-	-	W	500			-	-	-	
LL77115	10x	-	W	500	15	pl1: 1.5	-	-	-	500mL/5mL
LL77116	-	-	W	500	15	pl1: 5	-	-	-	
LL77117	10x	-	W	500	1000	pl1: 5	-	-	-	500mL/5mL
LL77118	-	-	W	250	1000	pl1: 5	-	-	-	
LL77119	-	-	W	500	1000	pl1: 5	-	-	-	
LL77120	-	-	W	250	10000	pl1: 5	-	-	-	
LL77121	-	-	W	500	10000		-	-	-	
LL77122	-	-	W	500			-	-	-	
LL77123	-	-	W	500	10000	pl1: 5	-	-	-	passed
					TD					
					12/23/21					

Matrix: Designate "W" for Water, "S" for soil, "C" for Oil, "Liq" for Non-aqueous Liquid, and "ICL" for "SPL" for Leachate.  
 All spikes must be initiated and dated. If correction was not due to a transcription error, then list the reason for correction.  
 Manual Integration: Retention SOP 0A029 MIP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PI Poor Instrument

Analyst's Signature: 

SGS -ORLANDO

GC VOA RSK ANALYSIS LOG

Instrument	FID4-LL
Date	7/6/2023
ANALYST:	samantha
Column_Type	C1006
Detector	FID

METHODS:	NEWRSK 147/175
METHOD FILE:	RSK122321B.M
CALIB. DATE	12/23/2021
DataAcqMeth	DGMEE3.M
RUN ID:	GLL2899

STANDARDS:	230320
ICAL/CCV:	9808, 11151A, 10395B
PH LOT	14-860
KI PAPER LOT	20°C
AMBIENT TEMP.	170563327
THERM ID:	samantha
Sample ID Verified:	
DATE VERIFIED:	7/6/2023

Data File	Sample ID	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Peaks Rationale, Peak#	pH	CI	RR	Comments
LL83489	ccb, helium	-	-	-	-	-	-	-	-	-	-
LL83490	cc2678-5	-	-	-	500	1000	-	-	-	-	✓
LL83491	bs	-	-	W	500	10000	-	-	-	-	✓
LL83492	bsd	-	-	W	500	10000	-	-	-	-	✓
LL83493	ccb, helium	-	-	-	-	-	-	-	-	-	✓
LL83494	mb	-	-	W	500	-	-	-	-	-	✓
LL83495	fc7384-1	10X	5	W	250	-	500ul(-)5mL	1	N	-	✓ E-combine
LL83496	fc7384-6	10X	4	W	500	-	500ul(-)5mL	1	N	-	✓ E-combine
LL83497	fc7384-11	1X	4	W	500	-	-	1	N	50X	Methane over range
LL83498	fc7384-16	1X	4	W	500	-	-	1	N	50X	Methane over range
LL83499	fc7380-1	1X	2	W	500	-	-	1	N	-	✓
LL83500	fc7380-2	1X	2	W	500	-	-	1	N	-	✓
LL83501	fc7380-3	1X	2	W	500	-	-	1	N	-	✓
LL83502	cc2678-4	-	-	-	250	1000	-	-	-	-	✓ Acetylene over range (not reported)
LL83503	ccb, helium	-	-	-	-	-	-	-	-	-	✓
LL83504	fc7380-4	1X	2	W	500	-	-	1	N	-	✓
LL83505	fc732-1	1X	12	W	500	-	-	1	N	20X	Methane over range
LL83506	fc732-1	20X	13	W	500	-	250ul(-)5mL	1	N	-	✓ E-combine
LL83507	fc732-1dup	20X	14	W	500	-	250ul(-)5mL	1	N	-	✓
LL83508	fc732-6	1X	4	W	500	-	-	1	N	-	✓
LL83509	fc732-7	1X	4	W	500	-	-	1	N	-	✓
LL83510	fc7384-14	1X	5	W	500	-	-	1	N	25X	Methane over range
LL83511	fc7417-1	1X	7	W	500	-	-	1	N	-	✓
LL83512	fc7379-1	1X	2	W	500	-	-	1	N	-	✓
LL83513	cc2678-4	-	-	-	250	1000	-	-	-	-	✓ Acetylene over range (not reported)
LL83514	ccb, helium	-	-	-	-	-	-	-	-	-	✓
LL83515	fc7379-2	1X	4	W	500	-	-	1	N	-	✓
LL83516	fc7379-3	1X	2	W	500	-	-	1	N	2X	Methane over range
LL83517	fc7379-4	1X	2	W	500	-	-	1	N	-	✓
LL83518	fc7377-4	1X	4	W	500	-	-	1	N	10X	Methane over range
LL83519	fc7377-5	1X	4	W	500	-	-	1	N	-	✓
LL83520	fc7322-1ms	20X	15	W	500	10000	250ul(-)5mL	1	N	Y	FID OUT - rerun sample
LL83522	fc7322-1ms	20X	16	W	500	10000	250ul(-)5mL	1	N	-	✓
LL83523	cc2678-5	-	-	-	-	1000	-	-	-	-	✓

Matrix: Designate 'W' for Water, 'S' for soil, 'O' for Oil, 'L' for Non-aqueous Liquid, and 'TCLP' or 'SPLP' for Leachate.  
 All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.  
 Manual Integration Rational SOP QIA29: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Bromide	GP38901/GN94584	0.50	0.0	mg/l	10	9.91	99.1	90-110%
Chloride	GP38901/GN94584	2.0	0.0	mg/l	50	46.8	93.6	90-110%
Fluoride	GP38901/GN94584	0.20	0.0	mg/l	2.5	2.41	96.4	90-110%
Nitrogen, Nitrate	GP38901/GN94584	0.10	0.0	mg/l	2.5	2.54	101.6	90-110%
Nitrogen, Nitrite	GP38901/GN94584	0.10	0.0	mg/l	2.5	2.62	104.8	90-110%
Sulfate	GP38901/GN94584	2.0	0.0	mg/l	50	47.6	95.2	90-110%
Total Organic Carbon	GP38919/GN94633	2.0	0.0	mg/l	15	14.9	99.3	90-110%

Associated Samples:

Batch GP38901: FC7322-1, FC7322-6, FC7322-7

Batch GP38919: FC7322-1, FC7322-6, FC7322-7

(\*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Bromide	GP38901/GN94584	FC7322-1	mg/l	0.60	10	7.6	70.0N(a)	90-110%
Chloride	GP38901/GN94584	FC7322-1	mg/l	4.0 U	50	48.9	97.8	90-110%
Fluoride	GP38901/GN94584	FC7322-1	mg/l	0.30 U	2.5	2.1	84.0N(a)	90-110%
Nitrogen, Nitrate	GP38901/GN94584	FC7322-1	mg/l	0.20 U	2.5	2.8	112.0N(a)	90-110%
Nitrogen, Nitrite	GP38901/GN94584	FC7322-1	mg/l	0.20 U	2.5	2.4	96.0	90-110%
Sulfate	GP38901/GN94584	FC7322-1	mg/l	3.4	50	47.1	87.4N(a)	90-110%
Total Organic Carbon	GP38919/GN94633	FC7322-1	mg/l	2.7	15	18.2	103.3	90-110%

Associated Samples:

Batch GP38901: FC7322-1, FC7322-6, FC7322-7

Batch GP38919: FC7322-1, FC7322-6, FC7322-7

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference.

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MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Bromide	GP38901/GN94584	FC7322-1	mg/l	0.60	10	7.6	0.0	15%
Chloride	GP38901/GN94584	FC7322-1	mg/l	4.0 U	50	49.1	0.4	15%
Fluoride	GP38901/GN94584	FC7322-1	mg/l	0.30 U	2.5	2.1	0.0	15%
Nitrogen, Nitrate	GP38901/GN94584	FC7322-1	mg/l	0.20 U	2.5	2.8	0.0	15%
Nitrogen, Nitrite	GP38901/GN94584	FC7322-1	mg/l	0.20 U	2.5	2.4	0.0	15%
Sulfate	GP38901/GN94584	FC7322-1	mg/l	3.4	50	47.5	0.8	15%
Total Organic Carbon	GP38919/GN94633	FC7322-1	mg/l	2.7	15	18.5	1.6	20%

Associated Samples:

Batch GP38901: FC7322-1, FC7322-6, FC7322-7

Batch GP38919: FC7322-1, FC7322-6, FC7322-7

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062801.CSV Date Analyzed: 06/06/23 Methods: EPA 300/SW846 9056A  
Analyst: JB Run ID: GN94584  
Parameters: Chloride,Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:10	GN94584-STD1	1		STDA
11:32	GN94584-STD2	1		STDB
11:54	GN94584-STD3	1		STDC
12:15	GN94584-STD4	1		STDD
12:37	GN94584-STD5	1		STDE
12:59	GN94584-STD6	1		STDF
13:21	GN94584-STD7	1		STDG
13:44	GN94584-STD8	1		STDH
14:06	GN94584-STD9	1		STDI
14:28	GN94584-STD10	1		STDJ
14:50	GN94584-STD11	1		STDK
15:12	GN94584-ICV1	1		
15:34	GN94584-ICB1	1		
15:56	GN94584-CRI1	1		
16:19	GN94584-CCV1	1		
16:42	GN94584-CCB1	1		
10:20	GN94584-CCV2	1		
10:48	GN94584-CCB2	1		
11:10	GP38901-MB1	1		
11:55	FC7314-1	5		(sample used for QC only; not part of login FC7322)
12:18	GP38901-S1	5		
12:40	GP38901-B1	1		
13:01	GP38901-S2	5		
13:22	ZZZZZZ	10		
13:43	ZZZZZZ	1		
14:25	ZZZZZZ	10		
14:46	GN94584-CCV3	1		
15:07	GN94584-CCB3	1		
15:28	FC7322-1	5		
15:49	GP38901-S3	5		
16:09	GP38901-S4	5		
16:30	FC7322-6	5		
16:51	FC7322-7	5		

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062801.CSV      Date Analyzed: 06/06/23      Methods: EPA 300/SW846 9056A  
Analyst: JB      Run ID: GN94584  
Parameters: Chloride,Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:12	ZZZZZZ	1		
17:33	ZZZZZZ	1		
17:54	ZZZZZZ	1		
18:15	ZZZZZZ	1		
18:36	ZZZZZZ	1		
18:57	GN94584-CCV4	1		
19:18	GN94584-CCB4	1		
19:39	ZZZZZZ	1		
20:00	ZZZZZZ	1		
20:21	ZZZZZZ	1		
20:43	ZZZZZZ	1		
21:04	ZZZZZZ	1		
21:25	ZZZZZZ	1		
21:46	ZZZZZZ	5		
22:06	ZZZZZZ	5		
22:27	GP38903-MB1	1		
22:48	GP38903-B1	1		
23:09	GN94584-CCV5	1		
23:31	GN94584-CCB5	1		
23:52	ZZZZZZ	500		
00:12	FC7010-4	1		(sample used for QC only; not part of login FC7322)
00:34	GP38903-S1	1		
00:55	GP38903-S2	1		
01:16	ZZZZZZ	1		
01:37	ZZZZZZ	1		
01:58	ZZZZZZ	5		
02:19	ZZZZZZ	1		
02:40	ZZZZZZ	1		
03:01	GP38891-MB1F	1		
03:22	GN94584-CCV6	1		
03:43	GN94584-CCB6	1		
04:04	GP38891-B1F	1		
04:25	GP38891-S1	5		

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062801.CSV      Date Analyzed: 06/06/23      Methods: EPA 300/SW846 9056A  
Analyst: JB      Run ID: GN94584  
Parameters: Chloride,Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
04:46	GP38891-S2	5		
05:07	ZZZZZ	5		
05:49	FC7148-2	5		(sample used for QC only; not part of login FC7322)
06:10	GP38891-S3	5		
06:32	GP38891-S4	5		
06:53	ZZZZZ	5		
07:14	ZZZZZ	5		
07:35	GN94584-CCV7	1		
07:56	GN94584-CCB7	1		
08:17	ZZZZZ	5		
08:38	ZZZZZ	5		
08:59	ZZZZZ	5		
09:20	ZZZZZ	5		
09:41	ZZZZZ	5		
10:02	ZZZZZ	5		
10:23	ZZZZZ	5		
10:44	GN94584-CCV8	1		
11:10	GN94584-CCB8	1		

Refer to raw data for calibration curve and standards.

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Instrument QC Summary  
Inorganics Analyses

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062801.CSV

Date Analyzed: 06/06/23  
Run ID: GN94584

Methods: EPA 300/SW846 9056A  
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94584-ICV1	Chloride	48.6	2.0	0.80	50	97.2	90-110
GN94584-ICV1	Nitrogen, Nitrate	2.47	0.10	0.040	2.5	98.8	90-110
GN94584-ICV1	Sulfate	49.5	2.0	0.60	50	99.0	90-110
GN94584-ICB1	Chloride	0.80 U	2.0	0.80			
GN94584-ICB1	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94584-ICB1	Sulfate	0.60 U	2.0	0.60			
GN94584-CRI1	Chloride	1.08	2.0	0.80	1	108.0	50-150
GN94584-CRI1	Nitrogen, Nitrate	0.125	0.10	0.040	.1	125.0	50-150
GN94584-CRI1	Sulfate	1.19	2.0	0.60	1	119.0	50-150
GN94584-CCV1	Chloride	49.4	2.0	0.80	50	98.8	90-110
GN94584-CCV1	Nitrogen, Nitrate	2.38	0.10	0.040	2.5	95.2	90-110
GN94584-CCV1	Sulfate	49.8	2.0	0.60	50	99.6	90-110
GN94584-CCB1	Chloride	0.80 U	2.0	0.80			
GN94584-CCB1	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94584-CCB1	Sulfate	0.60 U	2.0	0.60			
GN94584-CCV2	Chloride	51.3	2.0	0.80	50	102.6	90-110
GN94584-CCV2	Nitrogen, Nitrate	2.61	0.10	0.040	2.5	104.4	90-110
GN94584-CCV2	Sulfate	51.9	2.0	0.60	50	103.8	90-110
GN94584-CCB2	Chloride	0.80 U	2.0	0.80			
GN94584-CCB2	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94584-CCB2	Sulfate	0.60 U	2.0	0.60			
GN94584-CCV3	Chloride	51.5	2.0	0.80	50	103.0	90-110
GN94584-CCV3	Nitrogen, Nitrate	2.68	0.10	0.040	2.5	107.2	90-110
GN94584-CCV3	Sulfate	51.8	2.0	0.60	50	103.6	90-110
GN94584-CCB3	Chloride	0.80 U	2.0	0.80			
GN94584-CCB3	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94584-CCB3	Sulfate	0.60 U	2.0	0.60			
GN94584-CCV4	Chloride	51.6	2.0	0.80	50	103.2	90-110
GN94584-CCV4	Nitrogen, Nitrate	2.70	0.10	0.040	2.5	108.0	90-110
GN94584-CCV4	Sulfate	52.3	2.0	0.60	50	104.6	90-110
GN94584-CCB4	Chloride	0.80 U	2.0	0.80			
GN94584-CCB4	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94584-CCB4	Sulfate	0.60 U	2.0	0.60			
GN94584-CCV5	Chloride	51.8	2.0	0.80	50	103.6	90-110
GN94584-CCV5	Nitrogen, Nitrate	2.71	0.10	0.040	2.5	108.4	90-110
GN94584-CCV5	Sulfate	52.4	2.0	0.60	50	104.8	90-110
GN94584-CCB5	Chloride	0.80 U	2.0	0.80			
GN94584-CCB5	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94584-CCB5	Sulfate	0.60 U	2.0	0.60			
GN94584-CCV6	Chloride	49.2	2.0	0.80	50	98.4	90-110
GN94584-CCV6	Nitrogen, Nitrate	2.59	0.10	0.040	2.5	103.6	90-110
GN94584-CCV6	Sulfate	49.5	2.0	0.60	50	99.0	90-110
GN94584-CCB6	Chloride	0.80 U	2.0	0.80			
GN94584-CCB6	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94584-CCB6	Sulfate	0.60 U	2.0	0.60			
GN94584-CCV7	Chloride	52.0	2.0	0.80	50	104.0	90-110
GN94584-CCV7	Nitrogen, Nitrate	2.75	0.10	0.040	2.5	110.0	90-110
GN94584-CCV7	Sulfate	52.6	2.0	0.60	50	105.2	90-110
GN94584-CCB7	Chloride	0.80 U	2.0	0.80			
GN94584-CCB7	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94584-CCB7	Sulfate	0.60 U	2.0	0.60			

Instrument QC Summary  
Inorganics Analyses

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062801.CSV

Date Analyzed: 06/06/23  
Run ID: GN94584

Methods: EPA 300/SW846 9056A  
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94584-CCV8	Chloride	50.3	2.0	0.80	50	100.6	90-110
GN94584-CCV8	Nitrogen, Nitrate	2.53	0.10	0.040	2.5	101.2	90-110
GN94584-CCV8	Sulfate	51.0	2.0	0.60	50	102.0	90-110
GN94584-CCB8	Chloride	0.80 U	2.0	0.80			
GN94584-CCB8	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94584-CCB8	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: C230703W1.TXT      Date Analyzed: 07/03/23      Methods: SM5310 B-14/SW9060A  
Analyst: FN      Run ID: GN94633  
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:47	GN94633-CCV1	1		
16:09	GP38918-MB1	1		
16:28	GP38918-B1	1		
16:53	ZZZZZZ	1		
17:11	ZZZZZZ	1		
17:32	ZZZZZZ	1		
17:55	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:38	ZZZZZZ	1		
18:58	ZZZZZZ	1		
19:18	ZZZZZZ	1		
19:37	GN94633-CCV2	1		
19:59	GN94633-CCB1	1		
20:20	FC7211-7	1		(sample used for QC only; not part of login FC7322)
20:39	GP38918-S1	1		
21:00	GP38918-S2	1		
21:20	ZZZZZZ	1		
21:39	ZZZZZZ	1		
22:01	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:45	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:24	ZZZZZZ	1		
23:44	GN94633-CCV3	1		
00:05	GN94633-CCB2	1		
00:24	FC7211-15	1		(sample used for QC only; not part of login FC7322)
00:44	GP38918-S3	1		
01:04	GP38918-S4	1		
01:25	ZZZZZZ	1		
01:45	ZZZZZZ	1		
02:05	ZZZZZZ	1		
02:24	ZZZZZZ	1		
02:43	ZZZZZZ	1		

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: C230703W1.TXT      Date Analyzed: 07/03/23      Methods: SM5310 B-14/SW9060A  
Analyst: FN      Run ID: GN94633  
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:03	ZZZZZZ	1		
03:26	ZZZZZZ	1		
03:44	GN94633-CCV4	1		
04:04	GP38919-MB1	1		
04:25	GP38919-B1	1		
04:46	ZZZZZZ	1		
05:08	ZZZZZZ	1		
05:30	FC7322-1	1		
05:52	GP38919-S1	1		
06:13	GP38919-S2	1		
06:36	FC7322-6	1		
06:57	FC7322-7	1		
07:16	ZZZZZZ	1		
07:40	GN94633-CCV5	1		
08:02	GN94633-CCB3	1		

Refer to raw data for calibration curve and standards.

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Instrument QC Summary  
Inorganics Analyses

Login Number: FC7322  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: C230703W1.TXT

Date Analyzed: 07/03/23  
Run ID: GN94633

Methods: SM5310 B-14/SW9060A  
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94633-CCV1	Total Organic Carbon	15.2	2.0	0.54	15	101.3	90-110
GN94633-CCV2	Total Organic Carbon	15.1	2.0	0.54	15	100.7	90-110
GN94633-CCB1	Total Organic Carbon	0.54 U	2.0	0.54			
GN94633-CCV3	Total Organic Carbon	15.3	2.0	0.54	15	102.0	90-110
GN94633-CCB2	Total Organic Carbon	0.54 U	2.0	0.54			
GN94633-CCV4	Total Organic Carbon	15.1	2.0	0.54	15	100.7	90-110
GN94633-CCV5	Total Organic Carbon	15.1	2.0	0.54	15	100.7	90-110
GN94633-CCB3	Total Organic Carbon	0.54 U	2.0	0.54			

(!) Outside of QC limits

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General Chemistry

Raw Data

IC STANDARDS PREP LOG

STANDARD NAME	ANALYTES	STOCK MFG. #	STOCK LOT #	STOCK EXP. DATE	STOCK CONC. (mg/l)	VOLUME ADDED (ml)	TOTAL VOLUME (ml)	STANDARD CONC. (mg/l)	PREP DATE	INITIALS	STD LOT #	EXP. DATE
1 <sup>st</sup> NO <sub>2</sub>	NO <sub>2</sub> /NO <sub>3</sub>	W11924115	Ref	6-7-23	1000	5	200	2.5	6-20-23	GR	16014749	6-21-23
↓	SO <sub>4</sub>	W27025	Ricca	11-1-23	1000	10	↓	50	↓	↓	↓	↓
↓	Cl	↓	↓	17-1-24	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	W174	↓	6-1-24	↓	0.5	↓	2.5	↓	↓	↓	↓
↓	NO <sub>2</sub>	W19168	Spex	6-30-23	↓	2	↓	10	↓	↓	16014749	↓
↓	NO <sub>3</sub>	W11924117	Ref	6-21-23	100	2.5	100	2.5	↓	↓	↓	↓
↓	SO <sub>4</sub>	W155759	↓	7-7-23	1000	5	↓	50	↓	↓	↓	↓
↓	Cl	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	W19168	Spex	9-30-23	↓	0.25	↓	2.5	↓	↓	↓	↓
↓	NO <sub>2</sub>	W19168	Ref	7-26-23	1000	1	↓	10	↓	↓	↓	↓
↓	NO <sub>3</sub>	W19168	Ricca	9/1/23	1000	2.5	25	100	6/22/23	GT	IC014750	6/23/23
↓	SO <sub>4</sub>	W2653	Absolute	5/1/24	↓	↓	↓	↓	↓	↓	↓	↓
↓	Cl	W2653	↓	8/26/24	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	W333	↓	11/3/25	↓	↓	↓	↓	↓	↓	↓	↓
↓	NO <sub>2</sub> /NO <sub>3</sub>	IC014751	Ref	6/23/23	100	5	200	2.5	6/22/23	GT	IC014751	6/23/23
↓	SO <sub>4</sub>	W19168	Ricca	11/1/23	1000	10	↓	50	↓	↓	↓	↓
↓	Cl	↓	↓	12/1/24	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	W19168	Spex	6/30/23	↓	0.5	↓	2.5	↓	↓	↓	↓
↓	NO <sub>2</sub>	W19168	Ref	6/23/23	100	2	100	2.5	↓	↓	↓	↓
↓	NO <sub>3</sub>	W19168	Ref	6/23/23	1000	2.5	↓	50	↓	↓	↓	↓
↓	SO <sub>4</sub>	W19168	Ref	7/10/23	1000	5	↓	↓	↓	↓	↓	↓
↓	Cl	W19168	↓	9/30/23	↓	0.25	↓	2.5	↓	↓	↓	↓
↓	F	W19168	Spex	7/26/23	↓	1	↓	10	↓	↓	↓	↓
↓	NO <sub>2</sub>	W19168	Ricca	9-1-23	1000	2.5	25	100	6-22-23	GR	IC014750	6-28-23
↓	NO <sub>3</sub>	W19168	↓	5-1-24	↓	↓	↓	↓	↓	↓	↓	↓
↓	SO <sub>4</sub>	W19168	Absolute	11-29-24	↓	↓	↓	↓	↓	↓	↓	↓
↓	Cl	W19168	↓	11-3-25	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	W19168	Ref	6-26-23	100	5	800	2.5	↓	↓	↓	↓
↓	NO <sub>2</sub>	W19168	Ricca	11-1-23	1000	0.1	↓	50	↓	↓	↓	↓
↓	NO <sub>3</sub>	W19168	↓	17-1-24	↓	↓	↓	↓	↓	↓	↓	↓
↓	SO <sub>4</sub>	W19168	Ref	6-1-24	↓	0.5	↓	2.5	↓	↓	↓	↓
↓	Cl	W19168	↓	6-30-23	↓	↓	↓	↓	↓	↓	↓	↓
↓	F	W19168	Spex	6-30-23	↓	↓	↓	↓	↓	↓	↓	↓
↓	NO <sub>2</sub>	W19168	↓	6-30-23	↓	↓	↓	↓	↓	↓	↓	↓

GT 6/22/23



IC STANDARDS PREP LOG

STANDARD NAME	ANALYTES	STOCK MFG. #	STOCK LOT #	STOCK EXP. DATE	STOCK CONC. (mg/l)	VOLUME ADDED (ml)	TOTAL VOLUME (ml)	STANDARD CONC. (mg/l)	PREP DATE	INITIALS	STD LOT #	EXP. DATE
B1	NO <sub>2</sub> IND <sub>3</sub> SO <sub>4</sub>	110117101	Def	6-28-23	100	2.5	100	2.5	6-27-23	gg	110117101	6-28-23
	LI	GN3525A	↓	7-26-23	1000	5		50				
	F	WCL1005	↓	9-30-23		0.25		2.5				
	PK	GN352101	Def	7-26-23		1	25	10	6-29-23	gg	110117102	6-30-23
1 <sup>st</sup> ND <sub>2</sub>	NO <sub>2</sub>	WCL2050	Def	6-1-23	1000	2.5		100				
1 <sup>st</sup> ND <sub>3</sub>	NO <sub>3</sub>	WCL3	↓	5-1-24								
2 <sup>nd</sup> ND <sub>2</sub>	NO <sub>2</sub>	32	Atmosphere	11-29-24								
2 <sup>nd</sup> ND <sub>3</sub>	NO <sub>3</sub>	33	↓	11-3-25								
CU	NO <sub>2</sub> IND <sub>3</sub>	110117102	Def	6-30-23	100	5	200	2.5				
	SO <sub>4</sub>	WCL2055	Def	11-1-23	1000	10		50				
	CA	WCL415	↓	12-1-24								
	F	741	↓	6-1-24		0.5		2.5				
	Bar	WCL1005	Spec	6-30-23		8		10				
B1	NO <sub>2</sub> IND <sub>3</sub>	110117101	Def	6-30-23	100	2.5	100	2.5			110117107	
	SO <sub>4</sub>	GN3525A	↓	7-26-23	1000	5		50				
	LI	WCL1005	↓	9-30-23		0.25		2.5				
	F	GN352101	Spec	7-26-23		1		10				
	Bar	GN352101	Def	7-26-23								

# IC Soil Prep

Method: SW846 9056A

Analyst: JL  
 GP 38891

Date (mm/dd/yy): 6/27/23  
 Time (24:00): 13:16

	Sample ID	Bottle #	Weight g	Final Vol ml
MB	MBIF	—	5.02	50
SB	BIF	—	5.19	
MS1	FC7051-4	12	5.03	
MSD1	↓ -451	↓	5.23	
QC1	↓ -452	↓	5.13	
2	FC7003-5	4	5.30	
3	↓ -6	↓	5.20	
4	↓ -7	↓	5.00	
5	↓ -8	↓	5.06	
6	FC7051-1	1	5.19	
7	↓ -2	2	5.27	
8	↓ -3	1	5.21	
9	↓ -6	2	5.01	
10	FC7118-1	5	4.99	
MS2	↓ -2	1	5.06	
MSD2	↓ -253		5.26	
QC2	↓ -254		5.03	
12	↓ -3		5.19	
13	↓ -4		5.08	
14	↓ -5		5.01	
15	↓ -6		5.01	
16	↓ -7		5.03	
17	↓ -8		5.27	
18	↓ -9		5.22	
19	↓ -10		5.30	
20	↓ -11	↓	5.29	↓

Balance ID AdvPro1

REAGENTS

Spike Lot # 14014761  
 Cup Lot # 2206050  
 SRM Lot # 90975838  
 Vial Lot # 728442-G 23535  
 Syringe Lot # (D)  
 Filter Lot # ↓

Comments: ① Samples filtered through 0.2µm filter on instrument.

Analyst's Signature: J. Lynn Miller Date: 6/27/23

Reveiw'er's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

11.1 11





# IC Instrument Log

Method: EPA300.0 / SW846 9056A (circle one)

Standards

ICAL: \_\_\_\_\_  
 ICV: \_\_\_\_\_  
 CCV: \_\_\_\_\_  
 QC: \_\_\_\_\_

Vial lot# \_\_\_\_\_  
 Cap lot# \_\_\_\_\_  
 Syringe lot# \_\_\_\_\_  
 Filter lot# \_\_\_\_\_

Prep Batches: \_\_\_\_\_  
 Analytical Batch: \_\_\_\_\_  
 Calibration Date: \_\_\_\_\_  
 Pump pressure: \_\_\_\_\_

Date: 6/29/23 (cont.)  
 Analyst: \_\_\_\_\_  
 Instrument: \_\_\_\_\_  
 Inst. File Name: \_\_\_\_\_

Sample#	Bot#	Matrix	Scan	DF	Filter (µm)	Ions Needed				Results OK or Dilution Needed				Comments					
						F	Cl	NO2	Br	NO3	SO4	F	Cl		NO2	Br	NO3	SO4	
FC7073-U-3	80	AD	9M5	1	H														
	↓		80A																
	↓		82A																
	↓		1105A																
	↓		303A	5															
	↓		351A	↓															
FC7130-U	7																		
FC7314-U	9																		
MB1	-			1															
B1	-																		
CAW	-																		
CAW	-																		
CAW	-																		
FC7103-1	13		15.5mS S00																
FC7010-U	57		127A	1															
	↓		-4S1																
	↓		-4S2																
FC7290-2	6		220A																
	↓		075																
	↓		700A	5															
	↓		379A	1															
FC7103-1	13		340A																
	↓		-2																
13P38891-MBIF	-	SD																	
CAW	-	AD																	
CAW	-																		
13P38891-BIF	-	SD	HWA																
FC7103-1	5			5															
	↓		-2																
13P38891-S1	12																		
	↓		-S2																
	↓		-S3																

Run after 6/27/23 891-BIF



### IC Instrument Log

Method: EPA300.0 / SW846 9056A (circle one)

Date: 10/28/23 (cont.)  
 Analyst:  
 Instrument:  
 Inst. File Name:

Prep Batches:  
 Analytical Batch:  
 Calibration Date:  
 Pump pressure:

Vial lot#  
 Cap lot#  
 Syringe lot#  
 Filter lot#

Standards  
 ICAL:  
 ICV:  
 CCV:  
 QC:

Sample#	Bot#	Matrix	Scon	DF	Filter (y/n)	Ions Needed				Results OK or Dilution Needed				Comments				
						F	Cl	NO2	Br	NO3	SO4	F	Cl		NO2	Br	NO3	SO4
10230891-SU	5	SD	N/A	5	H													
FC1118-3	-																	
↓ -4																		
↓ -5																		
CW		AB																
CUB																		
FC1118-6	5	SD		5														
↓ -7																		
↓ -8																		
↓ -9																		
↓ -10																		
↓ -11																		
IAN		AB																
WMS																		

gc 10/29/23

**Sample data**

Ident . . . . . STDK  
 Sample type . . . . . Standard 10  
 Determination start . . . . . 2023-06-06 14:50:16 UTC-4  
 Method . . . . . SGS In-Vial Anions191003A  
 Operator . . . . . JR

**Anions**

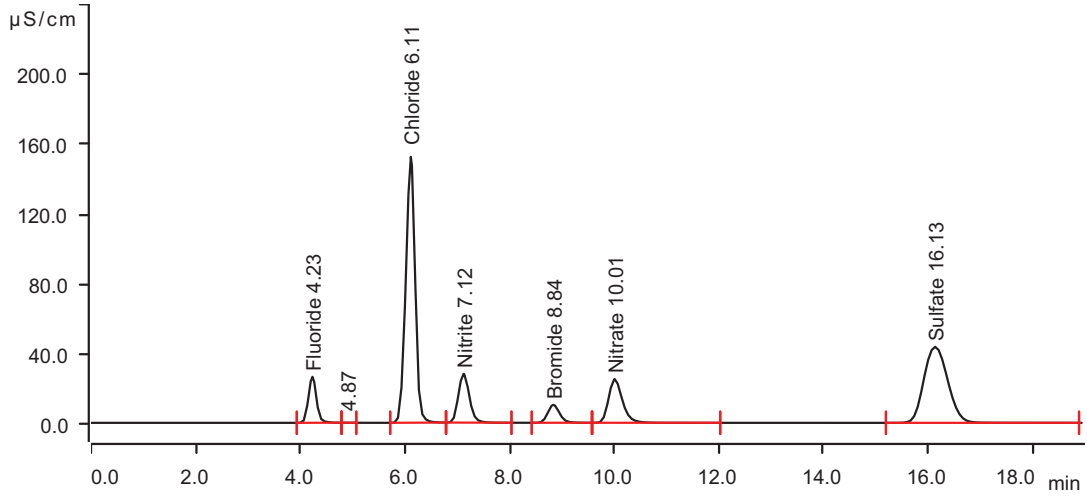
Data source . . . . . Conductivity detector 1 (930 Compact IC Flex 1)  
 Channel . . . . . Conductivity  
 Recording time . . . . . 19.0 min  
 Integration . . . . . Automatically  
 Column type . . . . . Metrosep A Supp 5 - 150/4.0  
 Eluent composition . . . . . not defined  
 Flow . . . . . 0.700 mL/min  
 Maximum flow monitored . . . . . yes  
 Pressure . . . . . 8.21 MPa  
 Maximum pressure monitored . . . . . yes  
 Temperature . . . . . 30.0 °C

**Pressure**

Data source . . . . . Pump (930 Compact IC Flex 1)  
 Channel . . . . . System pressure  
 Recording time . . . . . 17.5 min  
 Integration . . . . . Automatically  
 Flow . . . . . ---- mL/min  
 Maximum flow monitored . . . . . no  
 Pressure . . . . . ---- MPa  
 Maximum pressure monitored . . . . . no  
 Temperature . . . . . ---- °C

11.1  
11

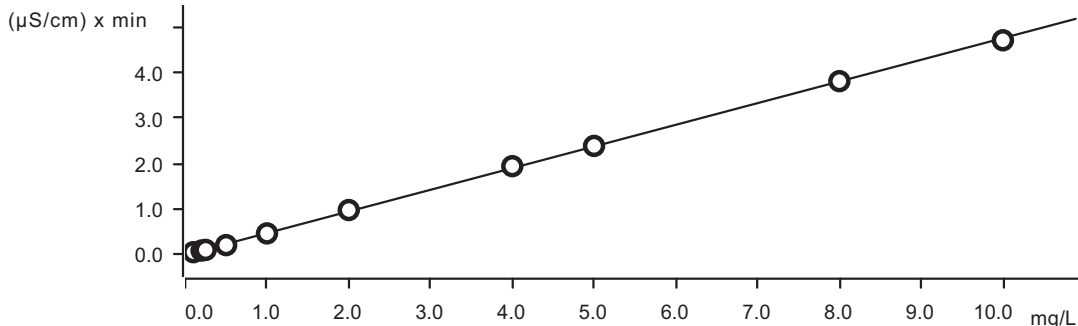
Anions



Peak number	Retention time min	Area ( $\mu\text{S/cm}$ ) x min	Height $\mu\text{S/cm}$	Concentration mg/L	Component name
1	4.233	4.7211	26.266	9.901	Fluoride
2	4.868	0.0027	0.017	invalid	
3	6.113	31.4653	151.958	100.116	Chloride
4	7.122	6.8154	27.885	9.968	Nitrite
5	8.837	2.6832	10.267	20.760	Bromide
6	10.010	7.6401	24.961	10.221	Nitrate
7	16.133	22.8839	43.451	100.925	Sulfate

11.1  
11

**Fluoride (Anions)**



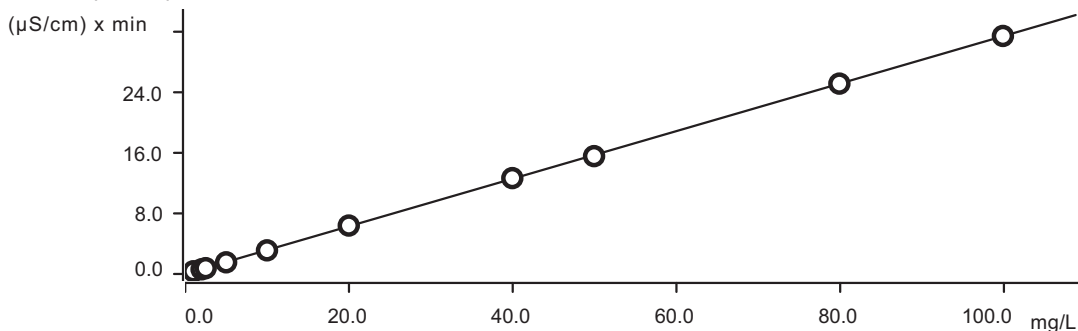
Function:  $A = -0.0211997 + 0.0239476 \times Q$

Relative standard deviation: 1.906714 %

Correlation coefficient: 0.999880

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0362	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.0728	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.0864	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.1924	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.4513	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	0.9684	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	1.9379	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	2.3860	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	3.8173	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	4.7211	STDK	2023-06-06 14:50:16 UTC-4

**Chloride (Anions)**

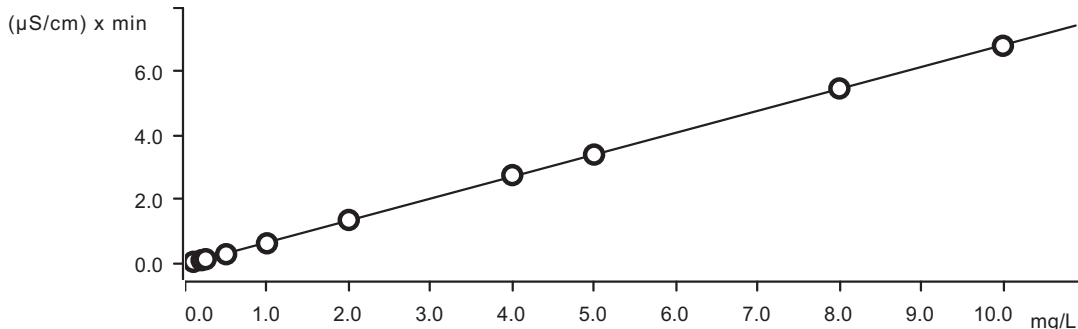




Function: . . . . .  $A = -0.0931798 + 0.0157609 \times Q$   
 Relative standard deviation . . . . . 0.798820 %  
 Correlation coefficient . . . . . 0.999979

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.2524	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.5119	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.6639	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	1.4385	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	3.0285	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	20.000	20.0	1.0	1.0	6.3172	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	12.6101	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	15.5240	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	25.1438	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	31.4653	STDK	2023-06-06 14:50:16 UTC-4

**Nitrite (Anions)**



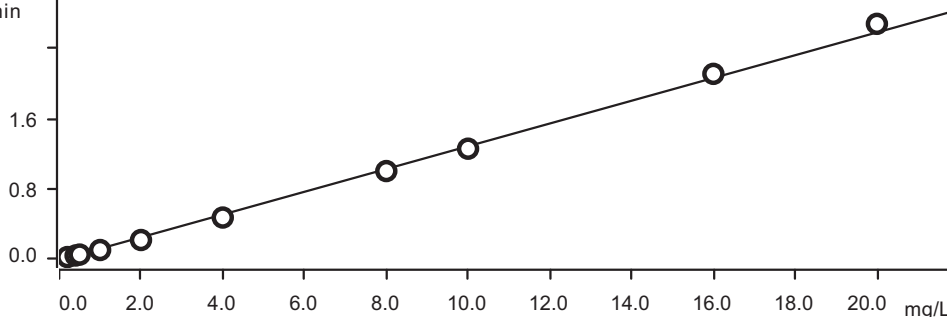
Function: . . . . .  $A = -0.0301378 + 0.0343379 \times Q$   
 Relative standard deviation . . . . . 1.195968 %  
 Correlation coefficient . . . . . 0.999953

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0504	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1013	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1313	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.2879	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.6299	STDF	2023-06-06 12:59:49 UTC-4

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	2.000	20.0	1.0	1.0	1.3610	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	2.7654	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	3.4088	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	5.4796	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	6.8154	STDK	2023-06-06 14:50:16 UTC-4

**Bromide (Anions)**

(µS/cm) x min



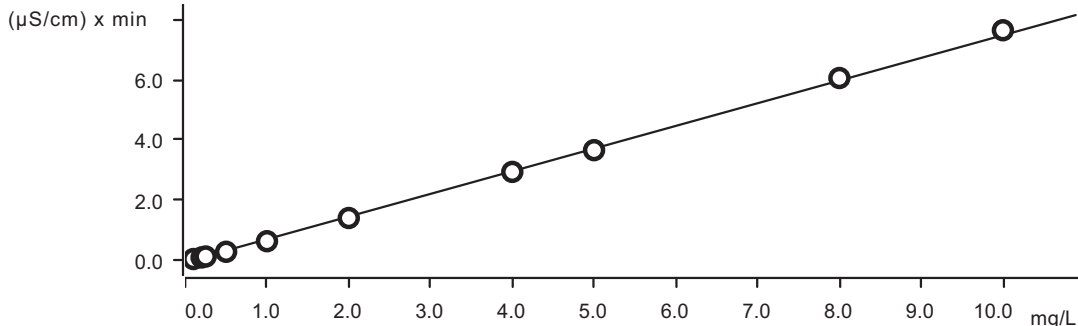
Function: . . . . .  $A = -0.0148861 + 6.49841E-3 \times Q$

Relative standard deviation . . . . . 5.588305 %

Correlation coefficient . . . . . 0.999041

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.200	20.0	1.0	1.0	0.0191	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.400	20.0	1.0	1.0	0.0370	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.500	20.0	1.0	1.0	0.0475	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	1.000	20.0	1.0	1.0	0.0996	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	2.000	20.0	1.0	1.0	0.2139	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	4.000	20.0	1.0	1.0	0.4706	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	8.000	20.0	1.0	1.0	1.0015	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	10.000	20.0	1.0	1.0	1.2568	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	16.000	20.0	1.0	1.0	2.1117	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	20.000	20.0	1.0	1.0	2.6832	STDK	2023-06-06 14:50:16 UTC-4

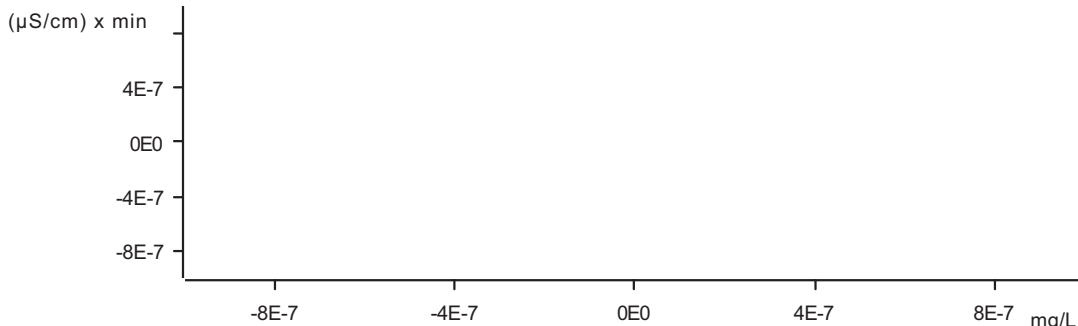
**Nitrate (Anions)**



Function: . . . . .  $A = -0.0411561 + 0.0375757 \times Q$   
 Relative standard deviation . . . . . 3.335615 %  
 Correlation coefficient . . . . . 0.999650

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0535	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1057	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1369	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.2940	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.6446	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	1.4138	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	2.9429	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	3.6632	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	6.0558	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	7.6401	STDK	2023-06-06 14:50:16 UTC-4

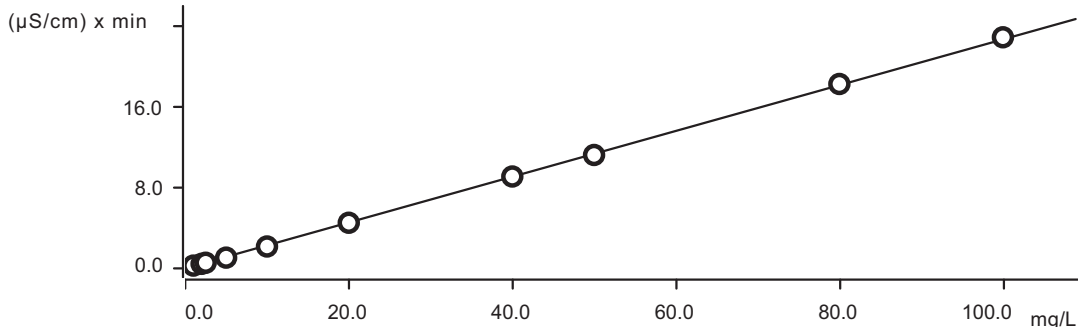
**Phosphate (Anions)**



Function: .....  
 Relative standard deviation ..... *invalid %*  
 Correlation coefficient ..... *invalid*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	n. d.	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	n. d.	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	n. d.	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	n. d.	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	n. d.	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	n. d.	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	n. d.	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	n. d.	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	n. d.	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	n. d.	STDK	2023-06-06 14:50:16 UTC-4

**Sulfate (Anions)**



Function: .....  $A = -0.0942335 + 0.0113838 \times Q$   
 Relative standard deviation ..... 1.544949 %  
 Correlation coefficient ..... 0.999923

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.1710	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.3463	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.4552	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	0.9645	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	2.0732	STDF	2023-06-06 12:59:49 UTC-4

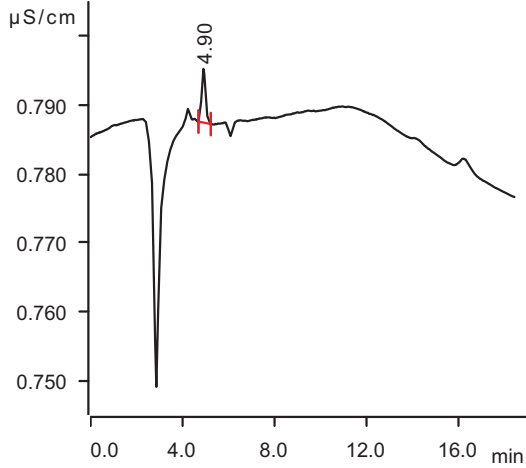
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	20.000	20.0	1.0	1.0	4.4336	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	9.0343	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	11.1759	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	18.2394	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	22.8839	STDK	2023-06-06 14:50:16 UTC-4

11.1  
11

**Sample data**

Ident. . . . . STDA  
 Sample type . . . . . Standard 100  
 Determination start . . . . . 2023-06-06 11:10:48  
 Dilution factor . . . . . 1.00

**Anions**

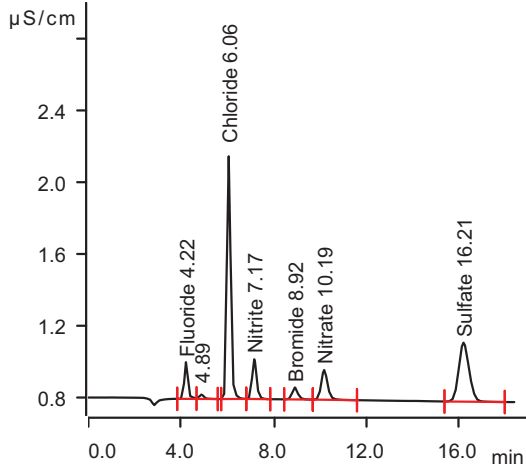


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
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**Sample data**

Ident. . . . . STDB  
 Sample type . . . . . Standard 1  
 Determination start . . . . . 2023-06-06 11:32:19  
 Dilution factor . . . . . 1.00

**Anions**



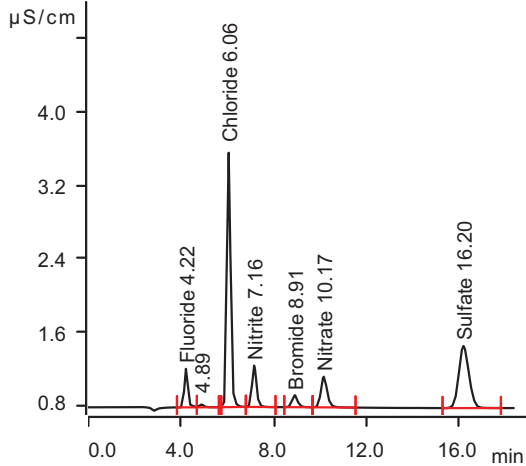
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0362	0.120	0.120
6.06	Chloride	0.2524	1.096	1.096
7.17	Nitrite	0.0504	0.117	0.117
8.92	Bromide	0.0191	0.261	0.261
10.19	Nitrate	0.0535	0.126	0.126
16.21	Sulfate	0.1710	1.165	1.165

11.1  
11

**Sample data**

Ident. . . . . STDC  
 Sample type . . . . . Standard 2  
 Determination start . . . . . 2023-06-06 11:54:00  
 Dilution factor . . . . . 1.00

**Anions**

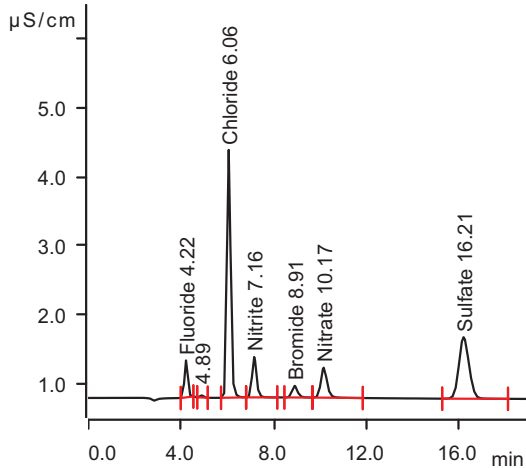


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0728	0.196	0.196
6.06	Chloride	0.5119	1.920	1.920
7.16	Nitrite	0.1013	0.191	0.191
8.91	Bromide	0.0370	0.399	0.399
10.17	Nitrate	0.1057	0.195	0.195
16.20	Sulfate	0.3463	1.935	1.935

**Sample data**

Ident. . . . . STDD  
 Sample type . . . . . Standard 3  
 Determination start . . . . . 2023-06-06 12:15:39  
 Dilution factor . . . . . 1.00

**Anions**

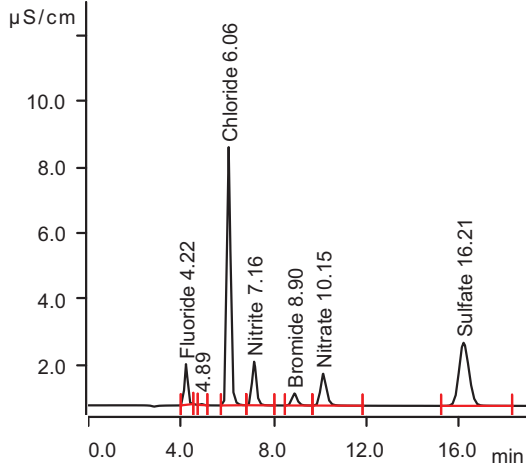


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0864	0.225	0.225
6.06	Chloride	0.6639	2.402	2.402
7.16	Nitrite	0.1313	0.235	0.235
8.91	Bromide	0.0475	0.480	0.480
10.17	Nitrate	0.1369	0.237	0.237
16.21	Sulfate	0.4552	2.413	2.413

**Sample data**

Ident. . . . . STDE  
 Sample type . . . . . Standard 4  
 Determination start . . . . . 2023-06-06 12:37:44  
 Dilution factor . . . . . 1.00

**Anions**

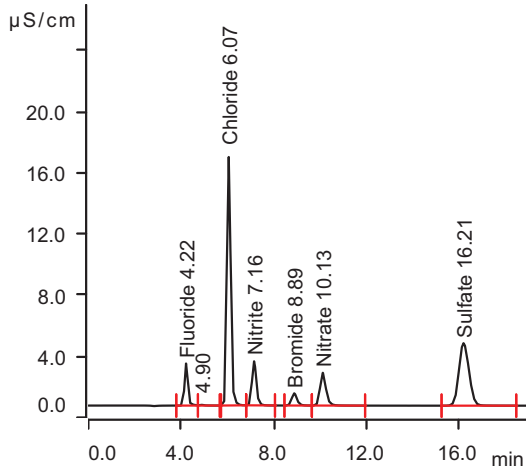


Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.1924	0.446	0.446
6.06	Chloride	1.4385	4.859	4.859
7.16	Nitrite	0.2879	0.463	0.463
8.90	Bromide	0.0996	0.881	0.881
10.15	Nitrate	0.2940	0.446	0.446
16.21	Sulfate	0.9645	4.650	4.650

**Sample data**

Ident. . . . . STDF  
 Sample type . . . . . Standard 5  
 Determination start . . . . . 2023-06-06 12:59:49  
 Dilution factor . . . . . 1.00

**Anions**



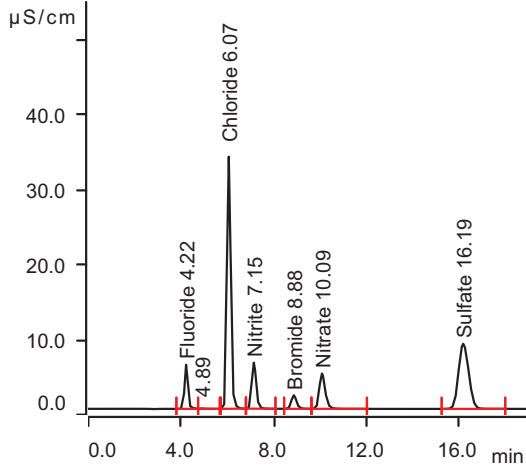
Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.4513	0.987	0.987
6.07	Chloride	3.0285	9.903	9.903
7.16	Nitrite	0.6299	0.961	0.961
8.89	Bromide	0.2139	1.760	1.760
10.13	Nitrate	0.6446	0.912	0.912
16.21	Sulfate	2.0732	9.520	9.520



**Sample data**

Ident. . . . . STDG  
 Sample type . . . . . Standard 6  
 Determination start . . . . . 2023-06-06 13:21:55  
 Dilution factor . . . . . 1.00

**Anions**

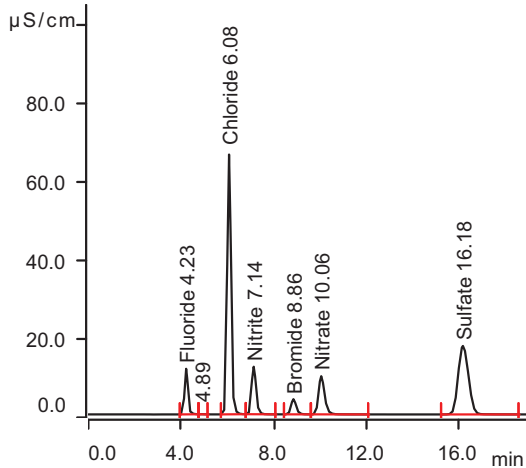


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.9684	2.066	2.066
6.07	Chloride	6.3172	20.336	20.336
7.15	Nitrite	1.3610	2.026	2.026
8.88	Bromide	0.4706	3.736	3.736
10.09	Nitrate	1.4138	1.936	1.936
16.19	Sulfate	4.4336	19.887	19.887

**Sample data**

Ident. . . . . STDH  
 Sample type . . . . . Standard 7  
 Determination start . . . . . 2023-06-06 13:44:00  
 Dilution factor . . . . . 1.00

**Anions**



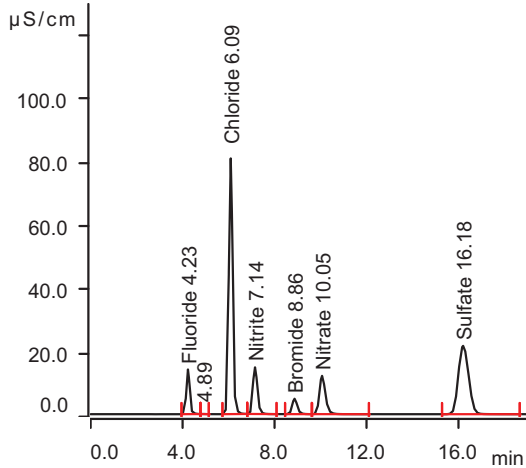
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	1.9379	4.090	4.090
6.08	Chloride	12.6101	40.300	40.300
7.14	Nitrite	2.7654	4.071	4.071
8.86	Bromide	1.0015	7.820	7.820
10.06	Nitrate	2.9429	3.971	3.971
16.18	Sulfate	9.0343	40.094	40.094

11.1  
11

**Sample data**

Ident. . . . . STDI  
 Sample type . . . . . Standard 8  
 Determination start . . . . . 2023-06-06 14:06:05  
 Dilution factor . . . . . 1.00

**Anions**

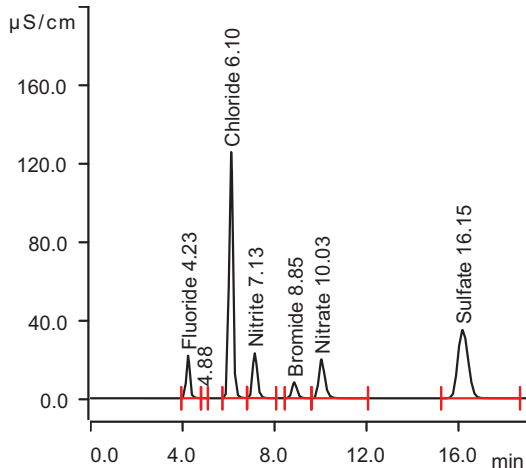


Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	2.3860	5.026	5.026
6.09	Chloride	15.5240	49.544	49.544
7.14	Nitrite	3.4088	5.007	5.007
8.86	Bromide	1.2568	9.785	9.785
10.05	Nitrate	3.6632	4.929	4.929
16.18	Sulfate	11.1759	49.501	49.501

**Sample data**

Ident. . . . . STDJ  
 Sample type . . . . . Standard 9  
 Determination start . . . . . 2023-06-06 14:28:12  
 Dilution factor . . . . . 1.00

**Anions**



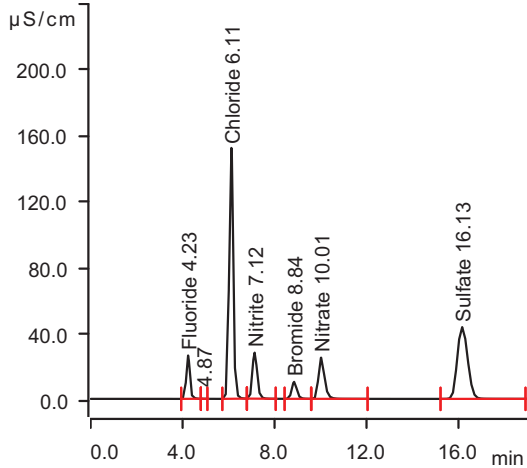
Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	3.8173	8.014	8.014
6.10	Chloride	25.1438	80.062	80.062
7.13	Nitrite	5.4796	8.023	8.023
8.85	Bromide	2.1117	16.362	16.362
10.03	Nitrate	6.0558	8.113	8.113
16.15	Sulfate	18.2394	80.525	80.525

11.1  
11

**Sample data**

Ident. . . . . STDK  
 Sample type . . . . . Standard 10  
 Determination start . . . . . 2023-06-06 14:50:16  
 Dilution factor . . . . . 1.00

**Anions**

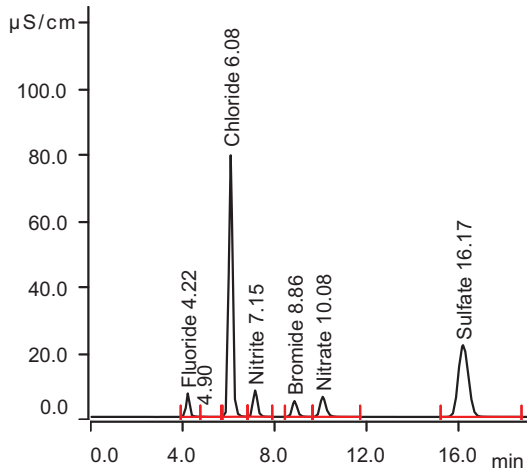


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	4.7211	9.901	9.901
6.11	Chloride	31.4653	100.116	100.116
7.12	Nitrite	6.8154	9.968	9.968
8.84	Bromide	2.6832	20.760	20.760
10.01	Nitrate	7.6401	10.221	10.221
16.13	Sulfate	22.8839	100.925	100.925

**Sample data**

Ident. . . . . ICV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 15:12:21  
 Dilution factor . . . . . 1.00

**Anions**

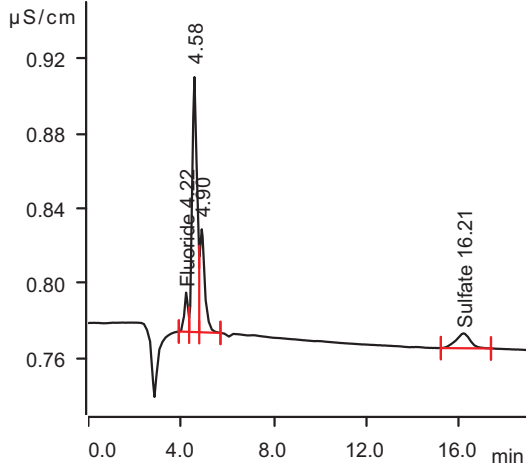


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	1.1903	2.530	2.530
6.08	Chloride	15.2367	48.633	48.633
7.15	Nitrite	1.7705	2.622	2.622
8.86	Bromide	1.2346	9.614	9.614
10.08	Nitrate	1.8167	2.472	2.472
16.17	Sulfate	11.1676	49.464	49.464

**Sample data**

Ident . . . . . ICB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 15:34:24  
 Dilution factor . . . . . 1.00

**Anions**

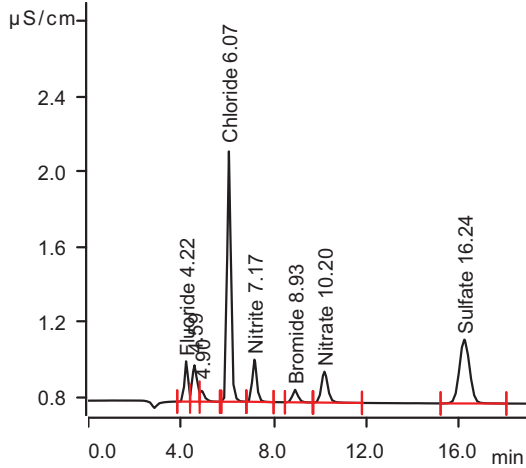


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0036	0.052	0.052
16.21	Sulfate	0.0057	0.439	0.439

**Sample data**

Ident . . . . . CRI  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 15:56:31  
 Dilution factor . . . . . 1.00

**Anions**

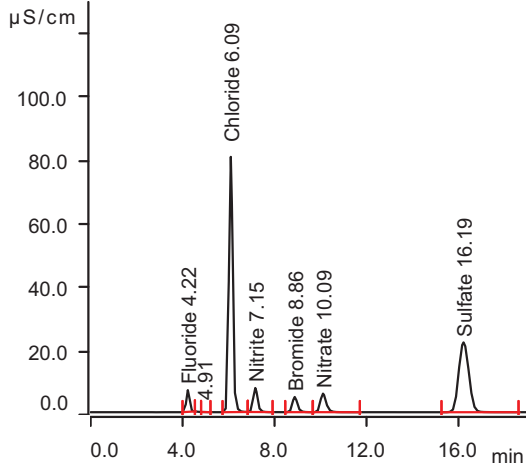


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0360	0.119	0.119
6.07	Chloride	0.2485	1.084	1.084
7.17	Nitrite	0.0513	0.119	0.119
8.93	Bromide	0.0190	0.261	0.261
10.20	Nitrate	0.0531	0.125	0.125
16.24	Sulfate	0.1755	1.185	1.185

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 16:19:28  
 Dilution factor . . . . . 1.00

**Anions**

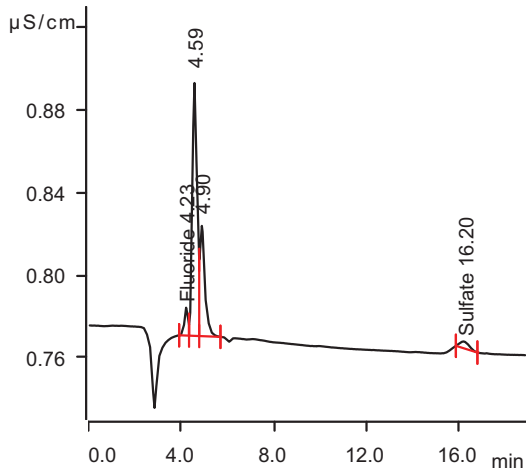


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	1.0859	2.311	2.311
6.09	Chloride	15.4850	49.420	49.420
7.15	Nitrite	1.6828	2.494	2.494
8.86	Bromide	1.2354	9.620	9.620
10.09	Nitrate	1.7444	2.376	2.376
16.19	Sulfate	11.2335	49.754	49.754

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 16:42:23  
 Dilution factor . . . . . 1.00

**Anions**

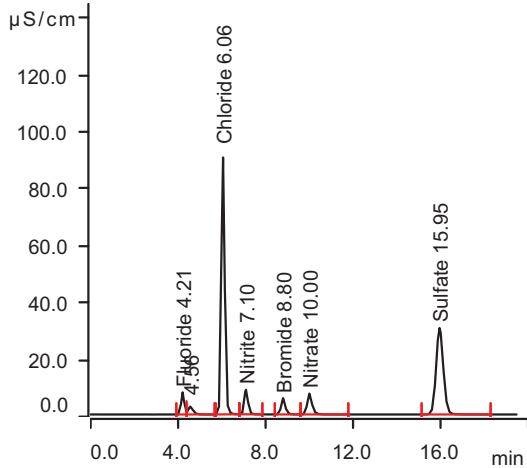


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	0.0023	0.049	0.049
16.20	Sulfate	0.0015	0.421	0.421

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 10:20:54  
 Dilution factor . . . . . 1.00

**Anions**

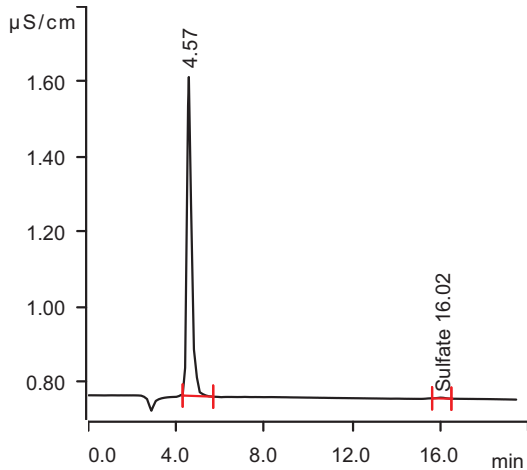


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.21	Fluoride	1.2292	2.611	2.611
6.06	Chloride	16.0772	51.299	51.299
7.10	Nitrite	1.7579	2.604	2.604
8.80	Bromide	1.3049	10.155	10.155
10.00	Nitrate	1.9197	2.609	2.609
15.95	Sulfate	11.7164	51.875	51.875

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 10:48:18  
 Dilution factor . . . . . 1.00

**Anions**



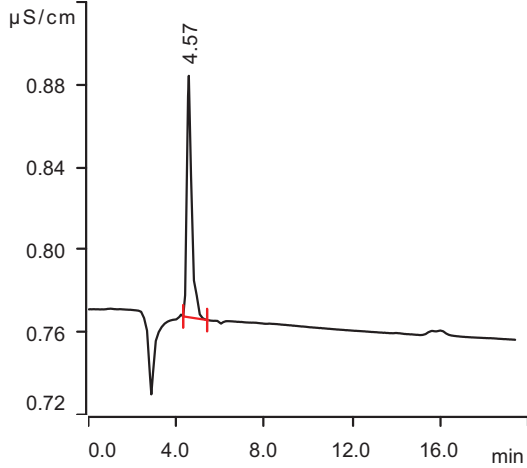
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
16.02	Sulfate	0.0008	0.418	0.418

11.1  
11

**Sample data**

Ident. . . . . MB1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 11:10:49  
 Dilution factor . . . . . 1.00

**Anions**

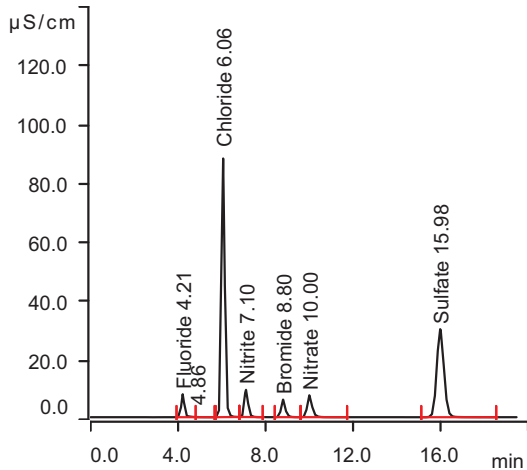


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
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**Sample data**

Ident. . . . . B1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 11:33:20  
 Dilution factor . . . . . 1.00

**Anions**



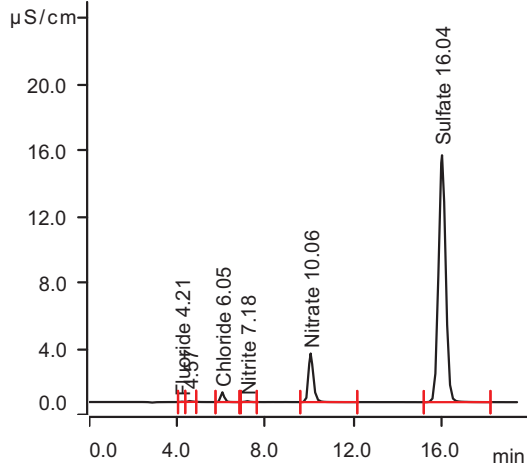
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.21	Fluoride	1.2918	2.741	2.741
6.06	Chloride	15.5402	49.595	49.595
7.10	Nitrite	1.8772	2.777	2.777
8.80	Bromide	1.3573	10.557	10.557
10.00	Nitrate	1.9455	2.693	2.693
15.98	Sulfate	11.5215	51.019	51.019

11.1  
11

**Sample data**

Ident. . . . . FC7314-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 11:55:52  
 Dilution factor . . . . . 5.00

**Anions**

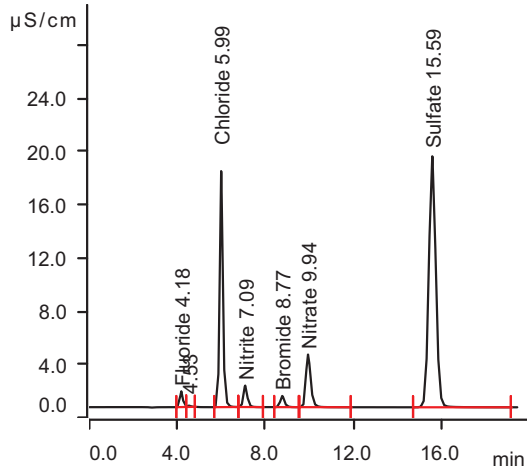


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.21	Fluoride	0.0033	0.051	0.256
6.05	Chloride	0.1080	0.638	3.191
7.18	Nitrite	0.0116	0.061	0.304
10.06	Nitrate	0.7586	1.156	5.779
16.04	Sulfate	5.6519	25.238	126.192

**Sample data**

Ident. . . . . FC7314-1S1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 12:18:08  
 Dilution factor . . . . . 5.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.1839	0.428	2.141
5.99	Chloride	3.0724	10.042	50.212
7.09	Nitrite	0.3360	0.533	2.665
8.77	Bromide	0.1907	1.582	7.911
9.94	Nitrate	1.0108	1.482	7.412
15.59	Sulfate	6.9790	31.067	155.336

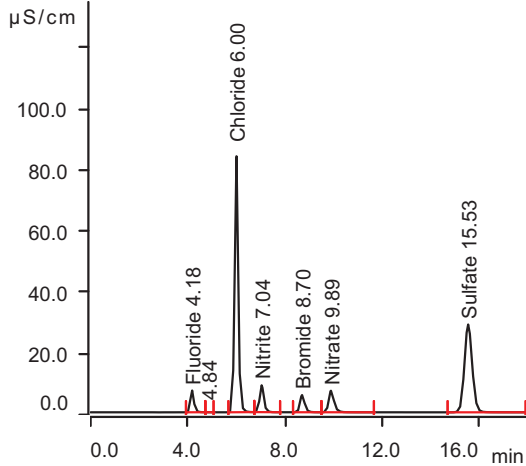
11.1  
11



**Sample data**

Ident. . . . . B1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 12:40:28  
 Dilution factor . . . . . 1.00

**Anions**

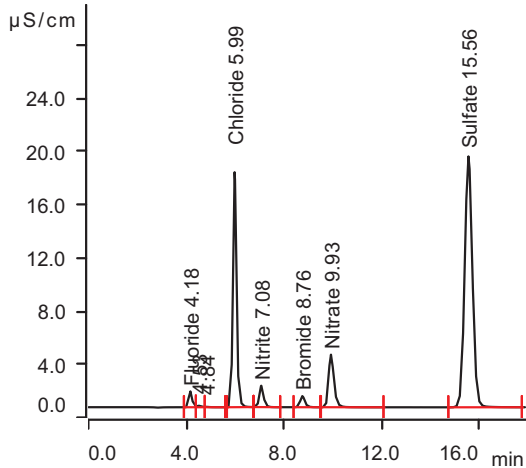


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.1316	2.407	2.407
6.00	Chloride	14.6565	46.792	46.792
7.04	Nitrite	1.7673	2.617	2.617
8.70	Bromide	1.2726	9.906	9.906
9.89	Nitrate	1.8260	2.538	2.538
15.53	Sulfate	10.7460	47.613	47.613

**Sample data**

Ident. . . . . FC7314-1S2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 13:01:34  
 Dilution factor . . . . . 5.00

**Anions**

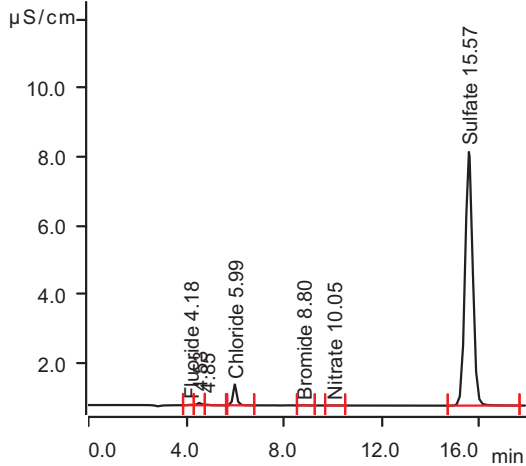


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.1872	0.435	2.176
5.99	Chloride	3.0572	9.994	49.971
7.08	Nitrite	0.3332	0.529	2.645
8.76	Bromide	0.1890	1.569	7.846
9.93	Nitrate	1.0063	1.477	7.383
15.56	Sulfate	6.9536	30.955	154.777

**Sample data**

Ident. . . . . FC7314-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 13:22:32  
 Dilution factor . . . . . 10.00

**Anions**

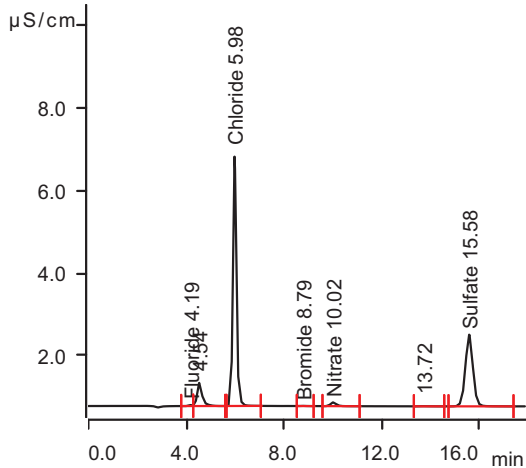


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0024	0.049	0.492
5.99	Chloride	0.1090	0.641	6.413
8.80	Bromide	0.0013	0.124	1.244
10.05	Nitrate	0.0007	0.174	1.740
15.57	Sulfate	2.6735	12.156	121.565

**Sample data**

Ident. . . . . FC7314-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 13:43:19  
 Dilution factor . . . . . 1.00

**Anions**

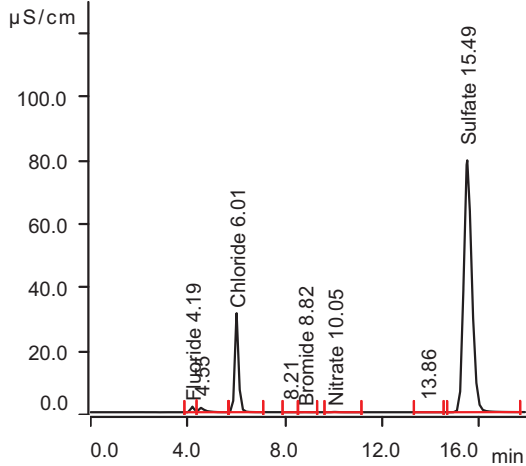


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0039	0.052	0.052
5.98	Chloride	1.0231	3.541	3.541
8.79	Bromide	0.0009	0.121	0.121
10.02	Nitrate	0.0255	0.206	0.206
15.58	Sulfate	0.6312	3.186	3.186

**Sample data**

Ident. . . . . FC7314-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 14:04:21  
 Dilution factor . . . . . 1.00

**Anions**

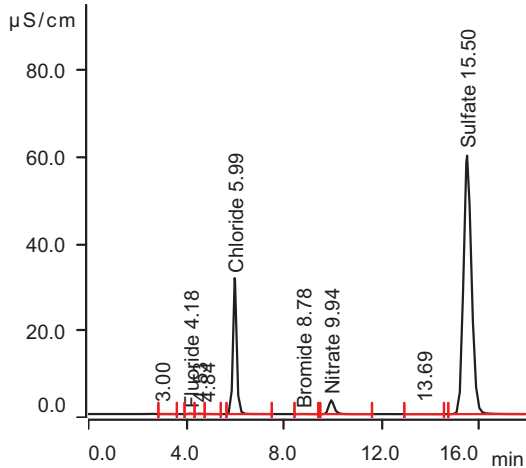


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.2869	0.643	0.643
6.01	Chloride	5.6668	18.273	18.273
8.82	Bromide	0.0073	0.171	0.171
10.05	Nitrate	0.0247	0.205	0.205
15.49	Sulfate	30.6735	135.138	135.138

**Sample data**

Ident. . . . . FC7317-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 14:25:26  
 Dilution factor . . . . . 10.00

**Anions**

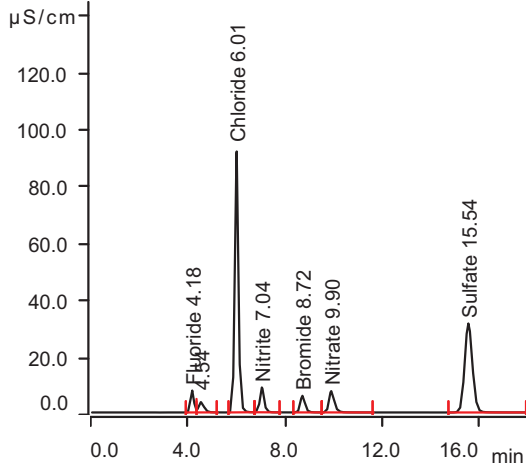


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0184	0.083	0.827
5.99	Chloride	5.4191	17.487	174.871
8.78	Bromide	0.0058	0.159	1.594
9.94	Nitrate	0.8154	1.229	12.292
15.50	Sulfate	22.7085	100.154	1001.543

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 14:46:13  
 Dilution factor . . . . . 1.00

**Anions**

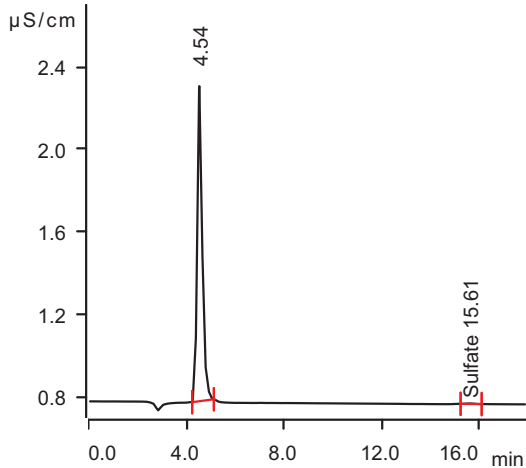


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.2045	2.559	2.559
6.01	Chloride	16.1352	51.483	51.483
7.04	Nitrite	1.7608	2.608	2.608
8.72	Bromide	1.3117	10.207	10.207
9.90	Nitrate	1.9354	2.680	2.680
15.54	Sulfate	11.6957	51.784	51.784

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 15:07:19  
 Dilution factor . . . . . 1.00

**Anions**



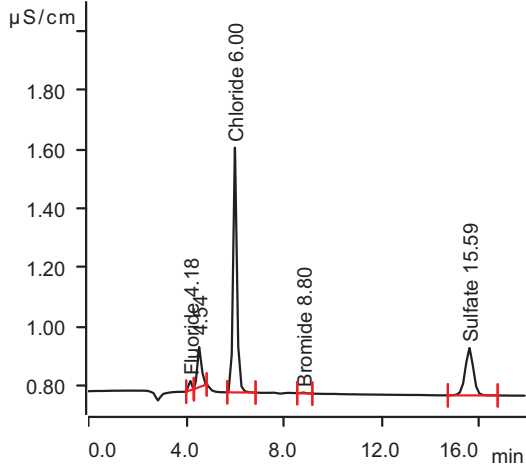
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.61	Sulfate	0.0009	0.418	0.418

11.1  
11

**Sample data**

Ident. . . . . FC7322-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 15:28:20  
 Dilution factor . . . . . 5.00

**Anions**

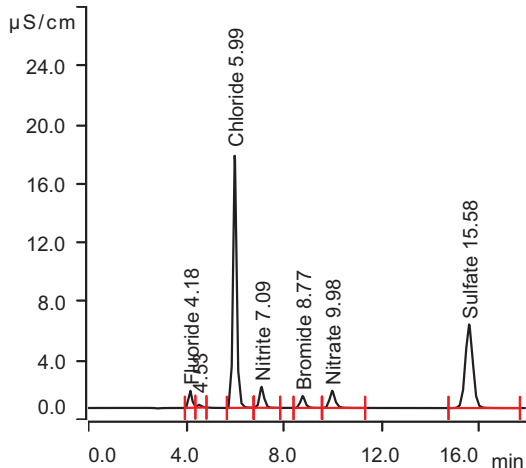


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0044	0.053	0.267
6.00	Chloride	0.1496	0.770	3.851
8.80	Bromide	0.0006	0.119	0.597
15.59	Sulfate	0.0624	0.688	3.440

**Sample data**

Ident. . . . . FC7322-1S3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 15:49:06  
 Dilution factor . . . . . 5.00

**Anions**

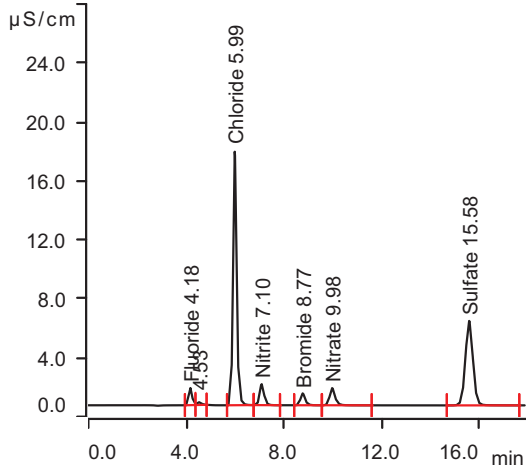


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.1785	0.417	2.085
5.99	Chloride	2.9893	9.779	48.895
7.09	Nitrite	0.3041	0.487	2.433
8.77	Bromide	0.1823	1.517	7.585
9.98	Nitrate	0.2994	0.561	2.804
15.58	Sulfate	2.0482	9.410	47.051

**Sample data**

Ident. . . . . FC7322-1S4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 16:09:53  
 Dilution factor . . . . . 5.00

**Anions**

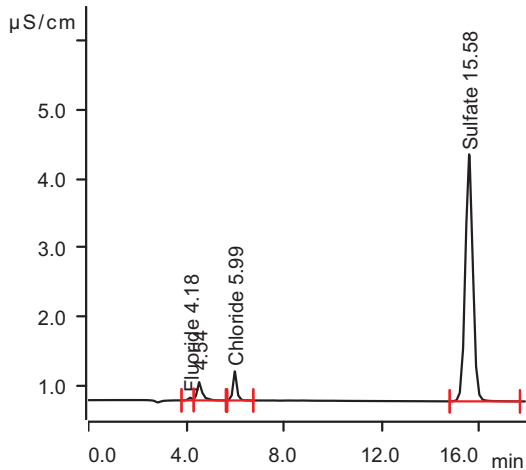


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.1799	0.420	2.099
5.99	Chloride	3.0046	9.827	49.137
7.10	Nitrite	0.3045	0.487	2.436
8.77	Bromide	0.1825	1.519	7.595
9.98	Nitrate	0.3003	0.562	2.811
15.58	Sulfate	2.0676	9.495	47.476

**Sample data**

Ident. . . . . FC7322-6  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 16:30:40  
 Dilution factor . . . . . 5.00

**Anions**



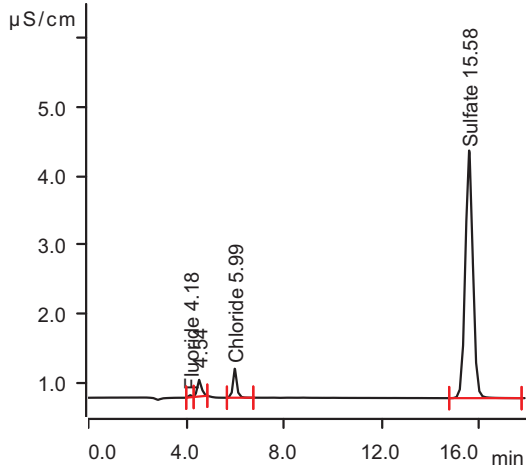
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0065	0.058	0.289
5.99	Chloride	0.0766	0.539	2.693
15.58	Sulfate	1.2894	6.077	30.387

11.1  
11

**Sample data**

Ident. . . . . FC7322-7  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 16:51:25  
 Dilution factor . . . . . 5.00

**Anions**

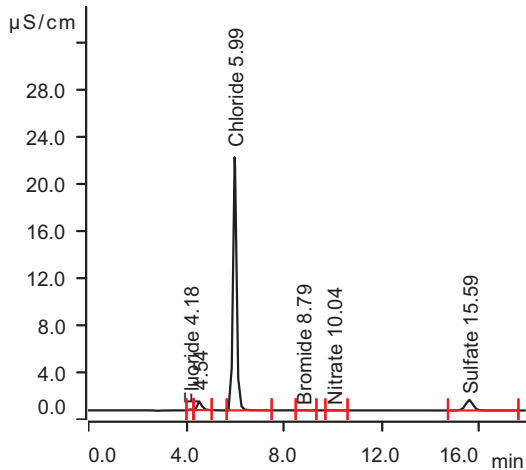


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0044	0.053	0.267
5.99	Chloride	0.0767	0.539	2.695
15.58	Sulfate	1.2953	6.103	30.515

**Sample data**

Ident. . . . . FC7010-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 17:12:10  
 Dilution factor . . . . . 1.00

**Anions**



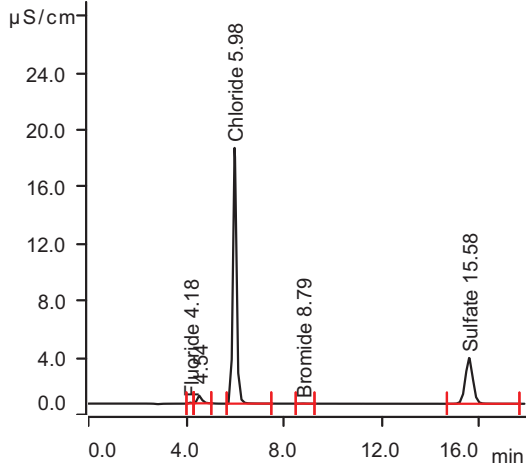
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0094	0.064	0.064
5.99	Chloride	3.6586	11.902	11.902
8.79	Bromide	0.0035	0.142	0.142
10.04	Nitrate	0.0008	0.174	0.174
15.59	Sulfate	0.3263	1.847	1.847

11.1  
11

**Sample data**

Ident. . . . . FC7010-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 17:33:12  
 Dilution factor . . . . . 1.00

**Anions**

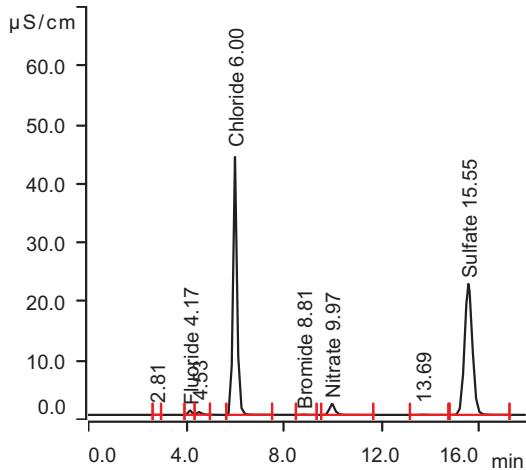


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0081	0.061	0.061
5.98	Chloride	3.0477	9.964	9.964
8.79	Bromide	0.0027	0.135	0.135
15.58	Sulfate	1.1567	5.494	5.494

**Sample data**

Ident. . . . . FC7072-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 17:54:13  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.17	Fluoride	0.1212	0.297	0.297
6.00	Chloride	8.4665	27.155	27.155
8.81	Bromide	0.0123	0.210	0.210
9.97	Nitrate	0.4792	0.794	0.794
15.55	Sulfate	8.2657	36.719	36.719

11.1  
11





# Summary Report

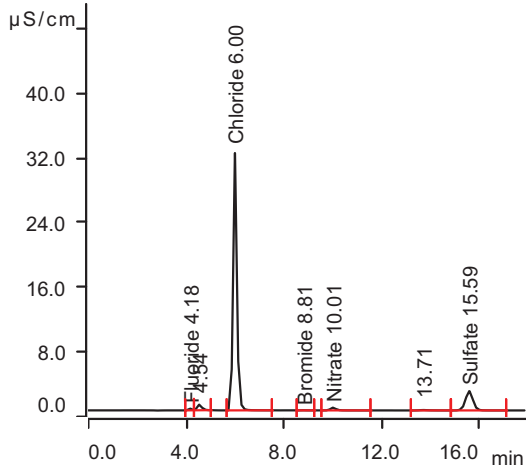
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MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7072-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 18:15:16  
 Dilution factor . . . . . 1.00

### Anions

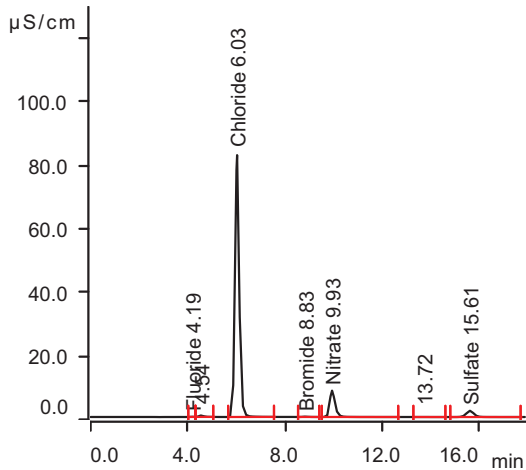


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0332	0.114	0.114
6.00	Chloride	5.8158	18.746	18.746
8.81	Bromide	0.0023	0.133	0.133
10.01	Nitrate	0.0907	0.291	0.291
15.59	Sulfate	0.8559	4.173	4.173

### Sample data

Ident. . . . . FC7072-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 18:36:20  
 Dilution factor . . . . . 1.00

### Anions



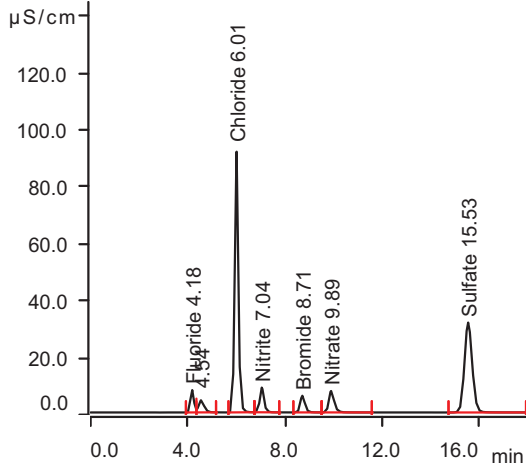
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0070	0.059	0.059
6.03	Chloride	16.7014	53.279	53.279
8.83	Bromide	0.0222	0.286	0.286
9.93	Nitrate	2.1053	2.900	2.900
15.61	Sulfate	0.7198	3.575	3.575



**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 18:57:24  
 Dilution factor . . . . . 1.00

**Anions**

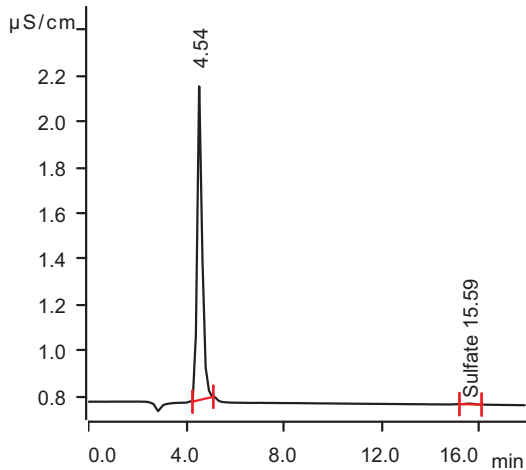


Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.2403	2.634	2.634
6.01	Chloride	16.1742	51.607	51.607
7.04	Nitrite	1.7583	2.604	2.604
8.71	Bromide	1.3145	10.229	10.229
9.89	Nitrate	1.9479	2.696	2.696
15.53	Sulfate	11.8039	52.259	52.259

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 19:18:36  
 Dilution factor . . . . . 1.00

**Anions**

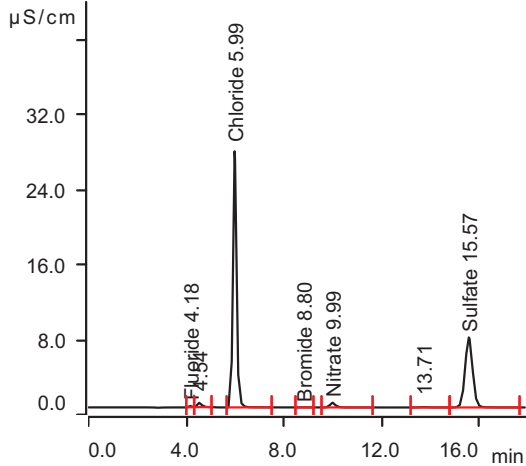


Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.59	Sulfate	0.0013	0.419	0.419

**Sample data**

Ident. . . . . FC7072-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 19:39:39  
 Dilution factor . . . . . 1.00

**Anions**

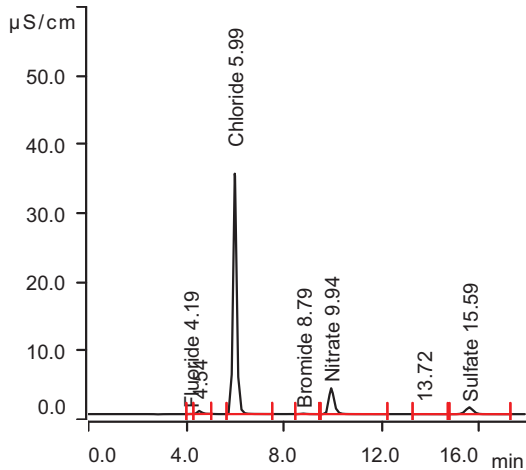


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0184	0.083	0.083
5.99	Chloride	4.6981	15.200	15.200
8.80	Bromide	0.0017	0.128	0.128
9.99	Nitrate	0.1341	0.347	0.347
15.57	Sulfate	2.6994	12.270	12.270

**Sample data**

Ident. . . . . FC7073-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 20:00:51  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0032	0.051	0.051
5.99	Chloride	6.1735	19.881	19.881
8.79	Bromide	0.0174	0.249	0.249
9.94	Nitrate	0.9550	1.410	1.410
15.59	Sulfate	0.3621	2.004	2.004



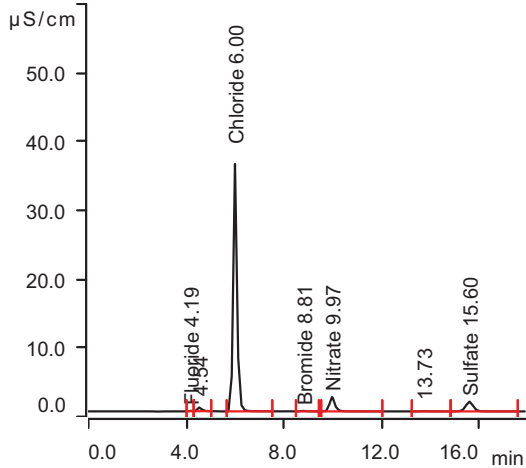
# Summary Report

2023-06-29 12:13:59  
MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7073-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 20:21:54  
 Dilution factor . . . . . 1.00

### Anions

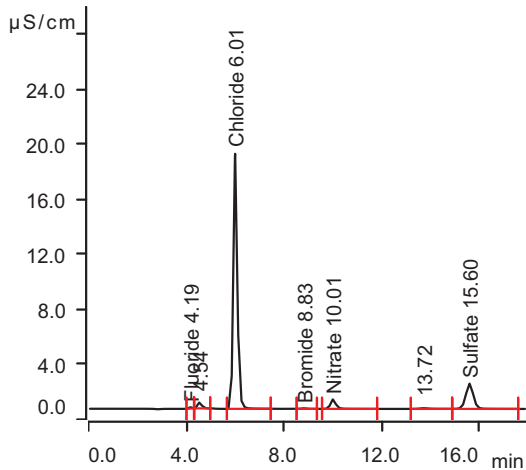


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0088	0.063	0.063
6.00	Chloride	6.6271	21.319	21.319
8.81	Bromide	0.0136	0.219	0.219
9.97	Nitrate	0.5267	0.855	0.855
15.60	Sulfate	0.5142	2.672	2.672

### Sample data

Ident. . . . . FC7073-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 20:43:00  
 Dilution factor . . . . . 1.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0137	0.073	0.073
6.01	Chloride	3.5970	11.707	11.707
8.83	Bromide	0.0083	0.179	0.179
10.01	Nitrate	0.1783	0.404	0.404
15.60	Sulfate	0.6610	3.317	3.317





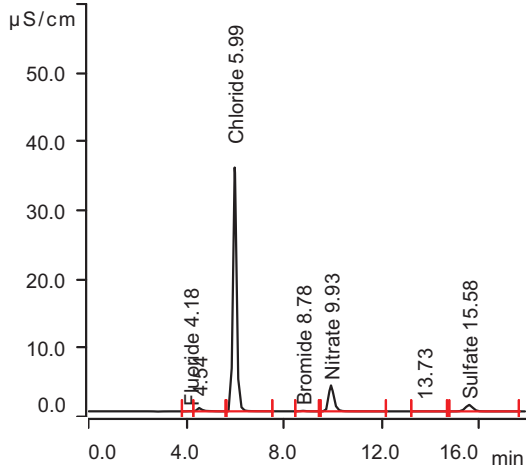
# Summary Report

2023-06-29 12:13:59  
MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7073-5  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 21:04:04  
 Dilution factor . . . . . 1.00

### Anions

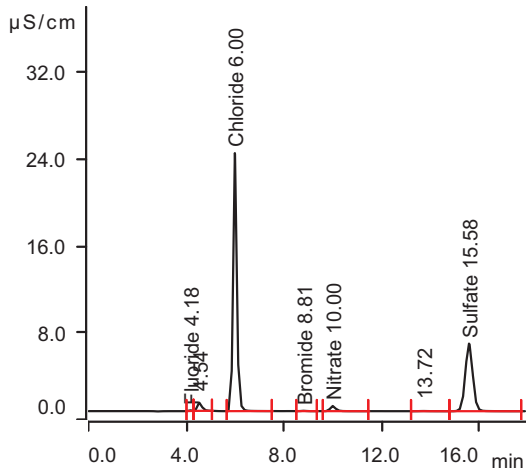


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0048	0.054	0.054
5.99	Chloride	6.1453	19.791	19.791
8.78	Bromide	0.0174	0.248	0.248
9.93	Nitrate	0.9609	1.418	1.418
15.58	Sulfate	0.3422	1.917	1.917

### Sample data

Ident. . . . . FC7073-6  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 21:25:07  
 Dilution factor . . . . . 1.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0075	0.060	0.060
6.00	Chloride	4.2837	13.885	13.885
8.81	Bromide	0.0076	0.173	0.173
10.00	Nitrate	0.1262	0.337	0.337
15.58	Sulfate	2.2314	10.215	10.215

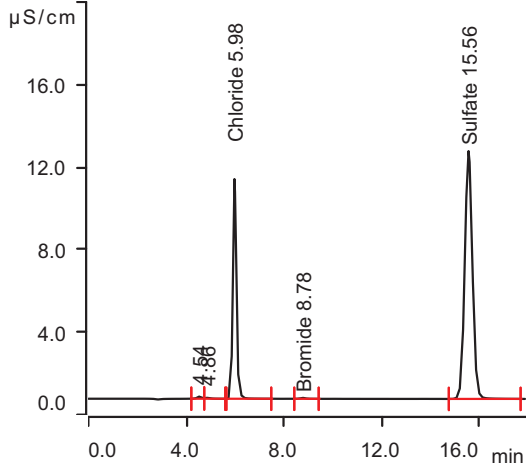


11.1  
11

**Sample data**

Ident. . . . . FC7138-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 21:46:10  
 Dilution factor . . . . . 5.00

**Anions**

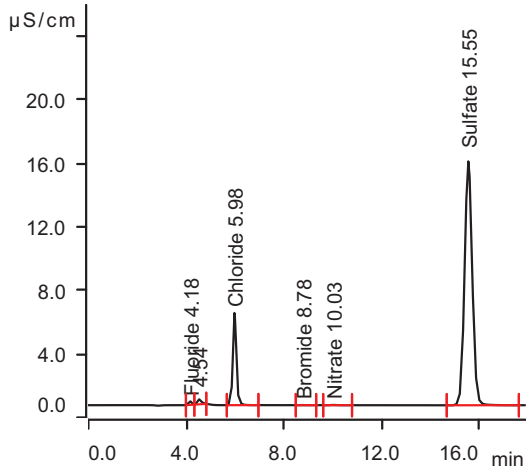


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
5.98	Chloride	1.8050	6.022	30.109
8.78	Bromide	0.0106	0.196	0.980
15.56	Sulfate	4.3699	19.607	98.036

**Sample data**

Ident. . . . . FC7314-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 22:06:59  
 Dilution factor . . . . . 5.00

**Anions**

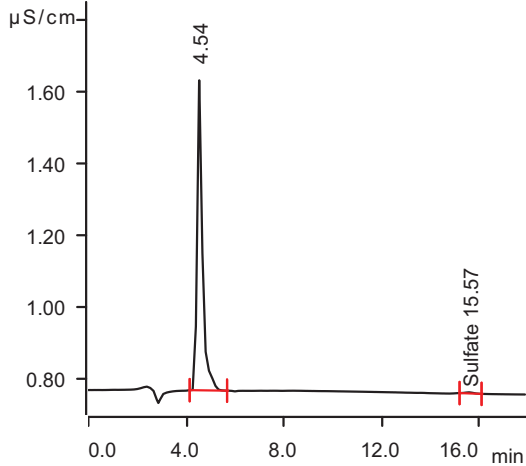


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0325	0.112	0.561
5.98	Chloride	0.9784	3.399	16.997
8.78	Bromide	0.0014	0.125	0.627
10.03	Nitrate	0.0046	0.179	0.895
15.55	Sulfate	5.6210	25.103	125.513

**Sample data**

Ident . . . . . MB1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 22:27:47  
 Dilution factor . . . . . 1.00

**Anions**

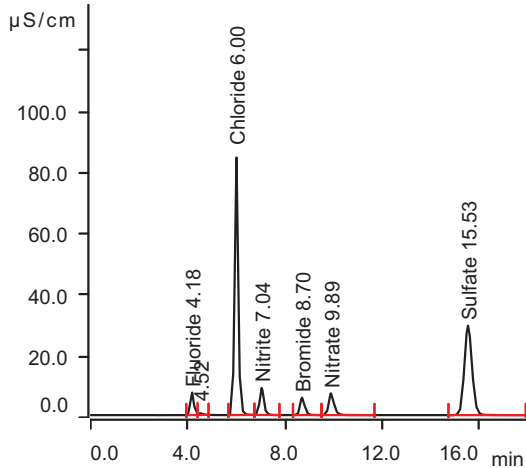


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.57	Sulfate	0.0011	0.419	0.419

**Sample data**

Ident . . . . . B1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 22:48:54  
 Dilution factor . . . . . 1.00

**Anions**

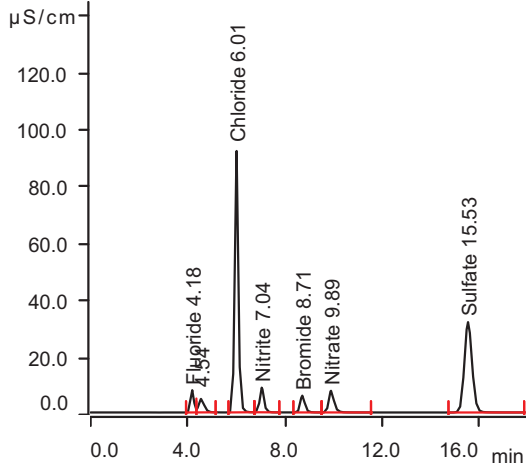


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.1543	2.454	2.454
6.00	Chloride	14.7098	46.961	46.961
7.04	Nitrite	1.7745	2.628	2.628
8.70	Bromide	1.2782	9.949	9.949
9.89	Nitrate	1.8327	2.547	2.547
15.53	Sulfate	10.8661	48.140	48.140

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 23:09:57  
 Dilution factor . . . . . 1.00

**Anions**

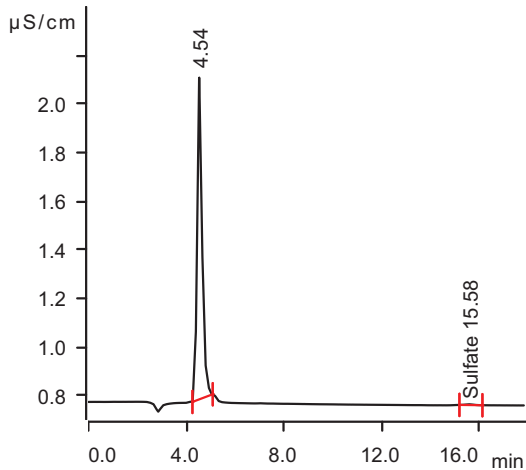


Retention Time (min)	Component Name	Area $\mu\text{S}^*\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.2330	2.619	2.619
6.01	Chloride	16.2200	51.752	51.752
7.04	Nitrite	1.7531	2.597	2.597
8.71	Bromide	1.3190	10.263	10.263
9.89	Nitrate	1.9604	2.712	2.712
15.53	Sulfate	11.8304	52.375	52.375

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 23:31:06  
 Dilution factor . . . . . 1.00

**Anions**



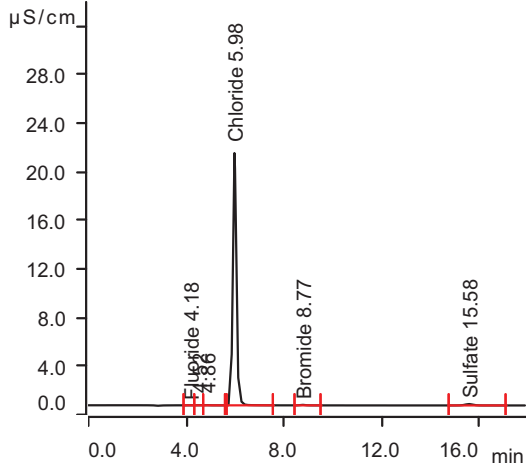
Retention Time (min)	Component Name	Area $\mu\text{S}^*\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.58	Sulfate	0.0011	0.419	0.419



**Sample data**

Ident. . . . . FC7193-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-28 23:52:09  
 Dilution factor . . . . . 500.00

**Anions**

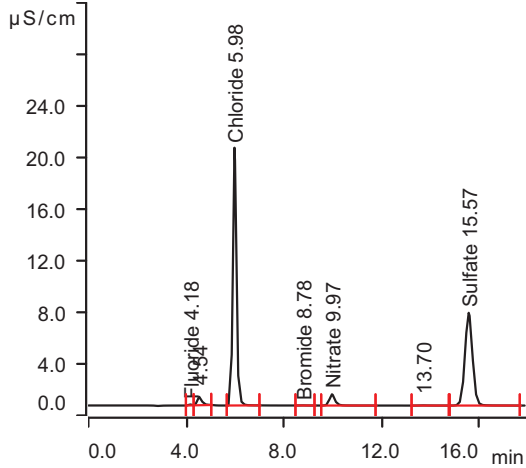


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0009	0.046	23.093
5.98	Chloride	3.5327	11.503	5751.368
8.77	Bromide	0.0103	0.194	96.792
15.58	Sulfate	0.0454	0.613	306.729

**Sample data**

Ident. . . . . FC7010-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 00:12:58  
 Dilution factor . . . . . 1.00

**Anions**



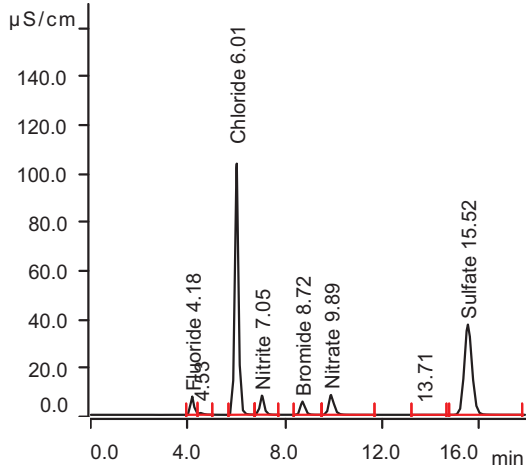
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0105	0.066	0.066
5.98	Chloride	3.4165	11.134	11.134
8.78	Bromide	0.0022	0.131	0.131
9.97	Nitrate	0.2289	0.470	0.470
15.57	Sulfate	2.5919	11.798	11.798

11.1  
11

**Sample data**

Ident. . . . . FC7010-4S1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 00:34:06  
 Dilution factor . . . . . 1.00

**Anions**

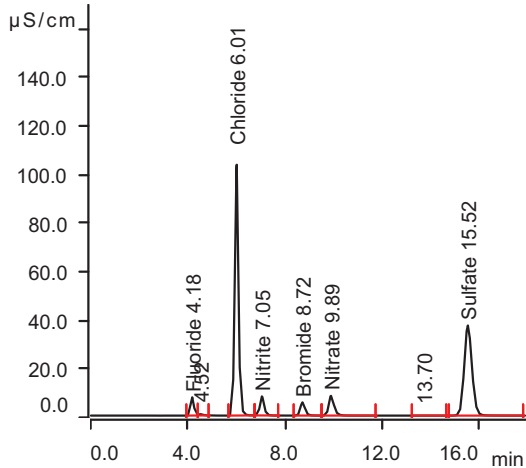


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.1808	2.510	2.510
6.01	Chloride	18.4477	58.819	58.819
7.05	Nitrite	1.5985	2.372	2.372
8.72	Bromide	1.2038	9.377	9.377
9.89	Nitrate	2.0935	2.885	2.885
15.52	Sulfate	13.8604	61.292	61.292

**Sample data**

Ident. . . . . FC7010-4S2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 00:55:10  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.1799	2.508	2.508
6.01	Chloride	18.4374	58.786	58.786
7.05	Nitrite	1.5995	2.373	2.373
8.72	Bromide	1.2030	9.371	9.371
9.89	Nitrate	2.0920	2.883	2.883
15.52	Sulfate	13.8528	61.258	61.258

11.1  
11



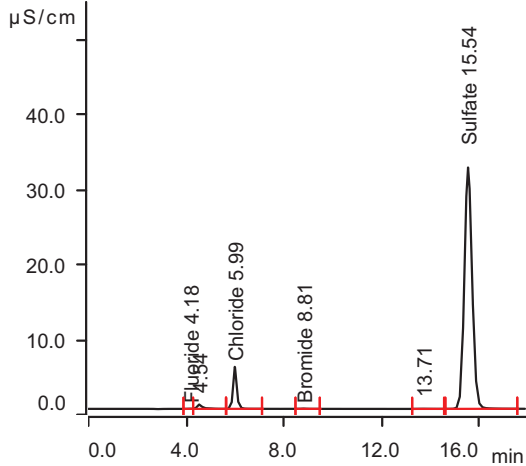
# Summary Report

2023-06-29 12:13:59  
MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7290-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 01:16:14  
 Dilution factor . . . . . 1.00

### Anions

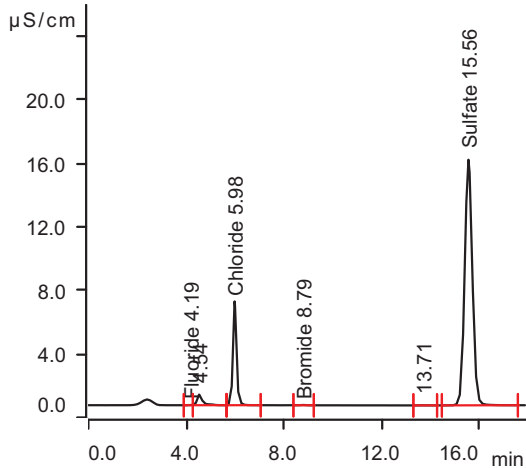


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0037	0.052	0.052
5.99	Chloride	1.0002	3.469	3.469
8.81	Bromide	0.0080	0.176	0.176
15.54	Sulfate	11.9058	52.707	52.707

### Sample data

Ident. . . . . FC7290-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 01:37:19  
 Dilution factor . . . . . 1.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.19	Fluoride	0.0022	0.049	0.049
5.98	Chloride	1.1273	3.872	3.872
8.79	Bromide	0.0045	0.149	0.149
15.56	Sulfate	5.6506	25.233	25.233





# Summary Report

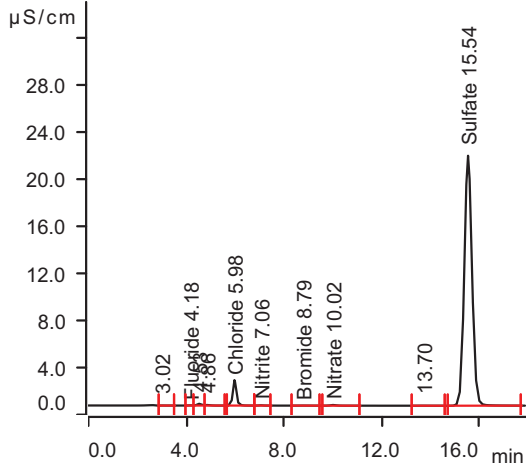
2023-06-29 12:13:59

MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7290-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 01:58:22  
 Dilution factor . . . . . 5.00

### Anions

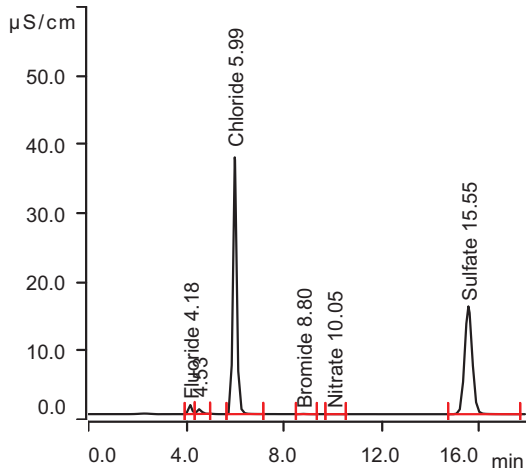


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0027	0.050	0.249
5.98	Chloride	0.3689	1.466	7.329
7.06	Nitrite	0.0049	0.051	0.255
8.79	Bromide	0.0017	0.127	0.636
10.02	Nitrate	0.0160	0.194	0.969
15.54	Sulfate	7.7834	34.600	173.000

### Sample data

Ident. . . . . FC7143-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 02:19:12  
 Dilution factor . . . . . 1.00

### Anions



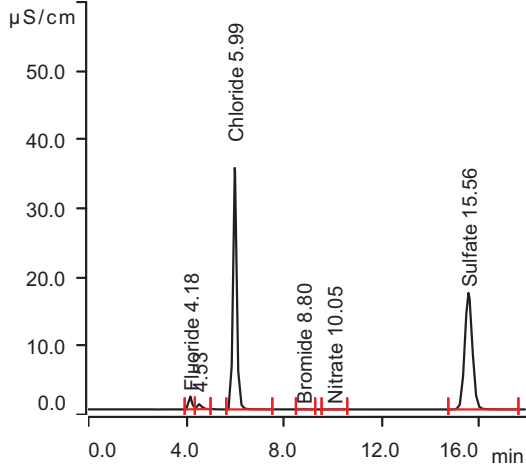
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.2037	0.470	0.470
5.99	Chloride	6.8115	21.904	21.904
8.80	Bromide	0.0085	0.180	0.180
10.05	Nitrate	0.0010	0.174	0.174
15.55	Sulfate	5.7074	25.482	25.482



**Sample data**

Ident. . . . . FC7143-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 02:40:21  
 Dilution factor . . . . . 1.00

**Anions**

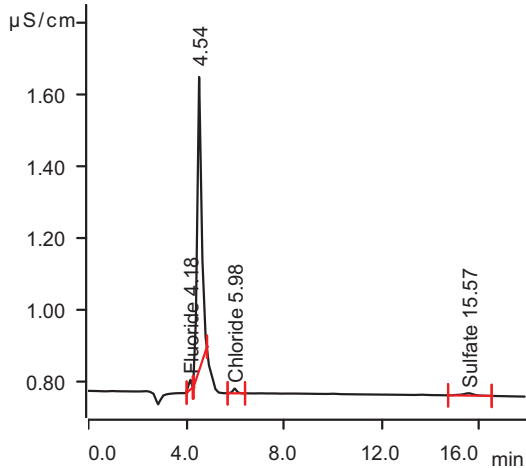


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.2870	0.644	0.644
5.99	Chloride	6.2952	20.267	20.267
8.80	Bromide	0.0061	0.161	0.161
10.05	Nitrate	0.0019	0.176	0.176
15.56	Sulfate	6.1790	27.553	27.553

**Sample data**

Ident. . . . . GP38891-MB1F  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 03:01:24  
 Dilution factor . . . . . 1.00

**Anions**

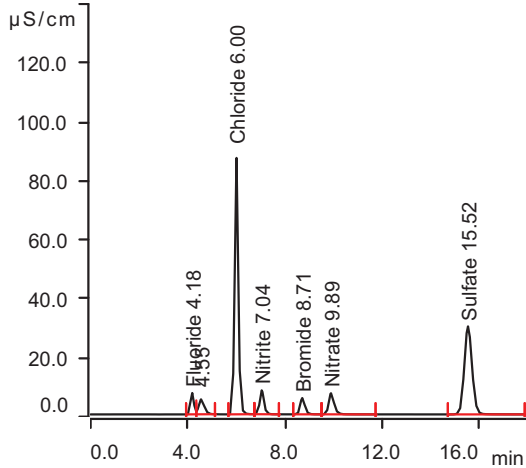


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0034	0.051	0.051
5.98	Chloride	0.0024	0.303	0.303
15.57	Sulfate	0.0035	0.429	0.429

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 03:22:27  
 Dilution factor . . . . . 1.00

**Anions**

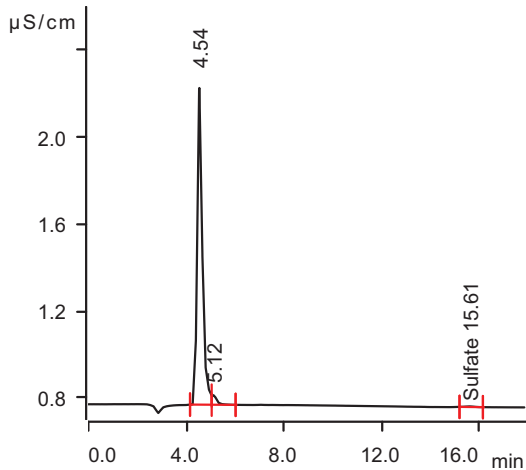


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.1458	2.437	2.437
6.00	Chloride	15.4286	49.241	49.241
7.04	Nitrite	1.6494	2.446	2.446
8.71	Bromide	1.2484	9.720	9.720
9.89	Nitrate	1.8640	2.588	2.588
15.52	Sulfate	11.1742	49.493	49.493

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 03:43:32  
 Dilution factor . . . . . 1.00

**Anions**

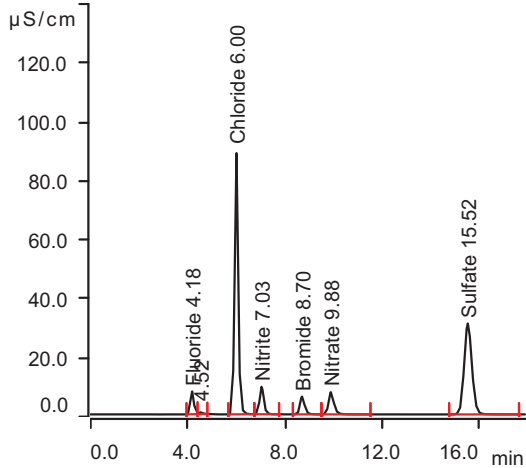


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.61	Sulfate	0.0011	0.419	0.419

**Sample data**

Ident. . . . . GP38891-B1F  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 04:04:36  
 Dilution factor . . . . . 1.00

**Anions**

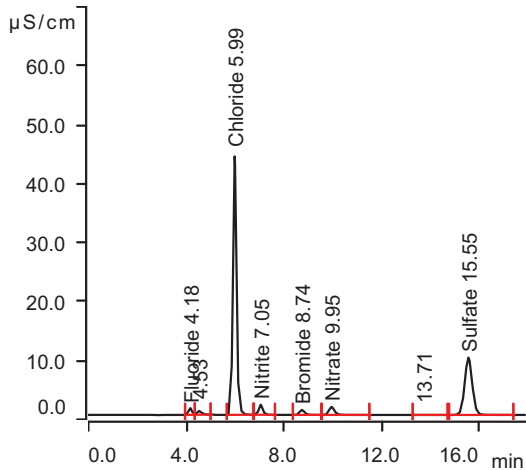


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.2138	2.579	2.579
6.00	Chloride	15.6016	49.790	49.790
7.03	Nitrite	1.8769	2.777	2.777
8.70	Bromide	1.3606	10.584	10.584
9.88	Nitrate	1.9500	2.699	2.699
15.52	Sulfate	11.5011	50.929	50.929

**Sample data**

Ident. . . . . GP38891-S1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 04:25:42  
 Dilution factor . . . . . 5.00

**Anions**

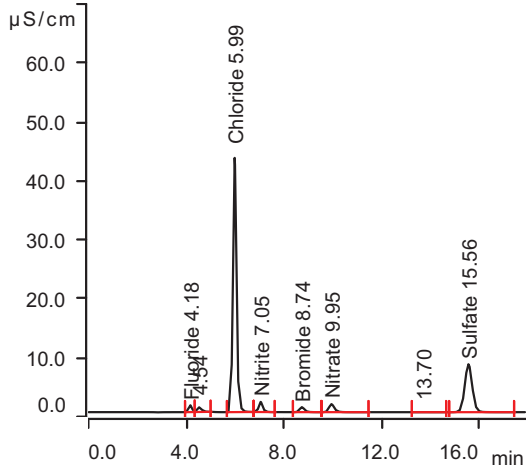


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.1745	0.409	2.043
5.99	Chloride	7.5445	24.230	121.148
7.05	Nitrite	0.3317	0.527	2.634
8.74	Bromide	0.1961	1.624	8.118
9.95	Nitrate	0.3550	0.633	3.165
15.55	Sulfate	3.5269	15.905	79.525

**Sample data**

Ident. . . . . GP38891-S2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 04:46:45  
 Dilution factor . . . . . 5.00

**Anions**

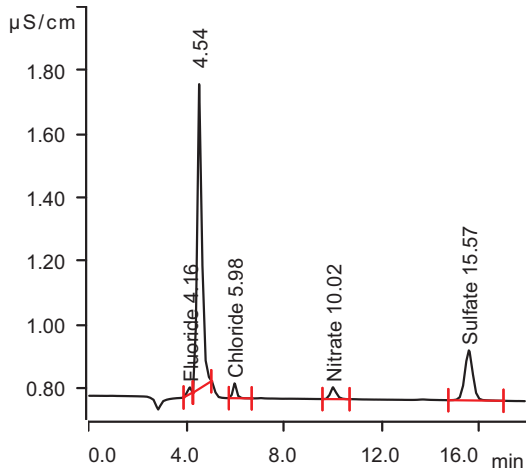


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.1755	0.411	2.053
5.99	Chloride	7.3869	23.730	118.648
7.05	Nitrite	0.3351	0.532	2.659
8.74	Bromide	0.1955	1.618	8.092
9.95	Nitrate	0.3540	0.632	3.158
15.56	Sulfate	2.9331	13.297	66.483

**Sample data**

Ident. . . . . FC7148-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 05:07:49  
 Dilution factor . . . . . 5.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0039	0.052	0.262
5.98	Chloride	0.0085	0.323	1.613
10.02	Nitrate	0.0106	0.187	0.934
15.57	Sulfate	0.0606	0.680	3.400

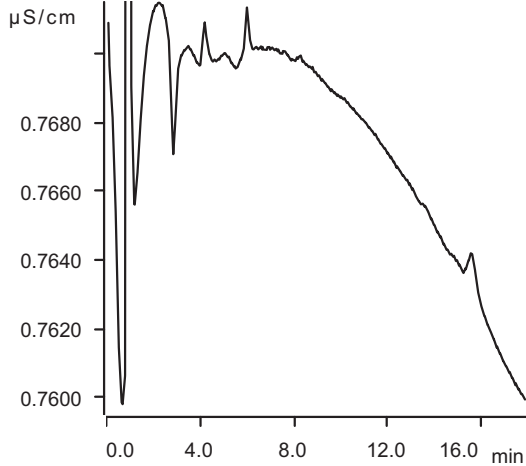
11.1  
11



**Sample data**

Ident . . . . . FC7148-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 05:28:51  
 Dilution factor . . . . . 5.00

**Anions**

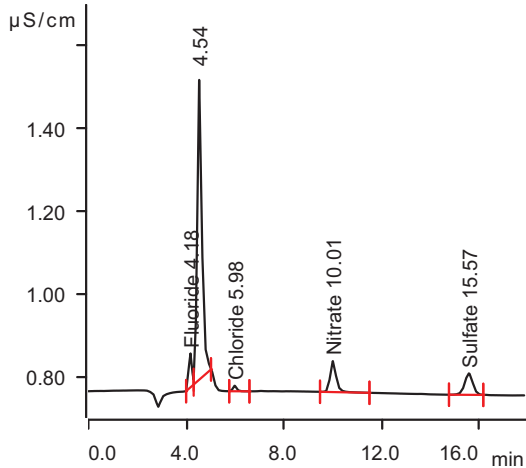


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
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**Sample data**

Ident . . . . . FC7148-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 05:49:53  
 Dilution factor . . . . . 5.00

**Anions**

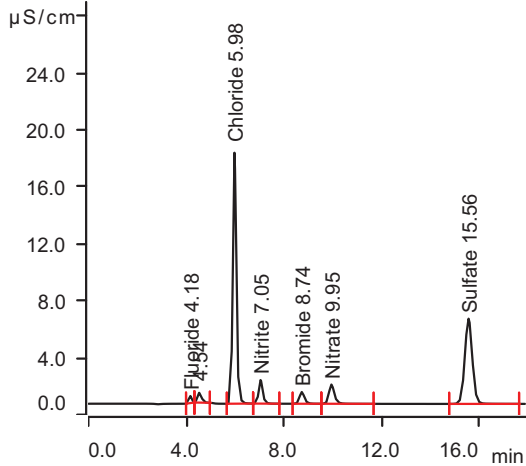


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0120	0.069	0.347
5.98	Chloride	0.0025	0.303	1.517
10.01	Nitrate	0.0218	0.201	1.007
15.57	Sulfate	0.0203	0.503	2.515

**Sample data**

Ident. . . . . GP38891-S3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 06:10:59  
 Dilution factor . . . . . 5.00

**Anions**

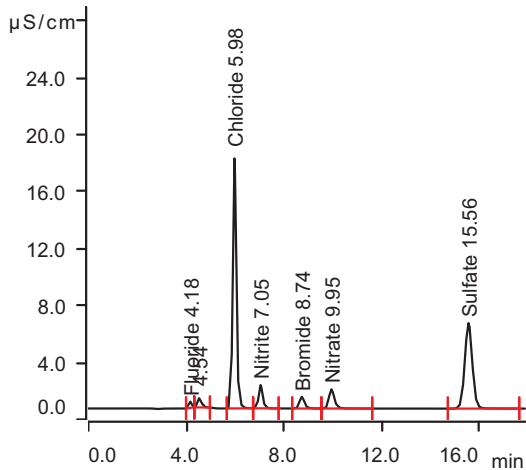


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0703	0.191	0.955
5.98	Chloride	2.9932	9.791	48.956
7.05	Nitrite	0.3234	0.515	2.574
8.74	Bromide	0.1917	1.590	7.949
9.95	Nitrate	0.3510	0.628	3.139
15.56	Sulfate	2.1576	9.890	49.452

**Sample data**

Ident. . . . . GP38891-S4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 06:32:03  
 Dilution factor . . . . . 5.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0610	0.172	0.859
5.98	Chloride	2.9957	9.799	48.996
7.05	Nitrite	0.3209	0.511	2.555
8.74	Bromide	0.1921	1.592	7.962
9.95	Nitrate	0.3512	0.628	3.140
15.56	Sulfate	2.1668	9.931	49.655



# Summary Report

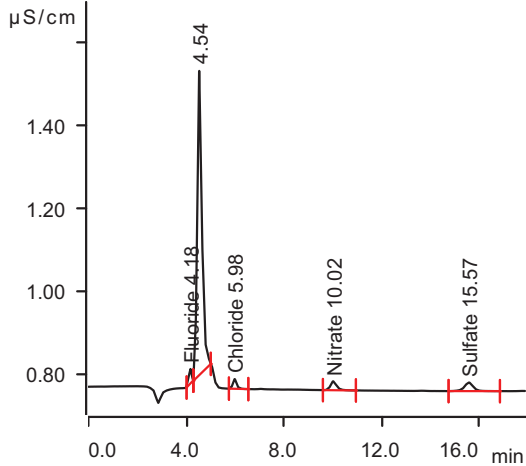
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MagIC Net 3.2 - 123

## Sample data

Ident. . . . . FC7148-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 06:53:06  
 Dilution factor . . . . . 5.00

### Anions

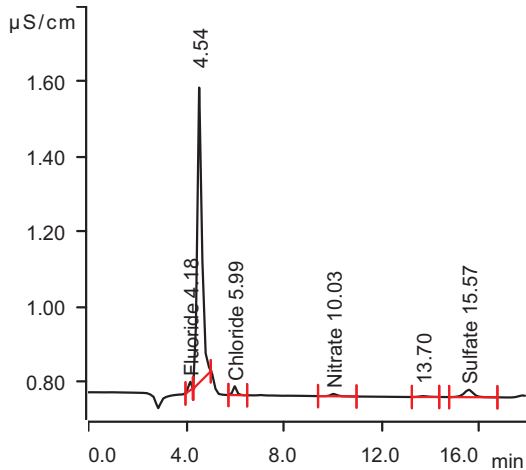


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0045	0.054	0.268
5.98	Chloride	0.0043	0.309	1.546
10.02	Nitrate	0.0064	0.181	0.907
15.57	Sulfate	0.0089	0.453	2.264

## Sample data

Ident. . . . . FC7148-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 07:14:10  
 Dilution factor . . . . . 5.00

### Anions



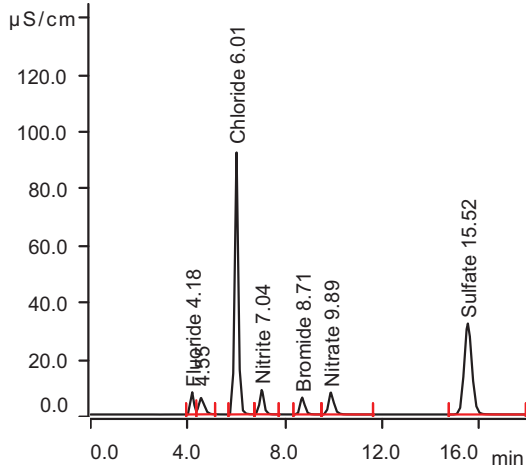
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0030	0.050	0.252
5.99	Chloride	0.0043	0.309	1.546
10.03	Nitrate	0.0019	0.176	0.878
15.57	Sulfate	0.0089	0.453	2.265



**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 07:35:13  
 Dilution factor . . . . . 1.00

**Anions**

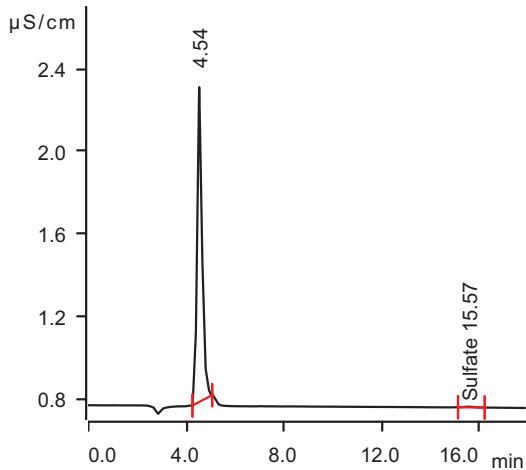


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.2352	2.623	2.623
6.01	Chloride	16.3074	52.029	52.029
7.04	Nitrite	1.7323	2.566	2.566
8.71	Bromide	1.3265	10.321	10.321
9.89	Nitrate	1.9865	2.746	2.746
15.52	Sulfate	11.8702	52.550	52.550

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 07:56:22  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.57	Sulfate	0.0014	0.420	0.420



# Summary Report

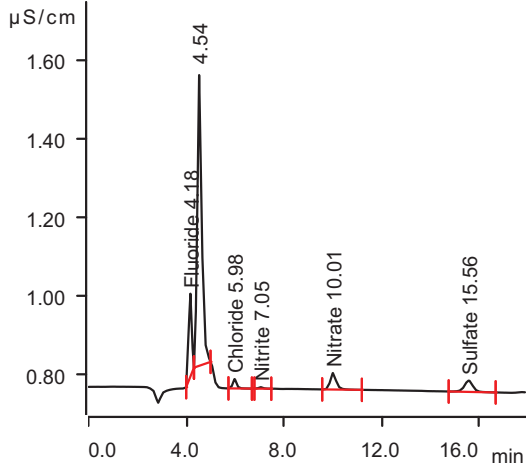
2023-06-29 12:13:59

MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7148-5  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 08:17:25  
 Dilution factor . . . . . 5.00

### Anions

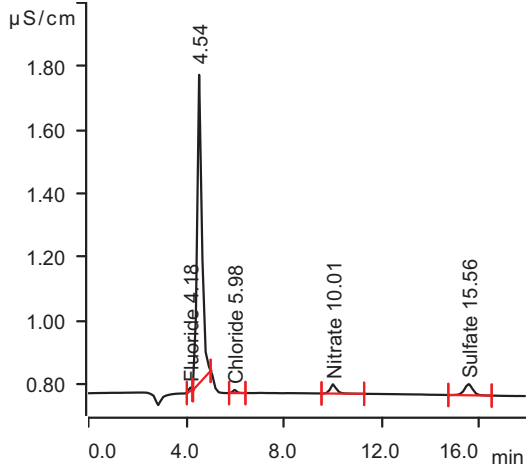


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0294	0.106	0.528
5.98	Chloride	0.0045	0.310	1.549
7.05	Nitrite	0.0008	0.045	0.225
10.01	Nitrate	0.0122	0.189	0.945
15.56	Sulfate	0.0119	0.466	2.330

### Sample data

Ident. . . . . FC7148-6  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 08:38:31  
 Dilution factor . . . . . 5.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0013	0.047	0.235
5.98	Chloride	0.0018	0.301	1.507
10.01	Nitrate	0.0086	0.184	0.921
15.56	Sulfate	0.0141	0.476	2.378

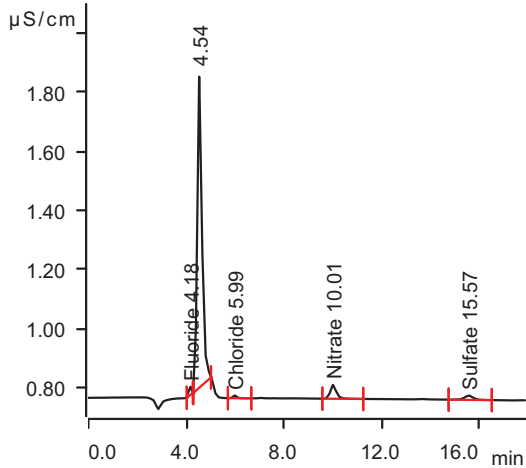


11.1  
11

**Sample data**

Ident. . . . . FC7148-7  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 08:59:34  
 Dilution factor . . . . . 5.00

**Anions**

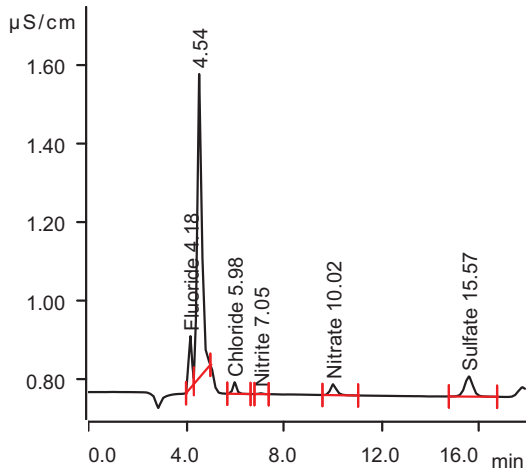


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0034	0.051	0.257
5.99	Chloride	0.0017	0.301	1.505
10.01	Nitrate	0.0136	0.191	0.953
15.57	Sulfate	0.0062	0.441	2.205

**Sample data**

Ident. . . . . FC7148-8  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 09:20:41  
 Dilution factor . . . . . 5.00

**Anions**

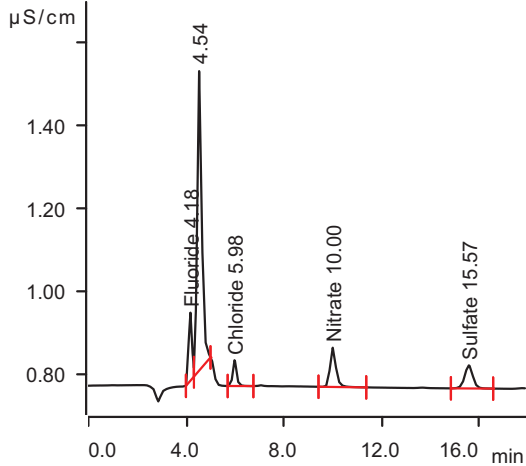


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0193	0.085	0.423
5.98	Chloride	0.0054	0.313	1.564
7.05	Nitrite	0.0005	0.045	0.223
10.02	Nitrate	0.0081	0.184	0.918
15.57	Sulfate	0.0203	0.503	2.515

**Sample data**

Ident. . . . . FC7148-9  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 09:41:40  
 Dilution factor . . . . . 5.00

**Anions**

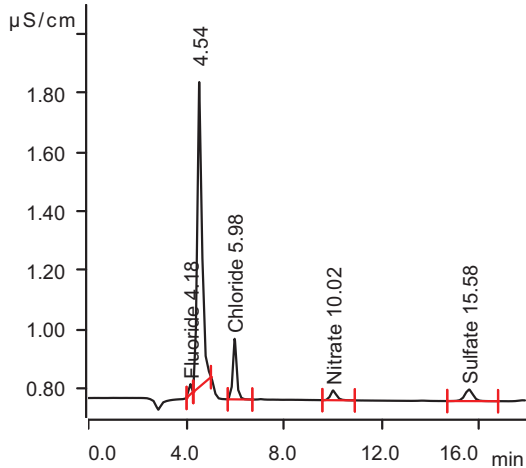


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0246	0.096	0.478
5.98	Chloride	0.0115	0.332	1.661
10.00	Nitrate	0.0271	0.208	1.041
15.57	Sulfate	0.0218	0.510	2.548

**Sample data**

Ident. . . . . FC7148-10  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 10:02:41  
 Dilution factor . . . . . 5.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0044	0.053	0.267
5.98	Chloride	0.0371	0.413	2.066
10.02	Nitrate	0.0096	0.186	0.928
15.58	Sulfate	0.0158	0.483	2.416

11.1  
11



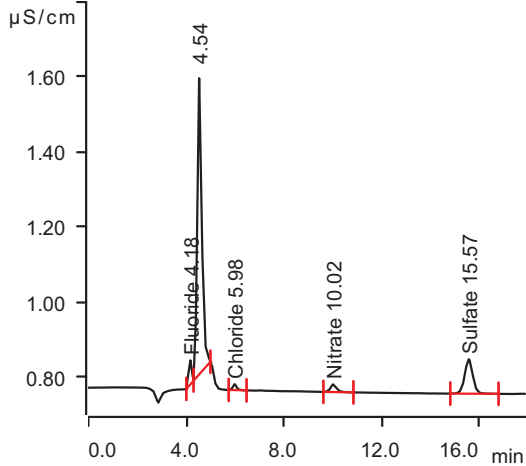
# Summary Report

2023-06-29 12:13:59  
MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7148-11  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 10:23:42  
 Dilution factor . . . . . 5.00

### Anions

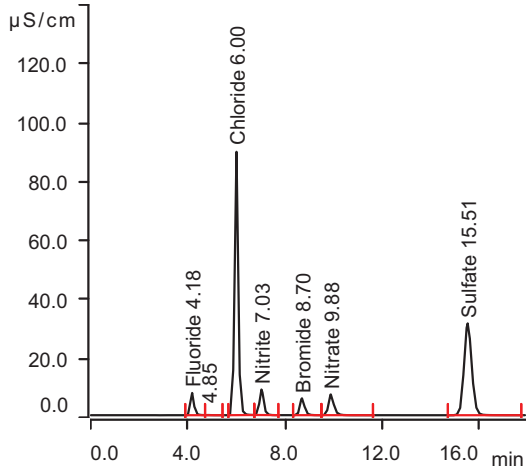


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0088	0.063	0.313
5.98	Chloride	0.0028	0.305	1.523
10.02	Nitrate	0.0060	0.181	0.904
15.57	Sulfate	0.0354	0.569	2.846

### Sample data

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 10:44:43  
 Dilution factor . . . . . 1.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.2259	2.604	2.604
6.00	Chloride	15.7720	50.331	50.331
7.03	Nitrite	1.7360	2.572	2.572
8.70	Bromide	1.2879	10.024	10.024
9.88	Nitrate	1.8163	2.526	2.526
15.51	Sulfate	11.5244	51.031	51.031







# Summary Report

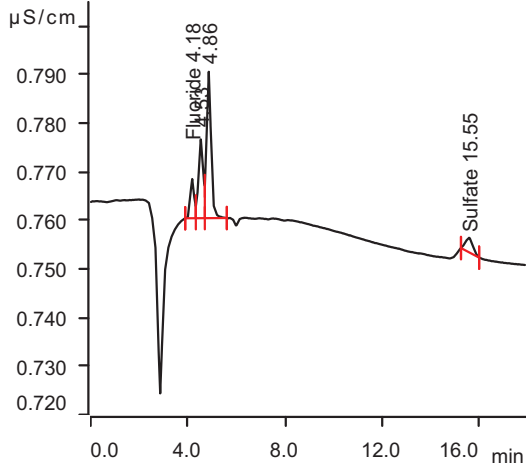
2023-06-29 12:13:59

MagIC Net 3.2 - 123

### Sample data

Ident . . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 11:10:33  
 Dilution factor . . . . . 1.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0014	0.047	0.047
15.55	Sulfate	0.0011	0.419	0.419

11.1  
11



TOC Analysis Logbook, Aqueous

Date: 7/3/2023  
 Analyst: F. N.  
 Instrument: TOC3  
 Instr. File name: c20230703w1.txt  
 Filter Lot#:

Methods: SM5310B SW8469060A  
 Method File: NPOC - met  
 Cal. File: 5/5/2023  
 GN Batch: GN94633

pH paper Lot#: 230320  
 Pipette ID#: UU09872  
 Pipette ID#: UU07485  
 Pipette ID#:

ICAL: List in comments  
 ICV: TOC4169  
 CCV: TOC4168  
 QC: WC2093

Autosampler Position	Sample ID	Bottle#	pH, sU	Injected Volume, ml	Manual Dilution	Instrument Dilution	GP Batch	Comments
1	BLANK	-	-	50 ul	1	1		
2	500	-	1.0'	50 ul	1	1		} TOC4167
3	CCV	-	1.5	50 ul	1	1		
4	GP38918-MB1	-	-	50 ul	1	1	GP38918	
5	GP38918-B1	-	1.5	50 ul	1	1	GP38918	
6	FC7143-1	2	1.5	50 ul	1	1	GP38918	
7	FC7143-2	1	1.5	50 ul	1	1	GP38918	
8	FC7211-1	1	1.0*	50 ul	1	1	GP38918	
9	FC7211-2	1	1.5	50 ul	1	1	GP38918	
10	FC7211-3	1	1.5	50 ul	1	1	GP38918	
11	FC7211-4	1	1.0*	50 ul	1	1	GP38918	
12	FC7211-5	1	1.0*	50 ul	1	1	GP38918	
13	FC7211-6	1	1.5	50 ul	1	1	GP38918	
14	CCV	-	1.5	50 ul	1	1		(* )=> Initial PH>= 2 , added drops
15	CCB	-	-	50 ul	1	1		conc. HCL to acidify.
16	FC7211-7	1	1.0*	50 ul	1	1	GP38918	HCL lot#: 23040119
17	GP38918-S1	2	1.0*	50 ul	1	1	GP38918	
18	GP38918-S2	7	1.0*	50 ul	1	1	GP38918	
19	FC7211-8	1	1.5	50 ul	1	1	GP38918	
20	FC7211-9	1	1.5	50 ul	1	1	GP38918	
21	FC7211-10	1	1.0*	50 ul	1	1	GP38918	
22	FC7211-11	1	1.0*	50 ul	1	1	GP38918	
23	FC7211-12	1	1.0*	50 ul	1	1	GP38918	
24	FC7211-13	1	1.0*	50 ul	1	1	GP38918	
25	FC7211-14	1	1.0*	50 ul	1	1	GP38918	
26	CCV	-	1.5	50 ul	1	1		
27	CCB	-	-	50 ul	1	1		
28	FC7211-15	1	1.0*	50 ul	1	1	GP38918	
29	GP38918-S3	2	1.0*	50 ul	1	1	GP38918	
29	GP38918-S4	2	1.0*	50 ul	1	1	GP38918	
30	FC7211-16	1	1.0*	50 ul	1	1	GP38918	
31	FC7211-17	1	1.0*	50 ul	1	1	GP38918	
32	FC7211-18	1	1.0*	50 ul	1	1	GP38918	
33	FC7211-19	1	1.5	50 ul	1	1	GP38919	

SGS - Orlando



Type	Analysis	Sample Name	Origin	Manual Dilutio	Result	Comment	Status	Date / Time	Vial
Unknown	NPOC	BLANK	NPOC.met	1.000	NPOC:-0.3295mg/L	SM5310B SW846 9060A	Completed	7/3/2023 3:00:40 PM	1
Unknown	NPOC	500	NPOC.met	1.000	NPOC:506.1mg/L	SM5310B SW846 9060A	Completed	7/3/2023 3:34:47 PM	2
Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.21mg/L	SM5310B SW846 9060A	Completed	7/3/2023 3:55:50 PM	3
Unknown	NPOC	GP38918-MB1	NPOC.met	1.000	NPOC:-0.3420mg/L	SM5310B SW846 9060A	Completed	7/3/2023 4:16:09 PM	4
Unknown	NPOC	GP38918-B1	NPOC.met	1.000	NPOC:14.93mg/L	SM5310B SW846 9060A	Completed	7/3/2023 4:39:24 PM	5
Unknown	NPOC	FC7143-1	NPOC.met	1.000	NPOC:0.6055mg/L	SM5310B SW846 9060A	Completed	7/3/2023 4:59:43 PM	6
Unknown	NPOC	FC7143-2	NPOC.met	1.000	NPOC:0.7206mg/L	SM5310B SW846 9060A	Completed	7/3/2023 5:20:19 PM	7
Unknown	NPOC	FC7211-1	NPOC.met	1.000	NPOC:12.28mg/L	SM5310B SW846 9060A	Completed	7/3/2023 5:40:35 PM	8
Unknown	NPOC	FC7211-2	NPOC.met	1.000	NPOC:5.486mg/L	SM5310B SW846 9060A	Completed	7/3/2023 6:02:49 PM	9
Unknown	NPOC	FC7211-3	NPOC.met	1.000	NPOC:6.779mg/L	SM5310B SW846 9060A	Completed	7/3/2023 6:23:24 PM	10
Unknown	NPOC	FC7211-4	NPOC.met	1.000	NPOC:5.994mg/L	SM5310B SW846 9060A	Completed	7/3/2023 6:46:03 PM	11
Unknown	NPOC	FC7211-5	NPOC.met	1.000	NPOC:6.740mg/L	SM5310B SW846 9060A	Completed	7/3/2023 7:05:55 PM	12
Unknown	NPOC	FC7211-6	NPOC.met	1.000	NPOC:6.808mg/L	SM5310B SW846 9060A	Completed	7/3/2023 7:25:15 PM	13
Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.09mg/L	SM5310B SW846 9060A	Completed	7/3/2023 7:46:01 PM	14
Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:-0.2980mg/L	SM5310B SW846 9060A	Completed	7/3/2023 8:06:22 PM	15
Unknown	NPOC	FC7211-7	NPOC.met	1.000	NPOC:0.8192mg/L	SM5310B SW846 9060A	Completed	7/3/2023 8:26:56 PM	16
Unknown	NPOC	GP38918-S1	NPOC.met	1.000	NPOC:15.77mg/L	SM5310B SW846 9060A	Completed	7/3/2023 8:47:47 PM	17
Unknown	NPOC	GP38918-S2	NPOC.met	1.000	NPOC:16.30mg/L	SM5310B SW846 9060A	Completed	7/3/2023 9:08:42 PM	18
Unknown	NPOC	FC7211-8	NPOC.met	1.000	NPOC:1.908mg/L	SM5310B SW846 9060A	Completed	7/3/2023 9:27:35 PM	19
Unknown	NPOC	FC7211-9	NPOC.met	1.000	NPOC:4.102mg/L	SM5310B SW846 9060A	Completed	7/3/2023 9:46:58 PM	20
Unknown	NPOC	FC7211-10	NPOC.met	1.000	NPOC:5.143mg/L	SM5310B SW846 9060A	Completed	7/3/2023 10:09:28 PM	21
Unknown	NPOC	FC7211-11	NPOC.met	1.000	NPOC:5.658mg/L	SM5310B SW846 9060A	Completed	7/3/2023 10:31:27 PM	22
Unknown	NPOC	FC7211-12	NPOC.met	1.000	NPOC:4.318mg/L	SM5310B SW846 9060A	Completed	7/3/2023 10:52:53 PM	23
Unknown	NPOC	FC7211-13	NPOC.met	1.000	NPOC:5.653mg/L	SM5310B SW846 9060A	Completed	7/3/2023 11:12:07 PM	24
Unknown	NPOC	FC7211-14	NPOC.met	1.000	NPOC:12.58mg/L	SM5310B SW846 9060A	Completed	7/3/2023 11:32:31 PM	25
Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.26mg/L	SM5310B SW846 9060A	Completed	7/3/2023 11:53:27 PM	26
Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:-0.1966mg/L	SM5310B SW846 9060A	Completed	7/4/2023 12:11:50 AM	27
Unknown	NPOC	FC7211-15	NPOC.met	1.000	NPOC:7.059mg/L	SM5310B SW846 9060A	Completed	7/4/2023 12:32:01 AM	28
Unknown	NPOC	GP38918-S3	NPOC.met	1.000	NPOC:22.30mg/L	SM5310B SW846 9060A	Completed	7/4/2023 12:53:18 AM	29
Unknown	NPOC	GP38918-S4	NPOC.met	1.000	NPOC:22.18mg/L	SM5310B SW846 9060A	Completed	7/4/2023 1:13:22 AM	29
Unknown	NPOC	FC7211-16	NPOC.met	1.000	NPOC:7.183mg/L	SM5310B SW846 9060A	Completed	7/4/2023 1:33:15 AM	30
Unknown	NPOC	FC7211-17	NPOC.met	1.000	NPOC:5.285mg/L	SM5310B SW846 9060A	Completed	7/4/2023 1:53:00 AM	31
Unknown	NPOC	FC7211-18	NPOC.met	1.000	NPOC:5.526mg/L	SM5310B SW846 9060A	Completed	7/4/2023 2:12:30 AM	32
Unknown	NPOC	FC7211-19	NPOC.met	1.000	NPOC:4.110mg/L	SM5310B SW846 9060A	Completed	7/4/2023 2:31:50 AM	33
Unknown	NPOC	FC7211-20	NPOC.met	1.000	NPOC:6.149mg/L	SM5310B SW846 9060A	Completed	7/4/2023 2:51:38 AM	34
Unknown	NPOC	FC7211-21	NPOC.met	1.000	NPOC:0.7114mg/L	SM5310B SW846 9060A	Completed	7/4/2023 3:12:11 AM	35
Unknown	NPOC	FC7211-22	NPOC.met	1.000	NPOC:0.9661mg/L	SM5310B SW846 9060A	Completed	7/4/2023 3:32:26 AM	36
Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.12mg/L	SM5310B SW846 9060A	Completed	7/4/2023 3:52:58 AM	37
Unknown	NPOC	GP38919-MB1	NPOC.met	1.000	NPOC:-0.2337mg/L	SM5310B SW846 9060A	Completed	7/4/2023 4:13:13 AM	38
Unknown	NPOC	GP38919-B1	NPOC.met	1.000	NPOC:14.93mg/L	SM5310B SW846 9060A	Completed	7/4/2023 4:34:15 AM	39

	Type	Analysis	Sample Name	Origin	Manual Dilutio	Result	Comment	Status	Date / Time	Vial
41	Unknown	NPOC	FC7211-23	NPOC.met	1.000	NPOC:4.665mg/L	SM5310B SW846 9060A	Completed	7/4/2023 4:53:55 AM	40
42	Unknown	NPOC	FC7211-24	NPOC.met	1.000	NPOC:4.406mg/L	SM5310B SW846 9060A	Completed	7/4/2023 5:15:52 AM	41
43	Unknown	NPOC	FC7322-1	NPOC.met	1.000	NPOC:2.678mg/L	SM5310B SW846 9060A	Completed	7/4/2023 5:37:11 AM	42
44	Unknown	NPOC	GP38919-S1	NPOC.met	1.000	NPOC:18.15mg/L	SM5310B SW846 9060A	Completed	7/4/2023 6:00:57 AM	43
45	Unknown	NPOC	GP38919-S2	NPOC.met	1.000	NPOC:18.45mg/L	SM5310B SW846 9060A	Completed	7/4/2023 6:22:04 AM	44
46	Unknown	NPOC	FC7322-6	NPOC.met	1.000	NPOC:1.869mg/L	SM5310B SW846 9060A	Completed	7/4/2023 6:43:16 AM	45
47	Unknown	NPOC	FC7322-7	NPOC.met	1.000	NPOC:1.936mg/L	SM5310B SW846 9060A	Completed	7/4/2023 7:04:19 AM	46
48	Unknown	NPOC	FC7413-1	NPOC.met	1.000	NPOC:21.52mg/L	SM5310B SW846 9060A	Completed	7/4/2023 7:25:31 AM	47
49	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.11mg/L	SM5310B SW846 9060A	Completed	7/4/2023 7:49:05 AM	48
50	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:-0.2277mg/L	SM5310B SW846 9060A	Completed	7/4/2023 8:09:19 AM	49

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Instr. Information**

Instrument Options  
Catalyst

TOC/AS/IC Unit/  
Regular Sensitivity

**Sample**

Sample Name: BLANK  
Sample ID: Unfilled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

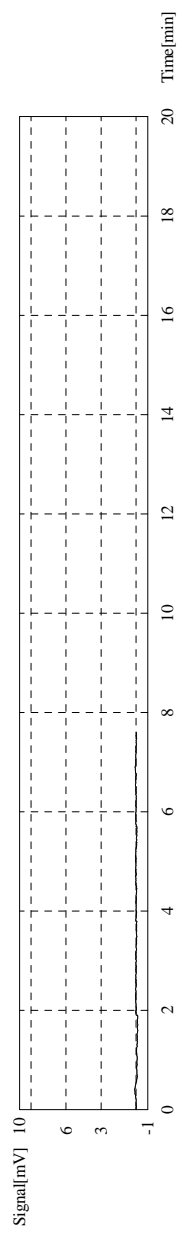
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC-0.3295mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1752	-0.2920mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 2:54:15 PM
2	0.000	-0.3420mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 2:56:24 PM
3	0.000	-0.3420mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 2:58:33 PM
4	0.000	-0.3420mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 3:00:40 PM

Mean Area 0.04380  
Mean Conc. -0.3295mg/L



**Sample**

# TOC-Control L Report

toc3\_aq\_07-03-2023.tlx

Sample Name: 500  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

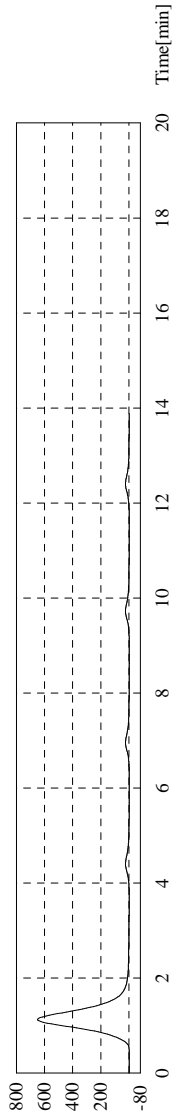
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.001	NPOC:506.1mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1921	547.9mg/L	50ul	1.000	R	loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:13:52 PM
2	76.63	512.9mg/L	40ul	19.00		loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:26:06 PM
3	74.49	498.4mg/L	40ul	19.00		loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:29:05 PM
4	75.63	506.1mg/L	40ul	19.00		loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:31:58 PM
5	75.73	506.8mg/L	40ul	19.00		loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:34:47 PM

Mean Area 75.62  
 Mean Conc. 506.1mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.001	NPOC:15.21mg/L

1. Det

7/5/2023 9:23:24 AM

2/39

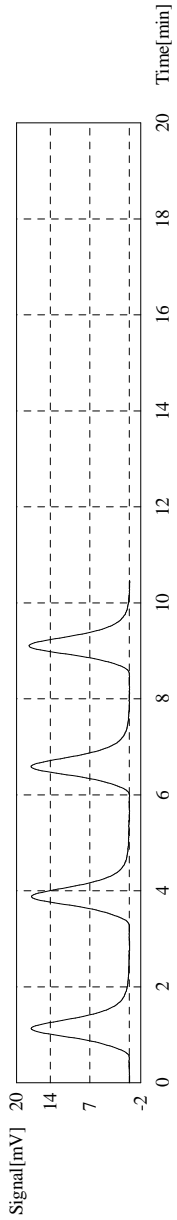
# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.74	15.28mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 3:47:25 PM
2	54.68	15.26mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 3:50:23 PM
3	54.35	15.17mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 3:53:08 PM
4	54.27	15.15mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 3:55:50 PM

Mean Area 54.51  
Mean Conc. 15.21mg/L



**Sample**

Sample Name: GP38918-MBI  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC-0.3420mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6245	-0.1638mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:07:37 PM
2	0.000	-0.3420mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:09:44 PM
3	0.000	-0.3420mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:11:51 PM
4	0.000	-0.3420mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:14:00 PM
5	0.000	-0.3420mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:16:09 PM

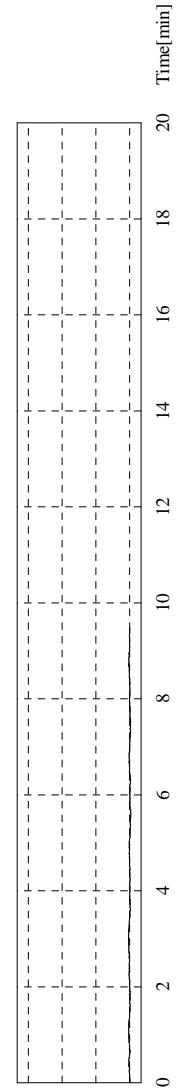


# TOC-Control L Report

toc 3 aq 07-05-2023.tif

Mean Area  
Mean Conc.

0.000  
-0.3420mg/L



**Sample**

Sample Name: GP389 18-B1  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.93mg/L

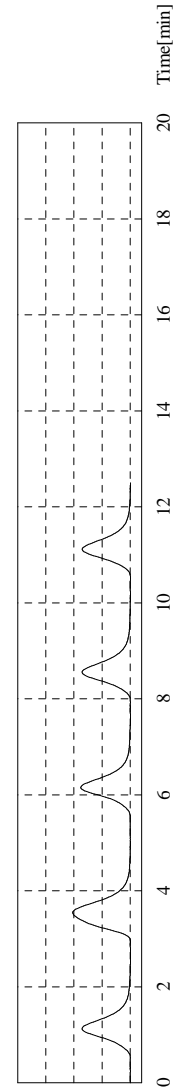
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.64	14.97mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:28:25 PM
2	74.59	20.95mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:31:11 PM
3	53.33	14.88mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:33:50 PM
4	53.93	15.05mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:36:40 PM
5	53.18	14.84mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:39:24 PM

Mean Area  
Mean Conc.

53.52  
14.93mg/L



# TOC-Control L Report

toc 3 aq 07-03-2023.tlx

**Sample**

Sample Name: FC7143-1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

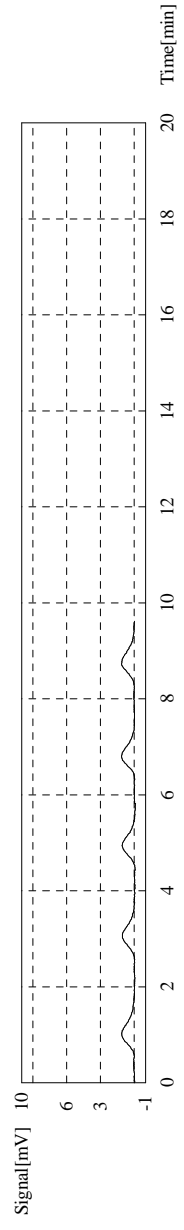
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6055mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.502	0.6574mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:51:13 PM
2	3.229	0.5795mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:53:20 PM
3	3.295	0.5983mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:55:27 PM
4	3.259	0.5881mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:57:36 PM
5	3.497	0.6560mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:59:43 PM

Mean Area 3.320  
 Mean Conc. 0.6055mg/L



**Sample**

Sample Name: FC7143-2  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

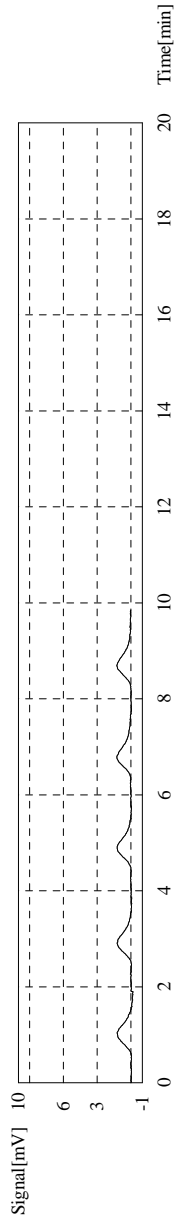
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7206mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.817	0.7473mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:11:25 PM
2	3.675	0.7068mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:13:40 PM
3	3.611	0.6885mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:15:47 PM
4	3.555	0.6726mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:17:55 PM
5	3.791	0.7399mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:20:19 PM

Mean Area  
Mean Conc. 3.724  
0.7206mg/L



**Sample**

Sample Name: FC7211-1  
 Sample ID: Unfilled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.28mg/L

1. Det

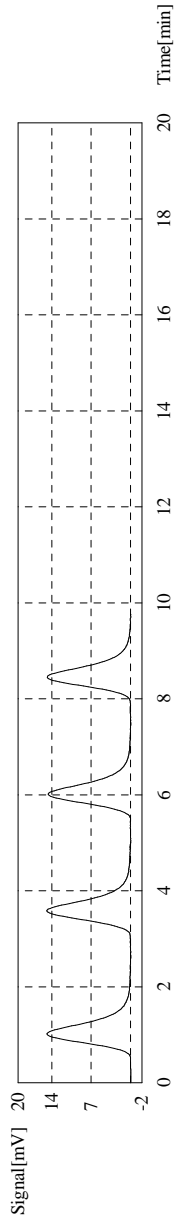
Anal.: NPOC

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.71	12.42mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:32:39 PM
2	44.07	12.24mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:35:18 PM
3	43.90	12.19mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:37:59 PM
4	44.27	12.29mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:40:35 PM

Mean Area  
Mean Conc.  
44.24  
12.28mg/L



**Sample**

Sample Name: FC7211-2  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.486mg/L

1. Det

Anal.: NPOC

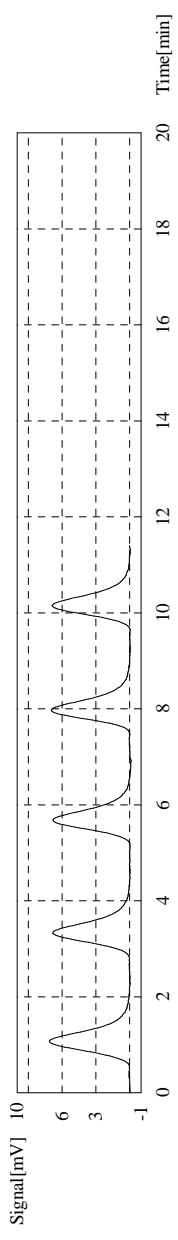
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.64	5.834mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:52:45 PM
2	20.38	5.474mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:55:20 PM
3	20.56	5.526mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:57:53 PM
4	20.29	5.449mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:00:18 PM
5	20.45	5.494mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:02:49 PM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

20.42  
5.486mg/L



**Sample**

Sample Name: FC7211-3  
 Sample ID: Unlited  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.779mg/L

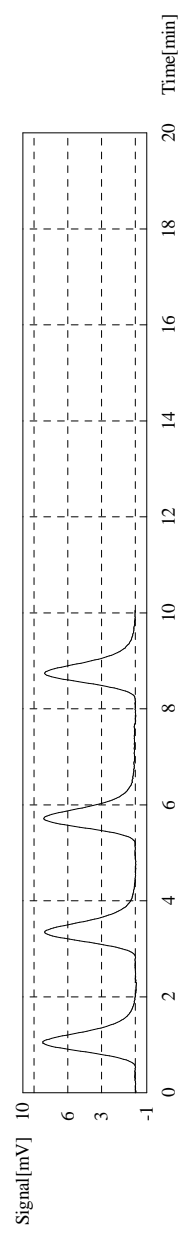
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.73	6.716mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:14:55 PM
2	24.73	6.716mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:17:33 PM
3	25.39	6.904mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:20:47 PM
4	24.96	6.781mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:23:24 PM

Mean Area  
Mean Conc.

24.95  
6.779mg/L



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7/5/2023 9:23:24 AM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: FC7211-4  
 Sample ID: Unlabeled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

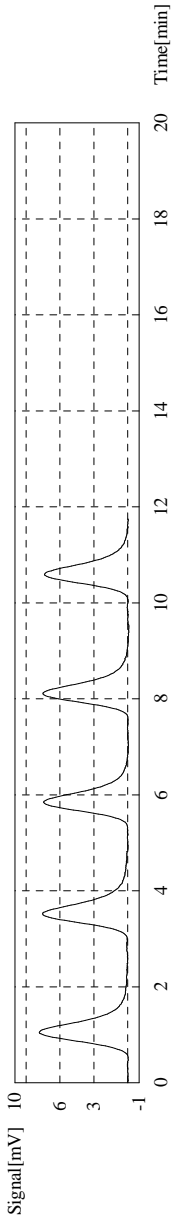
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.994mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.48	6.359mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:35:46 PM
2	21.58	6.102mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:38:20 PM
3	21.92	5.914mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:40:52 PM
4	22.29	6.019mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:43:34 PM
5	22.02	5.942mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:46:03 PM

Mean Area: 22.20  
 Mean Conc.: 5.994mg/L



**Sample**

Sample Name: FC7211-5  
 Sample ID: Unlabeled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.740mg/L

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7/5/2023 9:23:24 AM

# TOC-Control L Report

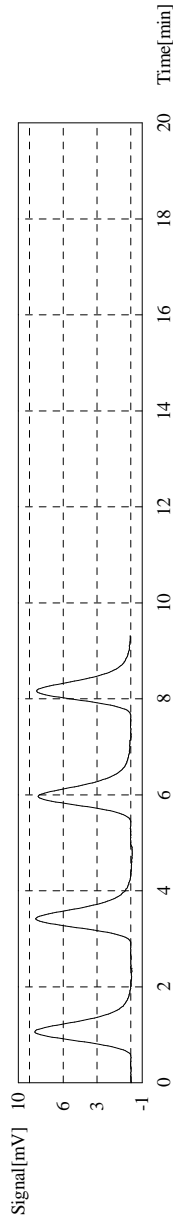
toc 3 aq 07-05-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.31	6.881mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:58:14 PM
2	24.79	6.753mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:01:00 PM
3	24.47	6.642mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:03:28 PM
4	24.69	6.704mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:05:55 PM

Mean Area 24.82  
Mean Conc. 6.740mg/L



**Sample**

Sample Name: FC7211-6  
Sample ID: Unfiled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.808mg/L

1. Det

Anal.: NPOC

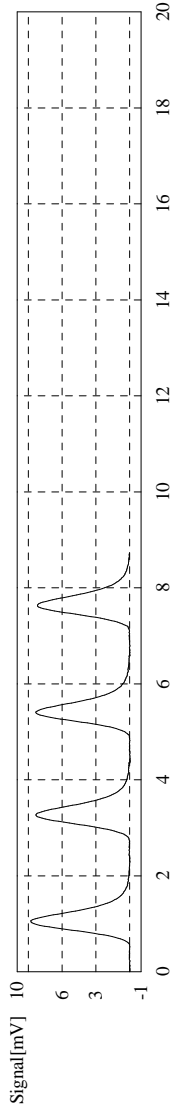
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.80	7.021mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:18:01 PM
2	24.74	6.719mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:20:23 PM
3	24.86	6.753mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:22:52 PM
4	24.81	6.739mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:25:15 PM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

25.05  
6.808mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.09mg/L

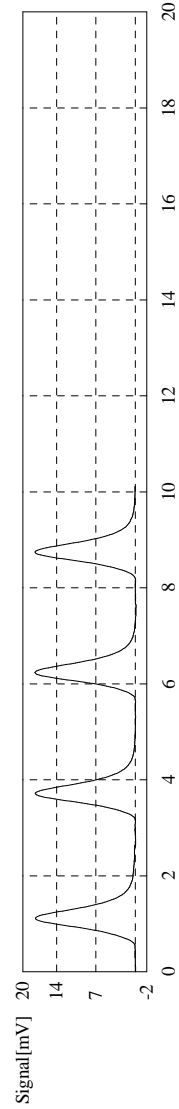
**1. Det**

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.90	15.33mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:37:46 PM
2	54.15	15.11mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:40:31 PM
3	53.84	15.02mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:43:16 PM
4	53.40	14.90mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:46:01 PM

Mean Area  
Mean Conc.

54.07  
15.09mg/L





# TOC-Control L Report

toc 3 aq 07-03-2023.tlx

**Sample**

Sample Name: CCB  
 Sample ID: Unlited  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

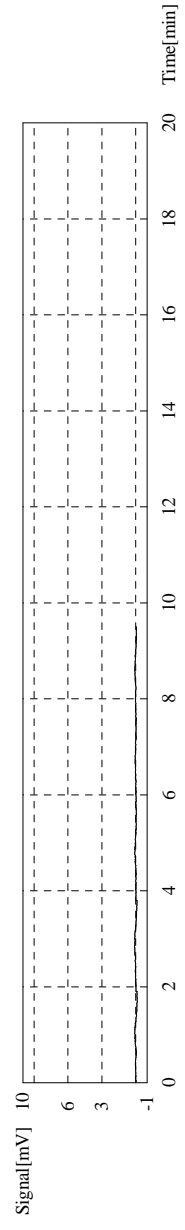
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2980mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4454	-0.2149mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:57:48 PM
2	0.4119	-0.2245mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:59:57 PM
3	0.000	-0.3420mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:02:06 PM
4	0.000	-0.3420mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:04:14 PM
5	0.2055	-0.2834mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:06:22 PM

Mean Area 0.1544  
 Mean Conc. -0.2980mg/L



**Sample**

Sample Name: RC7211-7  
 Sample ID: Unlited  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8192mg/L

7/5/2023 9:23:24 AM

1239

# TOC-Control L Report

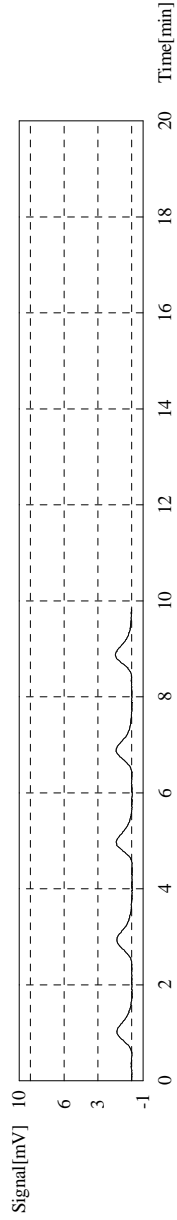
toc 3 aq 07-05-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.906	0.7727mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 8:18:04 PM
2	4.064	0.8178mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 8:20:22 PM
3	3.930	0.7796mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 8:22:30 PM
4	4.159	0.8449mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 8:24:44 PM
5	4.123	0.8347 mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 8:26:56 PM

Mean Area 4.069  
Mean Conc. 0.8192mg/L



**Sample**

Sample Name: GP389 18-S1  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.77mg/L

1. Det

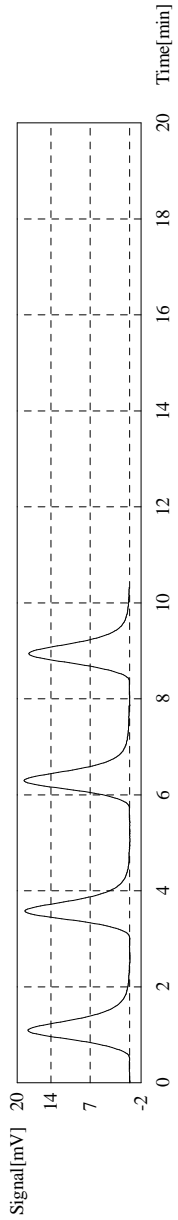
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.72	15.85mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 8:39:14 PM
2	56.53	15.79mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 8:42:10 PM
3	56.57	15.80mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 8:45:03 PM
4	56.03	15.65mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 8:47:47 PM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
56.46  
Mean Conc.  
15.77mg/L



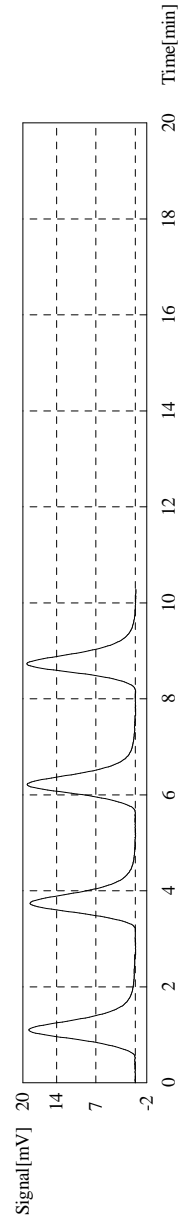
**Sample**  
 Sample Name: GP389 18-S2  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.30mg/L

1. Det  
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.23	16.28mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:00:20 PM
2	57.97	16.20mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:03:02 PM
3	58.66	16.40mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:05:49 PM
4	58.36	16.31mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:08:42 PM

Mean Area  
58.31  
Mean Conc.  
16.30mg/L



7/5/2023 9:23:24 AM

14/39

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: FC7211-8  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

FC7211-8  
 Unfiled  
 NPOC.met  
 Completed

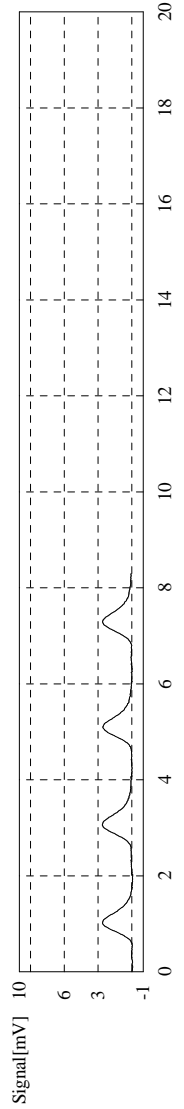
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.908mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.929	1.921 mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/3/2023 9:20:37 PM
2	7.913	1.916mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/3/2023 9:22:53 PM
3	7.806	1.886mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/3/2023 9:25:18 PM
4	7.887	1.909mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/3/2023 9:27:35 PM

Mean Area 7.884  
 Mean Conc. 1.908mg/L



**Sample**

Sample Name: FC7211-9  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

FC7211-9  
 Unfiled  
 NPOC.met  
 Completed

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.102mg/L

1. Det

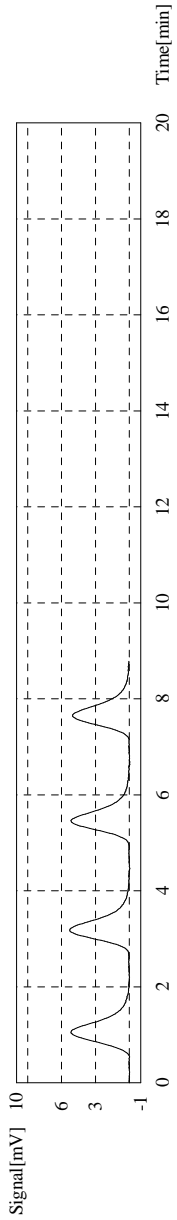
# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.89	4.193mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:39:37 PM
2	15.67	4.130mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:42:08 PM
3	15.24	4.007mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:44:33 PM
4	15.49	4.107mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:46:58 PM

Mean Area 15.57  
 Mean Conc. 4.102mg/L



**Sample**

Sample Name: FC7211-10  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.143mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.96	5.354mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:59:15 PM
2	19.52	5.229mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 10:01:50 PM
3	19.01	5.083mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 10:04:16 PM
4	19.24	5.149mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 10:06:52 PM
5	19.10	5.109mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 10:09:28 PM



# TOC-Control L Report

toc\_3\_aq\_07-03-2023.tlx

**Sample**

Sample Name: FC7211-12  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

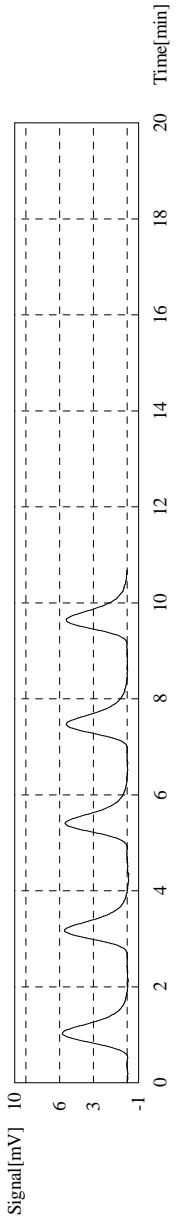
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.318mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.63	4.689mg/L	50ul	1.000	E	loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:43:25 PM
2	16.40	4.338mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:45:51 PM
3	16.32	4.316mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:48:12 PM
4	16.48	4.361mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:50:36 PM
5	16.12	4.259mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:52:53 PM

Mean Area 16.33  
 Mean Conc. 4.318mg/L



**Sample**

Sample Name: FC7211-13  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

# TOC-Control L Report

toc.3.aq.07-05-2023.tlx

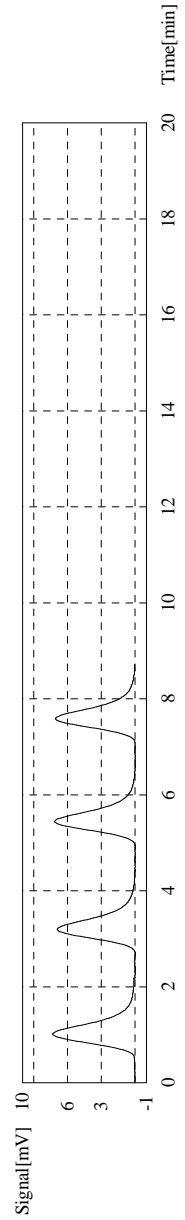
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.653mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.43	5.774mg/L	50ul	1.000		toc.3.aq.cal.curve.05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:04:52 PM
2	20.74	5.577mg/L	50ul	1.000		toc.3.aq.cal.curve.05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:07:21 PM
3	21.09	5.677mg/L	50ul	1.000		toc.3.aq.cal.curve.05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:09:44 PM
4	20.76	5.583mg/L	50ul	1.000		toc.3.aq.cal.curve.05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:12:07 PM

Mean Area 21.01  
Mean Conc. 5.653mg/L



**Sample**

Sample Name: FC7211-14  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.58mg/L

1. Det

Anal.: NPOC

7/5/2023 9:23:24 AM

19/39

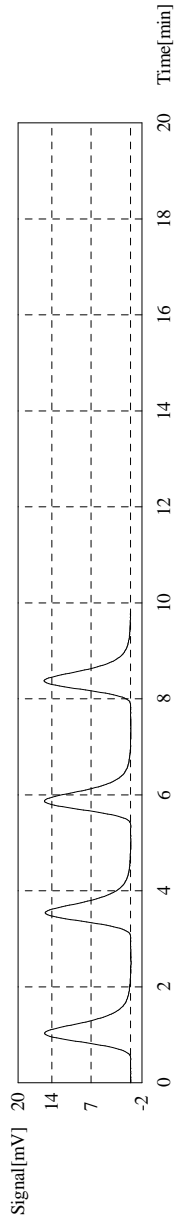


# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	46.26	12.86mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:24:32 PM
2	44.99	12.50mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:27:06 PM
3	44.93	12.48mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:29:50 PM
4	44.98	12.50mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:32:31 PM

Mean Area 45.29  
 Mean Conc. 12.58mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.26mg/L

1. Det  
 Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.88	15.32mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:44:55 PM
2	54.89	15.32mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:47:47 PM
3	54.28	15.15mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:50:37 PM
4	54.68	15.26mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:53:27 PM

7/5/2023 9:23:24 AM

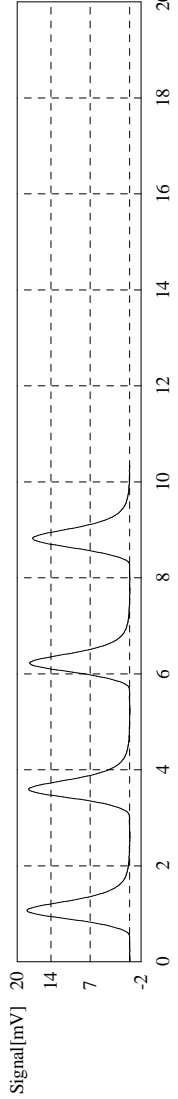
20/39

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

54.68  
15.26mg/L



**Sample**

Sample Name: CCB  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1966mg/L

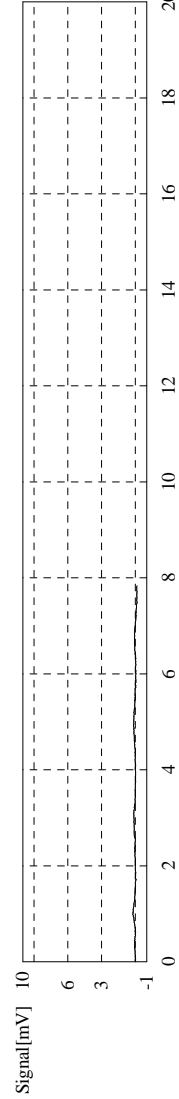
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5199	-0.1937mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 12:05:14 AM
2	0.4168	-0.2231mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 12:07:21 AM
3	0.6332	-0.1613mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 12:09:28 AM
4	0.4678	-0.2085mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 12:11:50 AM

Mean Area  
Mean Conc.

0.5094  
-0.1966mg/L



# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: FC7211-15  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

FC7211-15  
 Unfiled  
 NPOC.met  
 Completed

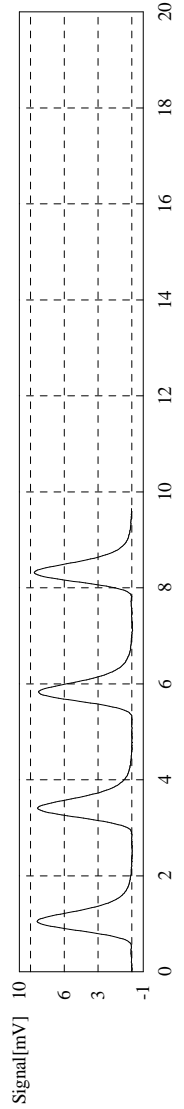
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.059mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.91	7.053mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023.05.05_20.28_18.cal	7/4/2023 12:24:05 AM
2	25.72	6.998mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023.05.05_20.28_18.cal	7/4/2023 12:26:43 AM
3	25.78	7.015mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023.05.05_20.28_18.cal	7/4/2023 12:29:26 AM
4	26.32	7.170mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023.05.05_20.28_18.cal	7/4/2023 12:32:01 AM

Mean Area 25.93  
 Mean Conc. 7.059mg/L



**Sample**

Sample Name: GP389 18-S3  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

GP389 18-S3  
 Unfiled  
 NPOC.met  
 Completed

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.30mg/L

1. Det

2239

7/5/2023 9:23:24 AM

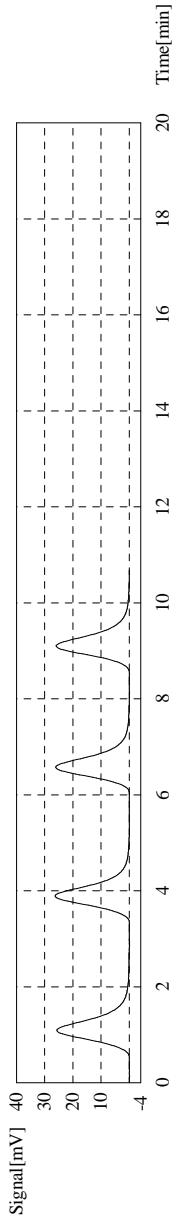
# TOC-Control L Report

toc\_3\_aq\_07-05-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.66	22.68mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 12:44:42 AM
2	79.23	22.27mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 12:47:40 AM
3	78.46	22.05mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 12:50:23 AM
4	78.97	22.20mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 12:53:18 AM

Mean Area 79.33  
 Mean Conc. 22.30mg/L



**Sample**

Sample Name: GP38918-S4  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.18mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.35	22.30mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 1:04:48 AM
2	78.93	22.18mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 1:07:40 AM
3	78.56	22.08mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 1:10:27 AM
4	78.79	22.14mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 1:13:22 AM

7/5/2023 9:23:24 AM

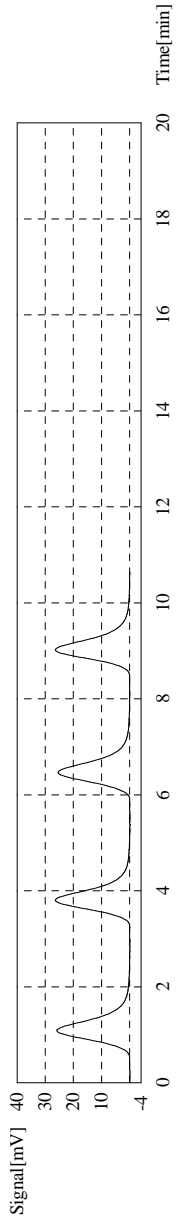
23.39

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

78.91  
22.18mg/L



**Sample**

Sample Name: FC7211-16  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.183mg/L

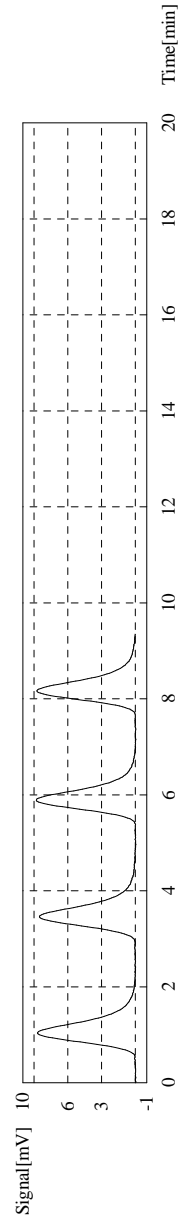
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.88	7.329mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 1:25:40 AM
2	26.29	7.161mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 1:28:19 AM
3	26.29	7.161mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 1:30:49 AM
4	26.01	7.081mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 1:33:15 AM

Mean Area  
Mean Conc.

26.37  
7.183mg/L



# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: FC7211-17  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

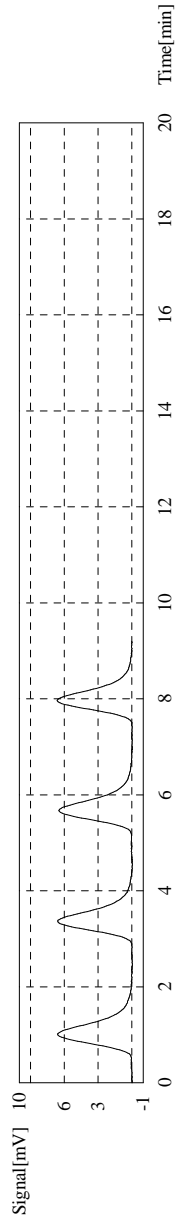
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.285mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.01	5.369mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/4/2023 1:45:30 AM
2	19.71	5.285mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/4/2023 1:48:01 AM
3	19.62	5.257mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/4/2023 1:50:32 AM
4	19.53	5.232mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/4/2023 1:53:00 AM

Mean Area 19.72  
 Mean Conc. 5.285mg/L



**Sample**

Sample Name: FC7211-18  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.526mg/L

1. Det

25/39

7/5/2023 9:23:24 AM

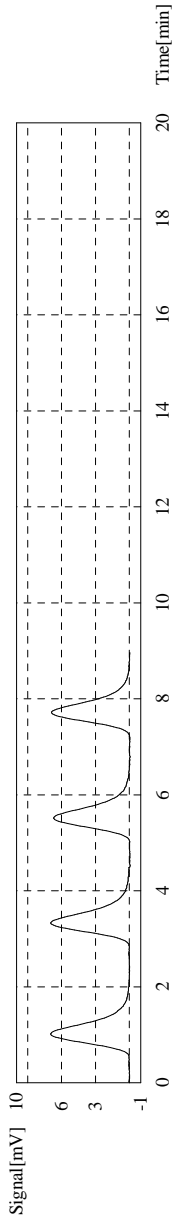
# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.01	5.654mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:05:13 AM
2	20.58	5.531mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:07:36 AM
3	20.17	5.414mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:10:01 AM
4	20.48	5.503mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:12:30 AM

Mean Area 20.56  
Mean Conc. 5.526mg/L



**Sample**

Sample Name: FC7211-19  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.110mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.40	4.053mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:24:33 AM
2	15.95	4.210mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:27:04 AM
3	15.42	4.059mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:29:27 AM
4	15.63	4.119mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:31:50 AM

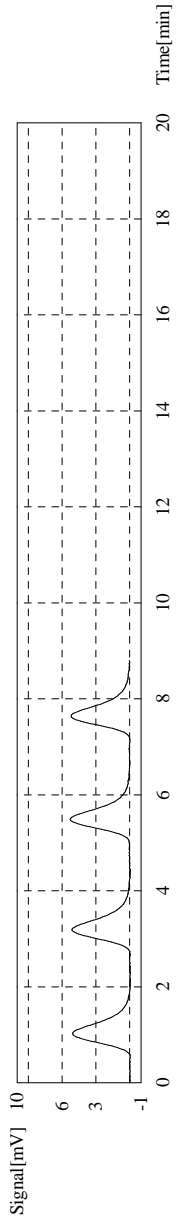
7/5/2023 9:23:24 AM

2639

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
15.60  
Mean Conc.  
4.110mg/L



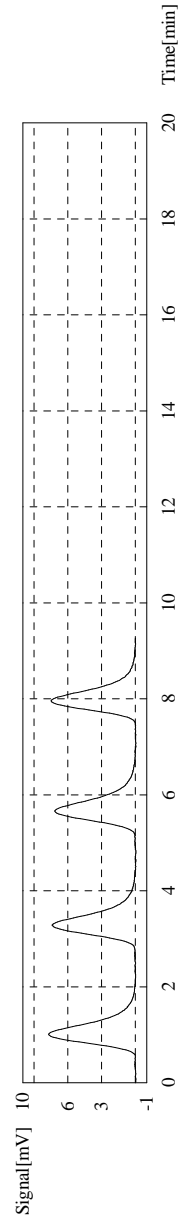
**Sample**  
Sample Name: FC7211-20  
Sample ID: Unlited  
Origin: NPOC.net  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC-6.149mg/L

1. Det  
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.17	6.271mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:43:59 AM
2	22.72	6.142mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:46:35 AM
3	22.73	6.145mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:49:06 AM
4	22.35	6.037mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:51:38 AM

Mean Area  
22.74  
Mean Conc.  
6.149mg/L





# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: FC7211-21  
 Sample ID: Unlabeled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

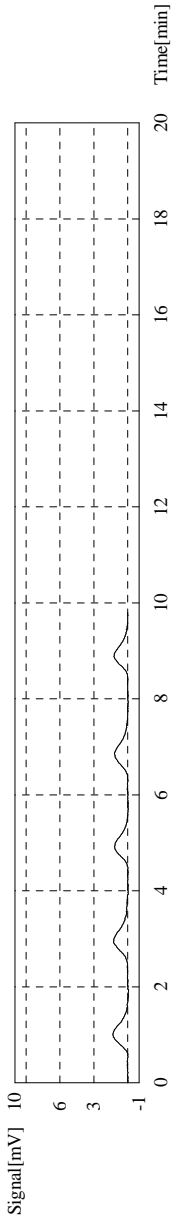
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.714mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.975	0.7924mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:03:28 AM
2	3.988	0.7961mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:05:39 AM
3	3.540	0.6683mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:07:46 AM
4	3.699	0.7136mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:10:04 AM
5	3.551	0.6714mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:12:11 AM

Mean Area: 3.691  
 Mean Conc.: 0.7114mg/L



**Sample**

Sample Name: FC7211-22  
 Sample ID: Unlabeled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9661mg/L

2839

7/5/2023 9:23:24 AM

# TOC-Control L Report

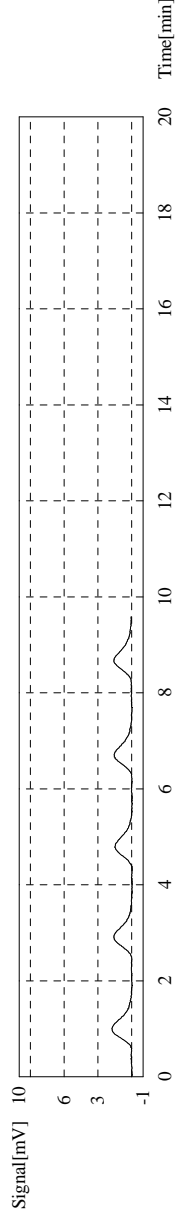
toc 3 aq 07-05-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.375	1.192mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:23:53 AM
2	4.630	0.9794mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:26:00 AM
3	4.443	0.9260mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:28:07 AM
4	4.770	1.019mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:30:19 AM
5	4.491	0.9397 mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:32:26 AM

Mean Area 4.583  
Mean Conc. 0.9661mg/L



**Sample**

Sample Name: CCV  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.12mg/L

1. Det

Anal.: NPOC

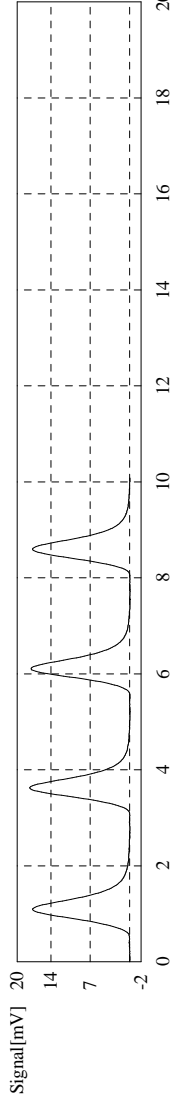
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.08	15.38mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:44:47 AM
2	54.02	15.07mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:47:29 AM
3	53.57	14.95mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:50:12 AM
4	54.02	15.07mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:52:58 AM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

54.17  
15.12mg/L



**Sample**

Sample Name: GP389 19-MB1  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2337mg/L

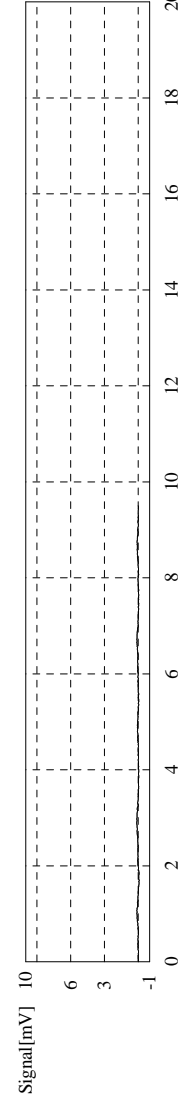
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3398	-0.2450mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:04:45 AM
2	0.5092	-0.1967mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:06:52 AM
3	0.08200	-0.3186mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:09:00 AM
4	0.3090	-0.2458mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:11:06 AM
5	0.3609	-0.2390mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:13:13 AM

Mean Area  
Mean Conc.

0.3797  
-0.2337mg/L



# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: GP389 19-B1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Sample Name: GP389 19-B1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed

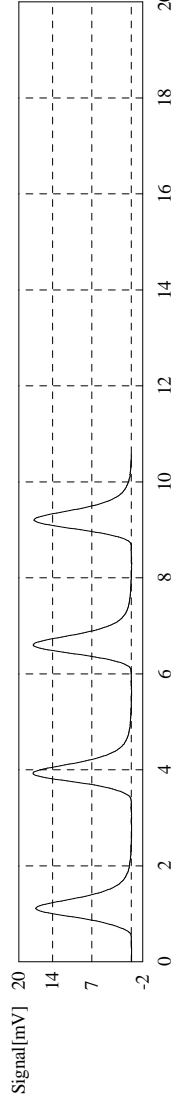
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.93mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.94	15.06mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:25:52 AM
2	53.62	14.96mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:28:46 AM
3	53.49	14.92mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:31:36 AM
4	53.04	14.80mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:34:15 AM

Mean Area 53.52  
 Mean Conc. 14.93mg/L



**Sample**

Sample Name: FC7211-23  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Sample Name: FC7211-23  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.665mg/L

# TOC-Control L Report

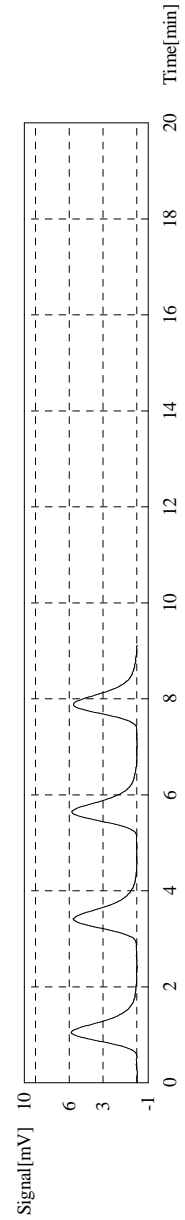
toc 3 aq 07-05-2023.tif

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.42	4.630mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05_05_20_28_18.cal	7/4/2023 4:46:30 AM
2	17.73	4.718mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05_05_20_28_18.cal	7/4/2023 4:48:58 AM
3	17.35	4.610mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05_05_20_28_18.cal	7/4/2023 4:51:24 AM
4	17.67	4.701mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05_05_20_28_18.cal	7/4/2023 4:53:55 AM

Mean Area 17.54  
Mean Conc. 4.665mg/L



**Sample**

Sample Name: FC7211-24  
Sample ID: Unfiled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.406mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.82	4.744mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05_05_20_28_18.cal	7/4/2023 5:06:02 AM
2	16.82	4.458mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05_05_20_28_18.cal	7/4/2023 5:08:37 AM
3	16.58	4.390mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05_05_20_28_18.cal	7/4/2023 5:10:58 AM
4	16.69	4.421mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05_05_20_28_18.cal	7/4/2023 5:13:28 AM
5	16.46	4.356mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05_05_20_28_18.cal	7/4/2023 5:15:52 AM

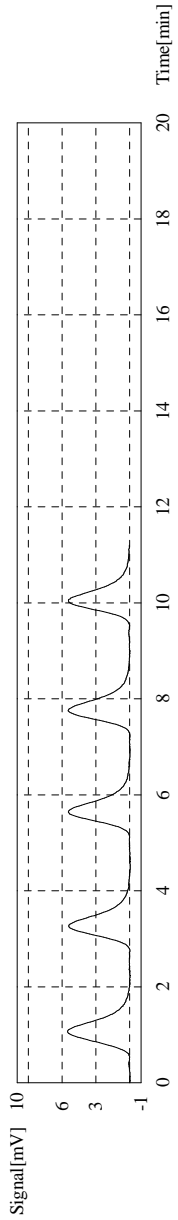
7/5/2023 9:23:24 AM

3239

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
16.64  
Mean Conc.  
4.406mg/L



**Sample**

Sample Name: FC7322-1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

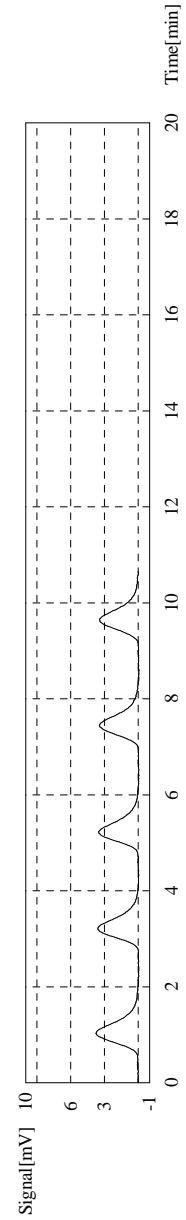
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.678mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.33	2.891mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:27:52 AM
2	10.60	2.683mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:30:06 AM
3	10.51	2.657mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:32:31 AM
4	10.55	2.669mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:34:55 AM
5	10.67	2.703mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:37:11 AM

Mean Area  
10.58  
Mean Conc.  
2.678mg/L



# TOC-Control L Report

toc 3 aq 07-03-2023.tlx

**Sample**

Sample Name: GP389 19-S1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

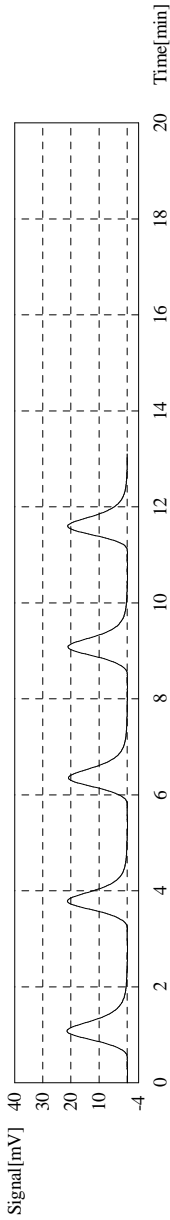
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.15mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	67.74	18.99mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:49:41 AM
2	65.17	18.26mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:52:29 AM
3	65.21	18.27mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:55:24 AM
4	64.75	18.14mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:58:11 AM
5	63.99	17.92mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:00:57 AM

Mean Area 64.78  
 Mean Conc. 18.15mg/L



**Sample**

Sample Name: GP389 19-S2  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

# TOC-Control L Report

toc.3\_aq\_07-05-2023.tlx

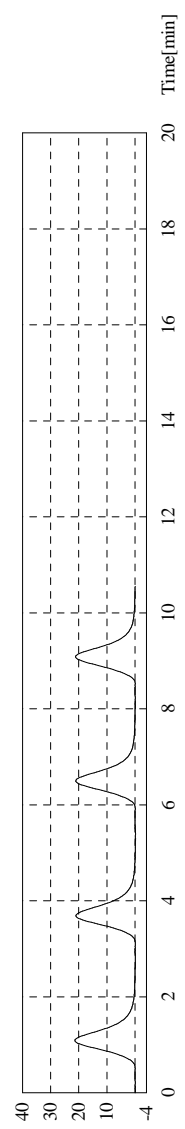
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.45mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.76	18.71mg/L	50ul	1.000		toc.3_aq_cal-curve_05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:13:22 AM
2	65.93	18.47mg/L	50ul	1.000		toc.3_aq_cal-curve_05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:16:25 AM
3	65.30	18.29mg/L	50ul	1.000		toc.3_aq_cal-curve_05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:19:17 AM
4	65.45	18.34mg/L	50ul	1.000		toc.3_aq_cal-curve_05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:22:04 AM

Mean Area 65.86  
 Mean Conc. 18.45mg/L



**Sample**

Sample Name: FC7322-6  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.69mg/L

1. Det

Anal.: NPOC

7/5/2023 9:23:24 AM

35/39

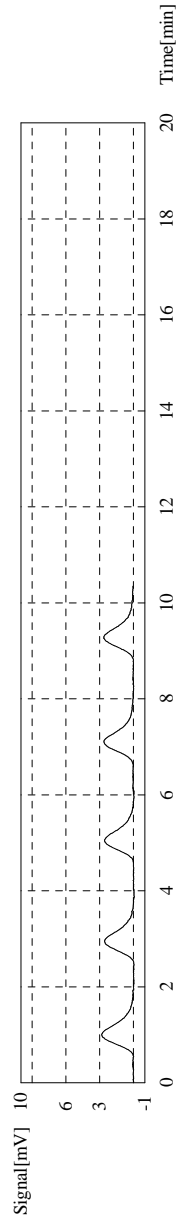


# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.229	2.006mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:33:54 AM
2	7.706	1.857mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:36:13 AM
3	7.746	1.869mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:38:30 AM
4	7.678	1.849mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:40:54 AM
5	7.857	1.900mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:43:16 AM

Mean Area 7.747  
 Mean Conc. 1.869mg/L



**Sample**

Sample Name: FC7322-7  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.936mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.686	2.422mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:55:09 AM
2	8.294	2.025mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:57:34 AM
3	7.896	1.911mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:59:49 AM
4	8.019	1.947mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 7:02:08 AM
5	7.713	1.859mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 7:04:19 AM

3639

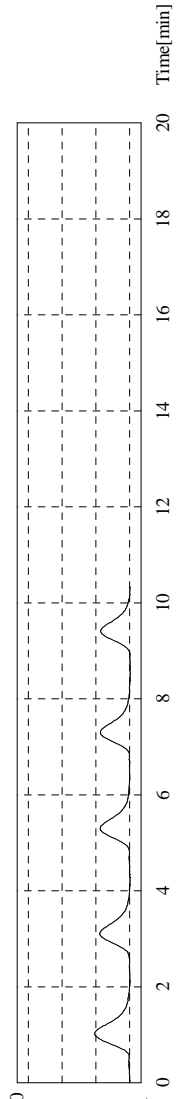
7/5/2023 9:23:24 AM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

7.981  
1.936mg/L



**Sample**

Sample Name: FC7413-1  
 Sample ID: Unlited  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.52mg/L

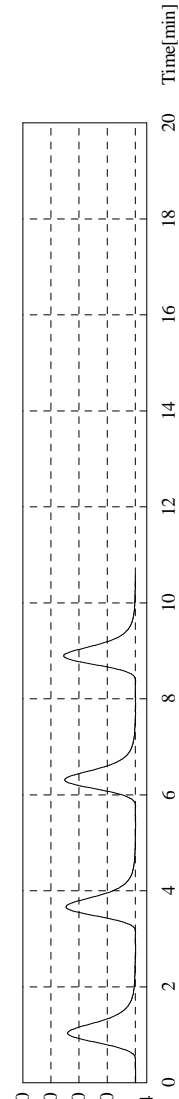
**1. Det**

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.32	21.72mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 7:16:47 AM
2	76.10	21.38mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 7:19:40 AM
3	76.32	21.44mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 7:22:30 AM
4	76.65	21.53mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 7:25:31 AM

Mean Area  
Mean Conc.

76.60  
21.52mg/L



# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

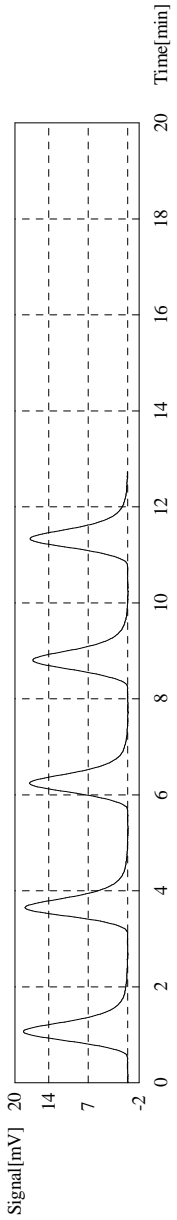
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.88	15.89mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:38:01 AM
2	55.40	15.47mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:40:51 AM
3	54.21	15.13mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:43:37 AM
4	53.46	14.92mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:46:22 AM
5	53.53	14.94mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:49:05 AM

Mean Area 54.15  
 Mean Conc. 15.11mg/L



**Sample**

Sample Name: CCB  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2277mg/L

38.39

7/5/2023 9:23:24 AM

# TOC-Control L Report

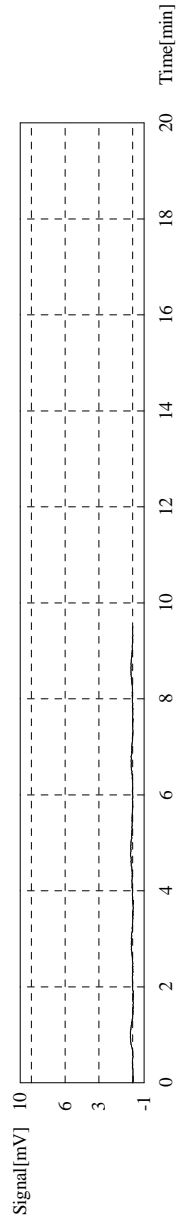
toc 3 aq 07-05-2023.tif

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8731	-0.09285mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:00:49 AM
2	0.2858	-0.2605mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:02:57 AM
3	0.5731	-0.1785mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:05:04 AM
4	0.2999	-0.22564mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:07:11 AM
5	0.4439	-0.2153mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:09:19 AM

Mean Area 0.4007  
 Mean Conc. -0.2277mg/L



39/39

7/5/2023 9:23:24 AM

# TOC-Control L Report

tc\_3 - toc\_3 aq Cal-Curves 05-05-2023.tlx

**Instr. Information**

Instrument Options  
Catalyst

TOC/ASI/IC Unit/  
Regular Sensitivity

**Cal. Curve**

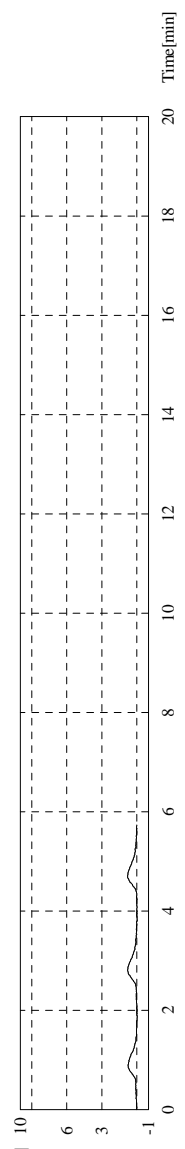
Sample Name: NPOC METHOD  
 Sample ID: Untitled  
 Cal. Curve: toc\_3 aq cal-curve 05-05-2023.2023\_05\_05\_20\_28\_18.cal  
 Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.811	50ul	1.000	*****	E	5/5/2023 8:40:19 PM
2	2.109	50ul	1.000	*****		5/5/2023 8:42:27 PM
3	2.341	50ul	1.000	*****		5/5/2023 8:44:36 PM

Acid Add: 0.000%  
 Spurge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 2.225



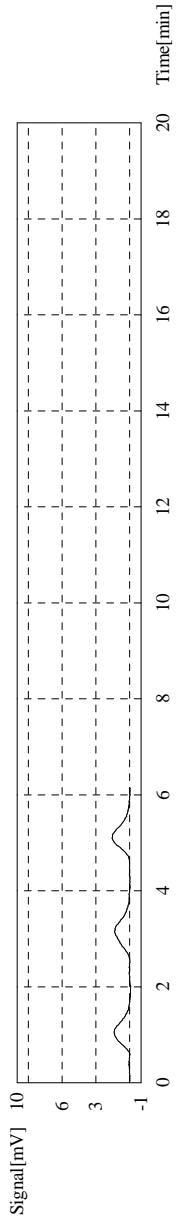
Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.748	50ul	1.000	*****	E	5/5/2023 8:56:28 PM
2	4.800	50ul	1.000	*****		5/5/2023 8:58:45 PM
3	5.018	50ul	1.000	*****		5/5/2023 9:01:03 PM

# TOC-Control L Report

tc 3 - toc 3 aq Cal-Curves 05-05-2023.tif

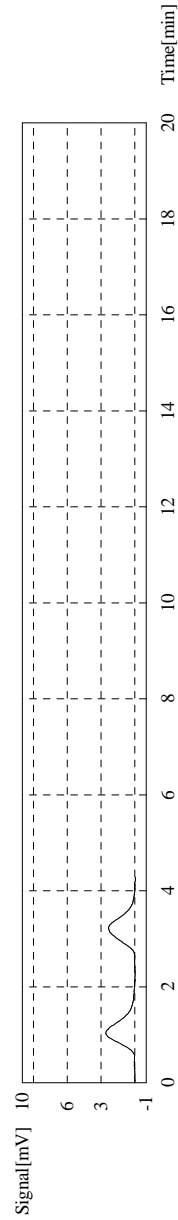
Acid Add. 0.000%  
 Sparge Gas Flow 80mL/min  
 Sp. Time 360.0sec  
 Mean Area 4.909



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.996	50ul	1.000	*****		5/5/2023 9:13:01 PM
2	8.017	50ul	1.000	*****		5/5/2023 9:15:25 PM

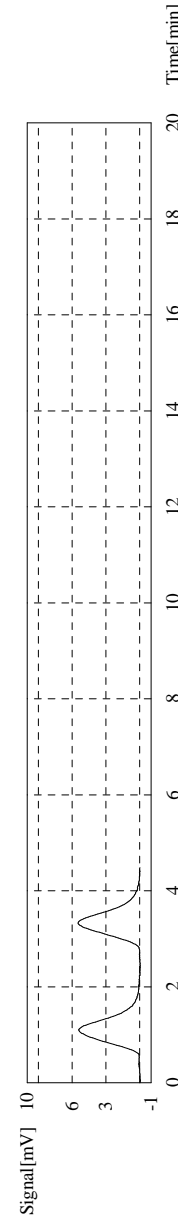
Acid Add. 0.000%  
 Sparge Gas Flow 80mL/min  
 Sp. Time 360.0sec  
 Mean Area 8.007



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.87	50ul	1.000	*****		5/5/2023 9:27:35 PM
2	18.34	50ul	1.000	*****		5/5/2023 9:30:04 PM

Acid Add. 0.000%  
 Sparge Gas Flow 80mL/min  
 Sp. Time 360.0sec  
 Mean Area 18.11



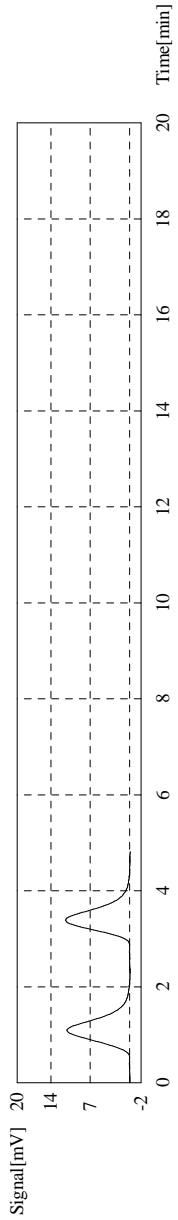
Conc: 10.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	36.36	50ul	1.000	*****		5/5/2023 9:42:21 PM
2	35.55	50ul	1.000	*****		5/5/2023 9:45:04 PM

# TOC-Control L Report

tc 3 - toc 3 aq Cal-Curves 05-05-2023.tlx

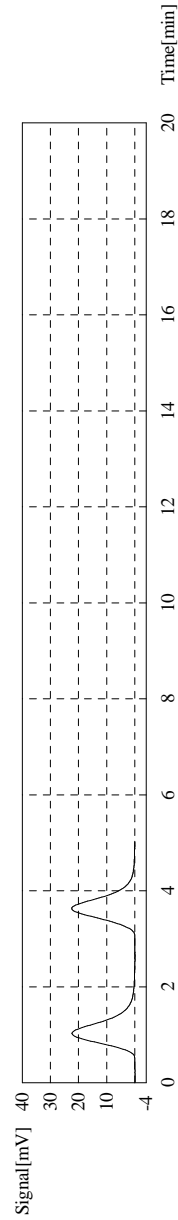
Acid Add: 0.000%  
 Sparge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 35.95



Conc: 20.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	70.39	50ul	1.000	*****		5/5/2023 9:57:32 PM
2	70.12	50ul	1.000	*****		5/5/2023 10:00:18 PM

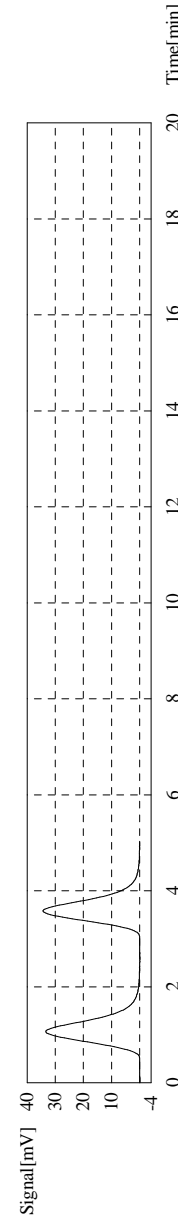
Acid Add: 0.000%  
 Sparge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 70.25



Conc: 30.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	107.6	50ul	1.000	*****		5/5/2023 10:12:45 PM
2	106.8	50ul	1.000	*****		5/5/2023 10:15:31 PM

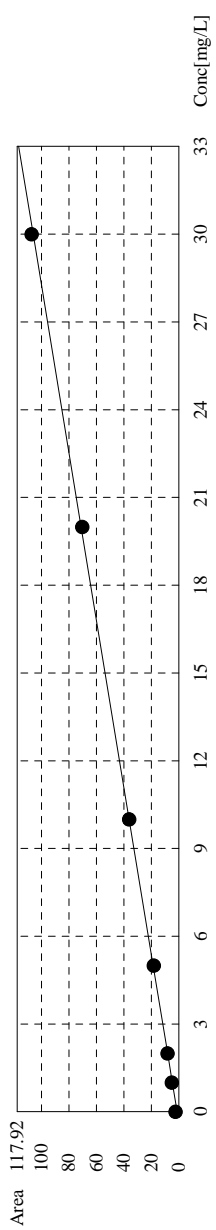
Acid Add: 0.000%  
 Sparge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 107.2



# TOC-Control L Report

tc 3 - toc 3 aq Cal-Curves 05-05-2023.tif

Slope: 3.504  
 Intercept: 1.198  
 r<sup>2</sup>: 0.9996  
 r: 0.9998  
 RSE (%): N/A  
 Zero Shift: No



**Sample**

Sample Name: ICV  
 Sample ID: Unfilled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result:

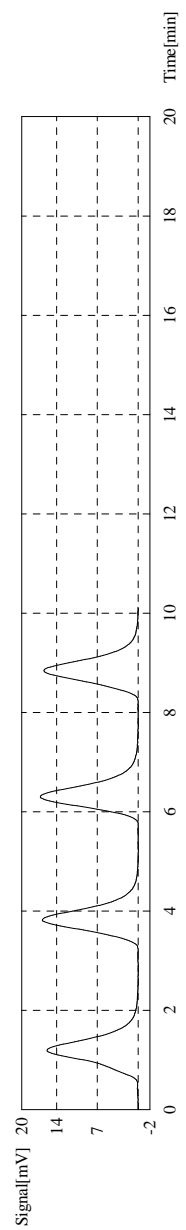
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.74mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.96	14.77mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	5/5/2023 10:28:07 PM
2	52.43	14.62mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	5/5/2023 10:30:52 PM
3	53.11	14.82mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	5/5/2023 10:33:55 PM
4	52.83	14.74mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	5/5/2023 10:36:13 PM

Mean Area: 52.83  
 Mean Conc.: 14.74mg/L





4150	soils	4143	Solution	-	2023	200000	ml	26115	50	100000	230320	2023	2023	F. N.
TOC	Cal. Std #7	TOC	1' Stock	-	Sept. 16	200000	25	MU	50	100000	230320	2023	Sept. 16	F. N.
4151	soils	4143	Solution	-	2023	200000	ml	26115	100	200000	230320	2023	2023	F. N.
TOC	ICV STD	TOC	2' Stock	-	Sept. 16	200000	10	MU	100	200000	230320	2023	Sept. 16	F. N.
4152	soils	4144	Solution	-	2023	200000	ml	26115	100	200000	230320	2023	2023	F. N.
TOC	CCV STD	TOC	1' Stock	-	Sept. 16	200000	10	MU	100	200000	230320	2023	Jun. 30	F. N.
4153	soils	4143	Solution	-	2023	200000	ml	26115	100	200000	230320	2023	2023	F. N.
TOC	CCV STD	WC	TOC	Aqua	Jun. 30	1000	3.75	UU	250	15	230320	2023	Jun. 30	F. N.
4154	15 ppm	2026	STD	Solut.	2023	1000	ml	07485	250	15	230320	2023	2023	F. N.
TOC	ICV STD	WC	TOC	Aqua	Jun. 30	1000	3.75	UU	250	15	230320	2023	Jun. 30	F. N.
4155	15 ppm	2026	STD	Solut.	2023	1000	ml	07485	250	15	230320	2023	2023	F. N.
TOC	MDL - 1	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4156	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 2	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4157	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 3	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4158	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	LOD	WC	TOC	Aqua	Jun. 30	1000	1	UU	100	10	230320	2023	Jun. 30	F. N.
4159	1 ppm	2026	STD	Solut.	2023	1000	ml	09872	100	10	230320	2023	2023	F. N.
TOC	LOQ	WC	TOC	Aqua	Jun. 30	1000	0.2	UU	100	2	230320	2023	Jun. 30	F. N.
4160	2 ppm	2026	STD	Solut.	2023	1000	ml	09872	100	2	230320	2023	2023	F. N.
TOC	MDL - 4	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4161	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 5	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4162	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 6	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4163	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 7	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4164	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 8	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4165	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 9	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4166	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	500 STD	WC	TOC	Aqua	Nov. 30	1000	60	Volum.	120	500	230320	2023	Aug. 2	F. N.
4167	500 ppm	2093	STD	Solut.	2023	1000	ml	cylinder	120	500	230320	2023	2023	F. N.
TOC	CCV STD	WC	TOC	Aqua	Nov. 30	1000	3.75	UU	250	15	230320	2023	Aug. 2	F. N.
4168	15 ppm	2093	STD	Solut.	2023	1000	ml	07485	250	15	230320	2023	2023	F. N.
TOC	ICV STD	WC	TOC	Aqua	Nov. 30	1000	3.75	UU	250	15	230320	2023	Aug. 2	F. N.
4169	15 ppm	2093	STD	Solut.	2023	1000	ml	07485	250	15	230320	2023	2023	F. N.

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

EA Engineering

Former Seneca Army Depot; NY

SGS Job Number: FC7381

Sampling Date: 06/28/23

Report to:

EA Science and Technology  
269 W Jefferson St  
Syracuse, NY 13202  
fdesantis@eaest.com; mwright@eaest.com

ATTN: Frank DeSantis

Total number of pages in report: **714**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

A handwritten signature in black ink that reads "Norm Farmer".

Norm Farmer  
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001)

DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),

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Test results relate only to samples analyzed.

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## Sample Summary

EA Engineering

**Job No:** FC7381

Former Seneca Army Depot; NY

Sample Number	Collected		Matrix Code	Type	Client Sample ID	
	Date	Time By				
FC7381-1	06/28/23	08:45 MWTR	06/29/23	AQ	Ground Water	SEAD-AL-PT-24-20230628
FC7381-2	06/28/23	08:50 MWTR	06/29/23	AQ	Ground Water	SEAD-AL-MWT-7-20230628
FC7381-3	06/28/23	10:06 MWTR	06/29/23	AQ	Ground Water	SEAD-AL-PT-22-20230628
FC7381-4	06/28/23	11:26 MWTR	06/29/23	AQ	Ground Water	SEAD-AL-MWT-29-20230628
FC7381-5	06/28/23	11:55 MWTR	06/29/23	AQ	Ground Water	SEAD-AL-MWT-26-20230628
FC7381-6	06/28/23	13:36 MWTR	06/29/23	AQ	Ground Water	SEAD-AL-MWT-27-20230628
FC7381-7	06/28/23	00:00 MWTR	06/29/23	AQ	Trip Blank Water	TB

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** EA Engineering

**Job No:** FC7381

**Site:** Former Seneca Army Depot; NY

**Report Date:** 7/13/2023 1:25:52 PM

On 06/29/2023, 6 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 1 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC7381 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### MS Volatiles By Method SW846 8260D

**Matrix:** AQ

**Batch ID:** V2O3017

Sample(s) FC7382-1MS, FC7382-1MSD were used as the QC samples indicated.

Sample(s) FC7381-2, FC7381-6 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Matrix Spike Recovery(s) for Freon 113 are outside control limits due to possible matrix interference.

Matrix Spike Recovery(s) for o-Xylene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

RPD(s) for MSD for 1,1,1-Trichloroethane, Bromochloromethane, Chloroform, Methylene Chloride are outside control limits for sample FC7382-1MSD. Probable cause is due to sample non-homogeneity.

V2O3017-MB: Sample was treated with an anti-foaming agent.

FC7381-1 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7381-1 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7381-2 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7381-2 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7381-3 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7381-3 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7381-4 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7381-4 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7381-5 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7381-5 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7381-6 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7381-6 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7381-7 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7381-7 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

**Matrix:** AQ

**Batch ID:** VI2963

Sample(s) FC7493-1MS, FC7493-1MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for Vinyl Chloride are outside control limits.

VI2963-MB: Sample was treated with an anti-foaming agent.

FC7381-7: Sample vial(s) contained significant headspace.

### GC Volatiles By Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GLL2900

Sample(s) FC7381-1DUP, FC7381-1MS were used as the QC samples indicated.

**Matrix:** AQ

**Batch ID:** GLL2901

Sample(s) FC7589-7DUP, FC7589-7MS were used as the QC samples indicated.

**Matrix:** AQ

**Batch ID:** GLL2902

Sample(s) FC7589-17MS were used as the QC samples indicated.

### General Chemistry By Method EPA 300/SW846 9056A

**Matrix:** AQ

**Batch ID:** GP38906

Sample(s) FC7373-1MSD, FC7373-1MS were used as the QC samples for Chloride, Nitrogen, Nitrate, Sulfate.

Matrix Spike Recovery(s) for Nitrogen, Nitrate, Sulfate, Chloride are outside control limits. Spike amount low relative to the sample amount and/or possible matrix interference. Refer to lab control or spike blank for recovery information.

## General Chemistry By Method EPA 300/SW846 9056A

**Matrix:** AQ

**Batch ID:** GP38906

FC7381-4 for Nitrogen, Nitrate: Dilution required based on initial conductivity reading.

FC7381-6 for Chloride: Dilution required based on initial conductivity reading.

FC7381-6 for Nitrogen, Nitrate: Dilution required based on initial conductivity reading.

FC7381-6 for Sulfate: Dilution required based on initial conductivity reading.

## General Chemistry By Method SM5310 B-14/SW9060A

**Matrix:** AQ

**Batch ID:** GP38942

Sample(s) FC7381-1MS, FC7381-1MSD were used as the QC samples for Total Organic Carbon.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc. - Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

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Kim Benham, Client Services (*Signature on File*)

# Summary of Hits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
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**FC7381-1 SEAD-AL-PT-24-20230628**

cis-1,2-Dichloroethylene	12.4	1.0	0.50	ug/l	SW846 8260D
Trichloroethylene	1.1	1.0	0.50	ug/l	SW846 8260D
Methane	0.62	0.50	0.25	ug/l	RSKSOP-147/175
Chloride	2.6	2.0	1.0	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.17	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate	23.6	2.0	1.0	mg/l	EPA 300/SW846 9056A
Total Organic Carbon	1.5 J	2.0	1.0	mg/l	SM5310 B-14/SW9060A

**FC7381-2 SEAD-AL-MWT-7-20230628**

Acetone	29.4 JB	50	40	ug/l	SW846 8260D
cis-1,2-Dichloroethylene	61.5	2.0	1.0	ug/l	SW846 8260D
Trichloroethylene	165	2.0	1.0	ug/l	SW846 8260D
Chloride	1.7 J	2.0	1.0	mg/l	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.21	0.10	0.050	mg/l	EPA 300/SW846 9056A
Sulfate	22.7	2.0	1.0	mg/l	EPA 300/SW846 9056A
Total Organic Carbon	1.2 J	2.0	1.0	mg/l	SM5310 B-14/SW9060A

**FC7381-3 SEAD-AL-PT-22-20230628**

1,2-Dichloroethane	1.8	1.0	0.50	ug/l	SW846 8260D
cis-1,2-Dichloroethylene	20.9	1.0	0.50	ug/l	SW846 8260D
trans-1,2-Dichloroethylene	1.1	1.0	0.50	ug/l	SW846 8260D
Trichloroethylene	7.0	1.0	0.50	ug/l	SW846 8260D
Vinyl Chloride	4.1	1.0	0.50	ug/l	SW846 8260D

**FC7381-4 SEAD-AL-MWT-29-20230628**

cis-1,2-Dichloroethylene	98.1	5.0	2.5	ug/l	SW846 8260D
trans-1,2-Dichloroethylene	2.1	1.0	0.50	ug/l	SW846 8260D
Trichloroethylene	0.48 J	1.0	0.50	ug/l	SW846 8260D
Vinyl Chloride	77.3	5.0	2.5	ug/l	SW846 8260D
Methane	2720	5.0	2.5	ug/l	RSKSOP-147/175
Ethane	11.3	1.0	0.50	ug/l	RSKSOP-147/175
Ethene	22.0	1.0	0.50	ug/l	RSKSOP-147/175
Chloride	35.5	20	10	mg/l	EPA 300/SW846 9056A
Sulfate	86.1	20	10	mg/l	EPA 300/SW846 9056A
Total Organic Carbon	5.7	2.0	1.0	mg/l	SM5310 B-14/SW9060A

**FC7381-5 SEAD-AL-MWT-26-20230628**

cis-1,2-Dichloroethylene	10.2	1.0	0.50	ug/l	SW846 8260D
trans-1,2-Dichloroethylene	0.38 J	1.0	0.50	ug/l	SW846 8260D



## Summary of Hits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
		3.8	1.0	0.50	ug/l	SW846 8260D
		6.0	1.0	0.50	ug/l	SW846 8260D
		1810	5.0	2.5	ug/l	RSKSOP-147/175
		6.9	2.0	1.0	ug/l	RSKSOP-147/175
		4.1	2.0	1.0	ug/l	RSKSOP-147/175
		27.9	20	10	mg/l	EPA 300/SW846 9056A
		1.7	1.0	0.50	mg/l	EPA 300/SW846 9056A
		405	20	10	mg/l	EPA 300/SW846 9056A
		4.8	2.0	1.0	mg/l	SM5310 B-14/SW9060A

**FC7381-6 SEAD-AL-MWT-27-20230628**

		11.0 JB	25	20	ug/l	SW846 8260D
		1.4	1.0	0.50	ug/l	SW846 8260D
		13700	10	5.0	ug/l	RSKSOP-147/175
		21.0	1.0	0.50	ug/l	RSKSOP-147/175
		13.4 J	20	10	mg/l	EPA 300/SW846 9056A
		7.2 J	20	10	mg/l	EPA 300/SW846 9056A
		25.5	2.0	1.0	mg/l	SM5310 B-14/SW9060A

**FC7381-7 TB**

No hits reported in this sample.

(a) Dilution required based on initial conductivity reading.

Sample Results

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Report of Analysis

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SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-PT-24-20230628		
<b>Lab Sample ID:</b>	FC7381-1	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077420.D	1	07/05/23 11:59	JW	n/a	n/a	V203017
Run #2	I757711.D	1	07/06/23 12:30	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>a</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	12.4	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-PT-24-20230628	
<b>Lab Sample ID:</b>	FC7381-1	<b>Date Sampled:</b> 06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b> n/a
<b>Project:</b>	Former Seneca Army Depot; NY	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>a</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	1.1	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>c</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	102%	102%	79-125%
2037-26-5	Toluene-D8	102%	97%	85-112%
460-00-4	4-Bromofluorobenzene	99%	98%	83-118%

(a) Result is from Run# 2

(b) Associated ICV outside DOD QSM control limits high, sample is ND.

(c) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

# Report of Analysis

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<b>Client Sample ID:</b> SEAD-AL-PT-24-20230628	
<b>Lab Sample ID:</b> FC7381-1	<b>Date Sampled:</b> 06/28/23
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/29/23
<b>Method:</b> RSKSOP-147/175	<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83537.D	1	07/07/23 10:13	SS	n/a	n/a	GLL2900
Run #2							

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2				

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	0.62	0.50	0.25	0.16	ug/l	
74-84-0	Ethane	0.50 U	1.0	0.50	0.32	ug/l	
74-85-1	Ethene	0.50 U	1.0	0.50	0.43	ug/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.1  
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# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-PT-24-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7381-1	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

## General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By Method
Chloride	2.6	2.0	1.0	0.80	mg/l	1	06/29/23 18:50	JB EPA 300/SW846 9056A
Nitrogen, Nitrate	0.17	0.10	0.050	0.040	mg/l	1	06/29/23 18:50	JB EPA 300/SW846 9056A
Sulfate	23.6	2.0	1.0	0.60	mg/l	1	06/29/23 18:50	JB EPA 300/SW846 9056A
Total Organic Carbon	1.5 J	2.0	1.0	0.54	mg/l	1	07/10/23 21:31	FN SM5310 B-14/SW9060A

LOQ = Limit of Quantitation    DL = Detection Limit    U = Indicates a result < LOD  
 LOD = Limit of Detection    B = Analyte found in associated blank    J = Indicates a result > = DL (MDL) but < LOQ

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SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-7-20230628		
<b>Lab Sample ID:</b>	FC7381-2	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077426.D	2	07/05/23 14:32	JW	n/a	n/a	V203017
Run #2	I757721.D	2	07/06/23 17:36	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	29.4	50	40	20	ug/l	JB
71-43-2	Benzene	1.0 U	2.0	1.0	0.62	ug/l	
74-97-5	Bromochloromethane	1.0 U	2.0	1.0	0.90	ug/l	
75-27-4	Bromodichloromethane	1.0 U	2.0	1.0	0.48	ug/l	
75-25-2	Bromoform	1.0 U	2.0	1.0	0.81	ug/l	
78-93-3	2-Butanone (MEK)	7.0 U	10	7.0	4.0	ug/l	
75-15-0	Carbon Disulfide	2.0 U	4.0	2.0	1.1	ug/l	
56-23-5	Carbon Tetrachloride	1.0 U	2.0	1.0	0.71	ug/l	
108-90-7	Chlorobenzene	1.0 U	2.0	1.0	0.40	ug/l	
75-00-3	Chloroethane	2.0 U <sup>a</sup>	4.0	2.0	1.3	ug/l	
67-66-3	Chloroform	1.0 U	2.0	1.0	0.60	ug/l	
110-82-7	Cyclohexane	1.0 U	2.0	1.0	0.78	ug/l	
124-48-1	Dibromochloromethane	1.0 U	2.0	1.0	0.55	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	4.0 U	10	4.0	2.1	ug/l	
106-93-4	1,2-Dibromoethane	2.0 U	4.0	2.0	0.55	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	2.0 U	4.0	2.0	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	1.0 U	2.0	1.0	0.65	ug/l	
541-73-1	1,3-Dichlorobenzene	1.0 U	2.0	1.0	0.43	ug/l	
106-46-7	1,4-Dichlorobenzene	1.0 U	2.0	1.0	0.51	ug/l	
75-34-3	1,1-Dichloroethane	1.0 U	2.0	1.0	0.68	ug/l	
107-06-2	1,2-Dichloroethane	1.0 U	2.0	1.0	0.62	ug/l	
75-35-4	1,1-Dichloroethylene	1.0 U	2.0	1.0	0.64	ug/l	
156-59-2	cis-1,2-Dichloroethylene	61.5	2.0	1.0	0.55	ug/l	
156-60-5	trans-1,2-Dichloroethylene	1.0 U	2.0	1.0	0.44	ug/l	
78-87-5	1,2-Dichloropropane	1.0 U	2.0	1.0	0.85	ug/l	
10061-01-5	cis-1,3-Dichloropropene	1.0 U	2.0	1.0	0.58	ug/l	
10061-02-6	trans-1,3-Dichloropropene	1.0 U	2.0	1.0	0.43	ug/l	
100-41-4	Ethylbenzene	1.0 U	2.0	1.0	0.71	ug/l	
76-13-1	Freon 113	1.0 U	2.0	1.0	0.96	ug/l	
591-78-6	2-Hexanone	10 U	20	10	4.0	ug/l	
98-82-8	Isopropylbenzene	1.0 U	2.0	1.0	0.44	ug/l	
79-20-9	Methyl Acetate	20 U	40	20	10	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-MWT-7-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7381-2	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	8.0 U	10	8.0	4.0	ug/l	
74-87-3	Methyl Chloride	2.0 U	4.0	2.0	1.0	ug/l	
108-87-2	Methylcyclohexane	1.0 U	2.0	1.0	0.87	ug/l	
75-09-2	Methylene Chloride	8.0 U	10	8.0	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.0 U	10	4.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.0 U	2.0	1.0	0.46	ug/l	
100-42-5	Styrene	1.0 U	2.0	1.0	0.44	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U	2.0	1.0	0.60	ug/l	
127-18-4	Tetrachloroethylene	1.0 U	2.0	1.0	0.43	ug/l	
108-88-3	Toluene	1.0 U	2.0	1.0	0.60	ug/l	
87-61-6	1,2,3-Trichlorobenzene	2.0 U	4.0	2.0	1.2	ug/l	
120-82-1	1,2,4-Trichlorobenzene	2.0 U <sup>a</sup>	4.0	2.0	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	1.0 U	2.0	1.0	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	1.0 U	2.0	1.0	0.93	ug/l	
79-01-6	Trichloroethylene	165	2.0	1.0	0.69	ug/l	
75-69-4	Trichlorofluoromethane <sup>c</sup>	2.0 U	4.0	2.0	1.0	ug/l	
75-01-4	Vinyl Chloride	1.0 U	2.0	1.0	0.82	ug/l	
	m,p-Xylene	2.0 U	4.0	2.0	0.93	ug/l	
95-47-6	o-Xylene	1.0 U	2.0	1.0	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	107%	105%	79-125%
2037-26-5	Toluene-D8	101%	98%	85-112%
460-00-4	4-Bromofluorobenzene	101%	96%	83-118%

(a) Result is from Run# 2

(b) Associated ICV outside DOD QSM control limits high, sample is ND.

(c) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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SGS North America Inc.

# Report of Analysis

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<b>Client Sample ID:</b> SEAD-AL-MWT-7-20230628	
<b>Lab Sample ID:</b> FC7381-2	<b>Date Sampled:</b> 06/28/23
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 06/29/23
<b>Method:</b> RSKSOP-147/175	<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83538.D	1	07/07/23 10:21	SS	n/a	n/a	GLL2900
Run #2							

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2				

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	0.25 U	0.50	0.25	0.16	ug/l	
74-84-0	Ethane	0.50 U	1.0	0.50	0.32	ug/l	
74-85-1	Ethene	0.50 U	1.0	0.50	0.43	ug/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-MWT-7-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7381-2	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

## General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By Method
Chloride	1.7 J	2.0	1.0	0.80	mg/l	1	06/29/23 19:53	JB EPA 300/SW846 9056A
Nitrogen, Nitrate	0.21	0.10	0.050	0.040	mg/l	1	06/29/23 19:53	JB EPA 300/SW846 9056A
Sulfate	22.7	2.0	1.0	0.60	mg/l	1	06/29/23 19:53	JB EPA 300/SW846 9056A
Total Organic Carbon	1.2 J	2.0	1.0	0.54	mg/l	1	07/10/23 22:32	FN SM5310 B-14/SW9060A

LOQ = Limit of Quantitation    DL = Detection Limit    U = Indicates a result < LOD  
 LOD = Limit of Detection    B = Analyte found in associated blank    J = Indicates a result > = DL (MDL) but < LOQ

SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-PT-22-20230628		
<b>Lab Sample ID:</b>	FC7381-3	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077421.D	1	07/05/23 12:25	JW	n/a	n/a	V203017
Run #2	I757712.D	1	07/06/23 12:54	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>a</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	1.8	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	20.9	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	1.1	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-PT-22-20230628		
<b>Lab Sample ID:</b>	FC7381-3	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>a</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	7.0	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>c</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	4.1	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	106%	103%	79-125%
2037-26-5	Toluene-D8	101%	97%	85-112%
460-00-4	4-Bromofluorobenzene	97%	99%	83-118%

(a) Result is from Run# 2

(b) Associated ICV outside DOD QSM control limits high, sample is ND.

(c) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

# Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	SEAD-AL-MWT-29-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7381-4	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077427.D	1	07/05/23 14:58	JW	n/a	n/a	V203017
Run #2	1757722.D	1	07/06/23 18:00	JW	n/a	n/a	VI2963
Run #3	1757723.D	5	07/06/23 18:24	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml
Run #3	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>a</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	98.1 <sup>c</sup>	5.0	2.5	1.4	ug/l	
156-60-5	trans-1,2-Dichloroethylene	2.1	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b> SEAD-AL-MWT-29-20230628	<b>Date Sampled:</b> 06/28/23
<b>Lab Sample ID:</b> FC7381-4	<b>Date Received:</b> 06/29/23
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260D	
<b>Project:</b> Former Seneca Army Depot; NY	

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>a</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.48	1.0	0.50	0.35	ug/l	J
75-69-4	Trichlorofluoromethane <sup>d</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	77.3 <sup>c</sup>	5.0	2.5	2.0	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
1868-53-7	Dibromofluoromethane	110%	98%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	106%	105%	106%	79-125%
2037-26-5	Toluene-D8	102%	98%	98%	85-112%
460-00-4	4-Bromofluorobenzene	95%	97%	99%	83-118%

- (a) Result is from Run# 2
- (b) Associated ICV outside DOD QSM control limits high, sample is ND.
- (c) Result is from Run# 3
- (d) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-29-20230628		
<b>Lab Sample ID:</b>	FC7381-4	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	RSKSOP-147/175	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83541.D	1	07/07/23 10:46	SS	n/a	n/a	GLL2900
Run #2	LL83564.D	10	07/10/23 11:15	SS	n/a	n/a	GLL2901

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2	38.0 ml	5.0 ml	500 ul	20 Deg. C

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	2720 <sup>a</sup>	5.0	2.5	1.6	ug/l	
74-84-0	Ethane	11.3	1.0	0.50	0.32	ug/l	
74-85-1	Ethene	22.0	1.0	0.50	0.43	ug/l	

(a) Result is from Run# 2

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.4  
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# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-MWT-29-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7381-4	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

## General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By Method
Chloride	35.5	20	10	8.0	mg/l	10	06/29/23 20:15	JB EPA 300/SW846 9056A
Nitrogen, Nitrate <sup>a</sup>	0.50 U	1.0	0.50	0.40	mg/l	10	06/29/23 20:15	JB EPA 300/SW846 9056A
Sulfate	86.1	20	10	6.0	mg/l	10	06/29/23 20:15	JB EPA 300/SW846 9056A
Total Organic Carbon	5.7	2.0	1.0	0.54	mg/l	1	07/10/23 22:55	FN SM5310 B-14/SW9060A

(a) Dilution required based on initial conductivity reading.

LOQ = Limit of Quantitation    DL = Detection Limit    U = Indicates a result < LOD  
 LOD = Limit of Detection    B = Analyte found in associated blank    J = Indicates a result > = DL (MDL) but < LOQ



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## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-26-20230628		
<b>Lab Sample ID:</b>	FC7381-5	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077422.D	1	07/05/23 12:50	JW	n/a	n/a	V203017
Run #2	I757713.D	1	07/06/23 13:18	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>a</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	10.2	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.38	1.0	0.50	0.22	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-MWT-26-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7381-5	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>a</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	3.8	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>c</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	6.0	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	107%	103%	79-125%
2037-26-5	Toluene-D8	101%	97%	85-112%
460-00-4	4-Bromofluorobenzene	99%	98%	83-118%

(a) Result is from Run# 2

(b) Associated ICV outside DOD QSM control limits high, sample is ND.

(c) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-26-20230628		
<b>Lab Sample ID:</b>	FC7381-5	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	RSKSOP-147/175	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83581.D	1	07/10/23 14:51	SS	n/a	n/a	GLL2901
Run #2	LL83598.D	10	07/11/23 10:00	SS	n/a	n/a	GLL2902

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	250 ul	20 Deg. C
Run #2	38.0 ml	5.0 ml	500 ul	20 Deg. C

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	1810 <sup>a</sup>	5.0	2.5	1.6	ug/l	
74-84-0	Ethane	6.9	2.0	1.0	0.64	ug/l	
74-85-1	Ethene	4.1	2.0	1.0	0.86	ug/l	

(a) Result is from Run# 2

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b> SEAD-AL-MWT-26-20230628	<b>Date Sampled:</b> 06/28/23
<b>Lab Sample ID:</b> FC7381-5	<b>Date Received:</b> 06/29/23
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY	

## General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By Method
Chloride	27.9	20	10	8.0	mg/l	10	06/29/23 20:35	JB EPA 300/SW846 9056A
Nitrogen, Nitrate	1.7	1.0	0.50	0.40	mg/l	10	06/29/23 20:35	JB EPA 300/SW846 9056A
Sulfate	405	20	10	6.0	mg/l	10	06/29/23 20:35	JB EPA 300/SW846 9056A
Total Organic Carbon	4.8	2.0	1.0	0.54	mg/l	1	07/10/23 23:19	FN SM5310 B-14/SW9060A

LOQ = Limit of Quantitation    DL = Detection Limit    U = Indicates a result < LOD  
 LOD = Limit of Detection    B = Analyte found in associated blank    J = Indicates a result > = DL (MDL) but < LOQ

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## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-27-20230628		
<b>Lab Sample ID:</b>	FC7381-6	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077423.D	1	07/05/23 13:16	JW	n/a	n/a	V203017
Run #2	I757716.D	1	07/06/23 15:41	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	11.0	25	20	10	ug/l	JB
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>a</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-MWT-27-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7381-6	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>a</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>c</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	1.4	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	106%	102%	79-125%
2037-26-5	Toluene-D8	103%	98%	85-112%
460-00-4	4-Bromofluorobenzene	107%	98%	83-118%

- (a) Result is from Run# 2
- (b) Associated ICV outside DOD QSM control limits high, sample is ND.
- (c) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.6  
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## Report of Analysis

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<b>Client Sample ID:</b>	SEAD-AL-MWT-27-20230628		
<b>Lab Sample ID:</b>	FC7381-6	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	RSKSOP-147/175	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83543.D	1	07/07/23 11:04	SS	n/a	n/a	GLL2900
Run #2	LL83565.D	20	07/10/23 11:26	SS	n/a	n/a	GLL2901

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2	38.0 ml	5.0 ml	500 ul	20 Deg. C

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	13700 <sup>a</sup>	10	5.0	3.2	ug/l	
74-84-0	Ethane	21.0	1.0	0.50	0.32	ug/l	
74-85-1	Ethene	0.50 U	1.0	0.50	0.43	ug/l	

(a) Result is from Run# 2

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b>	SEAD-AL-MWT-27-20230628	<b>Date Sampled:</b>	06/28/23
<b>Lab Sample ID:</b>	FC7381-6	<b>Date Received:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

## General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By Method
Chloride <sup>a</sup>	13.4 J	20	10	8.0	mg/l	10	06/29/23 20:56	JB EPA 300/SW846 9056A
Nitrogen, Nitrate <sup>a</sup>	0.50 U	1.0	0.50	0.40	mg/l	10	06/29/23 20:56	JB EPA 300/SW846 9056A
Sulfate <sup>a</sup>	7.2 J	20	10	6.0	mg/l	10	06/29/23 20:56	JB EPA 300/SW846 9056A
Total Organic Carbon	25.5	2.0	1.0	0.54	mg/l	1	07/11/23 00:24	FN SM5310 B-14/SW9060A

(a) Dilution required based on initial conductivity reading.

LOQ = Limit of Quantitation    DL = Detection Limit    U = Indicates a result < LOD  
 LOD = Limit of Detection    B = Analyte found in associated blank    J = Indicates a result > = DL (MDL) but < LOQ



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## Report of Analysis

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<b>Client Sample ID:</b>	TB		
<b>Lab Sample ID:</b>	FC7381-7	<b>Date Sampled:</b>	06/28/23
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Date Received:</b>	06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077416.D	1	07/05/23 10:17	JW	n/a	n/a	V203017
Run #2 <sup>a</sup>	I757707.D	1	07/06/23 10:55	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>b</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>c</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	TB	
<b>Lab Sample ID:</b>	FC7381-7	<b>Date Sampled:</b> 06/28/23
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Date Received:</b> 06/29/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b> n/a
<b>Project:</b>	Former Seneca Army Depot; NY	

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>b</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>d</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%	98%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	102%	79-125%
2037-26-5	Toluene-D8	105%	98%	85-112%
460-00-4	4-Bromofluorobenzene	101%	99%	83-118%

(a) Sample vial(s) contained significant headspace.

(b) Result is from Run# 2

(c) Associated ICV outside DOD QSM control limits high, sample is ND.

(d) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

SGS North America Inc.

# Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> TB	
<b>Lab Sample ID:</b> FC7381-7	<b>Date Sampled:</b> 06/28/23
<b>Matrix:</b> AQ - Trip Blank Water	<b>Date Received:</b> 06/29/23
<b>Method:</b> RSKSOP-147/175	<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83544.D	1	07/07/23 11:14	SS	n/a	n/a	GLL2900
Run #2							

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2				

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	0.25 U	0.50	0.25	0.16	ug/l	
74-84-0	Ethane	0.50 U	1.0	0.50	0.32	ug/l	
74-85-1	Ethene	0.50 U	1.0	0.50	0.43	ug/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.7  
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Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits



# SGS North America Inc - Orlando

## Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-6707  
www.sgs.com

SGS - ORLANDO JOB # :

PAGE 1 OF 1

SGS - ORLANDO Quote #

SKIFF #

**FC7381**

Client / Reporting Information			Project Information										Analytical Information										Matrix Codes																																			
Company Name: <b>EA Engineering</b>			Project Name: <b>Seneca Army Depot</b>										UOC TOC D-15 Gas Arsenic (Chl, Sol, Sol)										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid																																			
Address: <b>200 W Jefferson St</b>			Street: <b>Patrol Rd</b>																																																							
City: <b>Syracuse</b> State: <b>NY</b> Zip: <b>13202</b>			City: <b>Romulus</b> State: <b>NY</b>																																																							
Project Contact: <b>Frank Desantis</b> Email: <b>fdesantis@eaeng.com</b>			Project #																																																							
Phone #: <b>Mohr WASH</b> <b>Mwright@eaeng.com</b>			Fax #																																																							
Sampler(s) Name(s) (Printed)			Client Purchase Order #																																																							
Sampler 1: <b>MW</b> Sampler 2: <b>TR</b>																																																										
SGS Orlando Sample #	Field ID / Point of Collection	DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	KCl	NiCl	HNO3	H2SO4	HACH-ZNA	DI WATER	MESH	LAB USE ONLY																																										
																	COLLECTION	CONTAINER INFORMATION																																								
1	SEAD-AL-PT-24-20230428	6/14/23	0845	MW	GW	9																																																				
2	SEAD-AL-MWT-7-20230628		0850	TR		9																																																				
3	SEAD-AL-PT-22-20230628		1000	TR		3																																																				
4	SEAD-AL-MWT-29-20230628		1126	TR		9																																																				
5	SEAD-AL-MWT-26-20230628		1155	MW		9																																																				
6	SEAD-AL-MWT-27-20230628		1336	TR		9																																																				
7	TB				WW	4																																																				
<b>INITIAL ASSESSMENT</b>																																																										
<b>LABEL VERIFICATION</b>																																																										
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Rush T/A Data Available VIA Email or Lablink																																																										
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Sample Custody must be documented below each time samples change possession, including courier delivery.																																																										
Relinquished by Sampler/Affiliation <b>EA</b>	Date Time: <b>6/19/23 120</b>	Received By/Affiliation <b>Fed Ex</b>	Relinquished By/Affiliation <b>Fed Ex</b>	Date Time:	Received By/Affiliation <b>10/5</b>																																																					
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation <b>06/29/23</b>																																																					
5		6	7		8																																																					
Lab Use Only : Cooler Temperature (s) Celsius (corrected): <b>1.0 TR H1</b>																																																										

ORLD-SMT-0001-03-FORM-COC (4).xls Rev 031318

http://www.sgs.com/en/terms-and-conditions

### FC7381: Chain of Custody

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## SGS Sample Receipt Summary

Job Number: FC7381

Client: EA ENGINEERING

Project: SENECA ARMY DEPOT

Date / Time Received: 6/29/2023 10:15:00 AM

Delivery Method: FED EX

Airbill #'s: 6455 9821 4463

Therm ID: IR 1;

Therm CF: -0.2;

# of Coolers: 1

Cooler Temps (Raw Measured) °C: Cooler 1: (1.2);

Cooler Temps (Corrected) °C: Cooler 1: (1.0);

**Cooler Information**

Y or N

- 1. Custody Seals Present
- 2. Custody Seals Intact
- 3. Temp criteria achieved
- 4. Cooler temp verification IR Gun
- 5. Cooler media Ice (Bag)

**Trip Blank Information**

Y or N N/A

- 1. Trip Blank present / cooler
  - 2. Trip Blank listed on COC
- W or S N/A
- 3. Type Of TB Received

**Sample Information**

Y or N N/A

- 1. Sample labels present on bottles
- 2. Samples preserved properly
- 3. Sufficient volume/containers recvd for analysis:
- 4. Condition of sample Intact
- 5. Sample recvd within HT
- 6. Dates/Times/IDs on COC match Sample Label
- 7. VOCs have headspace
- 8. Bottles received for unspecified tests
- 9. Compositing instructions clear
- 10. Voa Soil Kits/Jars received past 48hrs?
- 11. % Solids Jar received?
- 12. Residual Chlorine Present?

**Misc. Information**

Number of Encores: 25-Gram \_\_\_\_\_ 5-Gram \_\_\_\_\_ Number of 5035 Field Kits: \_\_\_\_\_ Number of Lab Filtered Metals: \_\_\_\_\_  
 Test Strip Lot #s: pH 0-3 230320 pH 10-12 \_\_\_\_\_ Other: (Specify) pH 1.0 - 12.0 222221  
 Residual Chlorine Test Strip Lot #: \_\_\_\_\_

Comments

SM001  
Rev. Date 05/24/17

Technician: SHAYLAP

Date: 6/29/2023 10:15:00 A

Reviewer: \_\_\_\_\_

Date: \_\_\_\_\_

FC7381: Chain of Custody

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5

# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V2O3017	SW846 8260D						
V2O3017-BS	67-64-1	Acetone	BSP	REC	122	%	39-160
V2O3017-BS	71-43-2	Benzene	BSP	REC	103	%	79-120
V2O3017-BS	74-97-5	Bromochloromethane	BSP	REC	99	%	78-123
V2O3017-BS	75-27-4	Bromodichloromethane	BSP	REC	102	%	79-125
V2O3017-BS	75-25-2	Bromoform	BSP	REC	108	%	66-130
V2O3017-BS	78-93-3	2-Butanone (MEK)	BSP	REC	101	%	56-143
V2O3017-BS	75-15-0	Carbon Disulfide	BSP	REC	110	%	64-133
V2O3017-BS	56-23-5	Carbon Tetrachloride	BSP	REC	102	%	72-136
V2O3017-BS	108-90-7	Chlorobenzene	BSP	REC	97	%	82-118
V2O3017-BS	67-66-3	Chloroform	BSP	REC	99	%	79-124
V2O3017-BS	110-82-7	Cyclohexane	BSP	REC	91	%	71-130
V2O3017-BS	124-48-1	Dibromochloromethane	BSP	REC	110	%	74-126
V2O3017-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	104	%	62-128
V2O3017-BS	106-93-4	1,2-Dibromoethane	BSP	REC	95	%	77-121
V2O3017-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	127	%	32-152
V2O3017-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	94	%	80-119
V2O3017-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	95	%	80-119
V2O3017-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	99	%	79-118
V2O3017-BS	75-34-3	1,1-Dichloroethane	BSP	REC	95	%	77-125
V2O3017-BS	107-06-2	1,2-Dichloroethane	BSP	REC	98	%	73-128
V2O3017-BS	75-35-4	1,1-Dichloroethylene	BSP	REC	99	%	71-131
V2O3017-BS	156-59-2	cis-1,2-Dichloroethylene	BSP	REC	90	%	78-123
V2O3017-BS	156-60-5	trans-1,2-Dichloroethylene	BSP	REC	95	%	75-124
V2O3017-BS	78-87-5	1,2-Dichloropropane	BSP	REC	104	%	78-122
V2O3017-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	106	%	75-124
V2O3017-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	103	%	73-127
V2O3017-BS	100-41-4	Ethylbenzene	BSP	REC	96	%	79-121
V2O3017-BS	76-13-1	Freon 113	BSP	REC	106	%	70-136
V2O3017-BS	591-78-6	2-Hexanone	BSP	REC	110	%	57-139
V2O3017-BS	98-82-8	Isopropylbenzene	BSP	REC	87	%	72-131
V2O3017-BS	79-20-9	Methyl Acetate	BSP	REC	93	%	56-136
V2O3017-BS	74-83-9	Methyl Bromide	BSP	REC	99	%	53-141
V2O3017-BS	74-87-3	Methyl Chloride	BSP	REC	109	%	50-139
V2O3017-BS	108-87-2	Methylcyclohexane	BSP	REC	91	%	72-132
V2O3017-BS	75-09-2	Methylene Chloride	BSP	REC	104	%	74-124
V2O3017-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	108	%	67-130
V2O3017-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	100	%	71-124
V2O3017-BS	100-42-5	Styrene	BSP	REC	96	%	78-123
V2O3017-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	104	%	71-121
V2O3017-BS	127-18-4	Tetrachloroethylene	BSP	REC	98	%	74-129
V2O3017-BS	108-88-3	Toluene	BSP	REC	100	%	80-121
V2O3017-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	90	%	69-129

\* Sample used for QC is not from job FC7381

5.2  
5

# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V203017-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	98	%	74-131
V203017-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	103	%	80-119
V203017-BS	79-01-6	Trichloroethylene	BSP	REC	96	%	79-123
V203017-BS	75-69-4	Trichlorofluoromethane	BSP	REC	124	%	65-141
V203017-BS	75-01-4	Vinyl Chloride	BSP	REC	116	%	58-137
V203017-BS		m,p-Xylene	BSP	REC	98	%	80-121
V203017-BS	95-47-6	o-Xylene	BSP	REC	88	%	78-122
V203017-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	100	%	80-119
V203017-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	104	%	81-118
V203017-BS	2037-26-5	Toluene-D8	BSP	SURR	100	%	89-112
V203017-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	97	%	85-114
FC7382-1MS*	67-64-1	Acetone	MS	REC	92	%	39-160
FC7382-1MS*	71-43-2	Benzene	MS	REC	116	%	79-120
FC7382-1MS*	74-97-5	Bromochloromethane	MS	REC	109	%	78-123
FC7382-1MS*	75-27-4	Bromodichloromethane	MS	REC	104	%	79-125
FC7382-1MS*	75-25-2	Bromoform	MS	REC	97	%	66-130
FC7382-1MS*	78-93-3	2-Butanone (MEK)	MS	REC	94	%	56-143
FC7382-1MS*	75-15-0	Carbon Disulfide	MS	REC	133	%	64-133
FC7382-1MS*	56-23-5	Carbon Tetrachloride	MS	REC	125	%	72-136
FC7382-1MS*	108-90-7	Chlorobenzene	MS	REC	102	%	82-118
FC7382-1MS*	67-66-3	Chloroform	MS	REC	112	%	79-124
FC7382-1MS*	110-82-7	Cyclohexane	MS	REC	117	%	71-130
FC7382-1MS*	124-48-1	Dibromochloromethane	MS	REC	110	%	74-126
FC7382-1MS*	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	98	%	62-128
FC7382-1MS*	106-93-4	1,2-Dibromoethane	MS	REC	95	%	77-121
FC7382-1MS*	75-71-8	Dichlorodifluoromethane	MS	REC	152	%	32-152
FC7382-1MS*	95-50-1	1,2-Dichlorobenzene	MS	REC	95	%	80-119
FC7382-1MS*	541-73-1	1,3-Dichlorobenzene	MS	REC	97	%	80-119
FC7382-1MS*	106-46-7	1,4-Dichlorobenzene	MS	REC	103	%	79-118
FC7382-1MS*	75-34-3	1,1-Dichloroethane	MS	REC	113	%	77-125
FC7382-1MS*	107-06-2	1,2-Dichloroethane	MS	REC	102	%	73-128
FC7382-1MS*	75-35-4	1,1-Dichloroethylene	MS	REC	114	%	71-131
FC7382-1MS*	156-59-2	cis-1,2-Dichloroethylene	MS	REC	100	%	78-123
FC7382-1MS*	156-60-5	trans-1,2-Dichloroethylene	MS	REC	112	%	75-124
FC7382-1MS*	78-87-5	1,2-Dichloropropane	MS	REC	112	%	78-122
FC7382-1MS*	10061-01-5	cis-1,3-Dichloropropene	MS	REC	97	%	75-124
FC7382-1MS*	10061-02-6	trans-1,3-Dichloropropene	MS	REC	101	%	73-127
FC7382-1MS*	100-41-4	Ethylbenzene	MS	REC	104	%	79-121
FC7382-1MS*	76-13-1	Freon 113	MS	REC	139	%	70-136
FC7382-1MS*	591-78-6	2-Hexanone	MS	REC	109	%	57-139
FC7382-1MS*	98-82-8	Isopropylbenzene	MS	REC	90	%	72-131
FC7382-1MS*	79-20-9	Methyl Acetate	MS	REC	86	%	56-136
FC7382-1MS*	74-83-9	Methyl Bromide	MS	REC	78	%	53-141
FC7382-1MS*	74-87-3	Methyl Chloride	MS	REC	126	%	50-139
FC7382-1MS*	108-87-2	Methylcyclohexane	MS	REC	110	%	72-132

\* Sample used for QC is not from job FC7381

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-1MS*	75-09-2	Methylene Chloride	MS	REC	114	%	74-124
FC7382-1MS*	108-10-1	4-Methyl-2-pentanone (MIBK)	MS	REC	104	%	67-130
FC7382-1MS*	1634-04-4	Methyl Tert Butyl Ether	MS	REC	100	%	71-124
FC7382-1MS*	100-42-5	Styrene	MS	REC	96	%	78-123
FC7382-1MS*	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	104	%	71-121
FC7382-1MS*	127-18-4	Tetrachloroethylene	MS	REC	111	%	74-129
FC7382-1MS*	108-88-3	Toluene	MS	REC	100	%	80-121
FC7382-1MS*	87-61-6	1,2,3-Trichlorobenzene	MS	REC	92	%	69-129
FC7382-1MS*	71-55-6	1,1,1-Trichloroethane	MS	REC	119	%	74-131
FC7382-1MS*	79-00-5	1,1,2-Trichloroethane	MS	REC	108	%	80-119
FC7382-1MS*	79-01-6	Trichloroethylene	MS	REC	107	%	79-123
FC7382-1MS*	75-69-4	Trichlorofluoromethane	MS	REC	143	%	65-141
FC7382-1MS*	75-01-4	Vinyl Chloride	MS	REC	135	%	58-137
FC7382-1MS*		m,p-Xylene	MS	REC	102	%	80-121
FC7382-1MS*	95-47-6	o-Xylene	MS	REC	77 <sup>a</sup>	%	78-122
FC7382-1MS*	1868-53-7	Dibromofluoromethane	MS	SURR	107	%	80-119
FC7382-1MS*	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	103	%	81-118
FC7382-1MS*	2037-26-5	Toluene-D8	MS	SURR	92	%	89-112
FC7382-1MS*	460-00-4	4-Bromofluorobenzene	MS	SURR	95	%	85-114
FC7382-1MSD*	67-64-1	Acetone	MSD	REC	86	%	39-160
FC7382-1MSD*	67-64-1	Acetone	MSD	RPD	6	%	20
FC7382-1MSD*	71-43-2	Benzene	MSD	REC	110	%	79-120
FC7382-1MSD*	71-43-2	Benzene	MSD	RPD	4	%	20
FC7382-1MSD*	74-97-5	Bromochloromethane	MSD	REC	92	%	78-123
FC7382-1MSD*	74-97-5	Bromochloromethane	MSD	RPD	17	%	20
FC7382-1MSD*	75-27-4	Bromodichloromethane	MSD	REC	97	%	79-125
FC7382-1MSD*	75-27-4	Bromodichloromethane	MSD	RPD	7	%	20
FC7382-1MSD*	75-25-2	Bromoform	MSD	REC	95	%	66-130
FC7382-1MSD*	75-25-2	Bromoform	MSD	RPD	2	%	20
FC7382-1MSD*	78-93-3	2-Butanone (MEK)	MSD	REC	86	%	56-143
FC7382-1MSD*	78-93-3	2-Butanone (MEK)	MSD	RPD	10	%	20
FC7382-1MSD*	75-15-0	Carbon Disulfide	MSD	REC	113	%	64-133
FC7382-1MSD*	75-15-0	Carbon Disulfide	MSD	RPD	16	%	20
FC7382-1MSD*	56-23-5	Carbon Tetrachloride	MSD	REC	104	%	72-136
FC7382-1MSD*	56-23-5	Carbon Tetrachloride	MSD	RPD	18	%	20
FC7382-1MSD*	108-90-7	Chlorobenzene	MSD	REC	96	%	82-118
FC7382-1MSD*	108-90-7	Chlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD*	67-66-3	Chloroform	MSD	REC	95	%	79-124
FC7382-1MSD*	67-66-3	Chloroform	MSD	RPD	17	%	20
FC7382-1MSD*	110-82-7	Cyclohexane	MSD	REC	100	%	71-130
FC7382-1MSD*	110-82-7	Cyclohexane	MSD	RPD	15	%	20
FC7382-1MSD*	124-48-1	Dibromochloromethane	MSD	REC	96	%	74-126
FC7382-1MSD*	124-48-1	Dibromochloromethane	MSD	RPD	14	%	20
FC7382-1MSD*	96-12-8	1,2-Dibromo-3-chloropropane	MSD	REC	97	%	62-128
FC7382-1MSD*	96-12-8	1,2-Dibromo-3-chloropropane	MSD	RPD	1	%	20

\* Sample used for QC is not from job FC7381

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-1MSD*	106-93-4	1,2-Dibromoethane	MSD	REC	88	%	77-121
FC7382-1MSD*	106-93-4	1,2-Dibromoethane	MSD	RPD	7	%	20
FC7382-1MSD*	75-71-8	Dichlorodifluoromethane	MSD	REC	146	%	32-152
FC7382-1MSD*	75-71-8	Dichlorodifluoromethane	MSD	RPD	4	%	20
FC7382-1MSD*	95-50-1	1,2-Dichlorobenzene	MSD	REC	90	%	80-119
FC7382-1MSD*	95-50-1	1,2-Dichlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD*	541-73-1	1,3-Dichlorobenzene	MSD	REC	91	%	80-119
FC7382-1MSD*	541-73-1	1,3-Dichlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD*	106-46-7	1,4-Dichlorobenzene	MSD	REC	96	%	79-118
FC7382-1MSD*	106-46-7	1,4-Dichlorobenzene	MSD	RPD	7	%	20
FC7382-1MSD*	75-34-3	1,1-Dichloroethane	MSD	REC	98	%	77-125
FC7382-1MSD*	75-34-3	1,1-Dichloroethane	MSD	RPD	14	%	20
FC7382-1MSD*	107-06-2	1,2-Dichloroethane	MSD	REC	98	%	73-128
FC7382-1MSD*	107-06-2	1,2-Dichloroethane	MSD	RPD	4	%	20
FC7382-1MSD*	75-35-4	1,1-Dichloroethylene	MSD	REC	98	%	71-131
FC7382-1MSD*	75-35-4	1,1-Dichloroethylene	MSD	RPD	15	%	20
FC7382-1MSD*	156-59-2	cis-1,2-Dichloroethylene	MSD	REC	83	%	78-123
FC7382-1MSD*	156-59-2	cis-1,2-Dichloroethylene	MSD	RPD	15	%	20
FC7382-1MSD*	156-60-5	trans-1,2-Dichloroethylene	MSD	REC	97	%	75-124
FC7382-1MSD*	156-60-5	trans-1,2-Dichloroethylene	MSD	RPD	15	%	20
FC7382-1MSD*	78-87-5	1,2-Dichloropropane	MSD	REC	105	%	78-122
FC7382-1MSD*	78-87-5	1,2-Dichloropropane	MSD	RPD	7	%	20
FC7382-1MSD*	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	89	%	75-124
FC7382-1MSD*	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	9	%	20
FC7382-1MSD*	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	93	%	73-127
FC7382-1MSD*	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	9	%	20
FC7382-1MSD*	100-41-4	Ethylbenzene	MSD	REC	101	%	79-121
FC7382-1MSD*	100-41-4	Ethylbenzene	MSD	RPD	3	%	20
FC7382-1MSD*	76-13-1	Freon 113	MSD	REC	117	%	70-136
FC7382-1MSD*	76-13-1	Freon 113	MSD	RPD	18	%	20
FC7382-1MSD*	591-78-6	2-Hexanone	MSD	REC	111	%	57-139
FC7382-1MSD*	591-78-6	2-Hexanone	MSD	RPD	2	%	20
FC7382-1MSD*	98-82-8	Isopropylbenzene	MSD	REC	92	%	72-131
FC7382-1MSD*	98-82-8	Isopropylbenzene	MSD	RPD	3	%	20
FC7382-1MSD*	79-20-9	Methyl Acetate	MSD	REC	75	%	56-136
FC7382-1MSD*	79-20-9	Methyl Acetate	MSD	RPD	14	%	20
FC7382-1MSD*	74-83-9	Methyl Bromide	MSD	REC	87	%	53-141
FC7382-1MSD*	74-83-9	Methyl Bromide	MSD	RPD	11	%	20
FC7382-1MSD*	74-87-3	Methyl Chloride	MSD	REC	122	%	50-139
FC7382-1MSD*	74-87-3	Methyl Chloride	MSD	RPD	3	%	20
FC7382-1MSD*	108-87-2	Methylcyclohexane	MSD	REC	108	%	72-132
FC7382-1MSD*	108-87-2	Methylcyclohexane	MSD	RPD	2	%	20
FC7382-1MSD*	75-09-2	Methylene Chloride	MSD	REC	96	%	74-124
FC7382-1MSD*	75-09-2	Methylene Chloride	MSD	RPD	18	%	20
FC7382-1MSD*	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	REC	101	%	67-130

\* Sample used for QC is not from job FC7381

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-1MSD*	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	RPD	3	%	20
FC7382-1MSD*	1634-04-4	Methyl Tert Butyl Ether	MSD	REC	88	%	71-124
FC7382-1MSD*	1634-04-4	Methyl Tert Butyl Ether	MSD	RPD	13	%	20
FC7382-1MSD*	100-42-5	Styrene	MSD	REC	96	%	78-123
FC7382-1MSD*	100-42-5	Styrene	MSD	RPD	0	%	20
FC7382-1MSD*	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	97	%	71-121
FC7382-1MSD*	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	7	%	20
FC7382-1MSD*	127-18-4	Tetrachloroethylene	MSD	REC	98	%	74-129
FC7382-1MSD*	127-18-4	Tetrachloroethylene	MSD	RPD	12	%	20
FC7382-1MSD*	108-88-3	Toluene	MSD	REC	98	%	80-121
FC7382-1MSD*	108-88-3	Toluene	MSD	RPD	2	%	20
FC7382-1MSD*	87-61-6	1,2,3-Trichlorobenzene	MSD	REC	86	%	69-129
FC7382-1MSD*	87-61-6	1,2,3-Trichlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD*	71-55-6	1,1,1-Trichloroethane	MSD	REC	100	%	74-131
FC7382-1MSD*	71-55-6	1,1,1-Trichloroethane	MSD	RPD	18	%	20
FC7382-1MSD*	79-00-5	1,1,2-Trichloroethane	MSD	REC	95	%	80-119
FC7382-1MSD*	79-00-5	1,1,2-Trichloroethane	MSD	RPD	13	%	20
FC7382-1MSD*	79-01-6	Trichloroethylene	MSD	REC	103	%	79-123
FC7382-1MSD*	79-01-6	Trichloroethylene	MSD	RPD	3	%	20
FC7382-1MSD*	75-69-4	Trichlorofluoromethane	MSD	REC	137	%	65-141
FC7382-1MSD*	75-69-4	Trichlorofluoromethane	MSD	RPD	4	%	20
FC7382-1MSD*	75-01-4	Vinyl Chloride	MSD	REC	132	%	58-137
FC7382-1MSD*	75-01-4	Vinyl Chloride	MSD	RPD	2	%	20
FC7382-1MSD*		m,p-Xylene	MSD	REC	118	%	80-121
FC7382-1MSD*		m,p-Xylene	MSD	RPD	7	%	20
FC7382-1MSD*	95-47-6	o-Xylene	MSD	REC	121	%	78-122
FC7382-1MSD*	95-47-6	o-Xylene	MSD	RPD	9	%	20
FC7382-1MSD*	1868-53-7	Dibromofluoromethane	MSD	SURR	92	%	80-119
FC7382-1MSD*	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	107	%	81-118
FC7382-1MSD*	2037-26-5	Toluene-D8	MSD	SURR	96	%	89-112
FC7382-1MSD*	460-00-4	4-Bromofluorobenzene	MSD	SURR	93	%	85-114
V203017-MB	1868-53-7	Dibromofluoromethane	MB	SURR	106	%	80-119
V203017-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	102	%	81-118
V203017-MB	2037-26-5	Toluene-D8	MB	SURR	103	%	89-112
V203017-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	110	%	85-114
FC7381-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	107	%	80-119
FC7381-1	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	81-118
FC7381-1	2037-26-5	Toluene-D8	SAMP	SURR	102	%	89-112
FC7381-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
FC7381-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	113	%	80-119
FC7381-2	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	107	%	81-118
FC7381-2	2037-26-5	Toluene-D8	SAMP	SURR	101	%	89-112
FC7381-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	101	%	85-114
FC7381-3	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	80-119
FC7381-3	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	106	%	81-118

\* Sample used for QC is not from job FC7381

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7381-3	2037-26-5	Toluene-D8	SAMP	SURR	101	%	89-112
FC7381-3	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	85-114
FC7381-4	1868-53-7	Dibromofluoromethane	SAMP	SURR	110	%	80-119
FC7381-4	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	106	%	81-118
FC7381-4	2037-26-5	Toluene-D8	SAMP	SURR	102	%	89-112
FC7381-4	460-00-4	4-Bromofluorobenzene	SAMP	SURR	95	%	85-114
FC7381-5	1868-53-7	Dibromofluoromethane	SAMP	SURR	110	%	80-119
FC7381-5	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	107	%	81-118
FC7381-5	2037-26-5	Toluene-D8	SAMP	SURR	101	%	89-112
FC7381-5	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
FC7381-6	1868-53-7	Dibromofluoromethane	SAMP	SURR	111	%	80-119
FC7381-6	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	106	%	81-118
FC7381-6	2037-26-5	Toluene-D8	SAMP	SURR	103	%	89-112
FC7381-6	460-00-4	4-Bromofluorobenzene	SAMP	SURR	107	%	85-114
FC7381-7	1868-53-7	Dibromofluoromethane	SAMP	SURR	108	%	80-119
FC7381-7	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	81-118
FC7381-7	2037-26-5	Toluene-D8	SAMP	SURR	105	%	89-112
FC7381-7	460-00-4	4-Bromofluorobenzene	SAMP	SURR	101	%	85-114
<b>VI2963 SW846 8260D</b>							
VI2963-BS	75-00-3	Chloroethane	BSP	REC	87	%	60-138
VI2963-BS	156-59-2	cis-1,2-Dichloroethylene	BSP	REC	90	%	78-123
VI2963-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	93	%	69-130
VI2963-BS	75-01-4	Vinyl Chloride	BSP	REC	67	%	58-137
VI2963-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	101	%	80-119
VI2963-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	105	%	81-118
VI2963-BS	2037-26-5	Toluene-D8	BSP	SURR	102	%	89-112
VI2963-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	100	%	85-114
FC7493-1MS*	75-00-3	Chloroethane	MS	REC	144	%	60-138
FC7493-1MS*	156-59-2	cis-1,2-Dichloroethylene	MS	REC	100	%	78-123
FC7493-1MS*	120-82-1	1,2,4-Trichlorobenzene	MS	REC	93	%	69-130
FC7493-1MS*	75-01-4	Vinyl Chloride	MS	REC	111	%	58-137
FC7493-1MS*	1868-53-7	Dibromofluoromethane	MS	SURR	101	%	80-119
FC7493-1MS*	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	107	%	81-118
FC7493-1MS*	2037-26-5	Toluene-D8	MS	SURR	103	%	89-112
FC7493-1MS*	460-00-4	4-Bromofluorobenzene	MS	SURR	98	%	85-114
FC7493-1MSD*	75-00-3	Chloroethane	MSD	REC	127	%	60-138
FC7493-1MSD*	75-00-3	Chloroethane	MSD	RPD	12	%	20
FC7493-1MSD*	156-59-2	cis-1,2-Dichloroethylene	MSD	REC	90	%	78-123
FC7493-1MSD*	156-59-2	cis-1,2-Dichloroethylene	MSD	RPD	10	%	20
FC7493-1MSD*	120-82-1	1,2,4-Trichlorobenzene	MSD	REC	86	%	69-130
FC7493-1MSD*	120-82-1	1,2,4-Trichlorobenzene	MSD	RPD	7	%	20
FC7493-1MSD*	75-01-4	Vinyl Chloride	MSD	REC	99	%	58-137
FC7493-1MSD*	75-01-4	Vinyl Chloride	MSD	RPD	11	%	20

\* Sample used for QC is not from job FC7381

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7493-1MSD*	1868-53-7	Dibromofluoromethane	MSD	SURR	101	%	80-119
FC7493-1MSD*	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	107	%	81-118
FC7493-1MSD*	2037-26-5	Toluene-D8	MSD	SURR	102	%	89-112
FC7493-1MSD*	460-00-4	4-Bromofluorobenzene	MSD	SURR	100	%	85-114
VI2963-MB	1868-53-7	Dibromofluoromethane	MB	SURR	97	%	80-119
VI2963-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	100	%	81-118
VI2963-MB	2037-26-5	Toluene-D8	MB	SURR	97	%	89-112
VI2963-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	99	%	85-114
FC7381-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
FC7381-1	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	81-118
FC7381-1	2037-26-5	Toluene-D8	SAMP	SURR	97	%	89-112
FC7381-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	98	%	85-114
FC7381-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	97	%	80-119
FC7381-2	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	105	%	81-118
FC7381-2	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7381-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	96	%	85-114
FC7381-3	1868-53-7	Dibromofluoromethane	SAMP	SURR	98	%	80-119
FC7381-3	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	81-118
FC7381-3	2037-26-5	Toluene-D8	SAMP	SURR	97	%	89-112
FC7381-3	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
FC7381-4	1868-53-7	Dibromofluoromethane	SAMP	SURR	98	%	80-119
FC7381-4	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
FC7381-4	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	105	%	81-118
FC7381-4	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	106	%	81-118
FC7381-4	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7381-4	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7381-4	460-00-4	4-Bromofluorobenzene	SAMP	SURR	97	%	85-114
FC7381-4	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
FC7381-5	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
FC7381-5	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	81-118
FC7381-5	2037-26-5	Toluene-D8	SAMP	SURR	97	%	89-112
FC7381-5	460-00-4	4-Bromofluorobenzene	SAMP	SURR	98	%	85-114
FC7381-6	1868-53-7	Dibromofluoromethane	SAMP	SURR	97	%	80-119
FC7381-6	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	81-118
FC7381-6	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7381-6	460-00-4	4-Bromofluorobenzene	SAMP	SURR	98	%	85-114
FC7381-7	1868-53-7	Dibromofluoromethane	SAMP	SURR	98	%	80-119
FC7381-7	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	81-118
FC7381-7	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
FC7381-7	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114
<b>GLL2900 RSKSOP-147/175</b>							
GLL2900-BS	74-82-8	Methane	BSP	REC	88	%	73-125
GLL2900-BS	74-84-0	Ethane	BSP	REC	84	%	74-131

\* Sample used for QC is not from job FC7381

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
GLL2900-BS	74-85-1	Ethene	BSP	REC	84	%	72-133
GLL2900-BSD	74-82-8	Methane	BSD	REC	82	%	73-125
GLL2900-BSD	74-82-8	Methane	BSD	RPD	7	%	30
GLL2900-BSD	74-84-0	Ethane	BSD	REC	80	%	74-131
GLL2900-BSD	74-84-0	Ethane	BSD	RPD	6	%	30
GLL2900-BSD	74-85-1	Ethene	BSD	REC	79	%	72-133
GLL2900-BSD	74-85-1	Ethene	BSD	RPD	7	%	30
FC7381-1MS	74-82-8	Methane	MS	REC	110	%	73-125
FC7381-1MS	74-84-0	Ethane	MS	REC	107	%	74-131
FC7381-1MS	74-85-1	Ethene	MS	REC	106	%	72-133
FC7381-1DUP	74-82-8	Methane	DUP	RPD	12	%	30
FC7381-1DUP	74-84-0	Ethane	DUP	RPD	0	%	30
FC7381-1DUP	74-85-1	Ethene	DUP	RPD	0	%	30
<b>GLL2901 RSKSOP-147/175</b>							
GLL2901-BS	74-82-8	Methane	BSP	REC	97	%	73-125
GLL2901-BS	74-84-0	Ethane	BSP	REC	85	%	74-131
GLL2901-BS	74-85-1	Ethene	BSP	REC	81	%	72-133
GLL2901-BSD	74-82-8	Methane	BSD	REC	109	%	73-125
GLL2901-BSD	74-82-8	Methane	BSD	RPD	12	%	30
GLL2901-BSD	74-84-0	Ethane	BSD	REC	95	%	74-131
GLL2901-BSD	74-84-0	Ethane	BSD	RPD	10	%	30
GLL2901-BSD	74-85-1	Ethene	BSD	REC	92	%	72-133
GLL2901-BSD	74-85-1	Ethene	BSD	RPD	13	%	30
FC7589-7MS*	74-82-8	Methane	MS	REC	109	%	73-125
FC7589-7MS*	74-84-0	Ethane	MS	REC	103	%	74-131
FC7589-7MS*	74-85-1	Ethene	MS	REC	102	%	72-133
FC7589-7DUP*	74-82-8	Methane	DUP	RPD	0	%	30
FC7589-7DUP*	74-84-0	Ethane	DUP	RPD	0	%	30
FC7589-7DUP*	74-85-1	Ethene	DUP	RPD	0	%	30
<b>GLL2902 RSKSOP-147/175</b>							
GLL2902-BS	74-82-8	Methane	BSP	REC	115	%	73-125
GLL2902-BSD	74-82-8	Methane	BSD	REC	109	%	73-125
GLL2902-BSD	74-82-8	Methane	BSD	RPD	5	%	30
FC7589-17MS*	74-82-8	Methane	MS	REC	106	%	73-125
<b>GP38906 EPA 300/SW846 9056A</b>							
GP38906-B1	16887-00-6	Chloride	BSP	REC	98.2	%	87-111
GP38906-B1	14797-55-8	Nitrogen, Nitrate	BSP	REC	106	%	88-111
GP38906-B1	14808-79-8	Sulfate	BSP	REC	101	%	87-112
GP38906-S1*	16887-00-6	Chloride	MS	REC	50 <sup>b</sup>	%	87-111

\* Sample used for QC is not from job FC7381

5.2  
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## QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7381  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/28/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
GP38906-S1*	14797-55-8	Nitrogen, Nitrate	MS	REC	20 <sup>c</sup>	%	88-111
GP38906-S1*	14808-79-8	Sulfate	MS	REC	-320 <sup>c</sup>	%	87-112
GP38906-S2*	16887-00-6	Chloride	MSD	RPD	1.3	%	15
GP38906-S2*	16887-00-6	Chloride	MSD	REC	54	%	87-111
GP38906-S2*	14797-55-8	Nitrogen, Nitrate	MSD	RPD	1.3	%	15
GP38906-S2*	14797-55-8	Nitrogen, Nitrate	MSD	REC	28 <sup>c</sup>	%	88-111
GP38906-S2*	14808-79-8	Sulfate	MSD	RPD	.7	%	15
GP38906-S2*	14808-79-8	Sulfate	MSD	REC	-300 <sup>c</sup>	%	87-112

- (a) Outside control limits due to high level in sample relative to spike amount.
- (b) Spike recovery indicates possible matrix interference.
- (c) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

\* Sample used for QC is not from job FC7381

## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports



**Method Blank Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-MB <sup>a</sup>	2077415.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7381-1, FC7381-2, FC7381-3, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	26.4	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.39	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
76-13-1	Freon 113	ND	1.0	0.48	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	5.0	2.0	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.44	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	

## Method Blank Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-MB <sup>a</sup>	2077415.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7381-1, FC7381-2, FC7381-3, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.23	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
	m,p-Xylene	ND	2.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	106% 83-118%
17060-07-0	1,2-Dichloroethane-D4	102% 79-125%
2037-26-5	Toluene-D8	103% 85-112%
460-00-4	4-Bromofluorobenzene	110% 83-118%

(a) Sample was treated with an anti-foaming agent.

**Method Blank Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2963-MB <sup>a</sup>	I757706.D	1	07/06/23	JW	n/a	n/a	VI2963

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7381-1, FC7381-2, FC7381-3, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	Result	RL	MDL	Units	Q
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	100%	79-125%
2037-26-5	Toluene-D8	97%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

(a) Sample was treated with an anti-foaming agent.

**Blank Spike Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-BS	2077413.D	1	07/05/23	JW	n/a	n/a	V2O3017

**The QC reported here applies to the following samples:**

**Method:** SW846 8260D

FC7381-1, FC7381-2, FC7381-3, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	153	122	50-147
71-43-2	Benzene	25	25.7	103	81-122
74-97-5	Bromochloromethane	25	24.8	99	76-123
75-27-4	Bromodichloromethane	25	25.4	102	79-123
75-25-2	Bromoform	25	26.9	108	66-123
78-93-3	2-Butanone (MEK)	125	126	101	56-143
75-15-0	Carbon Disulfide	25	27.6	110	66-148
56-23-5	Carbon Tetrachloride	25	25.6	102	76-136
108-90-7	Chlorobenzene	25	24.3	97	82-124
67-66-3	Chloroform	25	24.7	99	80-124
110-82-7	Cyclohexane	25	22.7	91	73-138
124-48-1	Dibromochloromethane	25	27.5	110	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	25.9	104	64-123
106-93-4	1,2-Dibromoethane	25	23.8	95	75-120
75-71-8	Dichlorodifluoromethane	25	31.7	127	42-167
95-50-1	1,2-Dichlorobenzene	25	23.6	94	82-124
541-73-1	1,3-Dichlorobenzene	25	23.7	95	84-125
106-46-7	1,4-Dichlorobenzene	25	24.8	99	78-120
75-34-3	1,1-Dichloroethane	25	23.7	95	81-122
107-06-2	1,2-Dichloroethane	25	24.4	98	75-125
75-35-4	1,1-Dichloroethylene	25	24.8	99	78-137
156-59-2	cis-1,2-Dichloroethylene	25	22.6	90	78-120
156-60-5	trans-1,2-Dichloroethylene	25	23.8	95	76-127
78-87-5	1,2-Dichloropropane	25	26.0	104	76-124
10061-01-5	cis-1,3-Dichloropropene	25	26.5	106	75-118
10061-02-6	trans-1,3-Dichloropropene	25	25.8	103	80-120
100-41-4	Ethylbenzene	25	24.1	96	81-121
76-13-1	Freon 113	25	26.4	106	72-134
591-78-6	2-Hexanone	125	137	110	61-129
98-82-8	Isopropylbenzene	25	21.8	87	83-132
79-20-9	Methyl Acetate	125	116	93	65-126
74-83-9	Methyl Bromide	25	24.7	99	59-143
74-87-3	Methyl Chloride	25	27.3	109	50-159
108-87-2	Methylcyclohexane	25	22.8	91	76-129
75-09-2	Methylene Chloride	25	26.1	104	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	135	108	66-122

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-BS	2O77413.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7381-1, FC7381-2, FC7381-3, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	25	24.9	100	72-117
100-42-5	Styrene	25	24.0	96	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	26.1	104	72-120
127-18-4	Tetrachloroethylene	25	24.6	98	76-135
108-88-3	Toluene	25	24.9	100	80-120
87-61-6	1,2,3-Trichlorobenzene	25	22.4	90	68-131
71-55-6	1,1,1-Trichloroethane	25	24.5	98	75-130
79-00-5	1,1,2-Trichloroethane	25	25.8	103	76-119
79-01-6	Trichloroethylene	25	24.0	96	81-126
75-69-4	Trichlorofluoromethane	25	31.0	124	71-156
75-01-4	Vinyl Chloride	25	29.0	116	69-159
	m,p-Xylene	50	48.9	98	79-126
95-47-6	o-Xylene	25	21.9	88	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	97%	83-118%

\* = Outside of Control Limits.

**Blank Spike Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2963-BS	I757704.D	1	07/06/23	JW	n/a	n/a	VI2963

**The QC reported here applies to the following samples:**

**Method:** SW846 8260D

FC7381-1, FC7381-2, FC7381-3, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-00-3	Chloroethane	25	21.8	87	62-144
156-59-2	cis-1,2-Dichloroethylene	25	22.6	90	78-120
120-82-1	1,2,4-Trichlorobenzene	25	23.2	93	73-129
75-01-4	Vinyl Chloride	25	16.7	67*	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7382-1MS	2077436.D	1	07/05/23	JW	n/a	n/a	V2O3017
FC7382-1MSD	2077437.D	1	07/05/23	JW	n/a	n/a	V2O3017
FC7382-1	2077418.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7381-1, FC7381-2, FC7381-3, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	FC7382-1 ug/l	Spike Q	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
67-64-1	Acetone	25 U		125	115	92	125	108	86	6	50-147/21
71-43-2	Benzene	4.9		25	33.8	116	25	32.5	110	4	81-122/14
74-97-5	Bromochloromethane	1.0 U		25	27.3	109	25	23.0	92	17*	76-123/14
75-27-4	Bromodichloromethane	1.0 U		25	26.0	104	25	24.3	97	7	79-123/19
75-25-2	Bromoform	1.0 U		25	24.2	97	25	23.8	95	2	66-123/21
78-93-3	2-Butanone (MEK)	5.0 U		125	118	94	125	107	86	10	56-143/18
75-15-0	Carbon Disulfide	2.0 U		25	33.2	133	25	28.2	113	16	66-148/23
56-23-5	Carbon Tetrachloride	1.0 U		25	31.2	125	25	26.0	104	18	76-136/23
108-90-7	Chlorobenzene	1.0 U		25	25.5	102	25	23.9	96	6	82-124/14
67-66-3	Chloroform	1.0 U		25	28.1	112	25	23.7	95	17*	80-124/15
110-82-7	Cyclohexane	1.0 U		25	29.2	117	25	25.0	100	15	73-138/18
124-48-1	Dibromochloromethane	1.0 U		25	27.5	110	25	24.0	96	14	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	5.0 U		25	24.4	98	25	24.2	97	1	64-123/18
106-93-4	1,2-Dibromoethane	2.0 U		25	23.8	95	25	22.1	88	7	75-120/13
75-71-8	Dichlorodifluoromethane	2.0 U		25	37.9	152	25	36.5	146	4	42-167/19
95-50-1	1,2-Dichlorobenzene	1.0 U		25	23.8	95	25	22.4	90	6	82-124/14
541-73-1	1,3-Dichlorobenzene	1.0 U		25	24.3	97	25	22.8	91	6	84-125/14
106-46-7	1,4-Dichlorobenzene	1.0 U		25	25.8	103	25	24.0	96	7	78-120/15
75-34-3	1,1-Dichloroethane	1.0 U		25	28.3	113	25	24.5	98	14	81-122/15
107-06-2	1,2-Dichloroethane	1.0 U		25	25.6	102	25	24.5	98	4	75-125/14
75-35-4	1,1-Dichloroethylene	1.0 U		25	28.6	114	25	24.6	98	15	78-137/18
156-59-2	cis-1,2-Dichloroethylene	4.9		25	29.8	100	25	25.6	83	15	78-120/15
156-60-5	trans-1,2-Dichloroethylene	1.0 U		25	28.0	112	25	24.2	97	15	76-127/17
78-87-5	1,2-Dichloropropane	1.0 U		25	28.0	112	25	26.2	105	7	76-124/14
10061-01-5	cis-1,3-Dichloropropene	1.0 U		25	24.3	97	25	22.3	89	9	75-118/23
10061-02-6	trans-1,3-Dichloropropene	1.0 U		25	25.3	101	25	23.2	93	9	80-120/22
100-41-4	Ethylbenzene	1.5		25	27.5	104	25	26.8	101	3	81-121/14
76-13-1	Freon 113	1.0 U		25	34.8	139*	25	29.2	117	18	72-134/20
591-78-6	2-Hexanone	10 U		125	136	109	125	139	111	2	61-129/18
98-82-8	Isopropylbenzene	1.0 U		25	22.4	90	25	23.1	92	3	83-132/15
79-20-9	Methyl Acetate	20 U		125	108	86	125	94.1	75	14	65-126/18
74-83-9	Methyl Bromide	5.0 U		25	19.5	78	25	21.8	87	11	59-143/19
74-87-3	Methyl Chloride	2.0 U		25	31.5	126	25	30.6	122	3	50-159/19
108-87-2	Methylcyclohexane	1.0 U		25	27.6	110	25	27.0	108	2	76-129/17
75-09-2	Methylene Chloride	5.0 U		25	28.5	114	25	23.9	96	18*	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0 U		125	130	104	125	126	101	3	66-122/16

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7382-1MS	2077436.D	1	07/05/23	JW	n/a	n/a	V203017
FC7382-1MSD	2077437.D	1	07/05/23	JW	n/a	n/a	V203017
FC7382-1	2077418.D	1	07/05/23	JW	n/a	n/a	V203017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7381-1, FC7381-2, FC7381-3, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	FC7382-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	1.0 U	25	25.0	100	25	21.9	88	13	72-117/14
100-42-5	Styrene	1.0 U	25	24.0	96	25	24.0	96	0	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U	25	26.0	104	25	24.3	97	7	72-120/14
127-18-4	Tetrachloroethylene	1.0 U	25	27.7	111	25	24.6	98	12	76-135/16
108-88-3	Toluene	2.2	25	27.2	100	25	26.7	98	2	80-120/14
87-61-6	1,2,3-Trichlorobenzene	2.0 U	25	22.9	92	25	21.6	86	6	68-131/25
71-55-6	1,1,1-Trichloroethane	1.0 U	25	29.7	119	25	24.9	100	18*	75-130/16
79-00-5	1,1,2-Trichloroethane	1.0 U	25	27.0	108	25	23.8	95	13	76-119/14
79-01-6	Trichloroethylene	3.2	25	29.9	107	25	29.0	103	3	81-126/15
75-69-4	Trichlorofluoromethane	2.0 U	25	35.7	143	25	34.3	137	4	71-156/21
75-01-4	Vinyl Chloride	1.0 U	25	33.7	135	25	33.0	132	2	69-159/18
	m,p-Xylene	60.8	50	112	102	50	120	118	7	79-126/15
95-47-6	o-Xylene	94.7	25	114	77* a	25	125	121	9	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FC7382-1	Limits
1868-53-7	Dibromofluoromethane	107%	92%	109%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	107%	103%	79-125%
2037-26-5	Toluene-D8	92%	96%	101%	85-112%
460-00-4	4-Bromofluorobenzene	95%	93%	97%	83-118%

(a) Outside control limits due to high level in sample relative to spike amount.

\* = Outside of Control Limits.



**Matrix Spike/Matrix Spike Duplicate Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7493-1MS	I757724.D	5	07/06/23	JW	n/a	n/a	VI2963
FC7493-1MSD	I757725.D	5	07/06/23	JW	n/a	n/a	VI2963
FC7493-1	I757710.D	1	07/06/23	JW	n/a	n/a	VI2963

**The QC reported here applies to the following samples:**

**Method:** SW846 8260D

FC7381-1, FC7381-2, FC7381-3, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	FC7493-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-00-3	Chloroethane	2.0 U	125	180	144	125	159	127	12	62-144/20
156-59-2	cis-1,2-Dichloroethylene	1.0 U	125	125	100	125	113	90	10	78-120/15
120-82-1	1,2,4-Trichlorobenzene	2.0 U	125	116	93	125	108	86	7	73-129/20
75-01-4	Vinyl Chloride	1.0 U	125	139	111	125	124	99	11	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FC7493-1	Limits
1868-53-7	Dibromofluoromethane	101%	101%	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	107%	107%	102%	79-125%
2037-26-5	Toluene-D8	103%	102%	97%	85-112%
460-00-4	4-Bromofluorobenzene	98%	100%	99%	83-118%

\* = Outside of Control Limits.

**Instrument Performance Check (BFB)**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V202981-BFB	<b>Injection Date:</b> 06/07/23
<b>Lab File ID:</b> 2076618.D	<b>Injection Time:</b> 09:26
<b>Instrument ID:</b> GCMS20	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	15441	17.4	Pass
75	30.0 - 60.0% of mass 95	44797	50.5	Pass
95	Base peak, 100% relative abundance	88696	100.0	Pass
96	5.0 - 9.0% of mass 95	6368	7.18	Pass
173	Less than 2.0% of mass 174	520	0.59 (0.77) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	67133	75.7	Pass
175	5.0 - 9.0% of mass 174	5047	5.69 (7.52) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	64680	72.9 (96.3) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	4269	4.81 (6.60) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V202981-IC2981	2076622.D	06/07/23	11:22	01:56	Initial cal 4
V202981-ICC2981	2076623.D	06/07/23	11:47	02:21	Initial cal 5
V202981-IC2981	2076624.D	06/07/23	12:13	02:47	Initial cal 6
V202981-IC2981	2076625.D	06/07/23	12:38	03:12	Initial cal 7
V202981-IC2981	2076627.D	06/07/23	13:55	04:29	Initial cal 1
V202981-IC2981	2076628.D	06/07/23	14:20	04:54	Initial cal 2
V202981-IC2981	2076629.D	06/07/23	14:46	05:20	Initial cal 3
V202981-ICV2981	2076631.D	06/07/23	15:37	06:11	Initial cal verification 5
V202981-ICV2981	2076632.D	06/07/23	16:02	06:36	Initial cal verification 4

**Instrument Performance Check (BFB)**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V2O3017-BFB	<b>Injection Date:</b> 07/05/23
<b>Lab File ID:</b> 2077411.D	<b>Injection Time:</b> 08:10
<b>Instrument ID:</b> GCMS20	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	12065	17.5	Pass
75	30.0 - 60.0% of mass 95	34259	49.7	Pass
95	Base peak, 100% relative abundance	68939	100.0	Pass
96	5.0 - 9.0% of mass 95	4613	6.69	Pass
173	Less than 2.0% of mass 174	233	0.34 (0.44) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	52733	76.5	Pass
175	5.0 - 9.0% of mass 174	3978	5.77 (7.54) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	51037	74.0 (96.8) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	3462	5.02 (6.78) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2O3017-CC2981	2077412.D	07/05/23	08:36	00:26	Continuing cal 4
V2O3017-BS	2077413.D	07/05/23	09:01	00:51	Blank Spike
V2O3017-MB	2077415.D	07/05/23	09:52	01:42	Method Blank
FC7381-7	2077416.D	07/05/23	10:17	02:07	TB
ZZZZZZ	2077417.D	07/05/23	10:43	02:33	(unrelated sample)
FC7382-1	2077418.D	07/05/23	11:08	02:58	(used for QC only; not part of job FC7381)
ZZZZZZ	2077419.D	07/05/23	11:34	03:24	(unrelated sample)
FC7381-1	2077420.D	07/05/23	11:59	03:49	SEAD-AL-PT-22-20230628
FC7381-3	2077421.D	07/05/23	12:25	04:15	SEAD-AL-MWT-22-20230628
FC7381-5	2077422.D	07/05/23	12:50	04:40	SEAD-AL-MWT-26-20230628
FC7381-6	2077423.D	07/05/23	13:16	05:06	SEAD-AL-MWT-27-20230628
ZZZZZZ	2077424.D	07/05/23	13:41	05:31	(unrelated sample)
ZZZZZZ	2077425.D	07/05/23	14:07	05:57	(unrelated sample)
FC7381-2	2077426.D	07/05/23	14:32	06:22	SEAD-AL-MWT-7-20230628
FC7381-4	2077427.D	07/05/23	14:58	06:48	SEAD-AL-MWT-29-20230628
ZZZZZZ	2077428.D	07/05/23	15:23	07:13	(unrelated sample)
ZZZZZZ	2077429.D	07/05/23	15:49	07:39	(unrelated sample)
ZZZZZZ	2077430.D	07/05/23	16:14	08:04	(unrelated sample)
ZZZZZZ	2077431.D	07/05/23	16:40	08:30	(unrelated sample)
ZZZZZZ	2077432.D	07/05/23	17:05	08:55	(unrelated sample)
ZZZZZZ	2077433.D	07/05/23	17:30	09:20	(unrelated sample)
ZZZZZZ	2077434.D	07/05/23	17:56	09:46	(unrelated sample)
ZZZZZZ	2077435.D	07/05/23	18:21	10:11	(unrelated sample)
FC7382-1MS	2077436.D	07/05/23	18:47	10:37	Matrix Spike

# Instrument Performance Check (BFB)

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V2O3017-BFB	<b>Injection Date:</b> 07/05/23
<b>Lab File ID:</b> 2O77411.D	<b>Injection Time:</b> 08:10
<b>Instrument ID:</b> GCMS20	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FC7382-1MSD	2O77437.D	07/05/23	19:12	11:02	Matrix Spike Duplicate
V2O3017-ECC2981	2O77438.D	07/05/23	19:38	11:28	Ending cal 4

6.4.2

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**Instrument Performance Check (BFB)**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2948-BFB	<b>Injection Date:</b> 06/15/23
<b>Lab File ID:</b> I757260.D	<b>Injection Time:</b> 10:08
<b>Instrument ID:</b> GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	37549	17.4	Pass
75	30.0 - 60.0% of mass 95	102373	47.6	Pass
95	Base peak, 100% relative abundance	215275	100.0	Pass
96	5.0 - 9.0% of mass 95	14176	6.59	Pass
173	Less than 2.0% of mass 174	1477	0.69 (0.72) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	205205	95.3	Pass
175	5.0 - 9.0% of mass 174	15382	7.15 (7.50) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	207019	96.2 (100.9) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	13947	6.48 (6.74) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VI2948-IC2948	I757261.D	06/15/23	10:43	00:35	Initial cal 1
VI2948-IC2948	I757262.D	06/15/23	11:16	01:08	Initial cal 2
VI2948-IC2948	I757263.D	06/15/23	11:40	01:32	Initial cal 3
VI2948-IC2948	I757264.D	06/15/23	12:04	01:56	Initial cal 4
VI2948-ICC2948	I757265.D	06/15/23	12:28	02:20	Initial cal 5
VI2948-IC2948	I757266.D	06/15/23	12:52	02:44	Initial cal 6
VI2948-IC2948	I757267.D	06/15/23	13:15	03:07	Initial cal 7
VI2948-CC2948	I757269A.D	06/15/23	14:04	03:56	Continuing cal 5
VI2948-ICV2948	I757269.D	06/15/23	14:04	03:56	Initial cal verification 5
VI2948-BS	I757270A.D	06/15/23	14:27	04:19	Blank Spike
VI2948-ICV2948	I757270.D	06/15/23	14:27	04:19	Initial cal verification 4
VI2948-BSD	I757271.D	06/15/23	14:51	04:43	Blank Spike Duplicate
VI2948-MB	I757273.D	06/15/23	15:39	05:31	Method Blank
ZZZZZZ	I757274.D	06/15/23	16:03	05:55	(unrelated sample)
ZZZZZZ	I757275.D	06/15/23	16:27	06:19	(unrelated sample)
ZZZZZZ	I757276.D	06/15/23	16:51	06:43	(unrelated sample)
ZZZZZZ	I757277.D	06/15/23	17:15	07:07	(unrelated sample)
ZZZZZZ	I757278.D	06/15/23	17:39	07:31	(unrelated sample)
ZZZZZZ	I757279.D	06/15/23	18:03	07:55	(unrelated sample)
ZZZZZZ	I757280.D	06/15/23	18:27	08:19	(unrelated sample)
ZZZZZZ	I757281.D	06/15/23	18:51	08:43	(unrelated sample)
ZZZZZZ	I757282.D	06/15/23	19:15	09:07	(unrelated sample)
ZZZZZZ	I757283.D	06/15/23	19:39	09:31	(unrelated sample)
ZZZZZZ	I757284.D	06/15/23	20:03	09:55	(unrelated sample)

# Instrument Performance Check (BFB)

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2948-BFB	<b>Injection Date:</b> 06/15/23
<b>Lab File ID:</b> I757260.D	<b>Injection Time:</b> 10:08
<b>Instrument ID:</b> GCMSI	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	I757285.D	06/15/23	20:27	10:19	(unrelated sample)
VI2948-ECC2948	I757286.D	06/15/23	20:51	10:43	Ending cal 5

6.4.3

6

**Instrument Performance Check (BFB)**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2963-BFB	<b>Injection Date:</b> 07/06/23
<b>Lab File ID:</b> I757702.D	<b>Injection Time:</b> 08:41
<b>Instrument ID:</b> GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	30253	18.0	Pass
75	30.0 - 60.0% of mass 95	80371	47.8	Pass
95	Base peak, 100% relative abundance	168107	100.0	Pass
96	5.0 - 9.0% of mass 95	11934	7.10	Pass
173	Less than 2.0% of mass 174	1301	0.77 (0.78) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	167299	99.5	Pass
175	5.0 - 9.0% of mass 174	12607	7.50 (7.54) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	162133	96.4 (96.9) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	10891	6.48 (6.72) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VI2963-CC2948	I757703.D	07/06/23	09:12	00:31	Continuing cal 5
VI2963-BS	I757704.D	07/06/23	09:43	01:02	Blank Spike
VI2963-MB	I757706.D	07/06/23	10:31	01:50	Method Blank
FC7381-7	I757707.D	07/06/23	10:55	02:14	TB
ZZZZZZ	I757708.D	07/06/23	11:19	02:38	(unrelated sample)
ZZZZZZ	I757709.D	07/06/23	11:42	03:01	(unrelated sample)
FC7493-1	I757710.D	07/06/23	12:06	03:25	(used for QC only; not part of job FC7381)
FC7381-1	I757711.D	07/06/23	12:30	03:49	SEAD-AL-PT-24-20230628
FC7381-3	I757712.D	07/06/23	12:54	04:13	SEAD-AL-PT-22-20230628
FC7381-5	I757713.D	07/06/23	13:18	04:37	SEAD-AL-MWT-26-20230628
FC7381-6	I757716.D	07/06/23	15:41	07:00	SEAD-AL-MWT-27-20230628
ZZZZZZ	I757717.D	07/06/23	16:05	07:24	(unrelated sample)
ZZZZZZ	I757718.D	07/06/23	16:29	07:48	(unrelated sample)
ZZZZZZ	I757720.D	07/06/23	16:53	08:12	(unrelated sample)
FC7381-2	I757721.D	07/06/23	17:36	08:55	SEAD-AL-MWT-7-20230628
FC7381-4	I757722.D	07/06/23	18:00	09:19	SEAD-AL-MWT-29-20230628
FC7381-4	I757723.D	07/06/23	18:24	09:43	SEAD-AL-MWT-29-20230628
FC7493-1MS	I757724.D	07/06/23	18:48	10:07	Matrix Spike
FC7493-1MSD	I757725.D	07/06/23	19:12	10:31	Matrix Spike Duplicate
VI2963-ECC2948	I757726.D	07/06/23	19:35	10:54	Ending cal 5
VI2964-CC2948	I757728.D	07/06/23	20:23	11:42	Continuing cal 5
VI2964-BS	I757729.D	07/06/23	20:47	12:06	Blank Spike
FC7465-35MS	I757731.D	07/06/23	21:34	12:53	Matrix Spike
FC7465-35MSD	I757732.D	07/06/23	21:58	13:17	Matrix Spike Duplicate

# Instrument Performance Check (BFB)

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2963-BFB	<b>Injection Date:</b> 07/06/23
<b>Lab File ID:</b> I757702.D	<b>Injection Time:</b> 08:41
<b>Instrument ID:</b> GCMSI	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VI2964-MB	I757733.D	07/06/23	22:22	13:41	Method Blank
FC7465-35	I757734.D	07/06/23	22:46	14:05	(used for QC only; not part of job FC7381)
ZZZZZZ	I757735.D	07/06/23	23:10	14:29	(unrelated sample)
ZZZZZZ	I757736.D	07/06/23	23:34	14:53	(unrelated sample)
ZZZZZZ	I757737.D	07/06/23	23:57	15:16	(unrelated sample)
ZZZZZZ	I757738.D	07/07/23	00:21	15:40	(unrelated sample)
ZZZZZZ	I757739.D	07/07/23	00:45	16:04	(unrelated sample)
ZZZZZZ	I757740.D	07/07/23	01:09	16:28	(unrelated sample)
ZZZZZZ	I757741.D	07/07/23	01:33	16:52	(unrelated sample)
ZZZZZZ	I757742.D	07/07/23	01:56	17:15	(unrelated sample)
ZZZZZZ	I757743.D	07/07/23	02:20	17:39	(unrelated sample)
ZZZZZZ	I757744.D	07/07/23	02:44	18:03	(unrelated sample)
ZZZZZZ	I757745.D	07/07/23	03:08	18:27	(unrelated sample)
ZZZZZZ	I757746.D	07/07/23	03:32	18:51	(unrelated sample)
ZZZZZZ	I757747.D	07/07/23	03:56	19:15	(unrelated sample)
ZZZZZZ	I757748.D	07/07/23	04:19	19:38	(unrelated sample)
VI2964-ECC2948	I757749.D	07/07/23	04:43	20:02	Ending cal 5

6.4.4

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# Internal Standard Area Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b>	V2O3017-CC2981	<b>Injection Date:</b>	07/05/23
<b>Lab File ID:</b>	2077412.D	<b>Injection Time:</b>	08:36
<b>Instrument ID:</b>	GCMS20	<b>Method:</b>	SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Initial Cal <sup>a</sup>	426373	4.01	320814	6.02	169764	7.78
Check Std <sup>b</sup>	359075	4.01	259734	6.02	128361	7.77
Upper Limit <sup>c</sup>	718150	4.18	519468	6.19	256722	7.94
Lower Limit <sup>d</sup>	179538	3.84	129867	5.85	64181	7.60

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V2O3017-BS	375787	4.01	268562	6.02	130962	7.77
V2O3017-MB <sup>e</sup>	305171	4.01	212296	6.02	106160	7.77
FC7381-7	307795	4.01	207791	6.02	102460	7.77
ZZZZZZ	295871	4.01	202621	6.02	100594	7.77
FC7382-1	287082	4.01	203554	6.02	107311	7.77
ZZZZZZ	293485	4.01	208261	6.02	109256	7.77
FC7381-1	298800	4.01	206484	6.02	101616	7.77
FC7381-3	288193	4.01	200565	6.02	101494	7.77
FC7381-5	289053	4.01	200590	6.02	100630	7.77
FC7381-6	276019	4.01	188682	6.02	95947	7.77
ZZZZZZ	306458	4.01	218049	6.02	98605	7.77
ZZZZZZ	290311	4.01	210115	6.02	99698	7.77
FC7381-2	283394	4.01	199620	6.02	96494	7.77
FC7381-4	286100	4.01	194122	6.02	97409	7.77
ZZZZZZ	277881	4.01	192893	6.02	100044	7.77
ZZZZZZ	280453	4.01	203470	6.02	99642	7.77
ZZZZZZ	275927	4.01	210916	6.02	96845	7.77
ZZZZZZ	271508	4.01	197292	6.02	94862	7.77
ZZZZZZ	280005	4.01	198038	6.02	99912	7.77
ZZZZZZ	275653	4.01	205001	6.02	94959	7.77
ZZZZZZ	273621	4.01	192311	6.02	94927	7.77
ZZZZZZ	273377	4.01	204421	6.02	92519	7.77

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

- (a) Initial Cal is: V2O2981-ICC2981 2076623.D 06/07/23 11:47
- (b) Check Std Limit = -50 to + 100% of initial cal area.
- (c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
- (d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
- (e) Sample was treated with an anti-foaming agent.

# Internal Standard Area Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b>	VI2963-CC2948	<b>Injection Date:</b>	07/06/23
<b>Lab File ID:</b>	I757703.D	<b>Injection Time:</b>	09:12
<b>Instrument ID:</b>	GCMSI	<b>Method:</b>	SW846 8260D

	<b>IS 1</b>		<b>IS 2</b>		<b>IS 3</b>	
	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>
Initial Cal <sup>a</sup>	1166537	7.85	854326	11.01	520019	13.37
Check Std <sup>b</sup>	1008433	7.85	708930	11.01	426284	13.37
Upper Limit <sup>c</sup>	2016866	8.02	1417860	11.18	852568	13.54
Lower Limit <sup>d</sup>	504217	7.68	354465	10.84	213142	13.20

<b>Lab</b>	<b>IS 1</b>		<b>IS 2</b>		<b>IS 3</b>	
<b>Sample ID</b>	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>
VI2963-BS	1010121	7.85	711222	11.01	434708	13.37
VI2963-MB <sup>e</sup>	999716	7.86	726062	11.01	408938	13.37
FC7381-7 <sup>f</sup>	984662	7.85	712109	11.01	402091	13.37
ZZZZZZ	994618	7.85	713341	11.01	402073	13.37
ZZZZZZ	988961	7.85	727616	11.01	409494	13.37
FC7493-1	990994	7.85	719769	11.01	406831	13.37
FC7381-1	996407	7.85	720604	11.01	410778	13.37
FC7381-3	974708	7.85	699585	11.01	395276	13.37
FC7381-5	961151	7.86	700073	11.01	395687	13.37
FC7381-6	788833	7.85	570982	11.01	314511	13.37
ZZZZZZ	804929	7.86	586014	11.01	328099	13.37
ZZZZZZ	830537	7.85	609896	11.01	351405	13.37
ZZZZZZ	804783	7.85	578173	11.01	320890	13.37
FC7381-2	852030	7.85	607371	11.01	349193	13.37
FC7381-4	862581	7.85	620681	11.01	349831	13.37
FC7381-4	861541	7.85	625358	11.01	348540	13.37

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

- (a) Initial Cal is: VI2948-ICC2948 I757265.D 06/15/23 12:28
- (b) Check Std Limit = -50 to + 100% of initial cal area.
- (c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
- (d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
- (e) Sample was treated with an anti-foaming agent.
- (f) Sample vial(s) contained significant headspace.

# Surrogate Recovery Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Method:</b> SW846 8260D	<b>Matrix:</b> AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FC7381-1	I757711.D	99	102	97	98
FC7381-1	2O77420.D	107	102	102	99
FC7381-2	I757721.D	97	105	98	96
FC7381-2	2O77426.D	113	107	101	101
FC7381-3	I757712.D	98	103	97	99
FC7381-3	2O77421.D	108	106	101	97
FC7381-4	I757722.D	98	105	98	97
FC7381-4	I757723.D	99	106	98	99
FC7381-4	2O77427.D	110	106	102	95
FC7381-5	I757713.D	99	103	97	98
FC7381-5	2O77422.D	110	107	101	99
FC7381-6	I757716.D	97	102	98	98
FC7381-6	2O77423.D	111	106	103	107
FC7381-7	I757707.D	98	102	98	99
FC7381-7	2O77416.D	108	103	105	101
FC7382-1MS	2O77436.D	107	103	92	95
FC7382-1MSD	2O77437.D	92	107	96	93
FC7493-1MS	I757724.D	101	107	103	98
FC7493-1MSD	I757725.D	101	107	102	100
V2O3017-BS	2O77413.D	100	104	100	97
V2O3017-MB	2O77415.D	106	102	103	110
VI2963-BS	I757704.D	101	105	102	100
VI2963-MB	I757706.D	97	100	97	99

**Surrogate Compounds**

**Recovery Limits**

<b>S1</b> = Dibromofluoromethane	83-118%
<b>S2</b> = 1,2-Dichloroethane-D4	79-125%
<b>S3</b> = Toluene-D8	85-112%
<b>S4</b> = 4-Bromofluorobenzene	83-118%

# Initial Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

## Response Factor Report MSVOA12

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

### Calibration Files

1 =2076627.D 2 =2076628.D 3 =2076629.D 4 =2076622.D  
 5 =2076623.D 6 =2076624.D 7 =2076625.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
-----									
1) I Fluorobenzene	-----ISTD-----								
2) Dichlorodifluorom	0.199	0.193	0.169	0.190	0.193	0.170	0.179	0.185	6.50
3) P Chloromethane	0.242	0.184	0.170	0.181	0.183	0.175	0.182	0.188	12.81
4) 1,3-butadiene	0.184	0.219	0.262	0.220	0.202	0.170	0.176	0.205	15.75
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9941								
	Response Ratio = 0.00000 + 0.22857 *A + -0.03029 *A^2								
5) C Vinyl Chloride	0.224	0.193	0.177	0.194	0.202	0.183	0.186	0.194	7.89
6) Bromomethane	0.216	0.145	0.152	0.146	0.158	0.150	0.160	0.161	15.43
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9990								
	Response Ratio = 0.00000 + 0.14854 *A + 0.00475 *A^2								
7) Chloroethane	0.181	0.147	0.137	0.137	0.109	0.049		0.127	35.18
	---- Quadratic regression ---- Coefficient = 0.9957								
	Response Ratio = -0.00294 + 0.19150 *A + -0.10024 *A^2								
8) Trichlorofluorome	0.387	0.389	0.344	0.382	0.397	0.348	0.315	0.366	8.33
9) Ethyl Ether	0.199	0.149	0.169	0.168	0.182	0.170	0.171	0.173	8.72
10) Ethanol		0.004	0.004	0.004	0.003	0.004	0.004	0.004	8.47
11) 1,2-Dichlorotrifl	0.260	0.218	0.254	0.243	0.269	0.227	0.242	0.245	7.39
12) C 1,1-Dichloroethen	0.341	0.268	0.305	0.307	0.341	0.282	0.308	0.307	8.84
13) Freon 113	0.218	0.196	0.217	0.222	0.246	0.195	0.217	0.216	7.93
14) Carbon Disulfide	0.839	0.488	0.554	0.559	0.629	0.531	0.584	0.598	19.24
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9950								
	Response Ratio = 0.00000 + 0.57110 *A + 0.00043 *A^2								
15) Iodomethane	0.186	0.130	0.141	0.186	0.225	0.214	0.224	0.186	20.67
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9944								
	Response Ratio = 0.00000 + 0.17722 *A + 0.02549 *A^2								
16) Acrolein	0.038	0.067	0.052	0.055	0.056	0.058	0.058	0.055	16.38
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9983								
	Response Ratio = 0.00000 + 0.05486 *A + 0.00033 *A^2								
17) Allyl chloride	0.170	0.221	0.277	0.231	0.227	0.215	0.226	0.224	13.96
18) Methylene Chlorid	0.495	0.287	0.279	0.271	0.289	0.264	0.267	0.307	27.05
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9990								
	Response Ratio = 0.00000 + 0.28145 *A + -0.00783 *A^2								
19) Acetone	0.149	0.117	0.096	0.111	0.110	0.113	0.113	0.115	13.91
20) Methyl acetate	0.338	0.244	0.254	0.264	0.273	0.267	0.266	0.272	11.24
21) trans-1,2-Dichlor	0.368	0.280	0.297	0.304	0.332	0.287	0.306	0.310	9.75
22) Hexane	0.177	0.152	0.155	0.157	0.170	0.142	0.152	0.158	7.45
23) Methyl Tert Butyl	0.681	0.546	0.581	0.602	0.672	0.639	0.650	0.624	7.96
24) Tert Butyl Alcoho	0.037	0.031	0.034	0.039	0.040	0.044	0.046	0.039	13.65
25) Acetonitrile	0.050	0.049	0.055	0.042	0.039	0.041	0.040	0.045	13.89

6.7.1  
6

# Initial Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

26)	Di-isopropyl ethe	0.677	0.525	0.593	0.601	0.659	0.617	0.628	0.614	8.07
27)	Chloroprene	0.185	0.280	0.363	0.312	0.300	0.272	0.290	0.286	18.76
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9961
										Response Ratio = 0.00000 + 0.31146 *A + -0.01485 *A^2
28)P	1,1-Dichloroethan	0.456	0.359	0.396	0.393	0.432	0.384	0.403	0.403	7.90
29)	Acrylonitrile	0.137	0.109	0.099	0.116	0.105	0.106	0.109	0.111	10.94
30)	ETBE	0.605	0.487	0.543	0.576	0.649	0.606	0.624	0.584	9.36
31)	Vinyl acetate	0.390	0.406	0.394	0.491	0.461	0.452	0.470	0.438	9.25
32)	cis-1,2-Dichloroe	0.330	0.234	0.257	0.250	0.275	0.248	0.256	0.264	11.97
33)	2,2-Dichloropropa	0.290	0.221	0.256	0.263	0.302	0.266	0.289	0.270	10.04
34)	Bromochloromethan	0.148	0.121	0.130	0.131	0.134	0.117	0.119	0.129	8.45
35)	Cyclohexane	0.289	0.276	0.319	0.318	0.346	0.292	0.315	0.308	7.68
36)C	Chloroform	0.518	0.407	0.442	0.452	0.487	0.435	0.448	0.456	7.99
37)	Ethyl acetate	0.321	0.318	0.293	0.363	0.328	0.331	0.340	0.328	6.60
38)	Tetrahydrofuran	0.134	0.110	0.113	0.113	0.116	0.123	0.114	0.117	7.06
39)S	Dibromofluorometh	0.271	0.272	0.268	0.273	0.273	0.275	0.273	0.272	0.82
40)	Carbon Tetrachlor	0.302	0.231	0.279	0.296	0.342	0.291	0.314	0.294	11.62
41)	1,1,1-Trichloroet	0.371	0.308	0.342	0.366	0.405	0.351	0.374	0.360	8.45
42)	2-Butanone	0.213	0.178	0.141	0.178	0.176	0.183	0.181	0.178	11.74
43)	1,1-Dichloroprope	0.315	0.265	0.301	0.301	0.335	0.287	0.304	0.301	7.25
44)	tert-Butyl format	0.054	0.061	0.065	0.072	0.089	0.089	0.089	0.074	20.04
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9963
										Response Ratio = 0.00000 + 0.07340 *A + 0.00178 *A^2
45)	Propionitrile	0.044	0.057	0.065	0.056	0.052	0.056	0.056	0.055	11.67
46)	Methacrylonitrile	0.148	0.194	0.235	0.198	0.187	0.193	0.190	0.192	13.12
47)	Benzene	1.049	0.798	0.880	0.890	0.983	0.871	0.897	0.910	9.00
48)	TAME	0.546	0.456	0.509	0.540	0.625	0.594	0.608	0.554	10.76
49)	Isobutyl alcohol	0.008	0.014	0.017	0.017	0.016	0.018	0.018	0.016	22.24
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9981
										Response Ratio = 0.00000 + 0.01574 *A + 0.00006 *A^2
50)S	1,2-Dichloroethan	0.307	0.327	0.296	0.319	0.331	0.336	0.344	0.323	5.21
51)	1,2-Dichloroethan	0.479	0.333	0.354	0.361	0.387	0.353	0.353	0.374	13.09
52)	Tert Amyl Alcohol	0.026	0.021	0.024	0.028	0.031	0.034	0.035	0.028	18.39
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9995
										Response Ratio = 0.00000 + 0.02749 *A + 0.00040 *A^2
53)	Trichloroethene	0.314	0.233	0.258	0.259	0.281	0.245	0.256	0.264	10.11
54)	Methylcyclohexane	0.334	0.282	0.318	0.332	0.368	0.306	0.328	0.324	8.20
55)	Dibromomethane	0.233	0.156	0.169	0.173	0.184	0.171	0.172	0.180	13.82
56)C	1,2-Dichloropropa	0.245	0.185	0.216	0.211	0.233	0.215	0.219	0.218	8.66
57)	Bromodichlorometh	0.327	0.246	0.280	0.304	0.340	0.315	0.322	0.305	10.54
58)	Methyl methacryla	0.137	0.197	0.273	0.229	0.228	0.242	0.246	0.222	19.64
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9978
										Response Ratio = 0.00000 + 0.22704 *A + 0.00940 *A^2
59)	1,4-Dioxane	0.006	0.004	0.004	0.004	0.004	0.005	0.005	0.005	16.01
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9989
										Response Ratio = 0.00000 + 0.00413 *A + 0.00002 *A^2
60)	2-Chloroethyl vin	0.153	0.174	0.175	0.178	0.197	0.190	0.178	0.178	7.82
61)	cis-1,3-Dichlorop	0.311	0.267	0.303	0.328	0.380	0.355	0.364	0.329	11.94
62) I	Chlorobenzene-d5									-----ISTD-----
63)S	Toluene-d8	1.354	1.343	1.371	1.315	1.306	1.318	1.323	1.333	1.77
64)C	Toluene	1.589	1.201	1.315	1.295	1.397	1.255	1.299	1.336	9.48
65)	2-Nitropropane	0.073	0.058	0.068	0.096	0.109	0.114	0.117	0.091	26.68
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9955

# Initial Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

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Response Ratio = 0.00000 + 0.08537 \*A + 0.00351 \*A^2

66)	4-Methyl-2-pentan	0.434	0.405	0.345	0.428	0.427	0.433	0.433	0.415	7.83
67)	trans-1,3-Dichlor	0.471	0.357	0.407	0.448	0.503	0.479	0.490	0.451	11.50
68)	Tetrachloroethene	0.383	0.310	0.351	0.344	0.372	0.324	0.346	0.347	7.29
69)	Ethyl methacrylat	0.166	0.341	0.440	0.390	0.381	0.404	0.414	0.363	25.30
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9983										
Response Ratio = 0.00000 + 0.37690 *A + 0.01862 *A^2										
70)	1,1,2-Trichloroet	0.309	0.253	0.283	0.279	0.293	0.273	0.273	0.281	6.28
71)	Dibromochlorometh	0.282	0.250	0.290	0.321	0.363	0.349	0.356	0.316	13.59
72)	1,3-Dichloropropa	0.645	0.486	0.514	0.518	0.556	0.517	0.513	0.536	9.77
73)	1,2-Dibromoethane	0.463	0.304	0.347	0.348	0.379	0.358	0.362	0.366	13.25
74)	3,3-dimethyl-1-bu	0.039	0.049	0.051	0.057	0.060	0.067	0.066	0.055	17.95
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9987										
Response Ratio = 0.00000 + 0.05396 *A + 0.00013 *A^2										
75)	2-hexanone	0.405	0.410	0.369	0.431	0.429	0.445	0.443	0.419	6.34
76)	1-Chlorohexane	0.504	0.356	0.403	0.395	0.433	0.375	0.397	0.409	11.78
77)C	Ethylbenzene	1.690	1.287	1.457	1.435	1.536	1.386	1.427	1.460	8.66
78)P	Chlorobenzene	1.125	0.831	0.910	0.897	0.961	0.874	0.901	0.929	10.24
79)	1,1,1,2-Tetrachlo	0.272	0.243	0.291	0.305	0.333	0.312	0.325	0.297	10.60
80)	m,p-Xylene	1.289	1.004	1.147	1.142	1.233	1.109	1.147	1.153	7.85
81)	o-Xylene	1.278	0.979	1.132	1.153	1.245	1.137	1.186	1.159	8.34
82)	Styrene	0.836	0.730	0.859	0.889	0.988	0.928	0.954	0.883	9.74
83)P	Bromoform	0.174	0.131	0.162	0.190	0.217	0.221	0.230	0.189	18.98
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9974										
Response Ratio = 0.00000 + 0.17818 *A + 0.02789 *A^2										
84)	Isopropylbenzene	1.370	1.142	1.311	1.340	1.465	1.316	1.393	1.334	7.48
85) I	1,4-Dichlorobenzene-d	-----ISTD-----								
86)S	4-Bromofluorobenz	0.734	0.732	0.744	0.722	0.723	0.725	0.734	0.731	1.05
87)	cis-1,4-Dichloro-	0.162	0.231	0.180	0.182	0.200	0.217	0.195		13.22
88)	n-Propylbenzene	3.526	2.613	3.159	3.009	3.236	2.904	3.049	3.071	9.24
89)	Bromobenzene	0.840	0.595	0.700	0.654	0.712	0.660	0.662	0.689	11.11
90)P	1,1,2,2-Tetrachlo	1.164	0.841	1.013	0.970	1.024	0.976	0.985	0.996	9.57
91)	1,3,5-Trimethylbe	2.352	1.834	2.275	2.154	2.359	2.159	2.231	2.195	8.16
92)	2-Chlorotoluene	2.369	1.941	2.231	2.122	2.243	2.048	2.102	2.151	6.58
93)	trans-1,4-Dichlor	0.135	0.183	0.172	0.191	0.194	0.204	0.180		13.56
94)	1,2,3-Trichloropr	0.387	0.280	0.320	0.302	0.328	0.311	0.307	0.319	10.44
95)	Cyclohexanone	0.028	0.028	0.037	0.033	0.037	0.040	0.034		14.46
96)	4-Chlorotoluene	2.448	1.737	2.111	1.957	2.125	1.940	2.005	2.046	10.71
97)	tert-Butylbenzene	1.314	1.027	1.204	1.162	1.273	1.149	1.214	1.192	7.81
98)	a-Methyl styrene							0.000		-1.00
99)	1,2,4-Trimethylbe	2.319	1.797	2.292	2.156	2.374	2.191	2.258	2.198	8.72
100)	Pentachloroethane	0.123	0.256	0.367	0.314	0.316	0.327	0.347	0.293	28.20
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9976										
Response Ratio = 0.00000 + 0.30147 *A + 0.02163 *A^2										
101)	sec-Butylbenzene	2.742	2.152	2.584	2.498	2.686	2.408	2.546	2.516	7.79
102)	4-Isopropyltoluen	2.178	1.762	2.198	2.130	2.339	2.173	2.262	2.149	8.56
103)	1,3-Dichlorobenze	1.666	1.184	1.393	1.304	1.396	1.308	1.329	1.369	10.91
104)	1,2,3-Trimethylbe	2.609	1.981	2.416	2.229	2.457	2.311	2.347	2.336	8.46
105)	1,4-Dichlorobenze	1.896	1.251	1.424	1.317	1.419	1.307	1.348	1.423	15.28
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9986										
Response Ratio = 0.00000 + 1.37713 *A + -0.02106 *A^2										
106)	n-Butylbenzene	1.229	0.878	1.103	1.082	1.167	1.098	1.151	1.101	10.06
107)	Benzyl Chloride	0.175	0.137	0.182	0.221	0.269	0.284	0.306	0.225	28.33

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6.7.1  
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# Initial Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

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		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9969
		Response Ratio = 0.00000 + 0.19871 *A + 0.05689 *A^2	
108)	1,2-Dichlorobenze	1.554 1.186 1.342 1.238 1.329 1.252 1.270 1.310	9.17
109)	1,2-Dibromo-3-Chl	0.158 0.154 0.175 0.199 0.213 0.225 0.231 0.194	16.31
		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9989
		Response Ratio = 0.00000 + 0.18574 *A + 0.02424 *A^2	
110)	Hexachlorobutadie	0.520 0.232 0.259 0.239 0.250 0.227 0.243 0.281	37.55
		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9966
		Response Ratio = 0.00000 + 0.24940 *A + -0.00637 *A^2	
111)	1,2,4-Trichlorobe	1.101 0.645 0.751 0.730 0.772 0.744 0.750 0.785	18.55
		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9987
		Response Ratio = 0.00000 + 0.74777 *A + 0.00083 *A^2	
112)	Naphthalene	2.978 2.093 2.574 2.649 2.954 2.902 2.930 2.726	11.77
113)	1,2,3-Trichlorobe	0.959 0.646 0.727 0.695 0.748 0.712 0.718 0.744	13.50

-----  
(#) = Out of Range

V20\_06-07-2023.M

Thu Jun 08 09:33:23 2023

6.7.1  
6

## Initial Calibration Verification

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076631.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-07\2076631.D Vial: 14  
 Acq On : 7 Jun 2023 3:37 pm Operator: joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	97	0.00	4.01
2	Dichlorodifluoromethane			NA			
3 P	Chloromethane			NA			
	----- Amount		Calc.	%Drift			
4	1,3-butadiene			NA			
	----- AvgRF		CCRF	%Dev			
5 C	Vinyl Chloride			NA			
	----- Amount		Calc.	%Drift			
6	Bromomethane			NA			
7	Chloroethane			NA			
	----- AvgRF		CCRF	%Dev			
8	Trichlorofluoromethane			NA			
9	Ethyl Ether			NA			
10	Ethanol	0.004	0.004	0.0	104	0.00	2.16
11	1,2-Dichlorotrifluoroetha			NA			
12 C	1,1-Dichloroethene			NA			
13	Freon 113			NA			
	----- Amount		Calc.	%Drift			
14	Carbon Disulfide			NA			
15	Iodomethane			NA			
16	Acrolein			NA			
	----- AvgRF		CCRF	%Dev			
17	Allyl chloride	0.224	0.266	-18.8	114	0.00	2.47
	----- Amount		Calc.	%Drift			
18	Methylene Chloride			NA			
	----- AvgRF		CCRF	%Dev			
19	Acetone			NA			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert Butyl Alcohol			NA			
25	Acetonitrile			NA			
26	Di-isopropyl ether			NA			



# Initial Calibration Verification

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076631.D

		Amount	Calc.	%Drift			
27	Chloroprene			NA			
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane			NA			
29	Acrylonitrile			NA			
30	ETBE			NA			
31	Vinyl acetate			NA			
32	cis-1,2-Dichloroethene			NA			
33	2,2-Dichloropropane			NA			
34	Bromochloromethane			NA			
35	Cyclohexane			NA			
36 C	Chloroform			NA			
37	Ethyl acetate			NA			
38	Tetrahydrofuran			NA			
39 S	Dibromofluoromethane	0.272	0.273	-0.4	97	0.00	3.54
40	Carbon Tetrachloride			NA			
41	1,1,1-Trichloroethane			NA			
42	2-Butanone			NA			
43	1,1-Dichloropropene			NA			
		Amount	Calc.	%Drift			
44	tert-Butyl formate			NA			
		AvgRF	CCRF	%Dev			
45	Propionitrile			NA			
46	Methacrylonitrile			NA			
47	Benzene			NA			
48	TAME			NA			
		Amount	Calc.	%Drift			
49	Isobutyl alcohol			NA			
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.329	-1.9	97	0.00	3.85
51	1,2-Dichloroethane			NA			
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol			NA			
		AvgRF	CCRF	%Dev			
53	Trichloroethene			NA			
54	Methylcyclohexane			NA			
55	Dibromomethane			NA			
56 C	1,2-Dichloropropane			NA			
57	Bromodichloromethane			NA			
		Amount	Calc.	%Drift			
58	Methyl methacrylate			NA			
59	1,4-Dioxane			NA			
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether			NA			
61	cis-1,3-Dichloropropene			NA			
62 I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00	6.02
63 S	Toluene-d8	1.333	1.340	-0.5	98	0.00	4.98
64 C	Toluene			NA			

6.7.2  
6

# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076631.D

	Amount	Calc.	%Drift				
65	2-Nitropropane		NA				
	AvgRF	CCRF	%Dev				
66	4-Methyl-2-pentanone		NA				
67	trans-1,3-Dichloropropene		NA				
68	Tetrachloroethene		NA				
	Amount	Calc.	%Drift				
69	Ethyl methacrylate		NA				
	AvgRF	CCRF	%Dev				
70	1,1,2-Trichloroethane		NA				
71	Dibromochloromethane		NA				
72	1,3-Dichloropropane		NA				
73	1,2-Dibromoethane		NA				
	Amount	Calc.	%Drift				
74	3,3-dimethyl-1-butanol		NA				
	AvgRF	CCRF	%Dev				
75	2-hexanone		NA				
76	1-Chlorohexane		NA				
77 C	Ethylbenzene		NA				
78 P	Chlorobenzene		NA				
79	1,1,1,2-Tetrachloroethane		NA				
80	m,p-Xylene		NA				
81	o-Xylene		NA				
82	Styrene		NA				
	Amount	Calc.	%Drift				
83 P	Bromoform		NA				
	AvgRF	CCRF	%Dev				
84	Isopropylbenzene		NA				
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	7.78
86 S	4-Bromofluorobenzene	0.731	0.729	0.3	94	0.00	6.92
87	cis-1,4-Dichloro-2-butene		NA				
88	n-Propylbenzene		NA				
89	Bromobenzene		NA				
90 P	1,1,2,2-Tetrachloroethane		NA				
91	1,3,5-Trimethylbenzene		NA				
92	2-Chlorotoluene		NA				
93	trans-1,4-Dichloro-2-Bute		NA				
94	1,2,3-Trichloropropane		NA				
95	Cyclohexanone		NA				
96	4-Chlorotoluene		NA				
97	tert-Butylbenzene		NA				
98	a-Methyl styrene		NA				
99	1,2,4-Trimethylbenzene		NA				
	Amount	Calc.	%Drift				
100	Pentachloroethane		NA				
	AvgRF	CCRF	%Dev				
101	sec-Butylbenzene		NA				
102	4-Isopropyltoluene		NA				
103	1,3-Dichlorobenzene		NA				
104	1,2,3-Trimethylbenzene		NA				

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# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076631.D

	Amount	Calc.	%Drift
105	1,4-Dichlorobenzene		NA
	AvgRF	CCRF	%Dev
106	n-Butylbenzene		NA
	Amount	Calc.	%Drift
107	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
108	1,2-Dichlorobenzene		NA
	Amount	Calc.	%Drift
109	1,2-Dibromo-3-Chloropropa		NA
110	Hexachlorobutadiene		NA
111	1,2,4-Trichlorobenzene		NA
	AvgRF	CCRF	%Dev
112	Naphthalene		NA
113	1,2,3-Trichlorobenzene		NA

(#) = Out of Range                      SPCC's out = 4    CCC's out = 6  
 2076623.D V20\_06-07-2023.M            Thu Jun 08 09:32:40 2023

6.7.2  
6

## Initial Calibration Verification

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076632.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-07\2076632.D Vial: 15  
 Acq On : 7 Jun 2023 4:02 pm Operator: joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	106	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.239	-29.2#	133	0.00	1.22
3 P	Chloromethane	0.188	0.199	-5.9	116	0.00	1.37
	----- Amount Calc. %Drift -----						
4	1,3-butadiene	25.000	21.916	12.3	91	0.00	1.45
	----- AvgRF CCRF %Dev -----						
5 C	Vinyl Chloride	0.194	0.207	-6.7	112	0.00	1.43
	----- Amount Calc. %Drift -----						
6	Bromomethane	25.000	27.914	-11.7	122	0.00	1.67
7	Chloroethane	25.000	24.999	0.0	104	0.00	1.75
	----- AvgRF CCRF %Dev -----						
8	Trichlorofluoromethane	0.366	0.376	-2.7	104	0.00	1.85
9	Ethyl Ether	0.173	0.177	-2.3	111	0.00	2.06
10	Ethanol			-----NA-----			
11	1,2-Dichlorotrifluoroetha	0.245	0.252	-2.9	109	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.291	5.2	100	0.00	2.18
13	Freon 113	0.216	0.219	-1.4	104	0.00	2.21
	----- Amount Calc. %Drift -----						
14	Carbon Disulfide	25.000	23.805	4.8	103	0.00	2.20
15	Iodomethane	25.000	26.121	-4.5	113	0.00	2.27
16	Acrolein	125.000	134.322	-7.5	116	0.00	2.39
	----- AvgRF CCRF %Dev -----						
17	Allyl chloride			-----NA-----			
	----- Amount Calc. %Drift -----						
18	Methylene Chloride	25.000	24.748	1.0	107	0.00	2.53
	----- AvgRF CCRF %Dev -----						
19	Acetone	0.115	0.099	13.9	94	0.00	2.56
20	Methyl acetate	0.272	0.239	12.1	95	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.297	4.2	103	0.00	2.63
22	Hexane	0.158	0.152	3.8	102	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.624	0.0	109	0.00	2.69
24	Tert Butyl Alcohol	0.039	0.040	-2.6	110	0.00	2.74
25	Acetonitrile	0.045	0.050	-11.1	127	0.00	2.83
26	Di-isopropyl ether	0.614	0.605	1.5	106	0.00	2.91

# Initial Calibration Verification

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V2O2981-ICV2981  
 Lab FileID: 2076632.D

		Amount	Calc.	%Drift			
27	Chloroprene	25.000	23.540	5.8	97	0.00	2.97
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane	0.403	0.384	4.7	103	0.00	2.98
29	Acrylonitrile	0.111	0.103	7.2	94	0.00	3.01
30	ETBE	0.584	0.598	-2.4	110	0.00	3.12
31	Vinyl acetate	0.438	0.463	-5.7	100	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.243	8.0	103	0.00	3.29
33	2,2-Dichloropropane	0.270	0.283	-4.8	113	0.00	3.35
34	Bromochloromethane	0.129	0.128	0.8	103	0.00	3.40
35	Cyclohexane	0.308	0.297	3.6	99	0.00	3.41
36 C	Chloroform	0.456	0.448	1.8	105	0.00	3.44
37	Ethyl acetate	0.328	0.315	4.0	91	0.00	3.50
38	Tetrahydrofuran	0.117	0.117	0.0	109	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.270	0.7	105	0.00	3.54
40	Carbon Tetrachloride	0.294	0.285	3.1	101	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.350	2.8	101	0.00	3.57
42	2-Butanone	0.178	0.160	10.1	95	0.00	3.61
43	1,1-Dichloropropene	0.301	0.298	1.0	104	0.00	3.64
		Amount	Calc.	%Drift			
44	tert-Butyl formate	125.000	156.333	-25.1#	144	0.00	3.70
		AvgRF	CCRF	%Dev			
45	Propionitrile	0.055	0.063	-14.5	118	0.00	3.78
46	Methacrylonitrile	0.192	0.216	-12.5	115	0.00	3.79
47	Benzene	0.910	0.907	0.3	108	0.00	3.78
48	TAME	0.554	0.561	-1.3	110	0.00	3.84
		Amount	Calc.	%Drift			
49	Isobutyl alcohol	500.000	579.850	-16.0	122	0.00	3.87
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.321	0.6	106	0.00	3.85
51	1,2-Dichloroethane	0.374	0.355	5.1	104	0.00	3.89
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol	250.000	254.654	-1.9	112	0.00	3.93
		AvgRF	CCRF	%Dev			
53	Trichloroethene	0.264	0.254	3.8	103	0.00	4.12
54	Methylcyclohexane	0.324	0.305	5.9	97	0.00	4.12
55	Dibromomethane	0.180	0.175	2.8	107	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.226	-3.7	113	0.00	4.43
57	Bromodichloromethane	0.305	0.290	4.9	101	0.00	4.46
		Amount	Calc.	%Drift			
58	Methyl methacrylate	25.000	26.725	-6.9	114	0.00	4.54
59	1,4-Dioxane	500.000	523.964	-4.8	114	0.00	4.59
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether	0.178	0.173	2.8	102	0.00	4.81
61	cis-1,3-Dichloropropene	0.329	0.330	-0.3	106	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00	6.02
63 S	Toluene-d8	1.333	1.346	-1.0	106	0.00	4.98
64 C	Toluene	1.336	1.330	0.4	106	0.00	5.01

6.7.3  
6

# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076632.D

	Amount	Calc.	%Drift			
65	2-Nitropropane	125.000	117.093	6.3	94	0.00 5.15
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.415	0.385	7.2	93	0.00 5.24
67	trans-1,3-Dichloropropene	0.451	0.430	4.7	99	0.00 5.27
68	Tetrachloroethene	0.347	0.351	-1.2	106	0.00 5.26
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	25.000	29.496	-18.0	121	0.00 5.37
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.281	0.273	2.8	101	0.00 5.38
71	Dibromochloromethane	0.316	0.336	-6.3	108	0.00 5.51
72	1,3-Dichloropropane	0.536	0.559	-4.3	111	0.00 5.57
73	1,2-Dibromoethane	0.366	0.363	0.8	108	0.00 5.67
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	1250.000	1246.189	0.3	104	0.00 5.78
	AvgRF	CCRF	%Dev			
75	2-hexanone	0.419	0.406	3.1	97	0.00 5.81
76	1-Chlorohexane	0.409	0.388	5.1	101	0.00 6.01
77 C	Ethylbenzene	1.460	1.458	0.1	105	0.00 6.05
78 P	Chlorobenzene	0.929	0.912	1.8	105	0.00 6.04
79	1,1,1,2-Tetrachloroethane	0.297	0.307	-3.4	104	0.00 6.08
80	m,p-Xylene	1.153	1.175	-1.9	106	0.00 6.15
81	o-Xylene	1.159	1.154	0.4	104	0.00 6.47
82	Styrene	0.883	0.921	-4.3	107	0.00 6.51
	Amount	Calc.	%Drift			
83 P	Bromoform	25.000	24.139	3.4	101	0.00 6.53
	AvgRF	CCRF	%Dev			
84	Isopropylbenzene	1.334	1.350	-1.2	104	0.00 6.71
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00 7.78
86 S	4-Bromofluorobenzene	0.731	0.734	-0.4	104	0.00 6.92
87	cis-1,4-Dichloro-2-butene	0.195	0.238	-22.1#	135	0.00 6.96
88	n-Propylbenzene	3.071	3.058	0.4	104	0.00 7.02
89	Bromobenzene	0.689	0.705	-2.3	110	0.00 7.00
90 P	1,1,2,2-Tetrachloroethane	0.996	0.995	0.1	105	0.00 7.07
91	1,3,5-Trimethylbenzene	2.195	2.284	-4.1	108	0.00 7.18
92	2-Chlorotoluene	2.151	2.176	-1.2	105	0.00 7.14
93	trans-1,4-Dichloro-2-Bute	0.180	0.171	5.0	102	0.00 7.21
94	1,2,3-Trichloropropane	0.319	0.329	-3.1	111	0.00 7.18
95	Cyclohexanone	0.034	0.043	-26.5#	118	0.00 7.21
96	4-Chlorotoluene	2.046	2.027	0.9	106	0.00 7.27
97	tert-Butylbenzene	1.192	1.194	-0.2	105	0.00 7.42
98	a-Methyl styrene			NA		
99	1,2,4-Trimethylbenzene	2.198	2.261	-2.9	107	0.00 7.48
	Amount	Calc.	%Drift			
100	Pentachloroethane	25.000	28.469	-13.9	117	0.00 7.44
	AvgRF	CCRF	%Dev			
101	sec-Butylbenzene	2.516	2.390	5.0	98	0.00 7.56
102	4-Isopropyltoluene	2.149	2.158	-0.4	104	0.00 7.67
103	1,3-Dichlorobenzene	1.369	1.300	5.0	102	0.00 7.73
104	1,2,3-Trimethylbenzene	2.336	2.275	2.6	104	0.00 7.81

6.7.3  
6

# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V2O2981-ICV2981  
**Lab FileID:** 2076632.D

	Amount	Calc.	%Drift				
105	1,4-Dichlorobenzene	25.000	25.028	-0.1	106	0.00	7.79
	AvgRF	CCRF	%Dev				
106	n-Butylbenzene	1.101	1.149	-4.4	109	0.00	7.99
	Amount	Calc.	%Drift				
107	Benzyl Chloride	25.000	24.864	0.5	104	0.00	7.98
	AvgRF	CCRF	%Dev				
108	1,2-Dichlorobenzene	1.310	1.251	4.5	103	0.00	8.10
	Amount	Calc.	%Drift				
109	1,2-Dibromo-3-Chloropropa	25.000	25.422	-1.7	104	0.00	8.68
110	Hexachlorobutadiene	25.000	23.736	5.1	100	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	24.530	1.9	103	0.00	9.15
	AvgRF	CCRF	%Dev				
112	Naphthalene	2.726	2.735	-0.3	106	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.708	4.8	104	0.00	9.50

(#) = Out of Range  
 2076622.D V2O\_06-07-2023.M

SPCC's out = 0 CCC's out = 0  
 Thu Jun 08 09:33:10 2023

6.7.3

6

## Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-CC2981  
 Lab FileID: 2077412.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-07-05\2077412.D Vial: 2  
 Acq On : 5 Jul 2023 8:36 am Operator: jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:01:58 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	87	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.205	-10.8	94	0.00	1.23
3 P	Chloromethane	0.188	0.191	-1.6	92	0.00	1.38
----- Amount Calc. %Drift -----							
4	1,3-butadiene	25.000	22.143	11.4	76	0.00	1.45
----- AvgRF CCRF %Dev -----							
5 C	Vinyl Chloride	0.194	0.211	-8.8	95	0.00	1.43
----- Amount Calc. %Drift -----							
6	Bromomethane	25.000	21.721	13.1	78	0.00	1.67
7	Chloroethane	25.000	41.988	-68.0#	111	0.00	1.75
----- AvgRF CCRF %Dev -----							
8	Trichlorofluoromethane	0.366	0.444	-21.3#	102	0.00	1.85
9	Ethyl Ether	0.173	0.151	12.7	78	0.00	2.06
10	Ethanol	0.004	0.004	0.0	84	0.00	2.15
11	1,2-Dichlorotrifluoroetha	0.245	0.248	-1.2	89	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.297	3.3	84	0.00	2.18
13	Freon 113	0.216	0.217	-0.5	85	0.00	2.21
----- Amount Calc. %Drift -----							
14	Carbon Disulfide	25.000	25.599	-2.4	91	0.00	2.20
15	Iodomethane	25.000	21.449	14.2	76	0.00	2.27
16	Acrolein	125.000	98.324	21.3#	70	0.00	2.38
----- AvgRF CCRF %Dev -----							
17	Allyl chloride	0.224	0.224	0.0	84	0.00	2.47
----- Amount Calc. %Drift -----							
18	Methylene Chloride	25.000	24.219	3.1	86	0.00	2.53
----- AvgRF CCRF %Dev -----							
19	Acetone	0.115	0.134	-16.5	106	0.00	2.56
20	Methyl acetate	0.272	0.263	3.3	87	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.285	8.1	82	0.00	2.63
22	Hexane	0.158	0.149	5.7	83	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.552	11.5	80	0.00	2.69
24	Tert Butyl Alcohol	0.039	0.036	7.7	81	0.00	2.73
25	Acetonitrile	0.045	0.045	0.0	95	0.00	2.82
26	Di-isopropyl ether	0.614	0.531	13.5	77	0.00	2.90



# Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-CC2981  
 Lab FileID: 2077412.D

		Amount	Calc.	%Drift			
27	Chloroprene	25.000	20.213	19.1	69	0.00	2.97
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane	0.403	0.385	4.5	85	0.00	2.98
29	Acrylonitrile	0.111	0.099	10.8	74	0.00	3.00
30	ETBE	0.584	0.544	6.8	82	0.00	3.11
31	Vinyl acetate	0.438	0.412	5.9	73	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.228	13.6	80	0.00	3.29
33	2,2-Dichloropropane	0.270	0.273	-1.1	91	0.00	3.35
34	Bromochloromethane	0.129	0.128	0.8	85	0.00	3.40
35	Cyclohexane	0.308	0.275	10.7	75	0.00	3.41
36 C	Chloroform	0.456	0.429	5.9	83	0.00	3.43
37	Ethyl acetate	0.328	0.299	8.8	72	0.00	3.49
38	Tetrahydrofuran	0.117	0.106	9.4	81	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.281	-3.3	90	0.00	3.54
40	Carbon Tetrachloride	0.294	0.305	-3.7	90	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.346	3.9	83	0.00	3.56
42	2-Butanone	0.178	0.166	6.7	81	0.00	3.60
43	1,1-Dichloropropene	0.301	0.285	5.3	83	0.00	3.63
		Amount	Calc.	%Drift			
44	tert-Butyl formate	125.000	147.105	-17.7	112	0.00	3.69
		AvgRF	CCRF	%Dev			
45	Propionitrile	0.055	0.057	-3.6	89	0.00	3.78
46	Methacrylonitrile	0.192	0.200	-4.2	88	0.00	3.79
47	Benzene	0.910	0.884	2.9	87	0.00	3.78
48	TAME	0.554	0.538	2.9	87	0.00	3.83
		Amount	Calc.	%Drift			
49	Isobutyl alcohol	500.000	510.021	-2.0	88	0.00	3.87
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.336	-4.0	92	0.00	3.85
51	1,2-Dichloroethane	0.374	0.342	8.6	83	0.00	3.89
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol	250.000	242.602	3.0	88	0.00	3.93
		AvgRF	CCRF	%Dev			
53	Trichloroethene	0.264	0.248	6.1	84	0.00	4.11
54	Methylcyclohexane	0.324	0.293	9.6	77	0.00	4.12
55	Dibromomethane	0.180	0.161	10.6	81	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.207	5.0	86	0.00	4.42
57	Bromodichloromethane	0.305	0.309	-1.3	89	0.00	4.46
		Amount	Calc.	%Drift			
58	Methyl methacrylate	25.000	21.475	14.1	76	0.00	4.54
59	1,4-Dioxane	500.000	410.808	17.8	73	0.00	4.58
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether	0.178	0.161	9.6	79	0.00	4.80
61	cis-1,3-Dichloropropene	0.329	0.326	0.9	87	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	86	0.00	6.02
63 S	Toluene-d8	1.333	1.314	1.4	85	0.00	4.97
64 C	Toluene	1.336	1.248	6.6	82	0.00	5.00

6.7.4

6

# Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-CC2981  
 Lab FileID: 2077412.D

	Amount	Calc.	%Drift			
65	2-Nitropropane	125.000	135.487	-8.4	92	0.00 5.15
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.415	0.407	1.9	81	0.00 5.24
67	trans-1,3-Dichloropropene	0.451	0.466	-3.3	89	0.00 5.26
68	Tetrachloroethene	0.347	0.318	8.4	79	0.00 5.26
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	25.000	21.707	13.2	73	0.00 5.36
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.281	0.279	0.7	85	0.00 5.37
71	Dibromochloromethane	0.316	0.319	-0.9	85	0.00 5.49
72	1,3-Dichloropropane	0.536	0.486	9.3	80	0.00 5.56
73	1,2-Dibromoethane	0.366	0.324	11.5	80	0.00 5.67
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	1250.000	1196.776	4.3	82	0.00 5.77
	AvgRF	CCRF	%Dev			
75	2-hexanone	0.419	0.418	0.2	83	0.00 5.80
76	1-Chlorohexane	0.409	0.345	15.6	75	0.00 6.01
77 C	Ethylbenzene	1.460	1.342	8.1	80	0.00 6.04
78 P	Chlorobenzene	0.929	0.864	7.0	82	0.00 6.03
79	1,1,1,2-Tetrachloroethane	0.297	0.309	-4.0	87	0.00 6.07
80	m,p-Xylene	1.153	1.049	9.0	79	0.00 6.15
81	o-Xylene	1.159	0.960	17.2	71	0.00 6.46
82	Styrene	0.883	0.782	11.4	75	0.00 6.50
	Amount	Calc.	%Drift			
83 P	Bromoform	25.000	25.379	-1.5	88	0.00 6.52
	AvgRF	CCRF	%Dev			
84	Isopropylbenzene	1.334	1.107	17.0	71	0.00 6.70
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	80	-0.01 7.77
86 S	4-Bromofluorobenzene	0.731	0.702	4.0	78	0.00 6.91
87	cis-1,4-Dichloro-2-butene	0.195	0.170	12.8	76	0.00 6.96
88	n-Propylbenzene	3.071	2.759	10.2	73	0.00 7.01
89	Bromobenzene	0.689	0.625	9.3	77	0.00 6.99
90 P	1,1,2,2-Tetrachloroethane	0.996	0.963	3.3	79	0.00 7.06
91	1,3,5-Trimethylbenzene	2.195	1.956	10.9	73	0.00 7.16
92	2-Chlorotoluene	2.151	1.911	11.2	72	0.00 7.13
93	trans-1,4-Dichloro-2-Bute	0.180	0.154	14.4	72	-0.01 7.20
94	1,2,3-Trichloropropane	0.319	0.302	5.3	80	0.00 7.17
95	Cyclohexanone	0.034	0.030	11.8	64	-0.01 7.20
96	4-Chlorotoluene	2.046	1.810	11.5	74	-0.01 7.26
97	tert-Butylbenzene	1.192	1.006	15.6	69	0.00 7.41
98	a-Methyl styrene			NA		
99	1,2,4-Trimethylbenzene	2.198	1.947	11.4	72	0.00 7.47
	Amount	Calc.	%Drift			
100	Pentachloroethane	25.000	27.047	-8.2	86	0.00 7.43
	AvgRF	CCRF	%Dev			
101	sec-Butylbenzene	2.516	2.163	14.0	69	0.00 7.56
102	4-Isopropyltoluene	2.149	1.812	15.7	68	0.00 7.66
103	1,3-Dichlorobenzene	1.369	1.235	9.8	76	0.00 7.72
104	1,2,3-Trimethylbenzene	2.336	2.071	11.3	74	-0.01 7.80

6.7.4  
6

# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203017-CC2981  
**Lab FileID:** 2077412.D

	Amount	Calc.	%Drift				
105	1,4-Dichlorobenzene	25.000	23.202	7.2	77	-0.01	7.78
	AvgRF	CCRF	%Dev				
106	n-Butylbenzene	1.101	0.965	12.4	71	0.00	7.98
	Amount	Calc. <td>%Drift</td> <td colspan="3"></td>	%Drift				
107	Benzyl Chloride	25.000	28.811	-15.2	97	0.00	7.97
	AvgRF	CCRF	%Dev				
108	1,2-Dichlorobenzene	1.310	1.156	11.8	75	-0.01	8.09
	Amount	Calc. <td>%Drift</td> <td colspan="3"></td>	%Drift				
109	1,2-Dibromo-3-Chloropropa	25.000	23.998	4.0	76	-0.01	8.66
110	Hexachlorobutadiene	25.000	22.357	10.6	74	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	19.913	20.3#	65	-0.01	9.14
	AvgRF	CCRF	%Dev				
112	Naphthalene	2.726	2.109	22.6#	64	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.613	17.6	71	-0.01	9.49

(#) = Out of Range  
 2076622.D V20\_06-07-2023.M

SPCC's out = 0 CCC's out = 0  
 Wed Jul 05 09:17:00 2023

6.7.4

6

## Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-ECC2981  
 Lab FileID: 2077438.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ce...023\V203017\2077438.d Vial: 28  
 Acq On : 5 Jul 2023 7:38 pm Operator: jeniferw  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54357,V203017,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\1\met...V2O\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:01:58 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	84	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.217	-17.3	97	0.00	1.22
3 P	Chloromethane	0.188	0.217	-15.4	101	0.00	1.37
	----- True Calc. % Drift -----						
4	1,3-butadiene	25.000	23.781	4.9	78	0.00	1.44
	----- AvgRF CCRF % Dev -----						
5 C	Vinyl Chloride	0.194	0.238	-22.7#	103	0.00	1.43
	----- True Calc. % Drift -----						
6	Bromomethane	25.000	24.004	4.0	84	0.00	1.67
7	Chloroethane	25.000	-50.000	300.0#	117	0.00	1.75
	----- AvgRF CCRF % Dev -----						
8	Trichlorofluoromethane	0.366	0.484	-32.2	107	0.00	1.85
9	Ethyl Ether	0.173	0.151	12.7	76	0.00	2.05
10	Ethanol	0.004	0.004	0.0	81	0.00	2.15
11	1,2-Dichlorotrifluoroetha	0.245	0.245	0.0	85	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.285	7.2	78	0.00	2.18
13	Freon 113	0.216	0.207	4.2	78	0.00	2.20
	----- True Calc. % Drift -----						
14	Carbon Disulfide	25.000	24.135	3.5	83	0.00	2.20
15	Iodomethane	25.000	25.017	-0.1	86	0.00	2.27
16	Acrolein	125.000	103.707	17.0	71	0.00	2.38
	----- AvgRF CCRF % Dev -----						
17	Allyl chloride	0.224	0.224	0.0	82	0.00	2.46
	----- True Calc. % Drift -----						
18	Methylene Chloride	25.000	24.895	0.4	86	0.00	2.53
	----- AvgRF CCRF % Dev -----						
19	Acetone	0.115	0.116	-0.9	89	0.00	2.55
20	Methyl acetate	0.272	0.286	-5.1	91	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.292	5.8	81	0.00	2.62
22	Hexane	0.158	0.142	10.1	76	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.553	11.4	77	0.00	2.68
24	Tert Butyl Alcohol	0.039	0.035	10.3	77	0.00	2.73
25	Acetonitrile	0.045	0.042	6.7	86	0.00	2.82
26	Di-isopropyl ether	0.614	0.544	11.4	76	0.00	2.90

# Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-ECC2981  
 Lab FileID: 2077438.D

		True	Calc.	% Drift			
27	Chloroprene	25.000	21.632	13.5	71	0.00	2.97
		AvgRF	CCRF	% Dev			
28 P	1,1-Dichloroethane	0.403	0.399	1.0	86	0.00	2.98
29	Acrylonitrile	0.111	0.108	2.7	79	0.00	3.00
30	ETBE	0.584	0.536	8.2	78	0.00	3.11
31	Vinyl acetate	0.438	0.375	14.4	64	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.233	11.7	79	0.00	3.29
33	2,2-Dichloropropane	0.270	0.252	6.7	81	0.00	3.35
34	Bromochloromethane	0.129	0.122	5.4	78	0.00	3.40
35	Cyclohexane	0.308	0.285	7.5	75	0.00	3.41
36 C	Chloroform	0.456	0.429	5.9	80	0.00	3.43
37	Ethyl acetate	0.328	0.306	6.7	71	0.00	3.49
38	Tetrahydrofuran	0.117	0.105	10.3	78	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.274	-0.7	85	0.00	3.54
40	Carbon Tetrachloride	0.294	0.299	-1.7	85	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.353	1.9	81	0.00	3.56
42	2-Butanone	0.178	0.177	0.6	84	0.00	3.60
43	1,1-Dichloropropene	0.301	0.294	2.3	82	0.00	3.63
		True	Calc.	% Drift			
44	tert-Butyl formate	125.000	149.736	-19.8	110	0.00	3.69
		AvgRF	CCRF	% Dev			
45	Propionitrile	0.055	0.058	-5.5	86	0.00	3.78
46	Methacrylonitrile	0.192	0.206	-7.3	88	0.00	3.79
47	Benzene	0.910	0.889	2.3	84	0.00	3.78
48	TAME	0.554	0.521	6.0	81	0.00	3.83
		True	Calc.	% Drift			
49	Isobutyl alcohol	500.000	497.354	0.5	83	0.00	3.87
		AvgRF	CCRF	% Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.330	-2.2	87	0.00	3.85
51	1,2-Dichloroethane	0.374	0.342	8.6	80	0.00	3.89
		True	Calc.	% Drift			
52	Tert Amyl Alcohol	250.000	224.537	10.2	78	0.00	3.93
		AvgRF	CCRF	% Dev			
53	Trichloroethene	0.264	0.250	5.3	81	0.00	4.11
54	Methylcyclohexane	0.324	0.296	8.6	75	0.00	4.12
55	Dibromomethane	0.180	0.165	8.3	81	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.212	2.8	85	0.00	4.42
57	Bromodichloromethane	0.305	0.297	2.6	82	0.00	4.46
		True	Calc.	% Drift			
58	Methyl methacrylate	25.000	23.711	5.2	81	0.00	4.54
59	1,4-Dioxane	500.000	434.217	13.2	75	0.00	4.58
		AvgRF	CCRF	% Dev			
60	2-Chloroethyl vinyl ether	0.178	0.170	4.5	81	0.00	4.80
61	cis-1,3-Dichloropropene	0.329	0.318	3.3	82	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	83	0.00	6.02
63 S	Toluene-d8	1.333	1.309	1.8	83	0.00	4.97
64 C	Toluene	1.336	1.300	2.7	83	0.00	5.01

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# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203017-ECC2981  
**Lab FileID:** 2077438.D

		True	Calc.	% Drift			
65	2-Nitropropane	125.000	124.910	0.1	81	0.00	5.15
		AvgRF	CCRF	% Dev			
66	4-Methyl-2-pentanone	0.415	0.456	-9.9	89	0.00	5.24
67	trans-1,3-Dichloropropene	0.451	0.458	-1.6	85	0.00	5.27
68	Tetrachloroethene	0.347	0.347	0.0	84	0.00	5.26
		True	Calc.	% Drift			
69	Ethyl methacrylate	25.000	22.664	9.3	74	0.00	5.37
		AvgRF	CCRF	% Dev			
70	1,1,2-Trichloroethane	0.281	0.274	2.5	81	0.00	5.37
71	Dibromochloromethane	0.316	0.302	4.4	78	0.00	5.50
72	1,3-Dichloropropane	0.536	0.484	9.7	78	0.00	5.56
73	1,2-Dibromoethane	0.366	0.320	12.6	76	0.00	5.67
		True	Calc.	% Drift			
74	3,3-dimethyl-1-butanol	1250.000	1292.659	-3.4	87	0.00	5.78
		AvgRF	CCRF	% Dev			
75	2-hexanone	0.419	0.463	-10.5	89	0.00	5.81
76	1-Chlorohexane	0.409	0.352	13.9	74	0.00	6.01
77 C	Ethylbenzene	1.460	1.372	6.0	79	0.00	6.05
78 P	Chlorobenzene	0.929	0.872	6.1	81	0.00	6.03
79	1,1,1,2-Tetrachloroethane	0.297	0.299	-0.7	82	0.00	6.07
80	m,p-Xylene	1.153	1.088	5.6	79	0.00	6.15
81	o-Xylene	1.159	1.001	13.6	72	0.00	6.46
82	Styrene	0.883	0.793	10.2	74	0.00	6.50
		True	Calc.	% Drift			
83 P	Bromoform	25.000	23.522	5.9	79	0.00	6.52
		AvgRF	CCRF	% Dev			
84	Isopropylbenzene	1.334	1.162	12.9	72	0.00	6.70
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	78	0.00	7.77
86 S	4-Bromofluorobenzene	0.731	0.709	3.0	77	0.00	6.92
87	cis-1,4-Dichloro-2-butene	0.195	0.150	23.1	65	0.00	6.96
88	n-Propylbenzene	3.071	2.899	5.6	75	0.00	7.02
89	Bromobenzene	0.689	0.628	8.9	75	0.00	6.99
90 P	1,1,2,2-Tetrachloroethane	0.996	0.966	3.0	78	0.00	7.06
91	1,3,5-Trimethylbenzene	2.195	2.056	6.3	75	0.00	7.17
92	2-Chlorotoluene	2.151	2.011	6.5	74	0.00	7.14
93	trans-1,4-Dichloro-2-Bute	0.180	0.137	23.9	62	0.00	7.20
94	1,2,3-Trichloropropane	0.319	0.304	4.7	79	0.00	7.17
95	Cyclohexanone	0.034	0.033	2.9	69	0.00	7.21
96	4-Chlorotoluene	2.046	1.885	7.9	75	0.00	7.27
97	tert-Butylbenzene	1.192	1.067	10.5	72	0.00	7.42
98	a-Methyl styrene			NA			
99	1,2,4-Trimethylbenzene	2.198	2.006	8.7	73	0.00	7.47
		True	Calc.	% Drift			
100	Pentachloroethane	25.000	25.532	-2.1	79	0.00	7.43
		AvgRF	CCRF	% Dev			
101	sec-Butylbenzene	2.516	2.285	9.2	71	0.00	7.56
102	4-Isopropyltoluene	2.149	1.912	11.0	70	0.00	7.66
103	1,3-Dichlorobenzene	1.369	1.268	7.4	76	0.00	7.72
104	1,2,3-Trimethylbenzene	2.336	2.153	7.8	75	0.00	7.81

# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203017-ECC2981  
**Lab FileID:** 2077438.D

	----- True	Calc.	% Drift	-----			
105	1,4-Dichlorobenzene	25.000	23.794	4.8	77	0.00	7.79
	----- AvgRF	CCRF	% Dev	-----			
106	n-Butylbenzene	1.101	0.993	9.8	72	0.00	7.98
	----- True	Calc.	% Drift	-----			
107	Benzyl Chloride	25.000	23.837	4.7	76	0.00	7.97
	----- AvgRF	CCRF	% Dev	-----			
108	1,2-Dichlorobenzene	1.310	1.182	9.8	75	0.00	8.10
	----- True	Calc.	% Drift	-----			
109	1,2-Dibromo-3-Chloropropa	25.000	22.423	10.3	69	0.00	8.67
110	Hexachlorobutadiene	25.000	23.961	4.2	77	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	21.023	15.9	67	0.00	9.15
	----- AvgRF	CCRF	% Dev	-----			
112	Naphthalene	2.726	2.152	21.1	63	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.625	16.0	70	0.00	9.49

(#) = Out of Range  
 2076622.D V20\_06-07-2023.M

SPCC's out = 0 CCC's out = 1  
 Wed Jul 05 21:12:29 2023

6.7.5

6

# Initial Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

## Response Factor Report MSVOA16

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

### Calibration Files

1 =I757261.D 2 =I757262.D 3 =I757263.D 4 =I757264.D  
 5 =I757265.D 6 =I757266.D 7 =I757267.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
-----									
1) I Fluorobenzene	-----ISTD-----								
2) Dichlorodifluorom	0.230	0.235	0.217	0.216	0.196	0.216	0.228	0.220	5.90
3)P Chloromethane	0.329	0.277	0.233	0.214	0.216	0.227	0.224	0.246	17.15
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9987								
	Response Ratio = 0.00000 + 0.22695 *A + -0.00178 *A^2								
4)C Vinyl Chloride	0.226	0.253	0.218	0.211	0.205	0.222	0.228	0.223	6.91
5) 1,3-Butadiene	0.240	0.260	0.194	0.205	0.165	0.184	0.185	0.205	16.49
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9940								
	Response Ratio = 0.00000 + 0.19523 *A + -0.00710 *A^2								
6) Bromomethane	0.282	0.109	0.074	0.069	0.073	0.081	0.077	0.109	70.57
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9963								
	Response Ratio = 0.00000 + 0.07544 *A + 0.00124 *A^2								
7) Chloroethane	0.233	0.158	0.117	0.095	0.089	0.092	0.090	0.125	43.28
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9947								
	Response Ratio = 0.00000 + 0.09359 *A								
8) Trichlorofluorome	0.318	0.327	0.303	0.289	0.277	0.298	0.300	0.302	5.56
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9989								
	Response Ratio = 0.00000 + 0.29537 *A								
9) Ethyl Ether	0.156	0.151	0.138	0.154	0.153	0.168	0.163	0.155	6.18
10) 1,2-Dichlorotrifl	0.210	0.215	0.192	0.207	0.183	0.215	0.218	0.206	6.39
11)C 1,1-Dichloroethen	0.269	0.282	0.247	0.276	0.246	0.287	0.292	0.271	6.81
12) Ethanol	0.012	0.009	0.008	0.008	0.007	0.008	0.007	0.008	22.81
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9954								
	Response Ratio = 0.00000 + 0.00796 *A + -0.00003 *A^2								
13) Freon 113	0.163	0.172	0.158	0.172	0.146	0.178	0.190	0.169	8.46
14) Carbon Disulfide	0.640	0.581	0.490	0.544	0.488	0.574	0.583	0.557	9.76
15) Iodomethane	0.113	0.084	0.081	0.132	0.141	0.141		0.115	23.88
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9965								
	Response Ratio = 0.00000 + 0.12493 *A + 0.01219 *A^2								
16) Acrolein	0.093	0.058	0.074	0.071	0.068	0.080	0.077	0.075	14.49
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9971								
	Response Ratio = 0.00000 + 0.06843 *A + 0.00104 *A^2								
17) Allyl chloride	0.322	0.349	0.252	0.261	0.239	0.266	0.256	0.278	14.79
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9963								
	Response Ratio = 0.00000 + 0.26329 *A + -0.00342 *A^2								
18) Methylene Chlorid	0.554	0.326	0.258	0.268	0.261	0.274	0.260	0.314	34.39
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9977								

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# Initial Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

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Response Ratio = 0.00000 + 0.28093 \*A + -0.00979 \*A^2

19)	Acetone	0.210	0.110	0.158	0.129	0.127	0.140	0.133	0.144	22.61
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9957								
		Response Ratio = 0.00000 + 0.13453 *A + 0.00001 *A^2								
20)	Methyl acetate	0.262	0.249	0.256	0.290	0.287	0.323	0.306	0.282	9.76
21)	trans-1,2-Dichlor	0.288	0.304	0.255	0.280	0.268	0.301	0.298	0.285	6.42
22)	Hexane	0.152	0.140	0.124	0.146	0.123	0.144	0.148	0.140	8.23
23)	Methyl Tert Butyl	0.615	0.576	0.544	0.602	0.597	0.648	0.628	0.601	5.70
24)	Tert butyl alchoh	0.080	0.070	0.075	0.085	0.083	0.094	0.088	0.082	9.98
25)	Acetonitrile	0.121	0.071	0.059	0.056	0.050	0.053	0.047	0.065	39.28
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9962								
		Response Ratio = 0.00000 + 0.06065 *A + -0.00067 *A^2								
26)	Di-isopropyl ethe	0.645	0.625	0.566	0.627	0.621	0.672	0.648	0.629	5.23
27)	Chloroprene	0.276	0.347	0.262	0.280	0.248	0.292	0.301	0.287	11.16
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9964								
		Response Ratio = 0.00000 + 0.26060 *A + 0.01926 *A^2								
28)P	1,1-Dichloroethan	0.359	0.411	0.334	0.372	0.357	0.397	0.385	0.374	6.99
29)	Acrylonitrile	0.119	0.112	0.138	0.151	0.139	0.153	0.147	0.137	11.57
30)	ETBE	0.626	0.623	0.535	0.598	0.595	0.642	0.620	0.606	5.78
31)	Vinyl acetate	0.333	0.298	0.357	0.415	0.405	0.445	0.431	0.384	14.28
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9979								
		Response Ratio = 0.00000 + 0.38215 *A + 0.00599 *A^2								
32)	cis-1,2-Dichloroe	0.220	0.238	0.197	0.221	0.219	0.242	0.236	0.225	6.96
33)	2,2-Dichloropropa	0.294	0.306	0.255	0.280	0.263	0.299	0.298	0.285	6.81
34)	Bromochloromethan	0.121	0.120	0.105	0.114	0.114	0.121	0.116	0.116	4.77
35)	Cyclohexane	0.310	0.310	0.290	0.318	0.265	0.315	0.332	0.305	7.16
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9969								
		Response Ratio = 0.00000 + 0.27692 *A + 0.02616 *A^2								
36)C	Chloroform	0.414	0.413	0.348	0.380	0.369	0.408	0.397	0.390	6.47
37)	Ethyl acetate	0.261	0.236	0.301	0.346	0.328	0.367	0.358	0.314	15.99
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9978								
		Response Ratio = 0.00000 + 0.31225 *A + 0.00542 *A^2								
38)	Tetrahydrofuran	0.169	0.147	0.146	0.156	0.149	0.164	0.157	0.155	5.64
39)S	Dibromofluorometh	0.278	0.279	0.280	0.290	0.287	0.284	0.289	0.284	1.73
40)	Carbon Tetrachlor	0.274	0.283	0.243	0.276	0.247	0.292	0.303	0.274	8.05
41)	1,1,1-Trichloroet	0.324	0.339	0.291	0.322	0.298	0.341	0.343	0.323	6.45
42)	2-Butanone	0.168	0.136	0.230	0.198	0.204	0.231	0.227	0.199	17.98
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9965								
		Response Ratio = 0.00000 + 0.19383 *A + 0.00380 *A^2								
43)	1,1-Dichloropropo	0.232	0.269	0.235	0.259	0.238	0.273	0.275	0.255	7.51
44)	tert-Butyl Format	0.149	0.146	0.144	0.150	0.159	0.176	0.171	0.156	8.16
45)	Propionitrile	0.063	0.076	0.065	0.070	0.064	0.072	0.070	0.069	6.66
46)	Methacrylonitrile	0.207	0.238	0.196	0.195	0.182	0.200	0.193	0.201	8.76
47)	Benzene	0.790	0.830	0.720	0.769	0.742	0.814	0.798	0.780	5.01
48)	TAME	0.628	0.598	0.520	0.574	0.574	0.616	0.594	0.586	6.05
49)S	1,2-Dichloroethan	0.260	0.256	0.260	0.269	0.254	0.249	0.259	0.258	2.50
50)	Isobutyl alcohol	0.019	0.016	0.016	0.018	0.017	0.020	0.021	0.018	11.24
51)	1,2-Dichloroethan	0.299	0.271	0.246	0.265	0.260	0.283	0.274	0.271	6.18
52)	Tert Amyl Alcohol	0.062	0.053	0.061	0.071	0.069	0.079	0.077	0.068	13.63
53)	Trichloroethene	0.263	0.214	0.190	0.210	0.199	0.226	0.226	0.218	10.87
54)	Methylcyclohexane	0.269	0.282	0.263	0.287	0.238	0.289	0.303	0.276	7.72
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9966								

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# Initial Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

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Response Ratio = 0.00000 + 0.24923 \*A + 0.02580 \*A^2

55)	Dibromomethane	0.148	0.134	0.124	0.134	0.138	0.150	0.148	0.139	6.94
56)C	1,2-Dichloropropa	0.206	0.202	0.181	0.196	0.197	0.217	0.210	0.201	5.76
57)	Bromodichlorometh	0.264	0.275	0.250	0.273	0.276	0.305	0.298	0.277	6.84
58)	Methyl methacryla	0.053	0.205	0.185	0.226	0.226	0.256	0.252	0.200	34.65
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9981								
		Response Ratio = 0.00000 + 0.20577 *A + 0.02624 *A^2								
59)	1,4-Dioxane	0.005	0.005	0.006	0.007	0.006	0.007	0.007	0.006	15.55
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9976								
		Response Ratio = 0.00000 + 0.00610 *A + 0.00002 *A^2								
60)	2-Chloroethyl vin	0.074	0.112	0.116	0.119	0.127	0.138	0.132	0.117	17.92
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9986								
		Response Ratio = 0.00000 + 0.11892 *A + 0.00165 *A^2								
61)	cis-1,3-Dichlorop	0.286	0.306	0.277	0.312	0.317	0.351	0.340	0.313	8.52
62) I	Chlorobenzene-d5	-----ISTD-----								
63)S	Toluene-d8	1.370	1.360	1.434	1.445	1.457	1.464	1.451	1.426	3.01
64)C	Toluene	1.152	1.163	1.039	1.121	1.098	1.230	1.183	1.141	5.40
65)	2-Nitropropane	0.095	0.082	0.089	0.107	0.111	0.128	0.124	0.105	16.56
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9969								
		Response Ratio = 0.00000 + 0.09900 *A + 0.00290 *A^2								
66)	4-Methyl-2-pentan	0.476	0.378	0.593	0.486	0.491	0.534	0.504	0.494	13.16
67)	trans-1,3-Dichlor	0.208	0.351	0.329	0.389	0.397	0.436	0.420	0.361	21.28
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9983								
		Response Ratio = 0.00000 + 0.36809 *A + 0.03171 *A^2								
68)	Tetrachloroethene	0.341	0.348	0.323	0.345	0.320	0.372	0.367	0.345	5.69
69)	Ethyl methacrylat	0.194	0.365	0.320	0.372	0.364	0.407	0.390	0.344	20.83
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9981								
		Response Ratio = 0.00000 + 0.35184 *A + 0.02388 *A^2								
70)	1,1,2-Trichloroet	0.237	0.230	0.216	0.229	0.232	0.249	0.235	0.233	4.32
71)	Dibromochlorometh	0.311	0.293	0.285	0.324	0.330	0.362	0.348	0.322	8.67
72)	1,3-Dichloropropa	0.361	0.382	0.368	0.411	0.422	0.459	0.435	0.405	9.03
73)	1,2-Dibromoethane	0.290	0.269	0.273	0.303	0.306	0.337	0.323	0.300	8.33
74)	3,3-dimethyl-1-bu	0.063	0.060	0.080	0.088	0.092	0.106	0.099	0.084	20.80
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9959								
		Response Ratio = 0.00000 + 0.08317 *A + 0.00020 *A^2								
75)	2-hexanone	0.296	0.276	0.468	0.387	0.392	0.433	0.421	0.382	18.64
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9961								
		Response Ratio = 0.00000 + 0.38610 *A + 0.00420 *A^2								
76)	1-Chlorohexane	0.346	0.310	0.296	0.319	0.292	0.346	0.349	0.323	7.51
77)C	Ethylbenzene	1.306	1.240	1.131	1.209	1.169	1.308	1.260	1.232	5.45
78)P	Chlorobenzene	0.740	0.779	0.703	0.750	0.735	0.802	0.768	0.754	4.31
79)	1,1,1,2-Tetrachlo	0.305	0.283	0.260	0.288	0.288	0.316	0.303	0.292	6.29
80)	m,p-Xylene	0.860	0.927	0.854	0.926	0.907	1.015	0.985	0.925	6.45
81)	o-Xylene	1.002	0.996	0.922	0.976	0.962	1.072	1.031	0.994	4.87
82)	Styrene	0.498	0.625	0.611	0.702	0.711	0.800	0.771	0.674	15.44
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9982								
		Response Ratio = 0.00000 + 0.66427 *A + 0.06420 *A^2								
83)P	Bromoform	0.243	0.238	0.240	0.272	0.287	0.317	0.303	0.271	11.82
84)	Isopropylbenzene	1.168	1.191	1.080	1.163	1.114	1.254	1.221	1.170	5.10

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# Initial Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

85) I	1,4-Dichlorobenzene-d	-----ISTD-----								
86) S	4-Bromofluorobenz	0.828	0.841	0.833	0.838	0.855	0.856	0.842	0.842	1.25
87)	cis-1,4-Dichloro-	0.152	0.175	0.156	0.175	0.182	0.212	0.204	0.179	12.53
88)	n-Propylbenzene	2.223	2.363	1.993	2.137	2.074	2.369	2.249	2.201	6.44
89)	Bromobenzene	0.567	0.589	0.512	0.546	0.553	0.614	0.570	0.564	5.75
90) P	1,1,2,2-Tetrachlo	0.827	0.773	0.705	0.749	0.756	0.823	0.754	0.769	5.61
91)	1,3,5-Trimethylbe	1.547	1.703	1.450	1.534	1.510	1.704	1.595	1.577	6.10
92)	2-Chlorotoluene	1.516	1.610	1.392	1.468	1.430	1.604	1.490	1.501	5.50
93)	trans-1,4-Dichlor	0.108	0.140	0.147	0.185	0.193	0.226	0.214	0.173	24.85
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9960										
Response Ratio = 0.00000 + 0.19294 *A + 0.01285 *A^2										
94)	1,2,3-Trichloropr	0.229	0.239	0.221	0.237	0.235	0.264	0.240	0.238	5.58
95)	Cyclohexanone	0.060	0.045	0.052	0.054	0.050	0.057	0.053	0.053	9.27
96)	4-Chlorotoluene	1.337	1.391	1.230	1.302	1.331	1.483	1.384	1.351	5.86
97)	tert-Butylbenzene	0.849	0.896	0.785	0.804	0.786	0.894	0.856	0.838	5.71
98)	1,2,4-Trimethylbe	1.550	1.650	1.395	1.501	1.511	1.695	1.573	1.554	6.40
99)	Pentachloroethane	0.339	0.405	0.299	0.331	0.327	0.369	0.345	0.345	9.82
100)	sec-Butylbenzene	1.972	1.970	1.708	1.760	1.670	1.932	1.846	1.837	6.87
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9978										
Response Ratio = 0.00000 + 1.73377 *A + 0.07069 *A^2										
101)	4-Isopropyltoluen	1.497	1.699	1.441	1.535	1.494	1.710	1.624	1.571	6.77
102)	1,3-Dichlorobenze	0.930	1.003	0.869	0.948	0.967	1.078	1.012	0.972	6.85
103)	1,2,3-Trimethylbe	1.731	1.736	1.467	1.539	1.567	1.747	1.607	1.628	6.85
104)	1,4-Dichlorobenze	1.163	1.088	0.943	0.993	1.002	1.108	1.020	1.045	7.35
105)	n-Butylbenzene	0.669	0.803	0.700	0.777	0.756	0.870	0.833	0.773	9.19
106)	Benzyl Chloride	0.207	0.234	0.222	0.263	0.282	0.325	0.298	0.262	16.43
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9951										
Response Ratio = 0.00000 + 0.25719 *A + 0.02740 *A^2										
107)	1,2-Dichlorobenze	0.946	0.990	0.863	0.917	0.939	1.048	0.967	0.953	6.08
108)	1,2-Dibromo-3-Chl	0.190	0.166	0.172	0.192	0.198	0.229	0.215	0.194	11.46
109)	Hexachlorobutadie	0.336	0.349	0.298	0.312	0.294	0.335	0.337	0.323	6.65
110)	1,2,4-Trichlorobe	0.682	0.721	0.618	0.675	0.701	0.798	0.734	0.704	7.93
111)	Naphthalene	2.074	2.030	1.942	2.175	2.267	2.569	2.358	2.202	9.76
112)	1,2,3-Trichlorobe	0.725	0.722	0.609	0.670	0.693	0.776	0.719	0.702	7.44

(#) = Out of Range

VI-2023-06-15.m

Thu Jun 15 14:54:00 2023

## Initial Calibration Verification

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2948-ICV2948  
 Lab FileID: I757269.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-15\I757269.D Vial: 10  
 Acq On : 15 Jun 2023 2:04 pm Operator: joannel  
 Sample : ICV2948-5 Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	100	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.195	11.4	99	0.00	2.35
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane	40.000	35.621	10.9	93	0.00	2.64
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride	0.223	0.185	17.0	90	0.00	2.77
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene			NA			
6	Bromomethane	40.000	35.861	10.3	94	0.00	3.23
7	Chloroethane	40.000	32.753	18.1	87	0.00	3.40
8	Trichlorofluoromethane	40.000	32.473	18.8	87	0.00	3.59
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether	0.155	0.165	-6.5	108	0.00	4.02
10	1,2-Dichlorotrifluoroetha	0.206	0.189	8.3	103	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.231	14.8	94	0.00	4.28
	----- Amount	Calc.	%Drift	-----			
12	Ethanol	800.000	755.110	5.6	107	0.00	4.21
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113	0.169	0.150	11.2	103	0.00	4.32
14	Carbon Disulfide	0.557	0.460	17.4	94	0.00	4.33
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane	40.000	41.691	-4.2	100	0.00	4.46
16	Acrolein	200.000	185.924	7.0	99	0.00	4.68
17	Allyl chloride	40.000	34.765	13.1	95	0.00	4.85
18	Methylene Chloride	40.000	38.344	4.1	101	0.00	4.98
19	Acetone	200.000	194.726	2.6	103	0.00	5.03
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate	0.282	0.279	1.1	97	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.259	9.1	97	0.00	5.18
22	Hexane	0.140	0.124	11.4	101	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.617	-2.7	103	0.00	5.30
24	Tert butyl alcohol	0.082	0.091	-11.0	110	0.00	5.39
	----- Amount	Calc.	%Drift	-----			

# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

25	Acetonitrile	400.000	389.314	2.7	108	0.00	5.56
	----- AvgRF	CCRF	%Dev	-----			
26	Di-isopropyl ether	0.629	0.606	3.7	98	0.00	5.73
	----- Amount	Calc.	%Drift	-----			
27	Chloroprene			-----NA-----			
	----- AvgRF	CCRF	%Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.339	9.4	95	0.00	5.88
29	Acrylonitrile	0.137	0.146	-6.6	105	0.00	5.92
30	ETBE	0.606	0.611	-0.8	103	0.00	6.13
	----- Amount	Calc.	%Drift	-----			
31	Vinyl acetate	200.000	208.013	-4.0	105	0.00	6.14
	----- AvgRF	CCRF	%Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.208	7.6	95	0.00	6.51
33	2,2-Dichloropropane	0.285	0.272	4.6	103	0.00	6.62
34	Bromochloromethane	0.116	0.109	6.0	96	0.00	6.73
	----- Amount	Calc.	%Drift	-----			
35	Cyclohexane	40.000	34.412	14.0	96	0.00	6.76
	----- AvgRF	CCRF	%Dev	-----			
36 C	Chloroform	0.390	0.365	6.4	99	0.00	6.79
	----- Amount	Calc.	%Drift	-----			
37	Ethyl acetate	200.000	196.355	1.8	100	0.00	6.88
	----- AvgRF	CCRF	%Dev	-----			
38	Tetrahydrofuran	0.155	0.152	1.9	102	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.290	-2.1	101	0.00	6.99
40	Carbon Tetrachloride	0.274	0.238	13.1	96	0.00	6.98
41	1,1,1-Trichloroethane	0.323	0.289	10.5	97	0.00	7.04
	----- Amount	Calc.	%Drift	-----			
42	2-Butanone	200.000	199.356	0.3	102	0.00	7.10
	----- AvgRF	CCRF	%Dev	-----			
43	1,1-Dichloropropene	0.255	0.234	8.2	98	0.00	7.17
44	tert-Butyl Formate	0.156	0.205	-31.4#	129	0.00	7.26
45	Propionitrile	0.069	0.064	7.2	100	0.00	7.41
46	Methacrylonitrile	0.201	0.178	11.4	98	0.00	7.44
47	Benzene	0.780	0.729	6.5	98	0.00	7.43
48	TAME	0.586	0.575	1.9	100	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.257	0.4	101	0.00	7.56
50	Isobutyl alcohol	0.018	0.018	0.0	106	0.00	7.59
51	1,2-Dichloroethane	0.271	0.258	4.8	99	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.075	-10.3	109	0.00	7.70
53	Trichloroethene	0.218	0.195	10.6	98	0.00	8.04
	----- Amount	Calc.	%Drift	-----			
54	Methylcyclohexane	40.000	33.591	16.0	94	0.00	8.05
	----- AvgRF	CCRF	%Dev	-----			
55	Dibromomethane	0.139	0.138	0.7	100	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.201	0.0	102	0.00	8.57
57	Bromodichloromethane	0.277	0.264	4.7	96	0.00	8.62

6.7.7  
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# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate	40.000	36.540	8.7	91	0.00	8.74
59	1,4-Dioxane	800.000	806.023	-0.8	104	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	188.357	5.8	93	0.00	9.16
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene	0.313	0.314	-0.3	99	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	11.01
63 S	Toluene-d8	1.426	1.437	-0.8	100	0.00	9.45
64 C	Toluene	1.141	1.073	6.0	99	0.00	9.50
		Amount	Calc.	%Drift			
65	2-Nitropropane	200.000	193.743	3.1	97	0.00	9.69
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.494	0.478	3.2	98	0.00	9.83
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene	40.000	37.046	7.4	92	0.00	9.90
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene	0.345	0.311	9.9	98	0.00	9.91
		Amount	Calc.	%Drift			
69	Ethyl methacrylate	40.000	39.786	0.5	103	0.00	10.01
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.233	0.223	4.3	97	0.00	10.05
71	Dibromochloromethane	0.322	0.336	-4.3	103	0.00	10.26
72	1,3-Dichloropropane	0.405	0.439	-8.4	105	0.00	10.34
73	1,2-Dibromoethane	0.300	0.304	-1.3	101	0.00	10.51
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	2000.000	2073.237	-3.7	105	0.00	10.62
75	2-hexanone	200.000	194.984	2.5	101	0.00	10.65
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane	0.323	0.275	14.9	95	0.00	10.96
77 C	Ethylbenzene	1.232	1.133	8.0	98	0.00	11.02
78 P	Chlorobenzene	0.754	0.709	6.0	98	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.281	3.8	99	0.00	11.07
80	m,p-Xylene	0.925	0.887	4.1	99	0.00	11.16
81	o-Xylene	0.994	0.917	7.7	96	0.00	11.60
		Amount	Calc.	%Drift			
82	Styrene	40.000	39.073	2.3	99	0.00	11.66
		AvgRF	CCRF	%Dev			
83 P	Bromoform	0.271	0.278	-2.6	98	0.00	11.71
84	Isopropylbenzene	1.170	1.068	8.7	97	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.842	0.0	102	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.196	-9.5	111	0.00	12.26
88	n-Propylbenzene	2.201	1.942	11.8	97	0.00	12.33
89	Bromobenzene	0.564	0.558	1.1	104	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.739	3.9	101	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.462	7.3	100	0.00	12.51
92	2-Chlorotoluene	1.501	1.408	6.2	102	0.00	12.52

6.7.7  
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# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

	Amount	Calc.	%Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	36.749	8.1	100	0.00 12.57
	AvgRF	CCRF	%Dev			
94	1,2,3-Trichloropropane	0.238	0.255	-7.1	112	0.00 12.55
95	Cyclohexanone	0.053	0.065	-22.6#	136	0.00 12.61
96	4-Chlorotoluene	1.351	1.259	6.8	98	0.00 12.68
97	tert-Butylbenzene	0.838	0.736	12.2	97	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.455	6.4	99	0.00 12.93
99	Pentachloroethane	0.345	0.298	13.6	94	0.00 12.90
	Amount	Calc.	%Drift			
100	sec-Butylbenzene	40.000	33.776	15.6	93	0.00 13.04
	AvgRF	CCRF	%Dev			
101	4-Isopropyltoluene	1.571	1.385	11.8	96	0.00 13.17
102	1,3-Dichlorobenzene	0.972	0.918	5.6	98	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.532	5.9	101	0.00 13.38
104	1,4-Dichlorobenzene	1.045	0.968	7.4	100	0.00 13.39
105	n-Butylbenzene	0.773	0.743	3.9	101	0.00 13.61
	Amount	Calc.	%Drift			
106	Benzyl Chloride	40.000	40.140	-0.4	103	0.00 13.63
	AvgRF	CCRF	%Dev			
107	1,2-Dichlorobenzene	0.953	0.913	4.2	100	0.00 13.83
108	1,2-Dibromo-3-Chloropropa	0.194	0.208	-7.2	109	0.00 14.58
109	Hexachlorobutadiene	0.323	0.276	14.6	97	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.691	1.8	102	0.00 15.19
111	Naphthalene	2.202	2.224	-1.0	101	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.687	2.1	102	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Thu Jun 15 14:53:16 2023

6.7.7  
 6

# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-15\I757270.D Vial: 11  
 Acq On : 15 Jun 2023 2:27 pm Operator: joannel  
 Sample : ICV2948-4 Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	101	0.00	7.85
2	Dichlorodifluoromethane			NA			
		Amount	Calc.	%Drift			
3 P	Chloromethane			NA			
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride			NA			
		Amount	Calc.	%Drift			
5	1,3-Butadiene	25.000	19.946	20.2#	76	0.00	2.79
6	Bromomethane			NA			
7	Chloroethane			NA			
8	Trichlorofluoromethane			NA			
		AvgRF	CCRF	%Dev			
9	Ethyl Ether			NA			
10	1,2-Dichlorotrifluoroetha			NA			
11 C	1,1-Dichloroethene			NA			
		Amount	Calc.	%Drift			
12	Ethanol			NA			
		AvgRF	CCRF	%Dev			
13	Freon 113			NA			
14	Carbon Disulfide			NA			
		Amount	Calc.	%Drift			
15	Iodomethane			NA			
16	Acrolein			NA			
17	Allyl chloride			NA			
18	Methylene Chloride			NA			
19	Acetone			NA			
		AvgRF	CCRF	%Dev			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert butyl alcohol			NA			
		Amount	Calc.	%Drift			

6.7.8  
6





# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate			NA			
59	1,4-Dioxane			NA			
60	2-Chloroethyl vinyl ether			NA			
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene			NA			
62 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	11.01
63 S	Toluene-d8	1.426	1.445	-1.3	101	0.00	9.44
64 C	Toluene			NA			
		Amount	Calc.	%Drift			
65	2-Nitropropane			NA			
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone			NA			
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene			NA			
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene			NA			
		Amount	Calc.	%Drift			
69	Ethyl methacrylate			NA			
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane			NA			
71	Dibromochloromethane			NA			
72	1,3-Dichloropropene			NA			
73	1,2-Dibromoethane			NA			
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol			NA			
75	2-hexanone			NA			
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane			NA			
77 C	Ethylbenzene			NA			
78 P	Chlorobenzene			NA			
79	1,1,1,2-Tetrachloroethane			NA			
80	m,p-Xylene			NA			
81	o-Xylene			NA			
		Amount	Calc.	%Drift			
82	Styrene			NA			
		AvgRF	CCRF	%Dev			
83 P	Bromoform			NA			
84	Isopropylbenzene			NA			
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.848	-0.7	103	0.00	12.22
87	cis-1,4-Dichloro-2-butene			NA			
88	n-Propylbenzene			NA			
89	Bromobenzene			NA			
90 P	1,1,2,2-Tetrachloroethane			NA			
91	1,3,5-Trimethylbenzene			NA			
92	2-Chlorotoluene			NA			

6.7.8  
6

# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

	Amount	Calc.	%Drift
93	trans-1,4-Dichloro-2-Bute		NA
	AvgRF	CCRF	%Dev
94	1,2,3-Trichloropropane		NA
95	Cyclohexanone		NA
96	4-Chlorotoluene		NA
97	tert-Butylbenzene		NA
98	1,2,4-Trimethylbenzene		NA
99	Pentachloroethane		NA
	Amount	Calc.	%Drift
100	sec-Butylbenzene		NA
	AvgRF	CCRF	%Dev
101	4-Isopropyltoluene		NA
102	1,3-Dichlorobenzene		NA
103	1,2,3-Trimethylbenzene		NA
104	1,4-Dichlorobenzene		NA
105	n-Butylbenzene		NA
	Amount	Calc.	%Drift
106	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
107	1,2-Dichlorobenzene		NA
108	1,2-Dibromo-3-Chloropropa		NA
109	Hexachlorobutadiene		NA
110	1,2,4-Trichlorobenzene		NA
111	Naphthalene		NA
112	1,2,3-Trichlorobenzene		NA

(#) = Out of Range  
 I757264.D VI-2023-06-15.m

SPCC's out = 4 CCC's out = 6  
 Thu Jun 15 14:51:38 2023

## Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-CC2948  
 Lab FileID: I757703.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-07-06\I757703.D Vial: 2  
 Acq On : 6 Jul 2023 9:12 am Operator: jeniferw  
 Sample : CC2948-5 Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	86	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.193	12.3	85	0.00	2.35
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane	40.000	39.416	1.5	89	0.00	2.64
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride	0.223	0.217	2.7	92	0.00	2.76
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene	40.000	33.751	15.6	84	0.00	2.79
6	Bromomethane	40.000	47.012	-17.5	107	0.00	3.23
7	Chloroethane	40.000	41.422	-3.6	95	0.00	3.39
8	Trichlorofluoromethane	40.000	43.279	-8.2	100	0.00	3.59
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether	0.155	0.149	3.9	84	0.00	4.01
10	1,2-Dichlorotrifluoroetha	0.206	0.206	0.0	97	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.265	2.2	93	0.00	4.27
	----- Amount	Calc.	%Drift	-----			
12	Ethanol	800.000	761.083	4.9	93	0.00	4.21
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113	0.169	0.169	0.0	100	0.00	4.32
14	Carbon Disulfide	0.557	0.491	11.8	87	0.00	4.32
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane	40.000	46.415	-16.0	97	0.00	4.46
16	Acrolein	200.000	154.896	22.6#	71	0.00	4.68
17	Allyl chloride	40.000	37.162	7.1	88	0.00	4.85
18	Methylene Chloride	40.000	39.657	0.9	90	0.00	4.98
19	Acetone	200.000	202.594	-1.3	93	0.00	5.02
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate	0.282	0.303	-7.4	91	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.279	2.1	90	0.00	5.18
22	Hexane	0.140	0.139	0.7	97	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.576	4.2	83	0.00	5.29
24	Tert butyl alcohol	0.082	0.082	0.0	85	0.00	5.39
	----- Amount	Calc.	%Drift	-----			

# Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-CC2948  
 Lab FileID: I757703.D

25	Acetonitrile	400.000	383.823	4.0	92	0.00	5.56
	----- AvgRF	CCRF	%Dev	-----			
26	Di-isopropyl ether	0.629	0.603	4.1	84	0.00	5.72
	----- Amount	Calc.	%Drift	-----			
27	Chloroprene	40.000	37.181	7.0	89	0.00	5.86
	----- AvgRF	CCRF	%Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.369	1.3	89	0.00	5.88
29	Acrylonitrile	0.137	0.146	-6.6	91	0.00	5.92
30	ETBE	0.606	0.572	5.6	83	0.00	6.13
	----- Amount	Calc.	%Drift	-----			
31	Vinyl acetate	200.000	202.486	-1.2	88	0.00	6.13
	----- AvgRF	CCRF	%Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.218	3.1	86	0.00	6.50
33	2,2-Dichloropropane	0.285	0.272	4.6	89	0.00	6.62
34	Bromochloromethane	0.116	0.112	3.4	85	0.00	6.73
	----- Amount	Calc.	%Drift	-----			
35	Cyclohexane	40.000	39.744	0.6	96	0.00	6.75
	----- AvgRF	CCRF	%Dev	-----			
36 C	Chloroform	0.390	0.377	3.3	88	0.00	6.79
	----- Amount	Calc.	%Drift	-----			
37	Ethyl acetate	200.000	215.682	-7.8	95	0.00	6.88
	----- AvgRF	CCRF	%Dev	-----			
38	Tetrahydrofuran	0.155	0.150	3.2	87	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.286	-0.7	86	0.00	6.99
40	Carbon Tetrachloride	0.274	0.274	0.0	96	0.00	6.97
41	1,1,1-Trichloroethane	0.323	0.320	0.9	93	0.00	7.03
	----- Amount	Calc.	%Drift	-----			
42	2-Butanone	200.000	204.750	-2.4	91	0.00	7.10
	----- AvgRF	CCRF	%Dev	-----			
43	1,1-Dichloropropene	0.255	0.255	0.0	92	0.00	7.17
44	tert-Butyl Formate	0.156	0.150	3.8	82	0.00	7.25
45	Propionitrile	0.069	0.067	2.9	90	0.00	7.41
46	Methacrylonitrile	0.201	0.187	7.0	89	0.00	7.43
47	Benzene	0.780	0.757	2.9	88	0.00	7.43
48	TAME	0.586	0.549	6.3	83	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.256	0.8	87	0.00	7.56
50	Isobutyl alcohol	0.018	0.018	0.0	94	0.00	7.59
51	1,2-Dichloroethane	0.271	0.258	4.8	86	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.067	1.5	84	0.00	7.70
53	Trichloroethene	0.218	0.208	4.6	90	0.00	8.04
	----- Amount	Calc.	%Drift	-----			
54	Methylcyclohexane	40.000	39.285	1.8	96	0.00	8.05
	----- AvgRF	CCRF	%Dev	-----			
55	Dibromomethane	0.139	0.137	1.4	85	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.193	4.0	85	0.00	8.56
57	Bromodichloromethane	0.277	0.277	0.0	87	0.00	8.62

# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-CC2948  
**Lab FileID:** I757703.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate	40.000	39.190	2.0	85	0.00	8.74
59	1,4-Dioxane	800.000	704.760	11.9	78	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	208.331	-4.2	89	0.00	9.15
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene	0.313	0.307	1.9	84	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	83	0.00	11.01
63 S	Toluene-d8	1.426	1.478	-3.6	84	0.00	9.44
64 C	Toluene	1.141	1.153	-1.1	87	0.00	9.49
		Amount	Calc.	%Drift			
65	2-Nitropropane	200.000	227.932	-14.0	96	0.00	9.69
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.494	0.536	-8.5	91	0.00	9.82
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene	40.000	40.373	-0.9	83	0.00	9.89
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene	0.345	0.354	-2.6	92	0.00	9.91
		Amount	Calc.	%Drift			
69	Ethyl methacrylate	40.000	40.517	-1.3	86	0.00	10.01
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.233	0.242	-3.9	87	0.00	10.05
71	Dibromochloromethane	0.322	0.335	-4.0	84	0.00	10.26
72	1,3-Dichloropropane	0.405	0.429	-5.9	84	0.00	10.34
73	1,2-Dibromoethane	0.300	0.312	-4.0	85	0.00	10.51
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	2000.000	2404.753	-20.2#	101	0.00	10.61
75	2-hexanone	200.000	209.264	-4.6	89	0.00	10.65
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane	0.323	0.328	-1.5	93	0.00	10.96
77 C	Ethylbenzene	1.232	1.235	-0.2	88	0.00	11.02
78 P	Chlorobenzene	0.754	0.772	-2.4	87	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.298	-2.1	86	0.00	11.07
80	m,p-Xylene	0.925	0.949	-2.6	87	0.00	11.16
81	o-Xylene	0.994	0.975	1.9	84	0.00	11.60
		Amount	Calc.	%Drift			
82	Styrene	40.000	40.341	-0.9	84	0.00	11.65
		AvgRF	CCRF	%Dev			
83 P	Bromoform	0.271	0.289	-6.6	84	0.00	11.71
84	Isopropylbenzene	1.170	1.183	-1.1	88	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	82	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.841	0.1	81	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.190	-6.1	86	0.00	12.26
88	n-Propylbenzene	2.201	2.285	-3.8	90	0.00	12.33
89	Bromobenzene	0.564	0.588	-4.3	87	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.808	-5.1	88	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.587	-0.6	86	0.00	12.51
92	2-Chlorotoluene	1.501	1.561	-4.0	89	0.00	12.52

6.7.9  
6

# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-CC2948  
**Lab FileID:** I757703.D

	Amount	Calc.	%Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	38.172	4.6	82	0.00 12.57
	AvgRF	CCRF	%Dev			
94	1,2,3-Trichloropropane	0.238	0.243	-2.1	85	0.00 12.54
95	Cyclohexanone	0.053	0.050	5.7	82	0.00 12.61
96	4-Chlorotoluene	1.351	1.375	-1.8	85	0.00 12.68
97	tert-Butylbenzene	0.838	0.852	-1.7	89	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.585	-2.0	86	0.00 12.92
99	Pentachloroethane	0.345	0.372	-7.8	93	0.00 12.90
	Amount	Calc.	%Drift			
100	sec-Butylbenzene	40.000	41.588	-4.0	91	0.00 13.04
	AvgRF	CCRF	%Dev			
101	4-Isopropyltoluene	1.571	1.611	-2.5	88	0.00 13.17
102	1,3-Dichlorobenzene	0.972	1.022	-5.1	87	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.651	-1.4	86	0.00 13.38
104	1,4-Dichlorobenzene	1.045	1.061	-1.5	87	0.00 13.38
105	n-Butylbenzene	0.773	0.827	-7.0	90	0.00 13.61
	Amount	Calc.	%Drift			
106	Benzyl Chloride	40.000	39.969	0.1	81	0.00 13.63
	AvgRF	CCRF	%Dev			
107	1,2-Dichlorobenzene	0.953	0.994	-4.3	87	0.00 13.82
108	1,2-Dibromo-3-Chloropropa	0.194	0.202	-4.1	84	0.00 14.58
109	Hexachlorobutadiene	0.323	0.339	-5.0	95	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.712	-1.1	83	0.00 15.19
111	Naphthalene	2.202	2.249	-2.1	81	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.725	-3.3	86	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Thu Jul 06 10:07:04 2023

## Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-ECC2948  
 Lab FileID: I757726.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ce...2023\VI2963\I757726.d Vial: 23  
 Acq On : 6 Jul 2023 7:35 pm Operator: jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	74	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.224	-1.8	85	0.00	2.35
	----- True	Calc.	% Drift	-----			
3 P	Chloromethane	40.000	41.338	-3.3	80	0.00	2.64
	----- AvgRF	CCRF	% Dev	-----			
4 C	Vinyl Chloride	0.223	0.226	-1.3	82	0.00	2.76
	----- True	Calc.	% Drift	-----			
5	1,3-Butadiene	40.000	36.496	8.8	78	0.00	2.79
6	Bromomethane	40.000	41.047	-2.6	80	0.00	3.23
7	Chloroethane	40.000	40.725	-1.8	80	0.00	3.39
8	Trichlorofluoromethane	40.000	41.671	-4.2	83	0.00	3.59
	----- AvgRF	CCRF	% Dev	-----			
9	Ethyl Ether	0.155	0.145	6.5	71	0.00	4.02
10	1,2-Dichlorotrifluoroetha	0.206	0.205	0.5	84	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.266	1.8	81	0.00	4.27
	----- True	Calc.	% Drift	-----			
12	Ethanol	800.000	777.605	2.8	82	0.00	4.21
	----- AvgRF	CCRF	% Dev	-----			
13	Freon 113	0.169	0.165	2.4	84	0.00	4.32
14	Carbon Disulfide	0.557	0.476	14.5	72	0.00	4.33
	----- True	Calc.	% Drift	-----			
15	Iodomethane	40.000	53.441	-33.6	97	0.00	4.46
16	Acrolein	200.000	150.162	24.9	59	0.00	4.68
17	Allyl chloride	40.000	35.316	11.7	72	0.00	4.85
18	Methylene Chloride	40.000	43.090	-7.7	84	0.00	4.98
19	Acetone	200.000	200.836	-0.4	79	0.00	5.03
	----- AvgRF	CCRF	% Dev	-----			
20	Methyl acetate	0.282	0.310	-9.9	80	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.273	4.2	76	0.00	5.18
22	Hexane	0.140	0.135	3.6	81	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.549	8.7	69	0.00	5.30
24	Tert butyl alcohol	0.082	0.083	-1.2	75	0.00	5.39
	----- True	Calc.	% Drift	-----			



# Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-ECC2948  
 Lab FileID: I757726.D

25	Acetonitrile	400.000	380.970	4.8	79	0.00	5.56
	----- AvgRF	CCRF	% Dev	-----			
26	Di-isopropyl ether	0.629	0.607	3.5	73	0.00	5.73
	----- True	Calc.	% Drift	-----			
27	Chloroprene	40.000	36.284	9.3	75	0.00	5.87
	----- AvgRF	CCRF	% Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.361	3.5	75	0.00	5.88
29	Acrylonitrile	0.137	0.143	-4.4	76	0.00	5.92
30	ETBE	0.606	0.569	6.1	71	0.00	6.13
	----- True	Calc.	% Drift	-----			
31	Vinyl acetate	200.000	190.409	4.8	71	0.00	6.14
	----- AvgRF	CCRF	% Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.206	8.4	70	0.00	6.51
33	2,2-Dichloropropane	0.285	0.247	13.3	70	0.00	6.62
34	Bromochloromethane	0.116	0.101	12.9	66	0.00	6.73
	----- True	Calc.	% Drift	-----			
35	Cyclohexane	40.000	39.776	0.6	83	0.00	6.76
	----- AvgRF	CCRF	% Dev	-----			
36 C	Chloroform	0.390	0.363	6.9	73	0.00	6.79
	----- True	Calc.	% Drift	-----			
37	Ethyl acetate	200.000	213.337	-6.7	81	0.00	6.88
	----- AvgRF	CCRF	% Dev	-----			
38	Tetrahydrofuran	0.155	0.154	0.6	77	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.289	-1.8	75	0.00	6.99
40	Carbon Tetrachloride	0.274	0.264	3.6	80	0.00	6.98
41	1,1,1-Trichloroethane	0.323	0.311	3.7	78	0.00	7.04
	----- True	Calc.	% Drift	-----			
42	2-Butanone	200.000	205.186	-2.6	78	0.00	7.10
	----- AvgRF	CCRF	% Dev	-----			
43	1,1-Dichloropropene	0.255	0.249	2.4	78	0.00	7.17
44	tert-Butyl Formate	0.156	0.137	12.2	64	0.00	7.26
45	Propionitrile	0.069	0.067	2.9	77	0.00	7.41
46	Methacrylonitrile	0.201	0.188	6.5	77	0.00	7.44
47	Benzene	0.780	0.734	5.9	74	0.00	7.43
48	TAME	0.586	0.537	8.4	70	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.284	-10.1	83	0.00	7.56
50	Isobutyl alcohol	0.018	0.019	-5.6	85	0.00	7.59
51	1,2-Dichloroethane	0.271	0.254	6.3	73	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.068	0.0	74	0.00	7.70
53	Trichloroethene	0.218	0.203	6.9	76	0.00	8.04
	----- True	Calc.	% Drift	-----			
54	Methylcyclohexane	40.000	38.733	3.2	82	0.00	8.05
	----- AvgRF	CCRF	% Dev	-----			
55	Dibromomethane	0.139	0.129	7.2	69	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.192	4.5	72	0.00	8.57
57	Bromodichloromethane	0.277	0.264	4.7	71	0.00	8.63

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# Continuing Calibration Summary

Job Number: FC7381  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-ECC2948  
 Lab FileID: I757726.D

		True	Calc.	% Drift			
58	Methyl methacrylate	40.000	38.612	3.5	72	0.00	8.74
59	1,4-Dioxane	800.000	734.020	8.2	70	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	183.339	8.3	67	0.00	9.16
		AvgRF	CCRF	% Dev			
61	cis-1,3-Dichloropropene	0.313	0.294	6.1	69	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	73	0.00	11.01
63 S	Toluene-d8	1.426	1.461	-2.5	73	0.00	9.45
64 C	Toluene	1.141	1.091	4.4	72	0.00	9.50
		True	Calc.	% Drift			
65	2-Nitropropane	200.000	231.683	-15.8	86	0.00	9.70
		AvgRF	CCRF	% Dev			
66	4-Methyl-2-pentanone	0.494	0.525	-6.3	78	0.00	9.83
		True	Calc.	% Drift			
67	trans-1,3-Dichloropropene	40.000	38.716	3.2	70	0.00	9.90
		AvgRF	CCRF	% Dev			
68	Tetrachloroethene	0.345	0.355	-2.9	81	0.00	9.91
		True	Calc.	% Drift			
69	Ethyl methacrylate	40.000	38.052	4.9	71	0.00	10.01
		AvgRF	CCRF	% Dev			
70	1,1,2-Trichloroethane	0.233	0.227	2.6	71	0.00	10.05
71	Dibromochloromethane	0.322	0.311	3.4	69	0.00	10.26
72	1,3-Dichloropropane	0.405	0.408	-0.7	71	0.00	10.34
73	1,2-Dibromoethane	0.300	0.293	2.3	70	0.00	10.51
		True	Calc.	% Drift			
74	3,3-dimethyl-1-butanol	2000.000	2392.114	-19.6	88	0.00	10.61
75	2-hexanone	200.000	207.413	-3.7	78	0.00	10.66
		AvgRF	CCRF	% Dev			
76	1-Chlorohexane	0.323	0.312	3.4	78	0.00	10.96
77 C	Ethylbenzene	1.232	1.198	2.8	75	0.00	11.02
78 P	Chlorobenzene	0.754	0.724	4.0	72	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.279	4.5	71	0.00	11.07
80	m,p-Xylene	0.925	0.909	1.7	73	0.00	11.16
81	o-Xylene	0.994	0.948	4.6	72	0.00	11.60
		True	Calc.	% Drift			
82	Styrene	40.000	38.360	4.1	70	0.00	11.66
		AvgRF	CCRF	% Dev			
83 P	Bromoform	0.271	0.263	3.0	67	0.00	11.71
84	Isopropylbenzene	1.170	1.137	2.8	74	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	73	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.838	0.5	71	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.155	13.4	62	0.00	12.26
88	n-Propylbenzene	2.201	2.174	1.2	76	0.00	12.33
89	Bromobenzene	0.564	0.543	3.7	71	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.759	1.3	73	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.527	3.2	73	0.00	12.52
92	2-Chlorotoluene	1.501	1.486	1.0	75	0.00	12.52

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# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-ECC2948  
**Lab FileID:** I757726.D

	True	Calc.	% Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	33.718	15.7	64	0.00 12.57
	AvgRF	CCRF	% Dev			
94	1,2,3-Trichloropropane	0.238	0.235	1.3	73	0.00 12.55
95	Cyclohexanone	0.053	0.051	3.8	74	0.00 12.61
96	4-Chlorotoluene	1.351	1.318	2.4	72	0.00 12.68
97	tert-Butylbenzene	0.838	0.813	3.0	75	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.498	3.6	72	0.00 12.93
99	Pentachloroethane	0.345	0.314	9.0	70	0.00 12.90
	True	Calc.	% Drift			
100	sec-Butylbenzene	40.000	39.940	0.2	78	0.00 13.04
	AvgRF	CCRF	% Dev			
101	4-Isopropyltoluene	1.571	1.539	2.0	75	0.00 13.17
102	1,3-Dichlorobenzene	0.972	0.955	1.7	72	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.563	4.0	73	0.00 13.38
104	1,4-Dichlorobenzene	1.045	0.996	4.7	72	0.00 13.39
105	n-Butylbenzene	0.773	0.777	-0.5	75	0.00 13.61
	True	Calc.	% Drift			
106	Benzyl Chloride	40.000	32.740	18.1	58	0.00 13.63
	AvgRF	CCRF	% Dev			
107	1,2-Dichlorobenzene	0.953	0.934	2.0	72	0.00 13.83
108	1,2-Dibromo-3-Chloropropa	0.194	0.197	-1.5	72	0.00 14.58
109	Hexachlorobutadiene	0.323	0.311	3.7	77	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.653	7.2	68	0.00 15.19
111	Naphthalene	2.202	2.085	5.3	67	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.653	7.0	68	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Thu Jul 06 23:13:42 2023

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 6

**Run Sequence Report**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> V202981	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMS20
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<b>Lab Sample ID</b>	<b>Lab File ID</b>	<b>Date/Time Analyzed</b>	<b>Prep QC Batch</b>	<b>Client Sample ID</b>
V202981-BFB	2076618.D	06/07/23 09:26	n/a	BFB Tune
V202981-IC2981	2076622.D	06/07/23 11:22	n/a	Initial cal 4
V202981-ICC2981	2076623.D	06/07/23 11:47	n/a	Initial cal 5
V202981-IC2981	2076624.D	06/07/23 12:13	n/a	Initial cal 6
V202981-IC2981	2076625.D	06/07/23 12:38	n/a	Initial cal 7
V202981-IC2981	2076627.D	06/07/23 13:55	n/a	Initial cal 1
V202981-IC2981	2076628.D	06/07/23 14:20	n/a	Initial cal 2
V202981-IC2981	2076629.D	06/07/23 14:46	n/a	Initial cal 3
V202981-ICV2981	2076631.D	06/07/23 15:37	n/a	Initial cal verification 5
V202981-ICV2981	2076632.D	06/07/23 16:02	n/a	Initial cal verification 4

## Run Sequence Report

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> V203017	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMS20
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V203017-BFB	2077411.D	07/05/23 08:10	n/a	BFB Tune
V203017-CC2981	2077412.D	07/05/23 08:36	n/a	Continuing cal 4
V203017-BS	2077413.D	07/05/23 09:01	n/a	Blank Spike
V203017-MB	2077415.D	07/05/23 09:52	n/a	Method Blank
FC7381-7	2077416.D	07/05/23 10:17	n/a	TB
ZZZZZZ	2077417.D	07/05/23 10:43	n/a	(unrelated sample)
FC7382-1	2077418.D	07/05/23 11:08	n/a	(used for QC only; not part of job FC7381)
ZZZZZZ	2077419.D	07/05/23 11:34	n/a	(unrelated sample)
FC7381-1	2077420.D	07/05/23 11:59	n/a	SEAD-AL-PT-24-20230628
FC7381-3	2077421.D	07/05/23 12:25	n/a	SEAD-AL-PT-22-20230628
FC7381-5	2077422.D	07/05/23 12:50	n/a	SEAD-AL-MWT-26-20230628
FC7381-6	2077423.D	07/05/23 13:16	n/a	SEAD-AL-MWT-27-20230628
ZZZZZZ	2077424.D	07/05/23 13:41	n/a	(unrelated sample)
ZZZZZZ	2077425.D	07/05/23 14:07	n/a	(unrelated sample)
FC7381-2	2077426.D	07/05/23 14:32	n/a	SEAD-AL-MWT-7-20230628
FC7381-4	2077427.D	07/05/23 14:58	n/a	SEAD-AL-MWT-29-20230628
ZZZZZZ	2077428.D	07/05/23 15:23	n/a	(unrelated sample)
ZZZZZZ	2077429.D	07/05/23 15:49	n/a	(unrelated sample)
ZZZZZZ	2077430.D	07/05/23 16:14	n/a	(unrelated sample)
ZZZZZZ	2077431.D	07/05/23 16:40	n/a	(unrelated sample)
ZZZZZZ	2077432.D	07/05/23 17:05	n/a	(unrelated sample)
ZZZZZZ	2077433.D	07/05/23 17:30	n/a	(unrelated sample)
ZZZZZZ	2077434.D	07/05/23 17:56	n/a	(unrelated sample)
ZZZZZZ	2077435.D	07/05/23 18:21	n/a	(unrelated sample)
FC7382-1MS	2077436.D	07/05/23 18:47	n/a	Matrix Spike
FC7382-1MSD	2077437.D	07/05/23 19:12	n/a	Matrix Spike Duplicate
V203017-ECC2981	2077438.D	07/05/23 19:38	n/a	Ending cal 4

## Run Sequence Report

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> VI2948	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMSI
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VI2948-BFB	I757260.D	06/15/23 10:08	n/a	BFB Tune
VI2948-IC2948	I757261.D	06/15/23 10:43	n/a	Initial cal 1
VI2948-IC2948	I757262.D	06/15/23 11:16	n/a	Initial cal 2
VI2948-IC2948	I757263.D	06/15/23 11:40	n/a	Initial cal 3
VI2948-IC2948	I757264.D	06/15/23 12:04	n/a	Initial cal 4
VI2948-ICC2948	I757265.D	06/15/23 12:28	n/a	Initial cal 5
VI2948-IC2948	I757266.D	06/15/23 12:52	n/a	Initial cal 6
VI2948-IC2948	I757267.D	06/15/23 13:15	n/a	Initial cal 7
VI2948-CC2948	I757269A.D	06/15/23 14:04	n/a	Continuing cal 5
VI2948-ICV2948	I757269.D	06/15/23 14:04	n/a	Initial cal verification 5
VI2948-BS	I757270A.D	06/15/23 14:27	n/a	Blank Spike
VI2948-ICV2948	I757270.D	06/15/23 14:27	n/a	Initial cal verification 4
VI2948-BSD	I757271.D	06/15/23 14:51	n/a	Blank Spike Duplicate
VI2948-MB	I757273.D	06/15/23 15:39	n/a	Method Blank
ZZZZZZ	I757274.D	06/15/23 16:03	n/a	(unrelated sample)
ZZZZZZ	I757275.D	06/15/23 16:27	n/a	(unrelated sample)
ZZZZZZ	I757276.D	06/15/23 16:51	n/a	(unrelated sample)
ZZZZZZ	I757277.D	06/15/23 17:15	n/a	(unrelated sample)
ZZZZZZ	I757278.D	06/15/23 17:39	n/a	(unrelated sample)
ZZZZZZ	I757279.D	06/15/23 18:03	n/a	(unrelated sample)
ZZZZZZ	I757280.D	06/15/23 18:27	n/a	(unrelated sample)
ZZZZZZ	I757281.D	06/15/23 18:51	n/a	(unrelated sample)
ZZZZZZ	I757282.D	06/15/23 19:15	n/a	(unrelated sample)
ZZZZZZ	I757283.D	06/15/23 19:39	n/a	(unrelated sample)
ZZZZZZ	I757284.D	06/15/23 20:03	n/a	(unrelated sample)
ZZZZZZ	I757285.D	06/15/23 20:27	n/a	(unrelated sample)
VI2948-ECC2948	I757286.D	06/15/23 20:51	n/a	Ending cal 5

## Run Sequence Report

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> VI2963	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMSI
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VI2963-BFB	I757702.D	07/06/23 08:41	n/a	BFB Tune
VI2963-CC2948	I757703.D	07/06/23 09:12	n/a	Continuing cal 5
VI2963-BS	I757704.D	07/06/23 09:43	n/a	Blank Spike
VI2963-MB	I757706.D	07/06/23 10:31	n/a	Method Blank
FC7381-7	I757707.D	07/06/23 10:55	n/a	TB
ZZZZZZ	I757708.D	07/06/23 11:19	n/a	(unrelated sample)
ZZZZZZ	I757709.D	07/06/23 11:42	n/a	(unrelated sample)
FC7493-1	I757710.D	07/06/23 12:06	n/a	(used for QC only; not part of job FC7381)
FC7381-1	I757711.D	07/06/23 12:30	n/a	SEAD-AL-PT-24-20230628
FC7381-3	I757712.D	07/06/23 12:54	n/a	SEAD-AL-PT-22-20230628
FC7381-5	I757713.D	07/06/23 13:18	n/a	SEAD-AL-MWT-26-20230628
FC7381-6	I757716.D	07/06/23 15:41	n/a	SEAD-AL-MWT-27-20230628
ZZZZZZ	I757717.D	07/06/23 16:05	n/a	(unrelated sample)
ZZZZZZ	I757718.D	07/06/23 16:29	n/a	(unrelated sample)
ZZZZZZ	I757720.D	07/06/23 16:53	n/a	(unrelated sample)
FC7381-2	I757721.D	07/06/23 17:36	n/a	SEAD-AL-MWT-7-20230628
FC7381-4	I757722.D	07/06/23 18:00	n/a	SEAD-AL-MWT-29-20230628
FC7381-4	I757723.D	07/06/23 18:24	n/a	SEAD-AL-MWT-29-20230628
FC7493-1MS	I757724.D	07/06/23 18:48	n/a	Matrix Spike
FC7493-1MSD	I757725.D	07/06/23 19:12	n/a	Matrix Spike Duplicate
VI2963-ECC2948	I757726.D	07/06/23 19:35	n/a	Ending cal 5

MS Volatiles

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Raw Data

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7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077420.d  
 Acq On : 5 Jul 2023 11:59 am  
 Operator : jeniferw  
 Sample : FC7381-1  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jul 05 21:35:21 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	298800	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	206484	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.775	152	101616	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	86781	53.41	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	106.82%	
50) 1,2-Dichloroethane-d4	3.849	65	98397	51.01	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.02%	
63) Toluene-d8	4.970	98	280739	50.99	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	101.98%	
86) 4-Bromofluorobenzene	6.915	174	73321	49.38	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.76%	
Target Compounds						
19) Acetone	2.556	43	1593	2.31	ug/L	88
25) Acetonitrile	2.830	41	1667	6.20	ug/L	87
32) cis-1,2-Dichloroethene	3.288	96	19627	12.43	ug/L	96
53) Trichloroethene	4.117	95	1715	1.09	ug/L	90
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

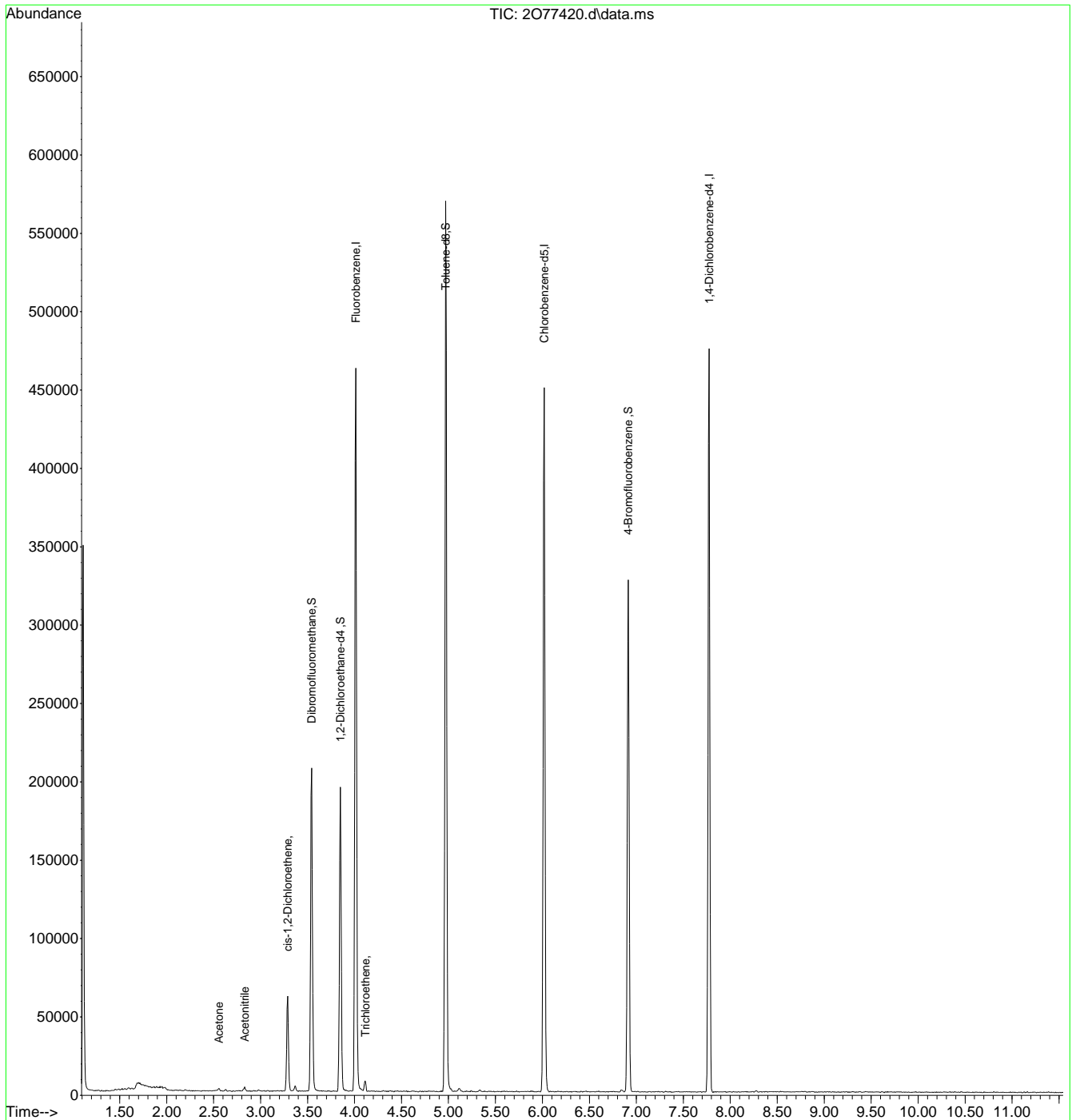
7.1.1  
7

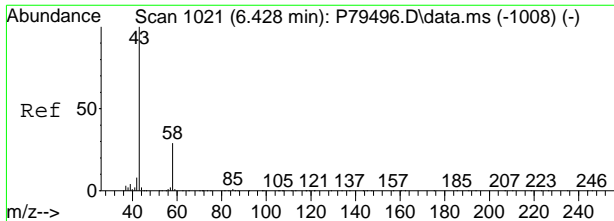


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077420.d  
Acq On : 5 Jul 2023 11:59 am  
Operator : jeniferw  
Sample : FC7381-1  
Misc : MS54357,V203017,,,,,  
ALS Vial : 10 Sample Multiplier: 1

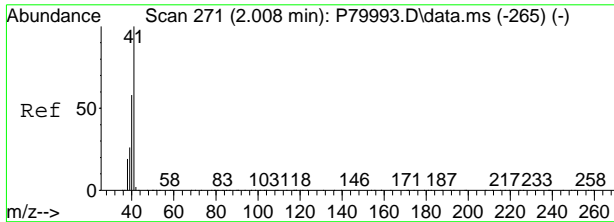
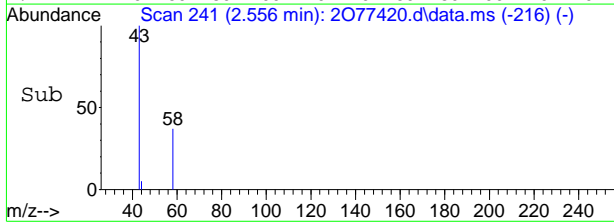
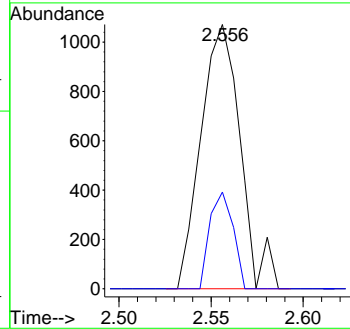
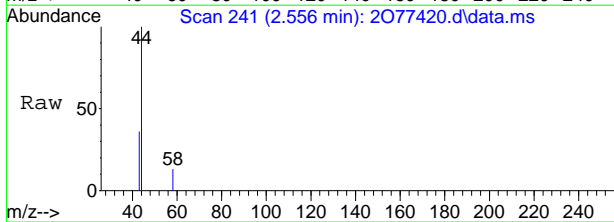
Quant Time: Jul 05 21:35:21 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration





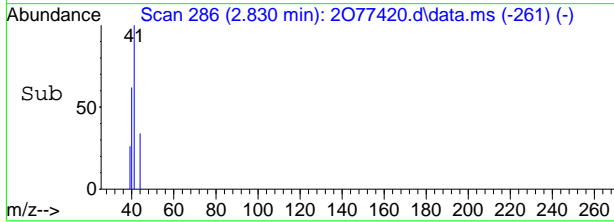
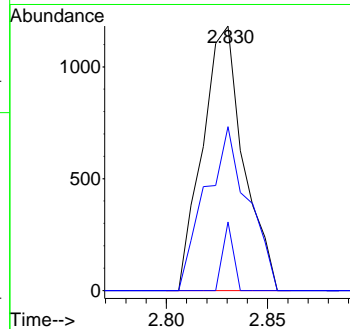
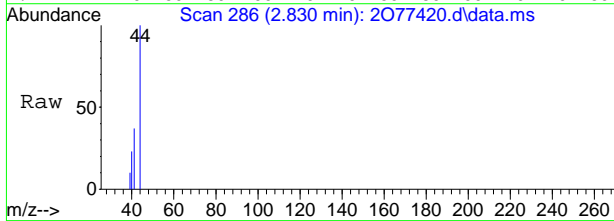
#19  
 Acetone  
 Concen: 2.31 ug/L  
 RT: 2.556 min Scan# 241  
 Delta R.T. 0.000 min  
 Lab File: 2077420.d  
 Acq: 5 Jul 2023 11:59 am

Tgt Ion	Ratio	Lower	Upper
43	100		
58	36.6	0.1	60.1

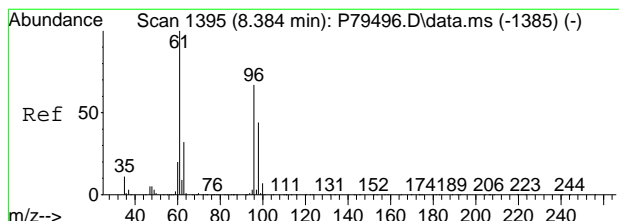


#25  
 Acetonitrile  
 Concen: 6.20 ug/L  
 RT: 2.830 min Scan# 286  
 Delta R.T. 0.000 min  
 Lab File: 2077420.d  
 Acq: 5 Jul 2023 11:59 am

Tgt Ion	Ratio	Lower	Upper
41	100		
40	62.0	32.7	72.7
39	26.0	0.0	39.4

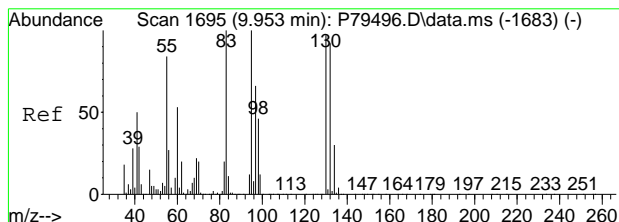
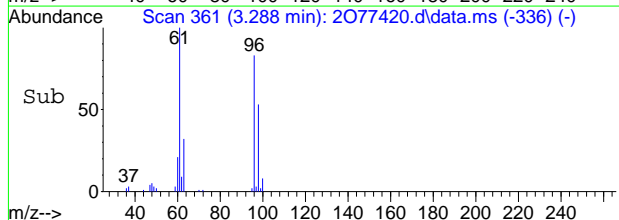
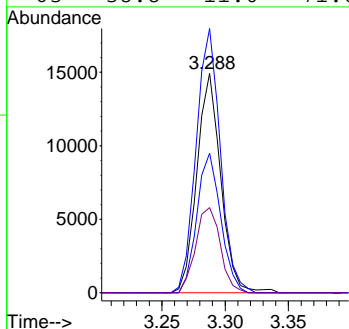
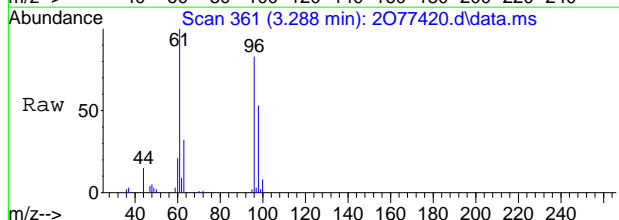


7.1.1  
7



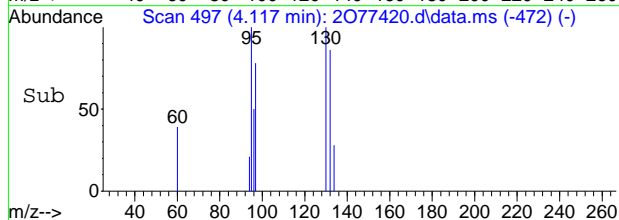
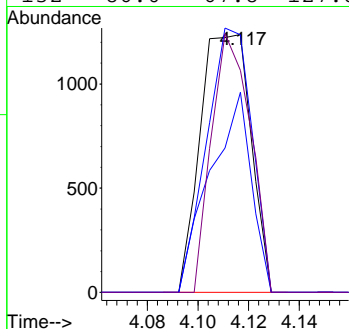
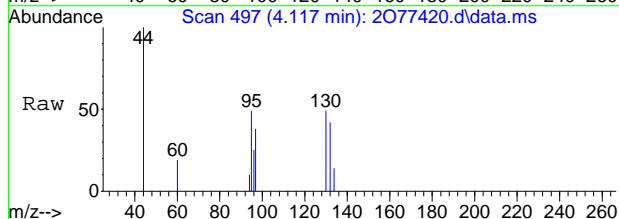
#32  
 cis-1,2-Dichloroethene  
 Concen: 12.43 ug/L  
 RT: 3.288 min Scan# 361  
 Delta R.T. -0.000 min  
 Lab File: 2077420.d  
 Acq: 5 Jul 2023 11:59 am

Tgt Ion	Ratio	Lower	Upper
96	100		
61	120.5	95.8	155.8
98	63.6	32.6	92.6
63	38.8	11.0	71.0



#53  
 Trichloroethene  
 Concen: 1.09 ug/L  
 RT: 4.117 min Scan# 497  
 Delta R.T. -0.000 min  
 Lab File: 2077420.d  
 Acq: 5 Jul 2023 11:59 am

Tgt Ion	Ratio	Lower	Upper
95	100		
130	99.8	76.7	136.7
97	77.6	36.5	96.5
132	86.0	67.8	127.8



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757711.d  
 Acq On : 6 Jul 2023 12:30 pm  
 Operator : jeniferw  
 Sample : FC7381-1 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:24:37 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

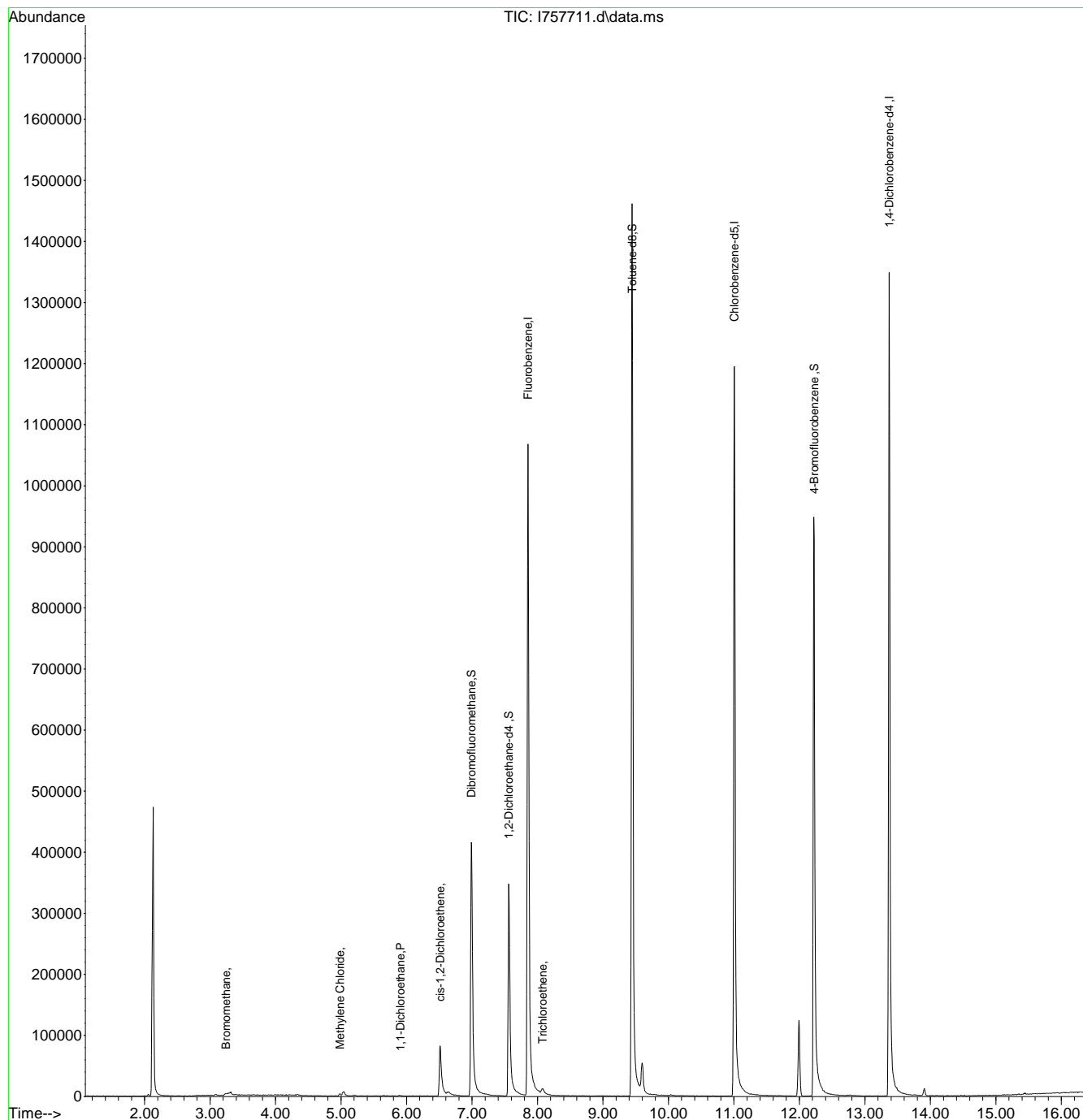
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	996407	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	720604	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	410778	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	279219	49.37	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.74%	
49) 1,2-Dichloroethane-d4	7.561	65	263253	51.19	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.38%	
63) Toluene-d8	9.445	98	997668	48.55	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.10%	
86) 4-Bromofluorobenzene	12.225	174	339443	49.08	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.16%	
Target Compounds						
						Qvalue
6) Bromomethane	3.239	94	1913	1.27	ug/L	84
18) Methylene Chloride	4.982	49	1934	0.35	ug/L	95
28) 1,1-Dichloroethane	5.903	63	1550	0.21	ug/L	81
32) cis-1,2-Dichloroethene	6.513	96	51929	11.60	ug/L	97
53) Trichloroethene	8.079	95	4270	0.98	ug/L	87
-----						

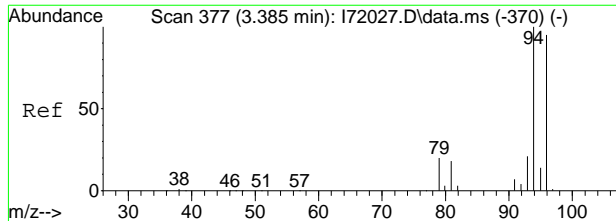
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

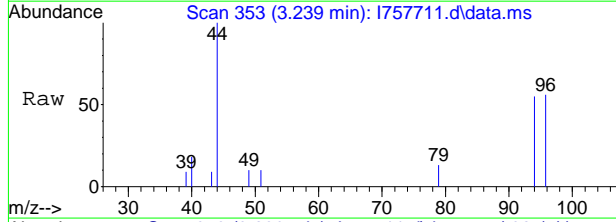
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
Data File : I757711.d  
Acq On : 6 Jul 2023 12:30 pm  
Operator : jeniferw  
Sample : FC7381-1 Inst : MSVOA16  
Misc : MS54368,VI2963,,,,,  
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jul 06 23:24:37 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration



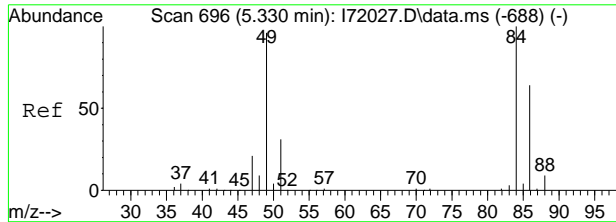
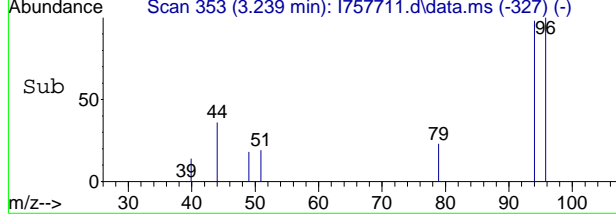
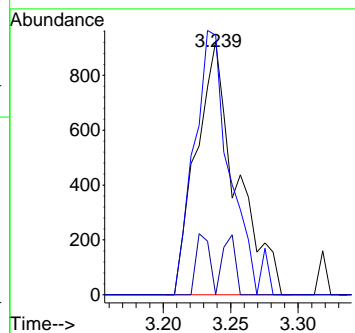


#6  
 Bromomethane  
 Concen: 1.27 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757711.d  
 Acq: 6 Jul 2023 12:30 pm

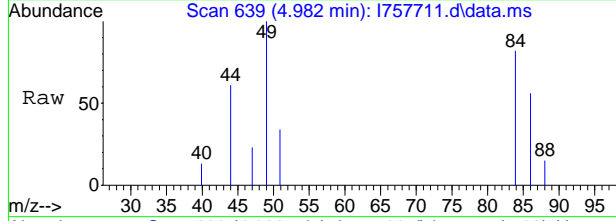


Tgt Ion: 94 Resp: 1913

Ion	Ratio	Lower	Upper
94	100		
96	102.4	63.7	123.7
93	0.0	0.0	50.9

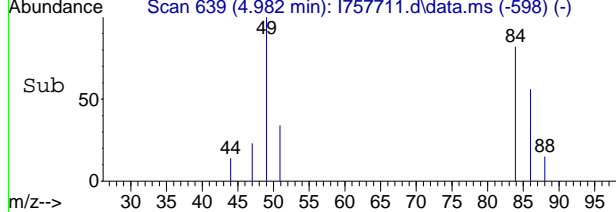
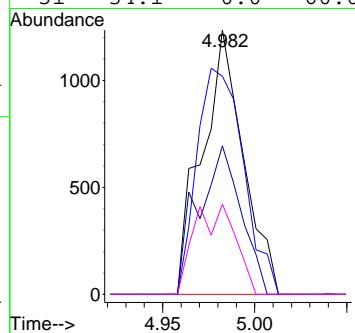


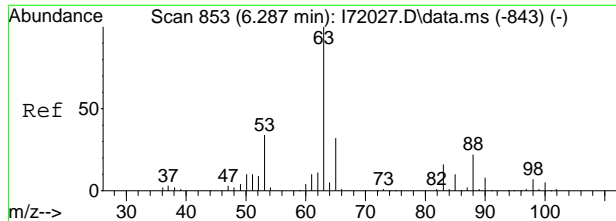
#18  
 Methylene Chloride  
 Concen: 0.35 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757711.d  
 Acq: 6 Jul 2023 12:30 pm



Tgt Ion: 49 Resp: 1934

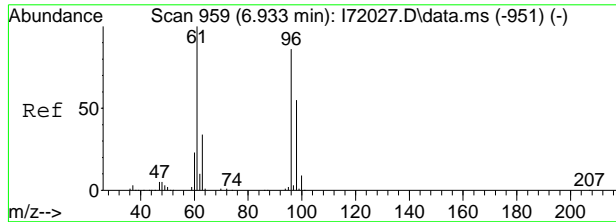
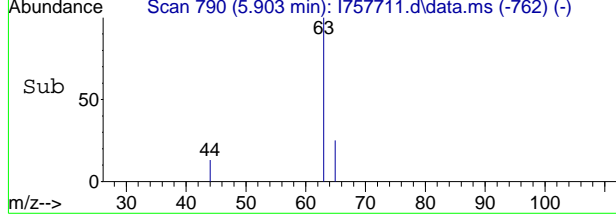
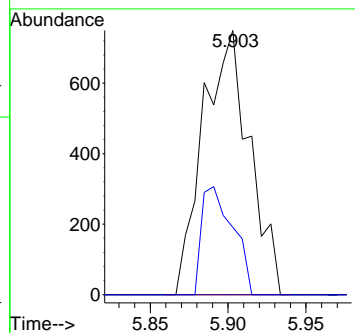
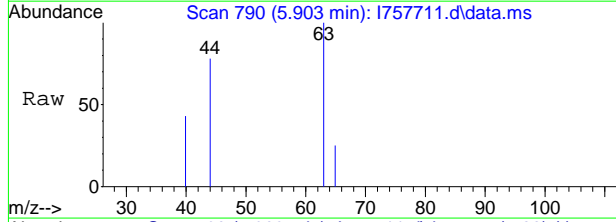
Ion	Ratio	Lower	Upper
49	100		
84	82.4	51.5	111.5
86	56.2	19.4	79.4
51	34.1	0.0	60.0





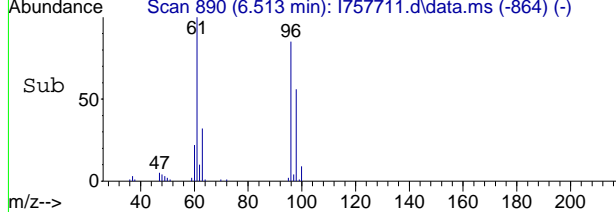
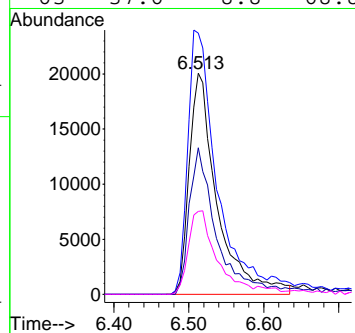
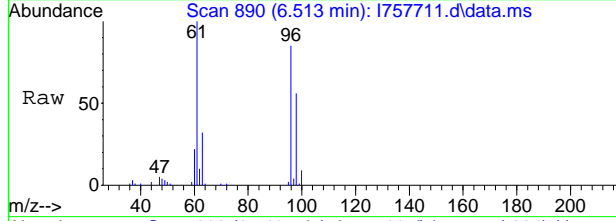
#28  
 1,1-Dichloroethane  
 Concen: 0.21 ug/L  
 RT: 5.903 min Scan# 790  
 Delta R.T. 0.018 min  
 Lab File: I757711.d  
 Acq: 6 Jul 2023 12:30 pm

Tgt Ion	Resp	Lower	Upper
63	1550		
65	25.5	2.0	62.0
83	0.0	0.0	44.2



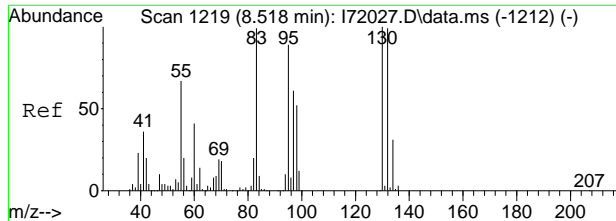
#32  
 cis-1,2-Dichloroethene  
 Concen: 11.60 ug/L  
 RT: 6.513 min Scan# 890  
 Delta R.T. 0.006 min  
 Lab File: I757711.d  
 Acq: 6 Jul 2023 12:30 pm

Tgt Ion	Resp	Lower	Upper
96	51929		
61	118.2	92.6	152.6
98	66.4	33.8	93.8
63	37.6	8.8	68.8

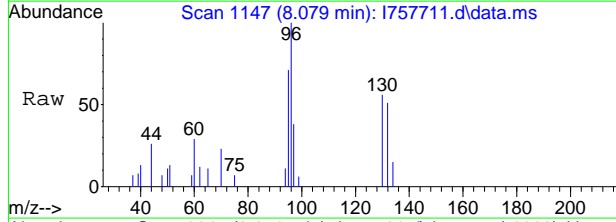


7.12  
7



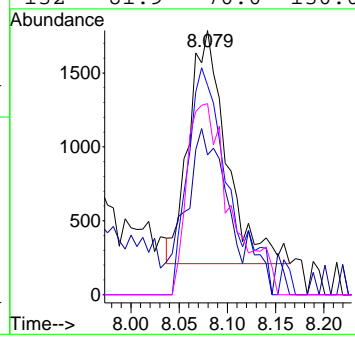
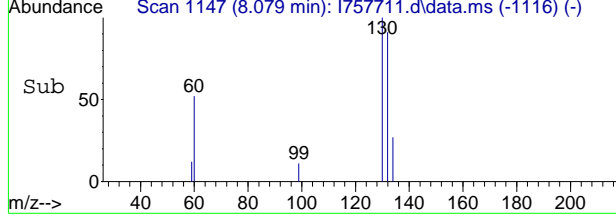


#53  
 Trichloroethene  
 Concen: 0.98 ug/L  
 RT: 8.079 min Scan# 1147  
 Delta R.T. 0.036 min  
 Lab File: I757711.d  
 Acq: 6 Jul 2023 12:30 pm



Tgt Ion: 95 Resp: 4270

Ion	Ratio	Lower	Upper
95	100		
130	89.7	75.2	135.2
97	59.9	32.6	92.6
132	81.9	70.0	130.0



7.12  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077426.d  
 Acq On : 5 Jul 2023 2:32 pm  
 Operator : jeniferw  
 Sample : FC7381-2 2X  
 Misc : MS54357,V203017,,,,,2  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 05 21:38:32 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	283394	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	199620	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.774	152	96494	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	86761	56.30	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	112.60%	
50) 1,2-Dichloroethane-d4	3.848	65	97717	53.41	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	106.82%	
63) Toluene-d8	4.970	98	267965	50.35	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	100.70%	
86) 4-Bromofluorobenzene	6.915	174	71174	50.48	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.96%	
Target Compounds						
18) Methylene Chloride	2.532	49	1635	1.03	ug/L	93
19) Acetone	2.550	43	9610	14.70	ug/L	93
25) Acetonitrile	2.824	41	3193	12.53	ug/L	83
32) cis-1,2-Dichloroethene	3.288	96	46028	30.73	ug/L	96
53) Trichloroethene	4.111	95	123497	82.56	ug/L	96
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

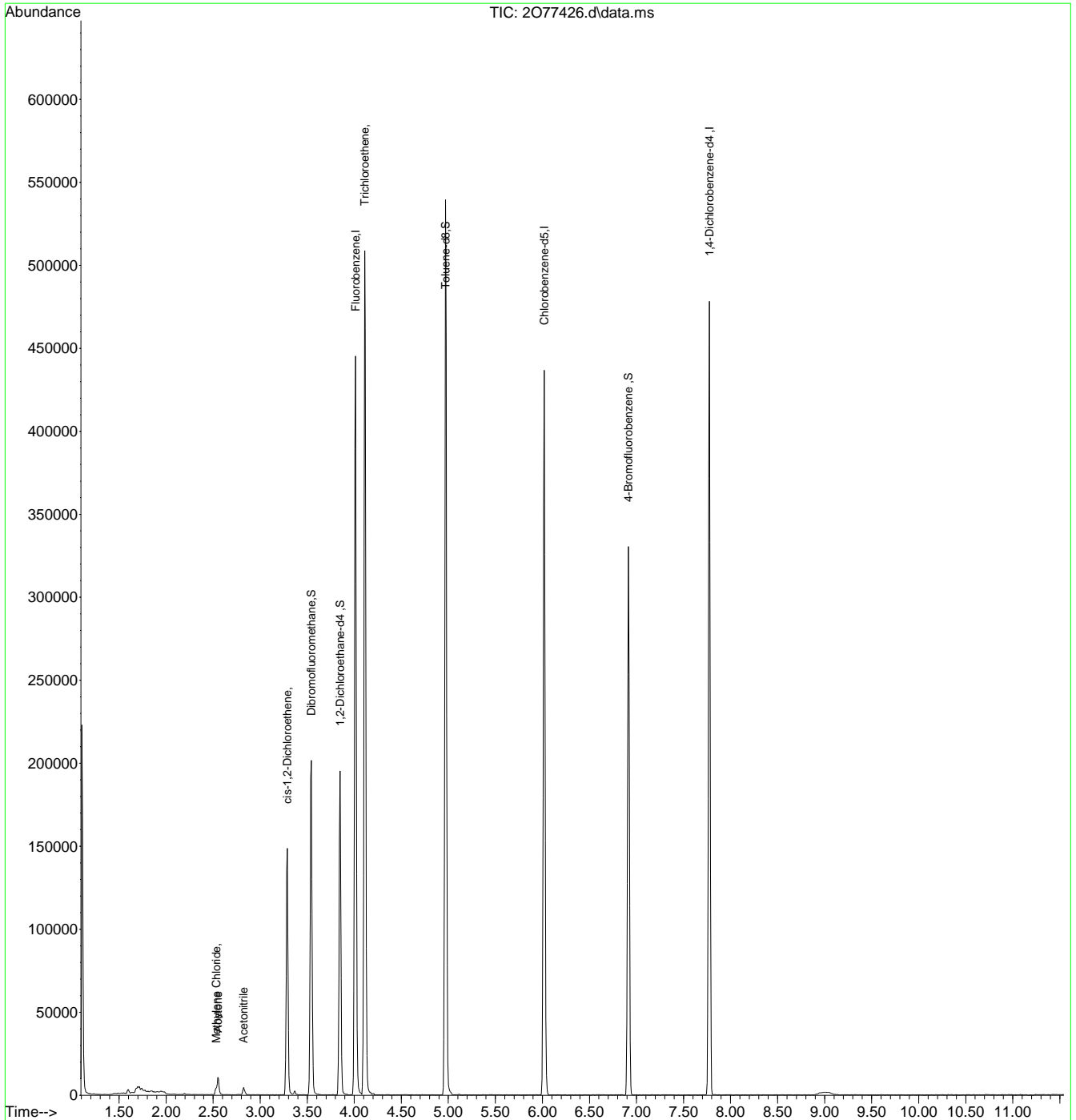
7.1.3  
7



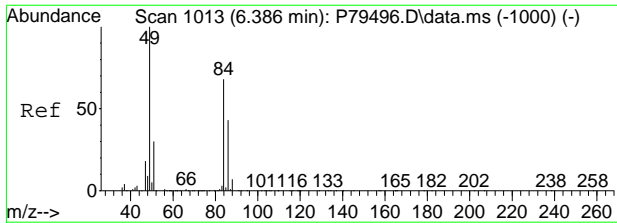
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077426.d  
 Acq On : 5 Jul 2023 2:32 pm  
 Operator : jeniferw  
 Sample : FC7381-2 2X  
 Misc : MS54357,V203017,,,,,2  
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 05 21:38:32 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

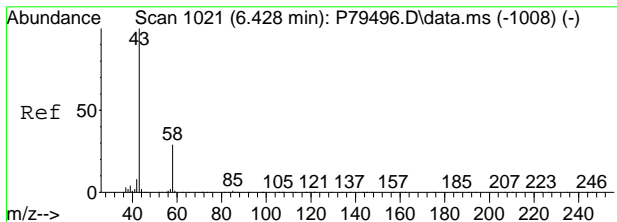
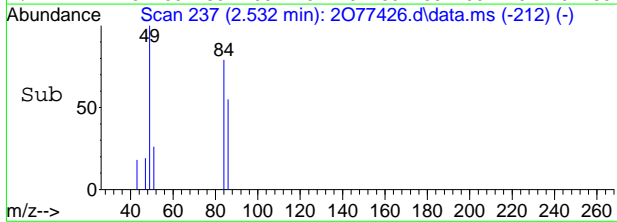
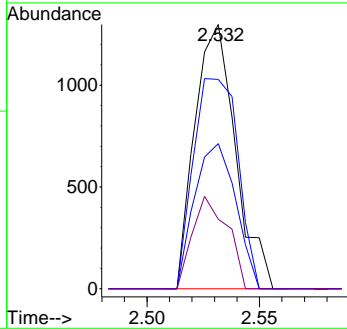
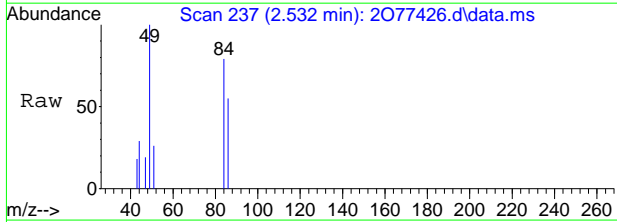


7.1.3  
7



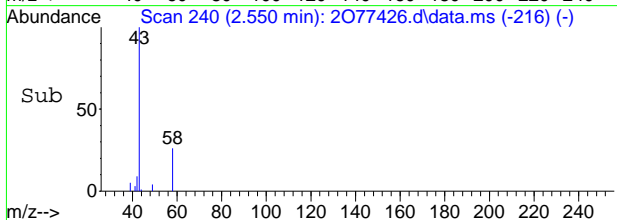
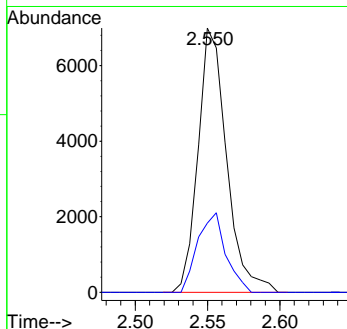
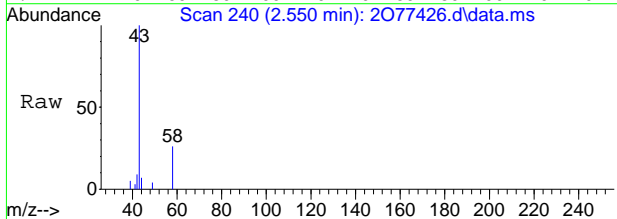
#18  
 Methylene Chloride  
 Concen: 1.03 ug/L  
 RT: 2.532 min Scan# 237  
 Delta R.T. -0.000 min  
 Lab File: 2077426.d  
 Acq: 5 Jul 2023 2:32 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	79.1	58.2	118.2
86	54.9	26.1	86.1
51	26.3	1.8	61.8

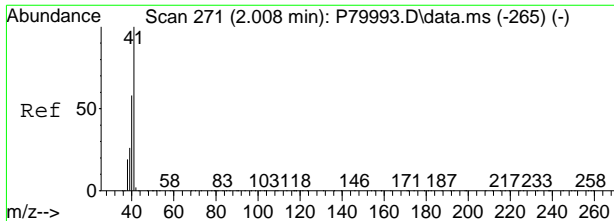


#19  
 Acetone  
 Concen: 14.70 ug/L  
 RT: 2.550 min Scan# 240  
 Delta R.T. -0.006 min  
 Lab File: 2077426.d  
 Acq: 5 Jul 2023 2:32 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	26.2	0.1	60.1

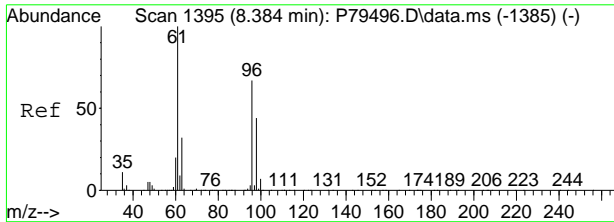
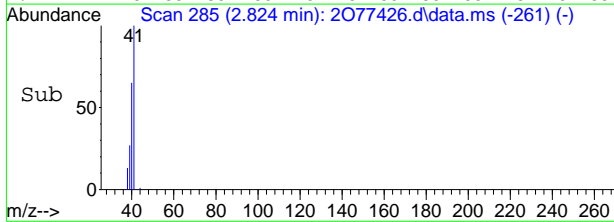
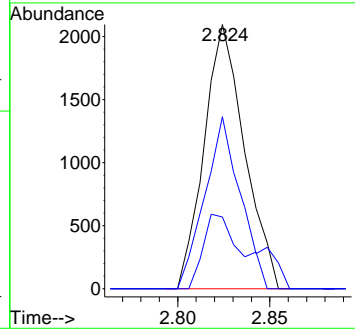
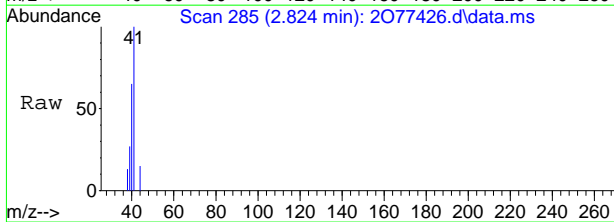


7.1.3  
7



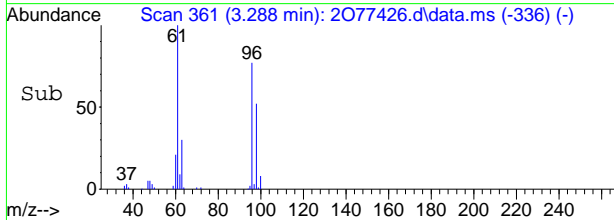
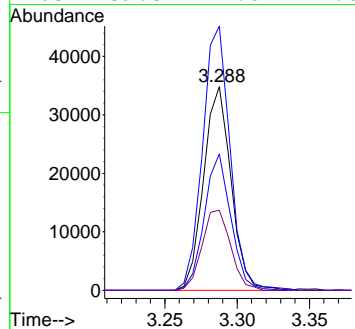
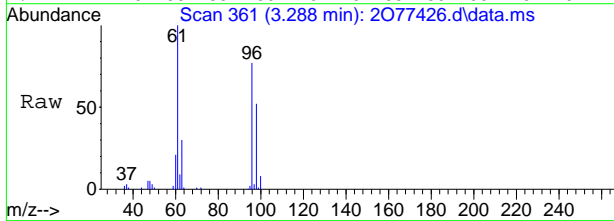
#25  
 Acetonitrile  
 Concen: 12.53 ug/L  
 RT: 2.824 min Scan# 285  
 Delta R.T. -0.006 min  
 Lab File: 2077426.d  
 Acq: 5 Jul 2023 2:32 pm

Tgt Ion	Ratio	Lower	Upper
41	100		
40	65.1	32.7	72.7
39	27.1	0.0	39.4

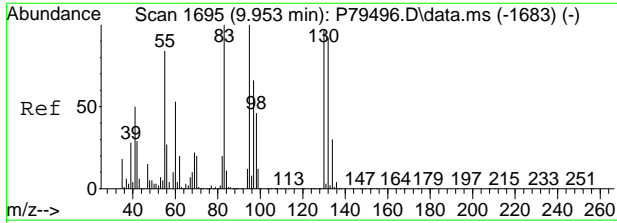


#32  
 cis-1,2-Dichloroethene  
 Concen: 30.73 ug/L  
 RT: 3.288 min Scan# 361  
 Delta R.T. -0.000 min  
 Lab File: 2077426.d  
 Acq: 5 Jul 2023 2:32 pm

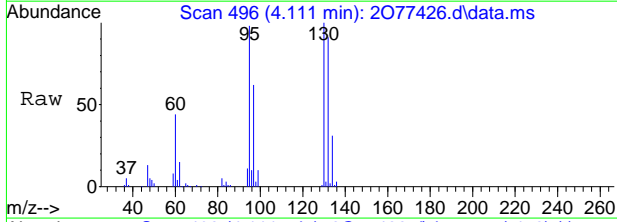
Tgt Ion	Ratio	Lower	Upper
96	100		
61	129.8	95.8	155.8
98	67.1	32.6	92.6
63	39.3	11.0	71.0



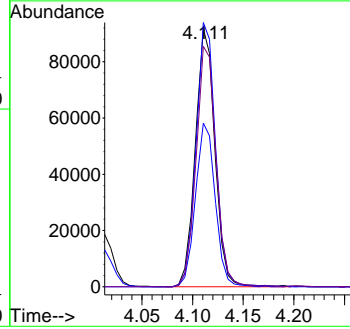
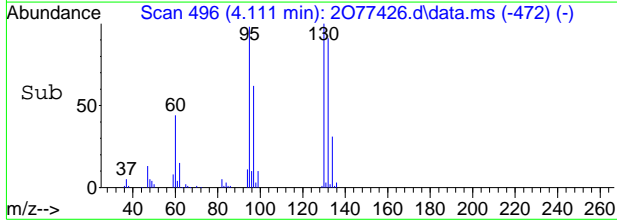
7.1.3  
7



#53  
 Trichloroethene  
 Concen: 82.56 ug/L  
 RT: 4.111 min Scan# 496  
 Delta R.T. -0.006 min  
 Lab File: 2077426.d  
 Acq: 5 Jul 2023 2:32 pm



Tgt Ion	Ratio	Lower	Upper
95	100		
130	102.4	76.7	136.7
97	63.4	36.5	96.5
132	93.1	67.8	127.8



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757721.d  
 Acq On : 6 Jul 2023 5:36 pm  
 Operator : jeniferw  
 Sample : FC7381-2 2X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,2  
 ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:37:37 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

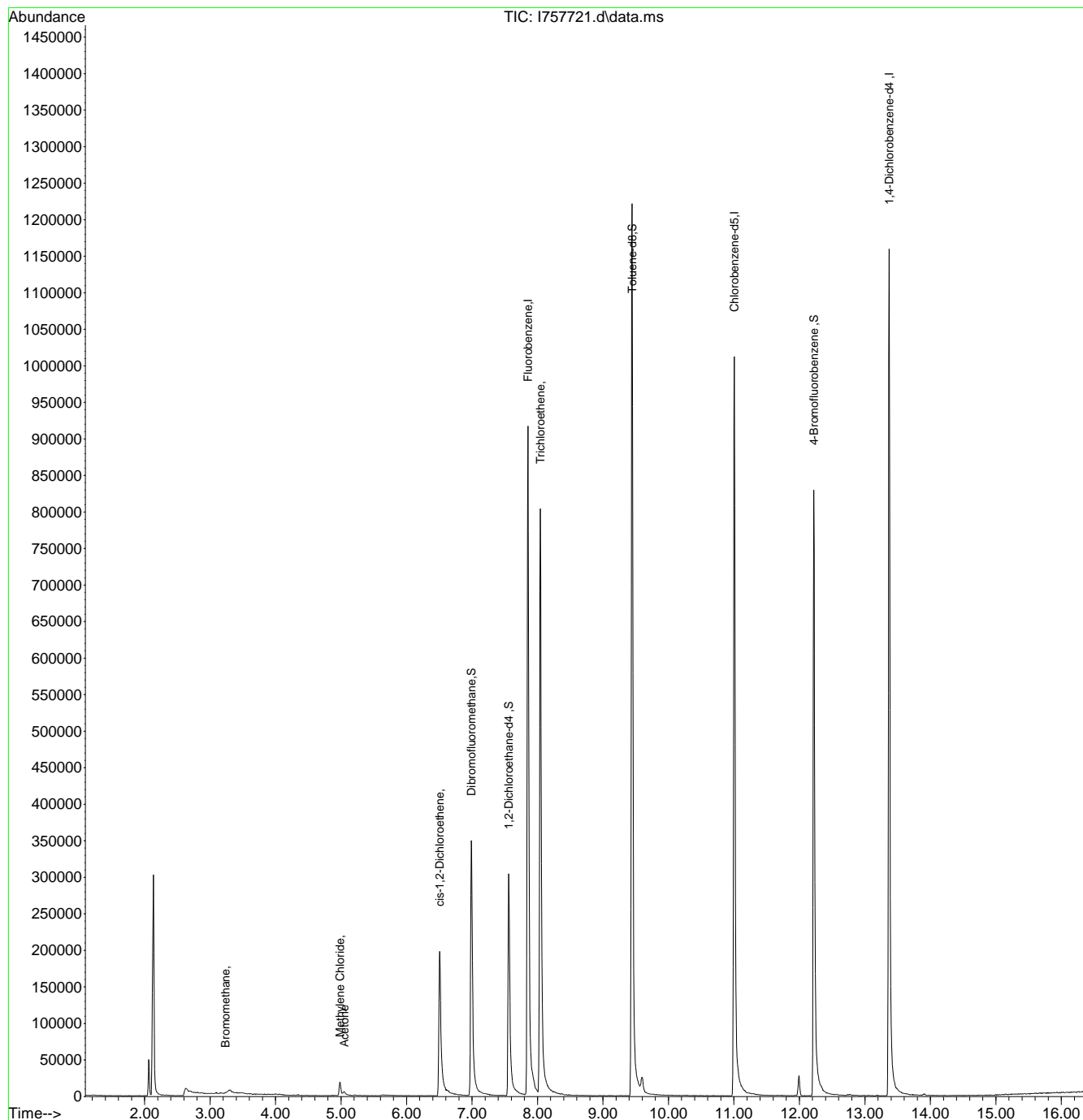
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	852030	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	607371	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	349193	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	233559	48.29	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.58%	
49) 1,2-Dichloroethane-d4	7.561	65	231885	52.73	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	105.46%	
63) Toluene-d8	9.445	98	850109	49.08	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.16%	
86) 4-Bromofluorobenzene	12.219	174	282108	47.98	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	95.96%	
Target Compounds						
						Qvalue
6) Bromomethane	3.233	94	470	0.37	ug/L	67
18) Methylene Chloride	4.982	49	12096	2.53	ug/L	97
19) Acetone	5.049	43	7633	3.33	ug/L	97
32) cis-1,2-Dichloroethene	6.506	96	113147	29.57	ug/L	93
53) Trichloroethene	8.043	95	278961	74.99	ug/L	99
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

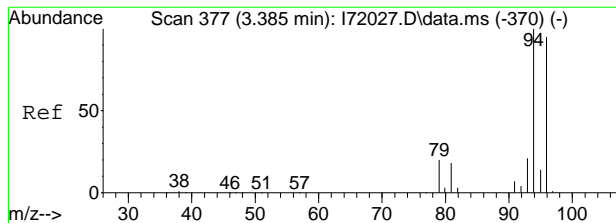
## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
Data File : I757721.d  
Acq On : 6 Jul 2023 5:36 pm  
Operator : jeniferw  
Sample : FC7381-2 2X Inst : MSVOA16  
Misc : MS54368,VI2963,,,,,2  
ALS Vial : 18 Sample Multiplier: 1

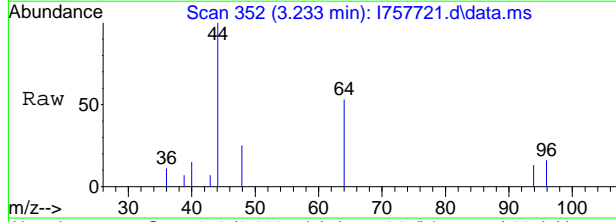
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jul 06 23:37:37 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration





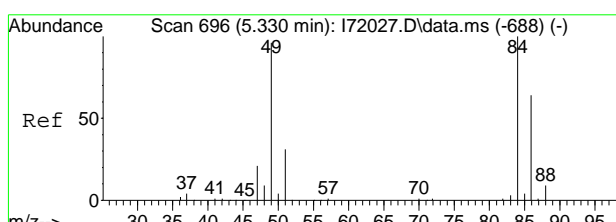
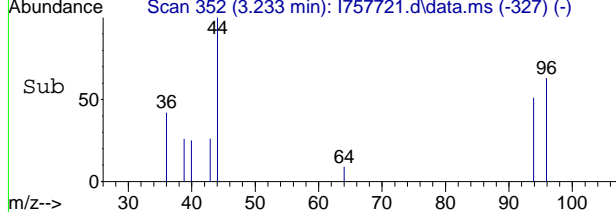
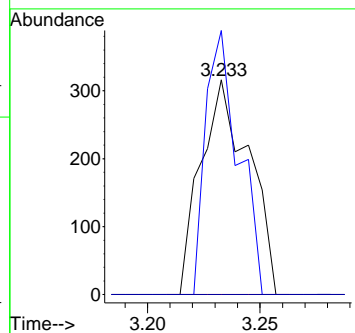


#6  
 Bromomethane  
 Concen: 0.37 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757721.d  
 Acq: 6 Jul 2023 5:36 pm

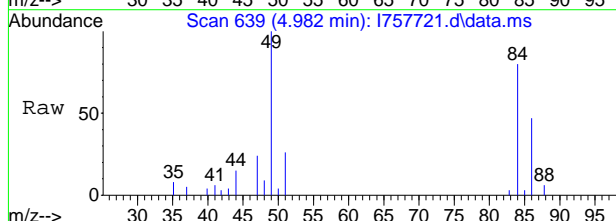


Tgt Ion: 94 Resp: 470

Ion	Ratio	Lower	Upper
94	100		
96	123.1	63.7	123.7
93	0.0	0.0	50.9

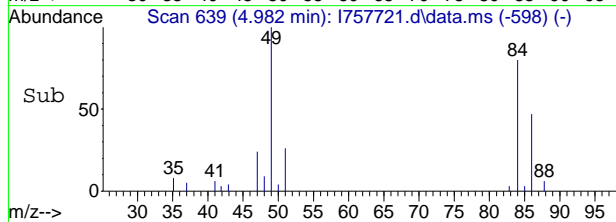
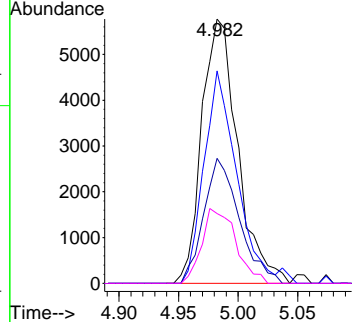


#18  
 Methylene Chloride  
 Concen: 2.53 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757721.d  
 Acq: 6 Jul 2023 5:36 pm

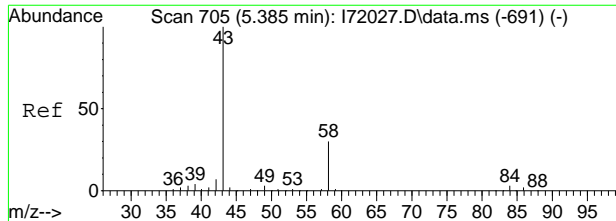


Tgt Ion: 49 Resp: 12096

Ion	Ratio	Lower	Upper
49	100		
84	80.3	51.5	111.5
86	47.3	19.4	79.4
51	26.4	0.0	60.0

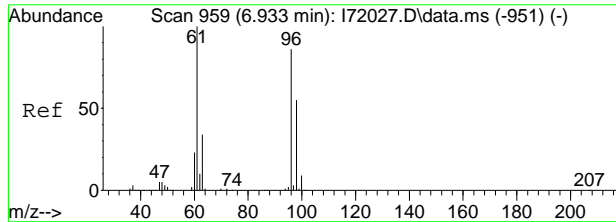
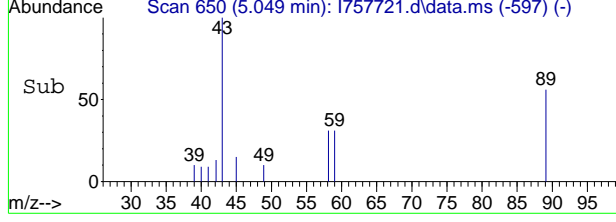
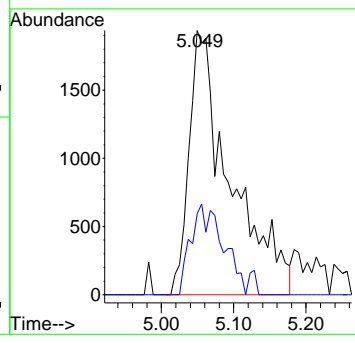
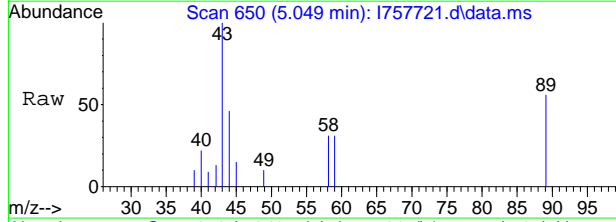


7.14  
7



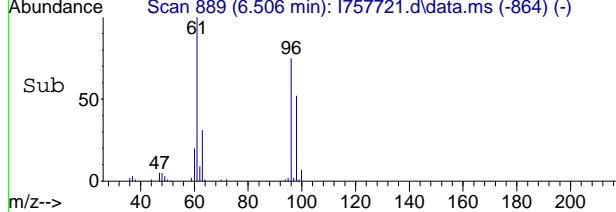
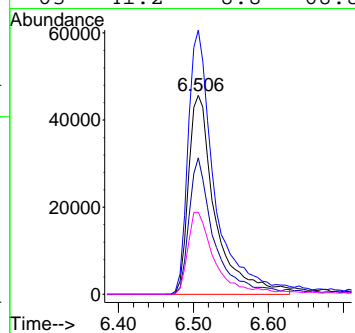
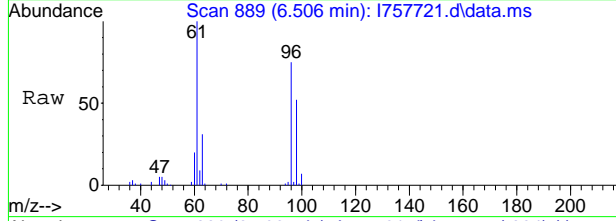
#19  
 Acetone  
 Concen: 3.33 ug/L  
 RT: 5.049 min Scan# 650  
 Delta R.T. 0.024 min  
 Lab File: I757721.d  
 Acq: 6 Jul 2023 5:36 pm

Tgt Ion	Resp	Lower	Upper
43	7633	100	
58	30.7	2.3	62.3



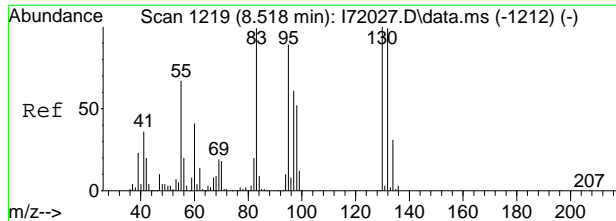
#32  
 cis-1,2-Dichloroethene  
 Concen: 29.57 ug/L  
 RT: 6.506 min Scan# 889  
 Delta R.T. -0.001 min  
 Lab File: I757721.d  
 Acq: 6 Jul 2023 5:36 pm

Tgt Ion	Resp	Lower	Upper
96	113147	100	
61	132.8	92.6	152.6
98	68.6	33.8	93.8
63	41.2	8.8	68.8

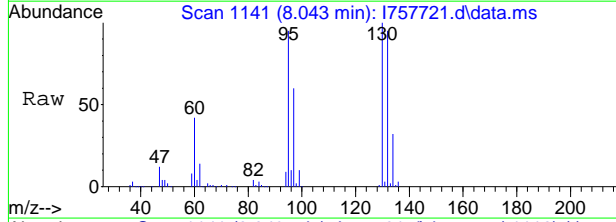


7.14  
7



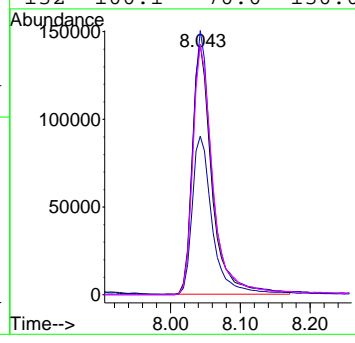
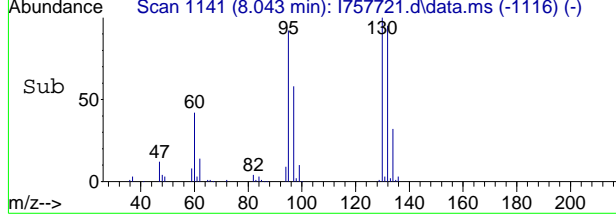


#53  
 Trichloroethene  
 Concen: 74.99 ug/L  
 RT: 8.043 min Scan# 1141  
 Delta R.T. -0.000 min  
 Lab File: I757721.d  
 Acq: 6 Jul 2023 5:36 pm



Tgt Ion: 95 Resp: 278961

Ion	Ratio	Lower	Upper
95	100		
130	105.9	75.2	135.2
97	63.4	32.6	92.6
132	100.1	70.0	130.0



7.14  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077421.d  
 Acq On : 5 Jul 2023 12:25 pm  
 Operator : jeniferw  
 Sample : FC7381-3  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jul 05 21:35:36 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

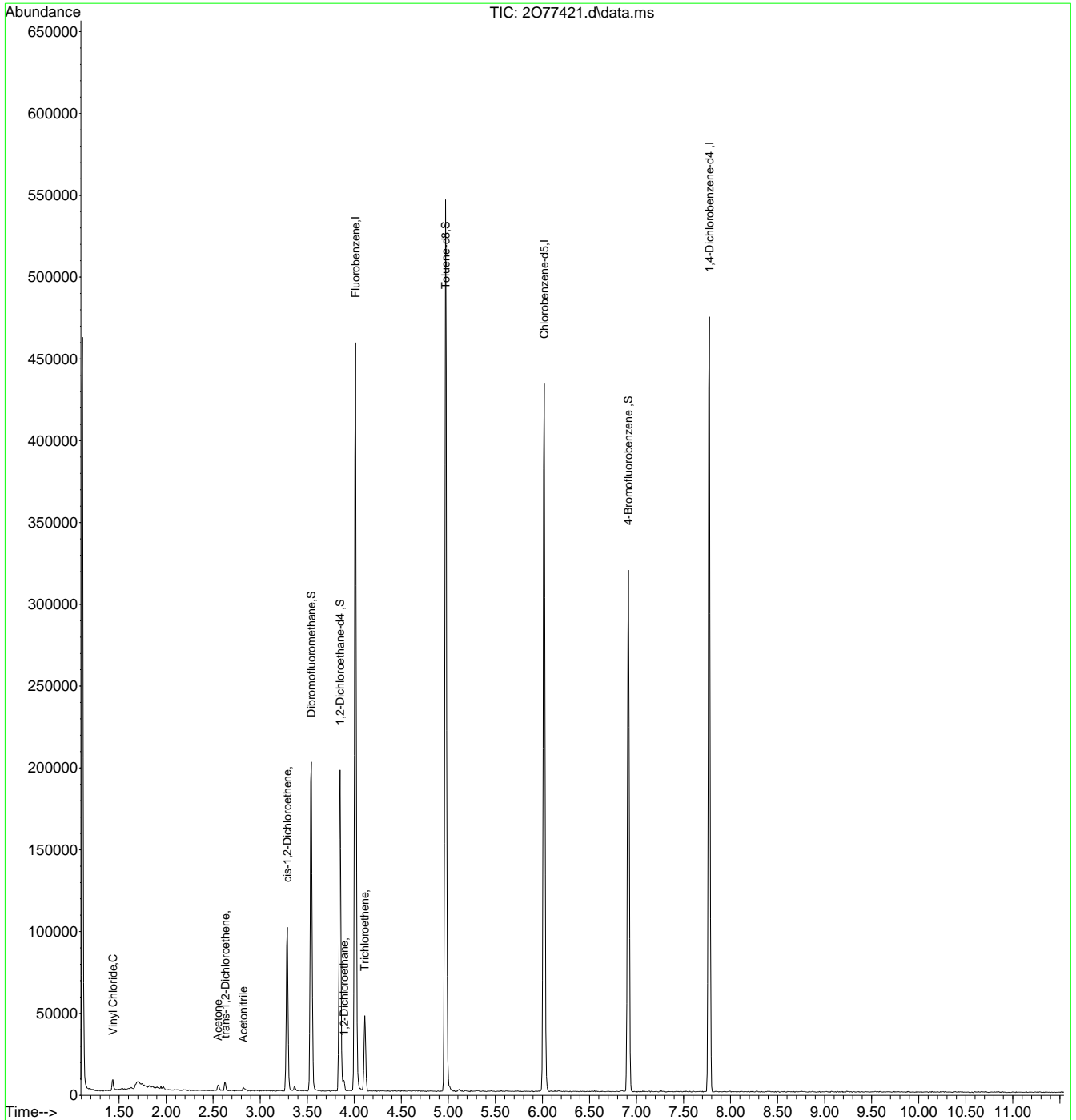
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	288193	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	200565	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.775	152	101494	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	84937	54.20	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	108.40%		
50) 1,2-Dichloroethane-d4	3.849	65	98492	52.94	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	105.88%		
63) Toluene-d8	4.970	98	271195	50.71	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	101.42%		
86) 4-Bromofluorobenzene	6.915	174	71826	48.43	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.86%		
Target Compounds							
							Qvalue
5) Vinyl Chloride	1.434	62	4547	4.06	ug/L		99
19) Acetone	2.550	43	3609	5.43	ug/L		96
21) trans-1,2-Dichloroethene	2.629	61	2014	1.13	ug/L		94
25) Acetonitrile	2.818	41	1564	6.04	ug/L		89
32) cis-1,2-Dichloroethene	3.288	96	31809	20.88	ug/L		98
51) 1,2-Dichloroethane	3.891	62	3836	1.78	ug/L		93
53) Trichloroethene	4.111	95	10662	7.01	ug/L		92
-----							

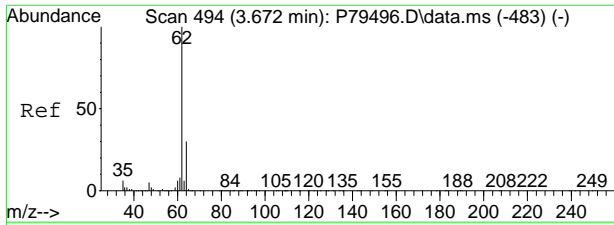
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077421.d  
 Acq On : 5 Jul 2023 12:25 pm  
 Operator : jeniferw  
 Sample : FC7381-3  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

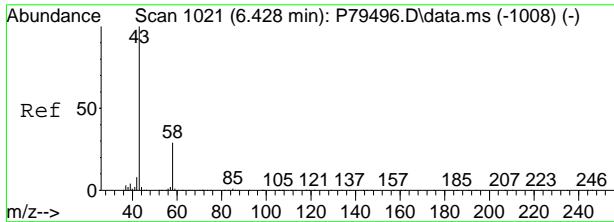
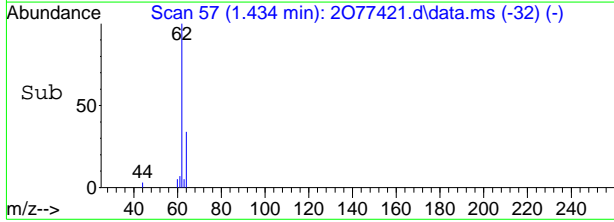
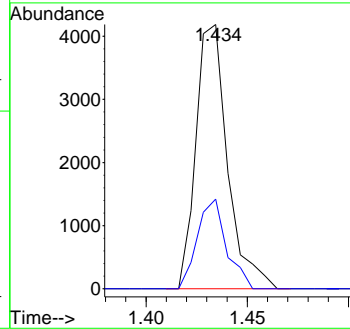
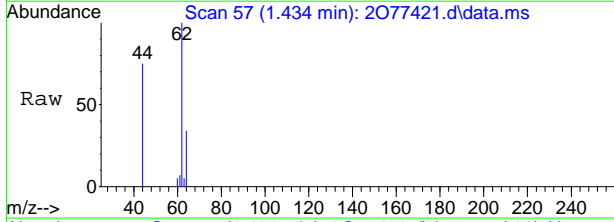
Quant Time: Jul 05 21:35:36 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration





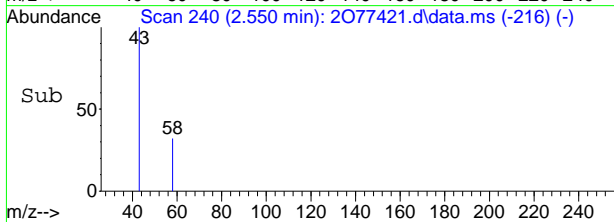
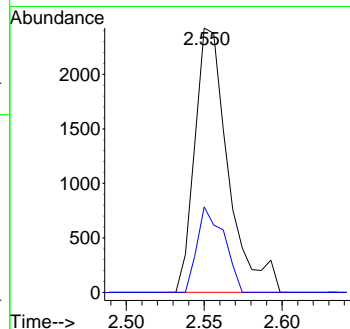
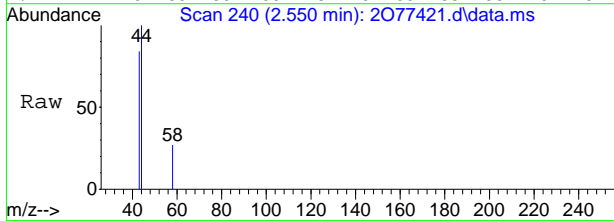
#5  
 Vinyl Chloride  
 Concen: 4.06 ug/L  
 RT: 1.434 min Scan# 57  
 Delta R.T. 0.000 min  
 Lab File: 2077421.d  
 Acq: 5 Jul 2023 12:25 pm

Tgt Ion	Ratio	Lower	Upper
62	100		
64	33.9	3.4	63.4

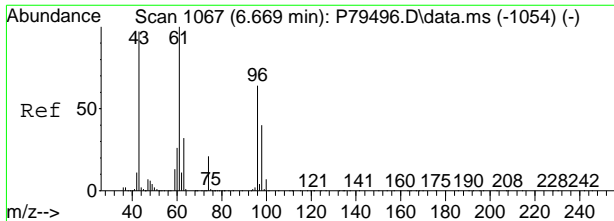


#19  
 Acetone  
 Concen: 5.43 ug/L  
 RT: 2.550 min Scan# 240  
 Delta R.T. -0.006 min  
 Lab File: 2077421.d  
 Acq: 5 Jul 2023 12:25 pm

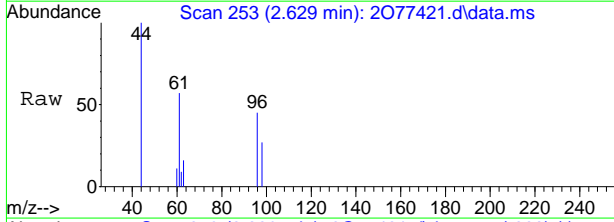
Tgt Ion	Ratio	Lower	Upper
43	100		
58	32.3	0.1	60.1



7.15  
7

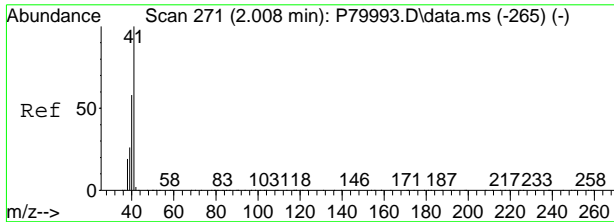
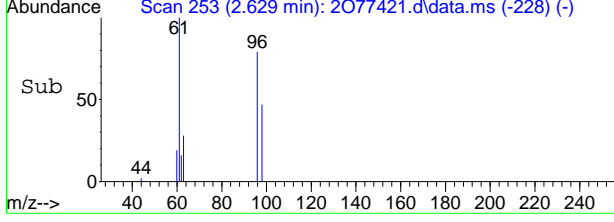
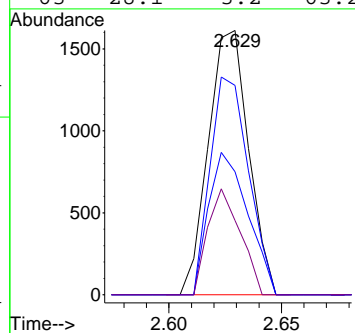


#21  
 trans-1,2-Dichloroethene  
 Concen: 1.13 ug/L  
 RT: 2.629 min Scan# 253  
 Delta R.T. 0.000 min  
 Lab File: 2077421.d  
 Acq: 5 Jul 2023 12:25 pm

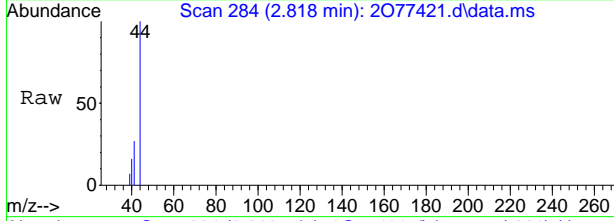


Tgt Ion: 61 Resp: 2014

Ion	Ratio	Lower	Upper
61	100		
96	79.2	43.2	103.2
98	46.6	17.1	77.1
63	28.1	3.2	63.2

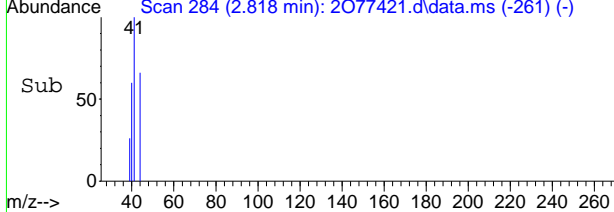
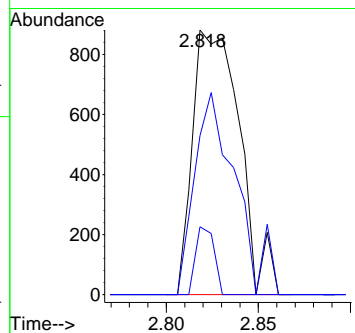


#25  
 Acetonitrile  
 Concen: 6.04 ug/L  
 RT: 2.818 min Scan# 284  
 Delta R.T. -0.012 min  
 Lab File: 2077421.d  
 Acq: 5 Jul 2023 12:25 pm

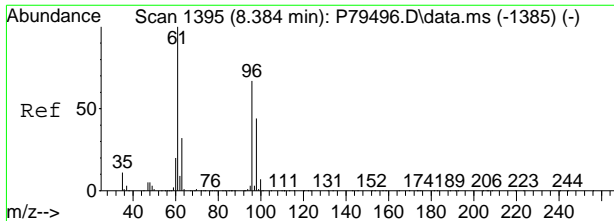


Tgt Ion: 41 Resp: 1564

Ion	Ratio	Lower	Upper
41	100		
40	60.0	32.7	72.7
39	25.6	0.0	39.4

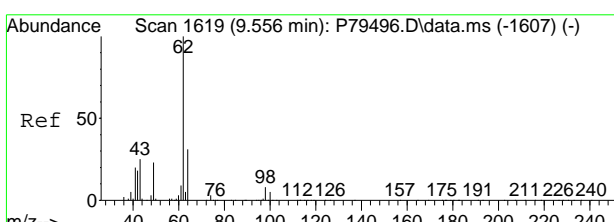
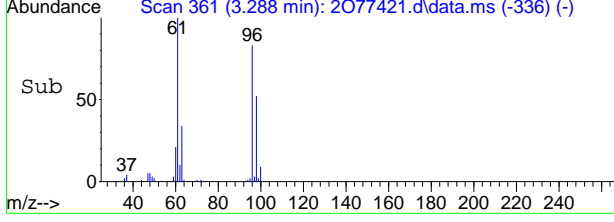
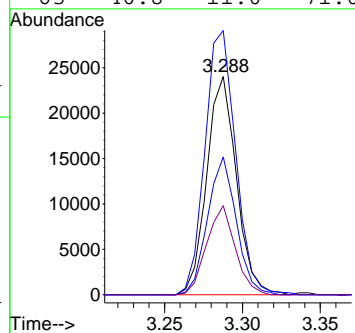
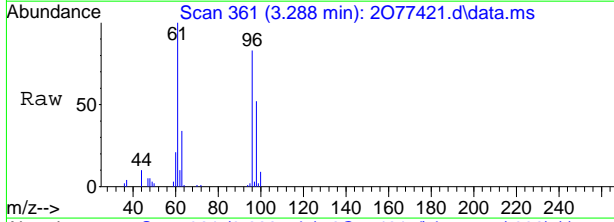


7.15  
7



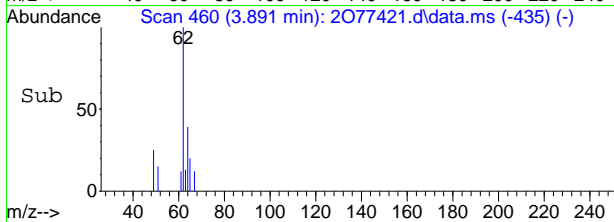
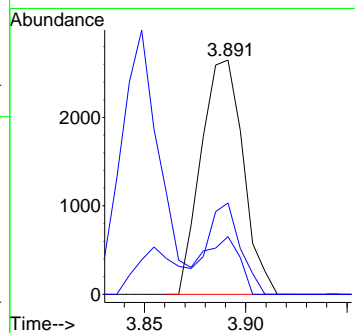
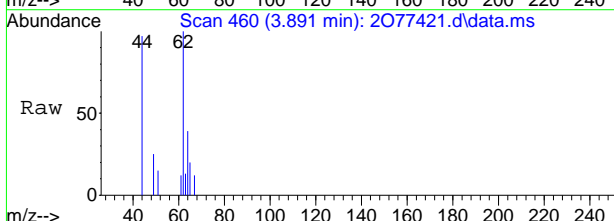
#32  
 cis-1,2-Dichloroethene  
 Concen: 20.88 ug/L  
 RT: 3.288 min Scan# 361  
 Delta R.T. -0.000 min  
 Lab File: 2077421.d  
 Acq: 5 Jul 2023 12:25 pm

Tgt Ion	Resp	Lower	Upper
96	31809		
96	100		
61	121.1	95.8	155.8
98	63.2	32.6	92.6
63	40.8	11.0	71.0



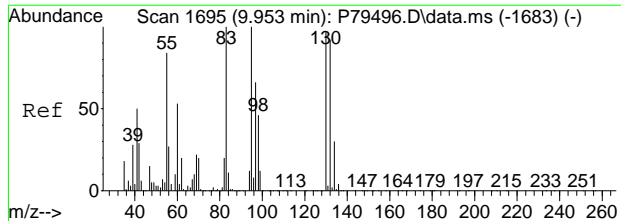
#51  
 1,2-Dichloroethane  
 Concen: 1.78 ug/L  
 RT: 3.891 min Scan# 460  
 Delta R.T. 0.000 min  
 Lab File: 2077421.d  
 Acq: 5 Jul 2023 12:25 pm

Tgt Ion	Resp	Lower	Upper
62	3836		
62	100		
49	24.6	0.0	54.9
64	39.0	2.0	62.0

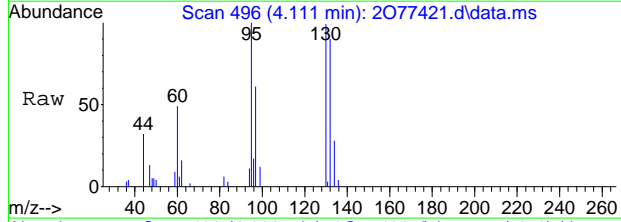


7.15  
7

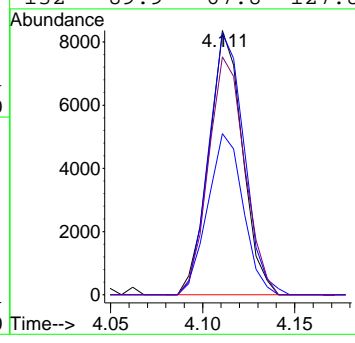
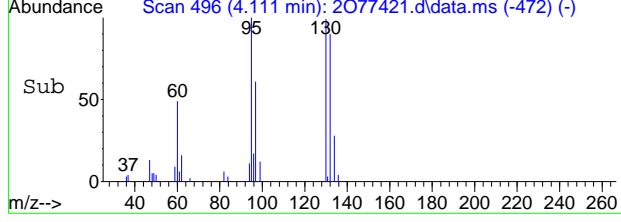




#53  
 Trichloroethene  
 Concen: 7.01 ug/L  
 RT: 4.111 min Scan# 496  
 Delta R.T. -0.006 min  
 Lab File: 2077421.d  
 Acq: 5 Jul 2023 12:25 pm



Tgt Ion	Ratio	Lower	Upper
95	100		
130	98.9	76.7	136.7
97	61.0	36.5	96.5
132	89.9	67.8	127.8



7.15  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757712.d  
 Acq On : 6 Jul 2023 12:54 pm  
 Operator : jeniferw  
 Sample : FC7381-3 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:25:12 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

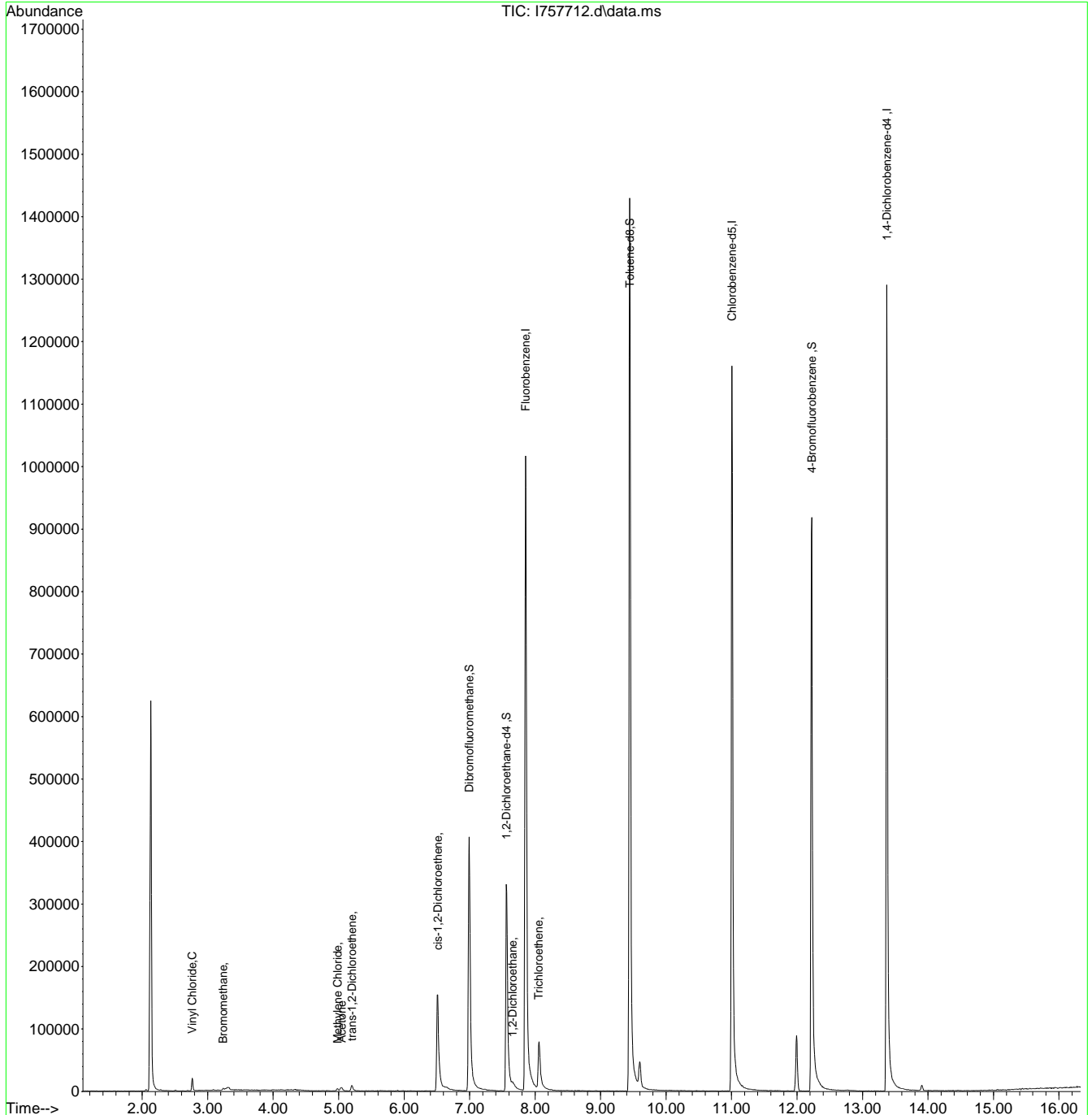
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	974708	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	699585	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	395276	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	271046	48.99	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.98%	
49) 1,2-Dichloroethane-d4	7.561	65	258424	51.37	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.74%	
63) Toluene-d8	9.445	98	970938	48.67	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.34%	
86) 4-Bromofluorobenzene	12.225	174	328955	49.43	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.86%	
Target Compounds						
						Qvalue
4) Vinyl Chloride	2.763	62	16406	3.77	ug/L	98
6) Bromomethane	3.233	94	1780	1.21	ug/L #	67
18) Methylene Chloride	4.982	49	2602	0.48	ug/L	90
19) Acetone	5.043	43	2591	0.99	ug/L	98
21) trans-1,2-Dichloroethene	5.202	61	7012	1.26	ug/L	91
32) cis-1,2-Dichloroethene	6.513	96	90365	20.64	ug/L	96
51) 1,2-Dichloroethane	7.659	62	8285	1.57	ug/L	90
53) Trichloroethene	8.055	95	32010	7.52	ug/L	96
-----						

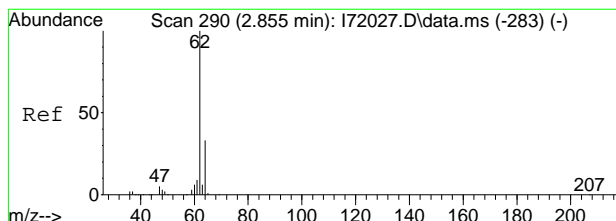
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757712.d  
 Acq On : 6 Jul 2023 12:54 pm  
 Operator : jeniferw  
 Sample : FC7381-3 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

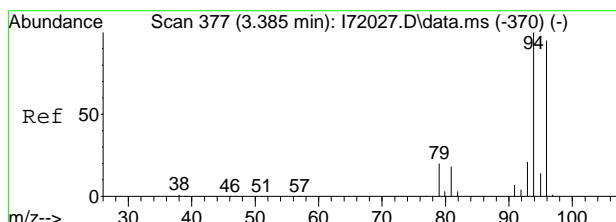
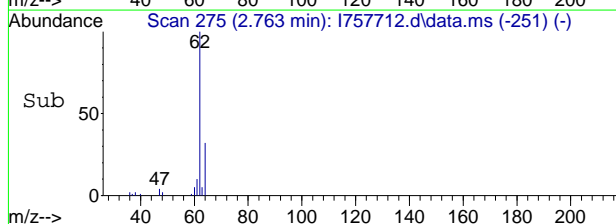
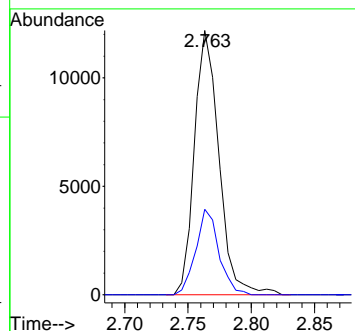
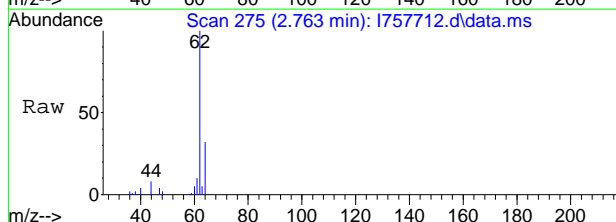
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:25:12 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration





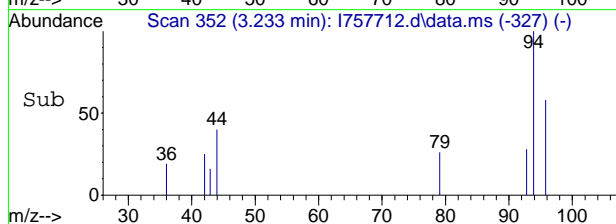
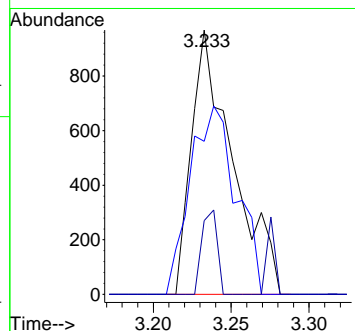
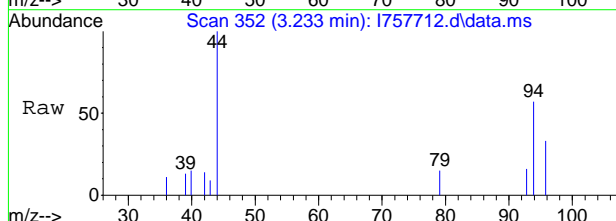
#4  
 Vinyl Chloride  
 Concen: 3.77 ug/L  
 RT: 2.763 min Scan# 275  
 Delta R.T. -0.006 min  
 Lab File: I757712.d  
 Acq: 6 Jul 2023 12:54 pm

Tgt Ion	Resp	Lower	Upper
62	16406		
64	32.4	3.6	63.6

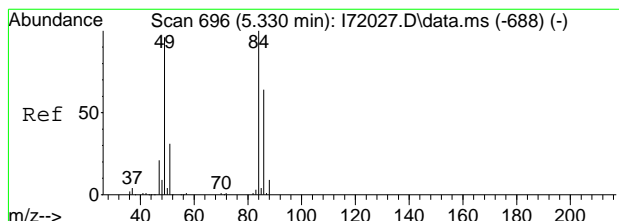


#6  
 Bromomethane  
 Concen: 1.21 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757712.d  
 Acq: 6 Jul 2023 12:54 pm

Tgt Ion	Resp	Lower	Upper
94	1780		
96	57.9	63.7	123.7#
93	27.9	0.0	50.9

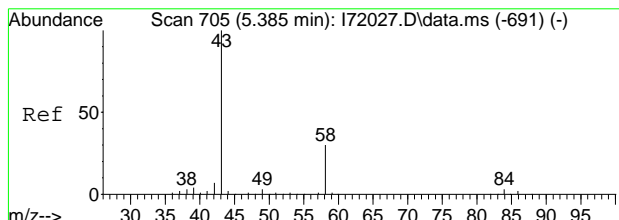
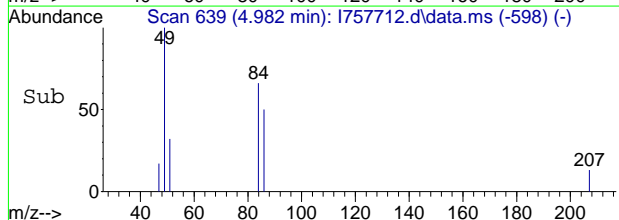
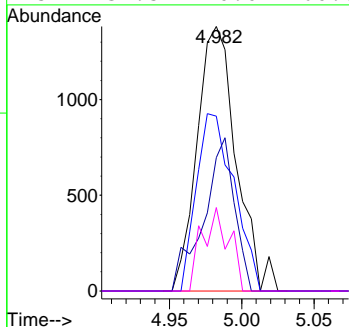
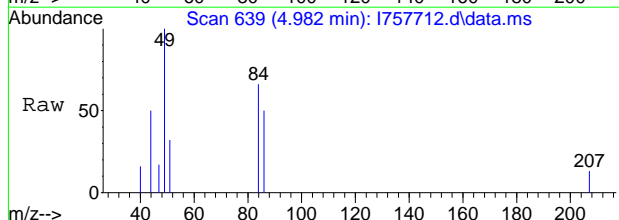


7.16  
7



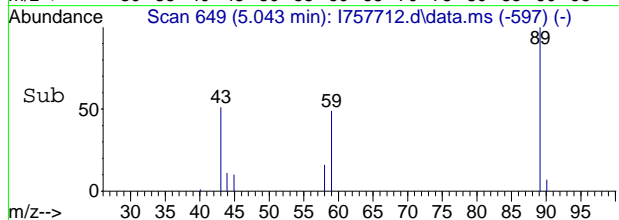
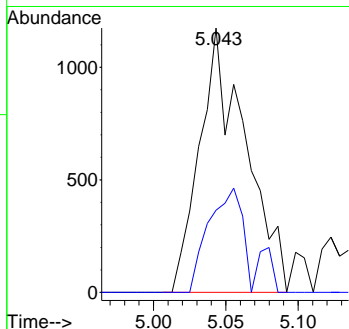
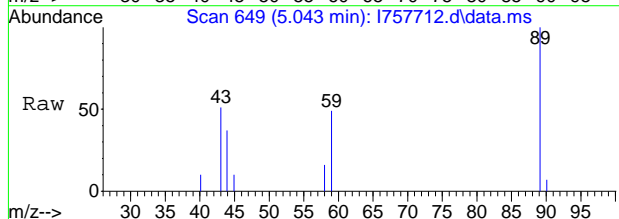
#18  
Methylene Chloride  
Concen: 0.48 ug/L  
RT: 4.982 min Scan# 639  
Delta R.T. 0.000 min  
Lab File: I757712.d  
Acq: 6 Jul 2023 12:54 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	66.1	51.5	111.5
86	50.4	19.4	79.4
51	31.5	0.0	60.0

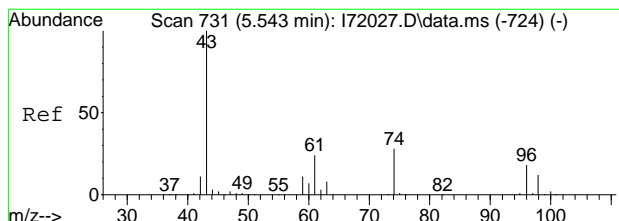


#19  
Acetone  
Concen: 0.99 ug/L  
RT: 5.043 min Scan# 649  
Delta R.T. 0.018 min  
Lab File: I757712.d  
Acq: 6 Jul 2023 12:54 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	31.1	2.3	62.3

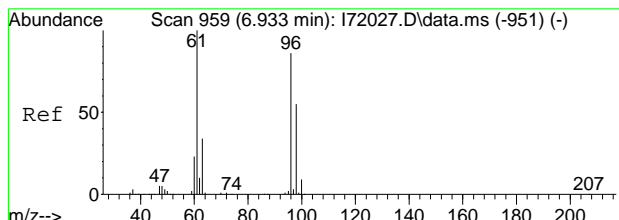
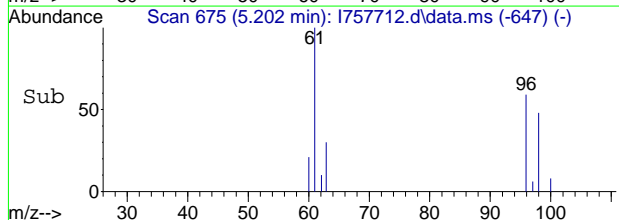
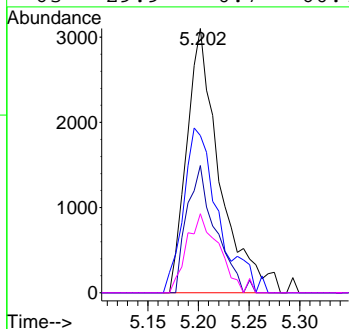
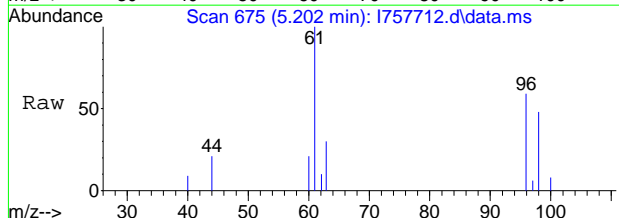


7.16  
7



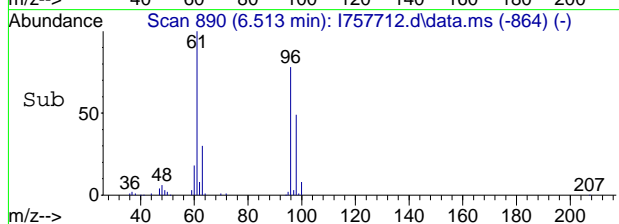
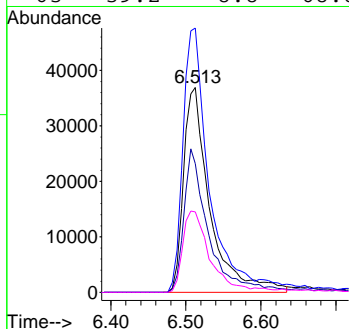
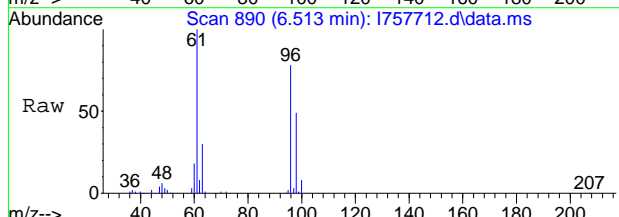
#21  
 trans-1,2-Dichloroethene  
 Concen: 1.26 ug/L  
 RT: 5.202 min Scan# 675  
 Delta R.T. 0.018 min  
 Lab File: I757712.d  
 Acq: 6 Jul 2023 12:54 pm

Tgt Ion	Resp	Lower	Upper
61	7012		
61	100		
96	59.5	41.3	101.3
98	48.2	15.3	75.3
63	29.9	0.7	60.7

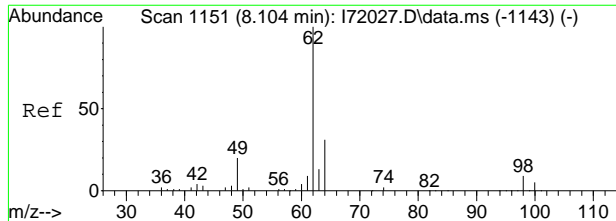


#32  
 cis-1,2-Dichloroethene  
 Concen: 20.64 ug/L  
 RT: 6.513 min Scan# 890  
 Delta R.T. 0.006 min  
 Lab File: I757712.d  
 Acq: 6 Jul 2023 12:54 pm

Tgt Ion	Resp	Lower	Upper
96	90365		
96	100		
61	129.0	92.6	152.6
98	62.7	33.8	93.8
63	39.2	8.8	68.8

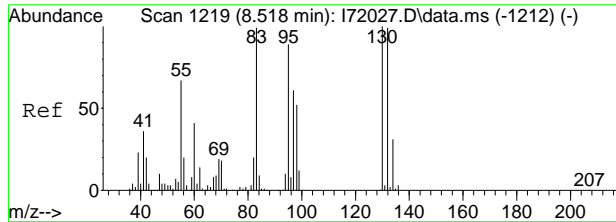
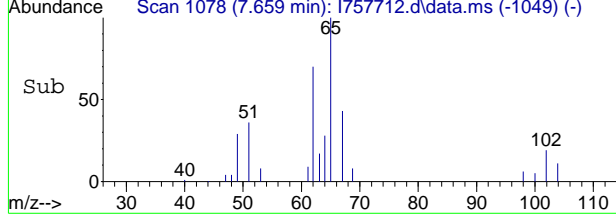
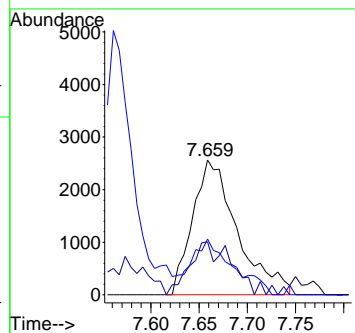
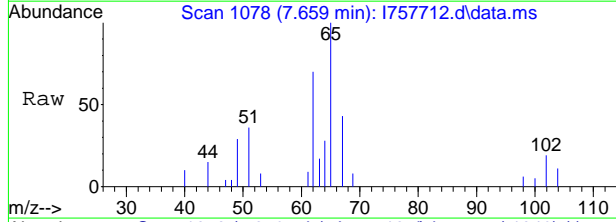


7.1.6  
7



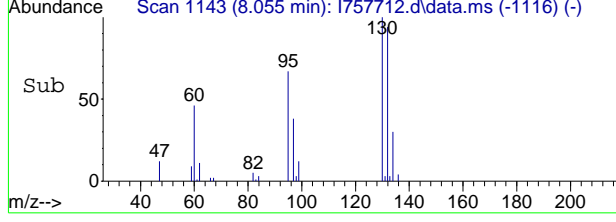
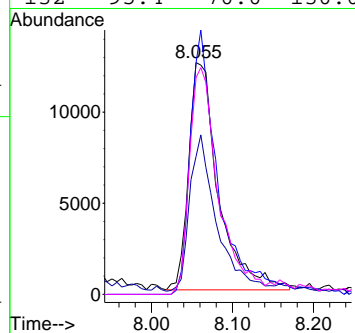
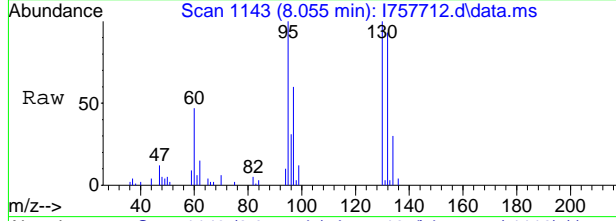
#51  
 1,2-Dichloroethane  
 Concen: 1.57 ug/L  
 RT: 7.659 min Scan# 1078  
 Delta R.T. 0.025 min  
 Lab File: I757712.d  
 Acq: 6 Jul 2023 12:54 pm

Tgt Ion	Ratio	Lower	Upper
62	100		
49	34.2	0.0	59.6
64	39.4	2.7	62.7



#53  
 Trichloroethene  
 Concen: 7.52 ug/L  
 RT: 8.055 min Scan# 1143  
 Delta R.T. 0.012 min  
 Lab File: I757712.d  
 Acq: 6 Jul 2023 12:54 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	102.0	75.2	135.2
97	59.4	32.6	92.6
132	95.4	70.0	130.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077427.d  
 Acq On : 5 Jul 2023 2:58 pm  
 Operator : jeniferw  
 Sample : FC7381-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 05 21:39:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	286100	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	194122	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.775	152	97409	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	85957	55.25	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	110.50%		
50) 1,2-Dichloroethane-d4	3.849	65	97483	52.78	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	105.56%		
63) Toluene-d8	4.970	98	264666	51.14	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	102.28%		
86) 4-Bromofluorobenzene	6.915	174	67877	47.69	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	95.38%		
Target Compounds							
							Qvalue
5) Vinyl Chloride	1.428	62	160368	144.35	ug/L		99
19) Acetone	2.550	43	1459	2.21	ug/L		98
21) trans-1,2-Dichloroethene	2.623	61	3763	2.12	ug/L		98
25) Acetonitrile	2.824	41	1321	5.14	ug/L		68
32) cis-1,2-Dichloroethene	3.288	96	199732	132.07	ug/L		98
53) Trichloroethene	4.111	95	723	0.48	ug/L		86
-----							

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.17  
7

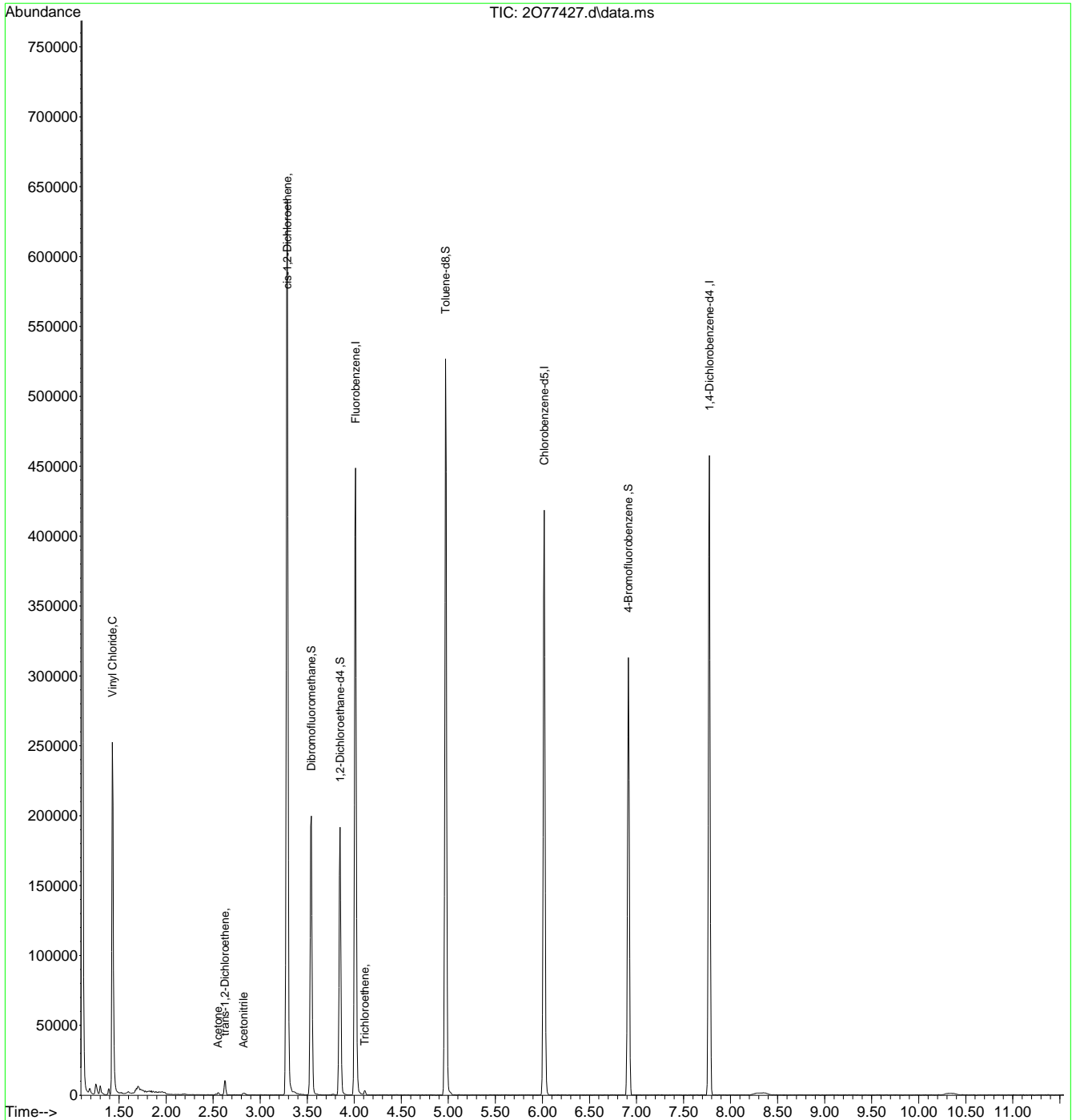




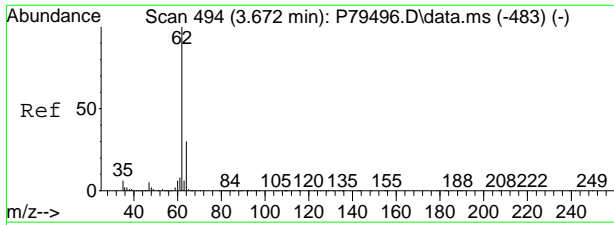
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077427.d  
 Acq On : 5 Jul 2023 2:58 pm  
 Operator : jeniferw  
 Sample : FC7381-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 05 21:39:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

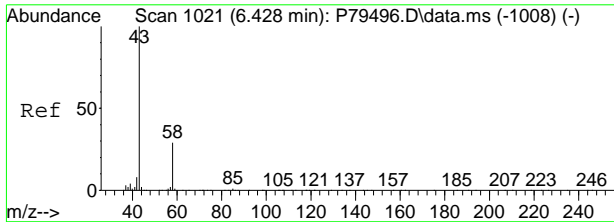
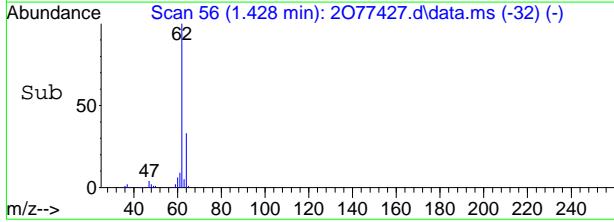
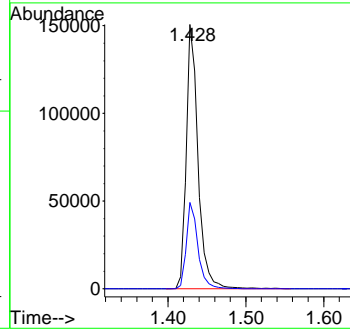
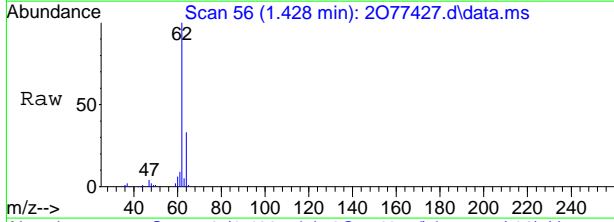


717  
7



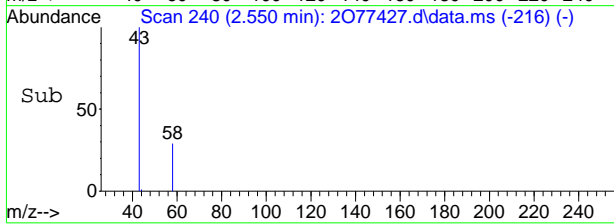
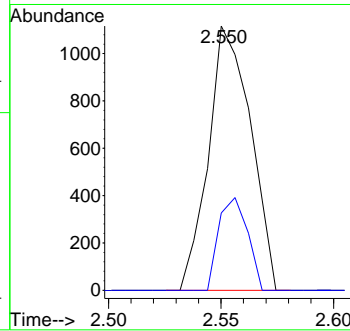
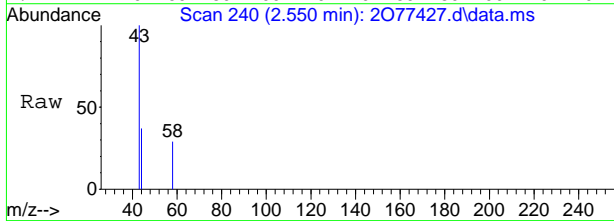
#5  
 Vinyl Chloride  
 Concen: 144.35 ug/L  
 RT: 1.428 min Scan# 56  
 Delta R.T. -0.006 min  
 Lab File: 2077427.d  
 Acq: 5 Jul 2023 2:58 pm

Tgt Ion	Ratio	Lower	Upper
62	100		
64	32.7	3.4	63.4

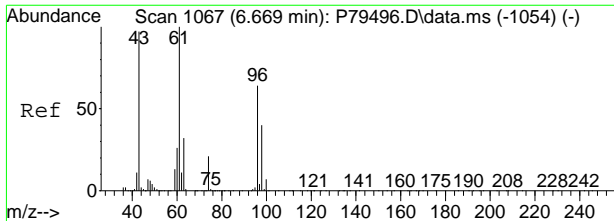


#19  
 Acetone  
 Concen: 2.21 ug/L  
 RT: 2.550 min Scan# 240  
 Delta R.T. -0.006 min  
 Lab File: 2077427.d  
 Acq: 5 Jul 2023 2:58 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	29.3	0.1	60.1

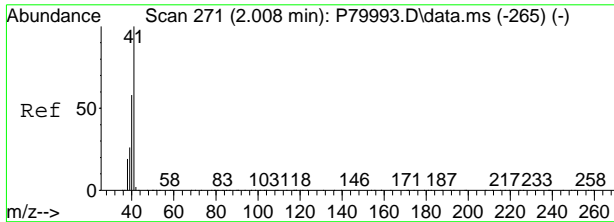
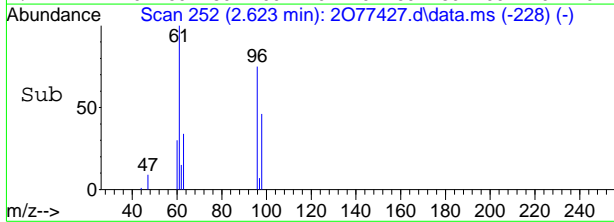
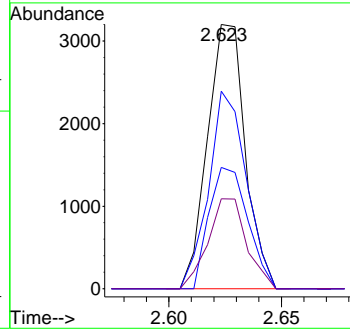
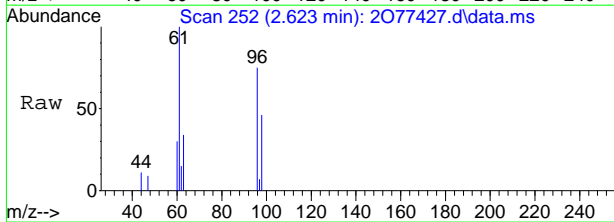


7.17  
7



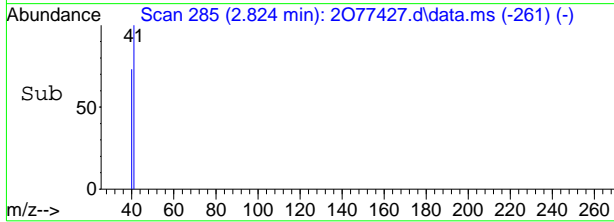
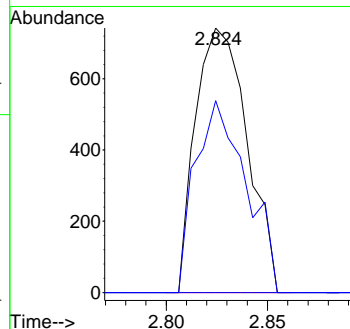
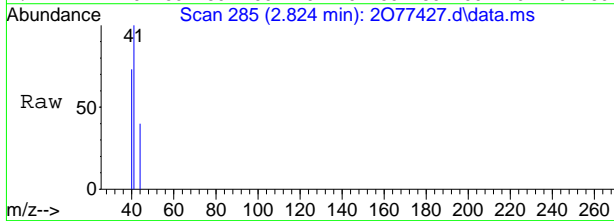
#21  
 trans-1,2-Dichloroethene  
 Concen: 2.12 ug/L  
 RT: 2.623 min Scan# 252  
 Delta R.T. -0.006 min  
 Lab File: 2077427.d  
 Acq: 5 Jul 2023 2:58 pm

Tgt Ion	Ratio	Lower	Upper
61	100		
96	74.8	43.2	103.2
98	45.9	17.1	77.1
63	34.1	3.2	63.2

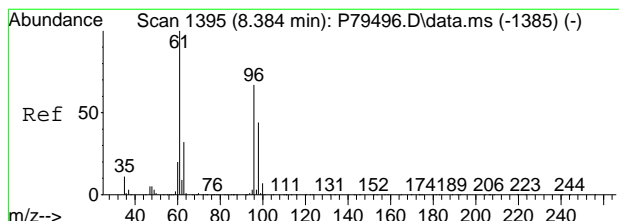


#25  
 Acetonitrile  
 Concen: 5.14 ug/L  
 RT: 2.824 min Scan# 285  
 Delta R.T. -0.006 min  
 Lab File: 2077427.d  
 Acq: 5 Jul 2023 2:58 pm

Tgt Ion	Ratio	Lower	Upper
41	100		
40	72.5	32.7	72.7
39	0.0	0.0	39.4

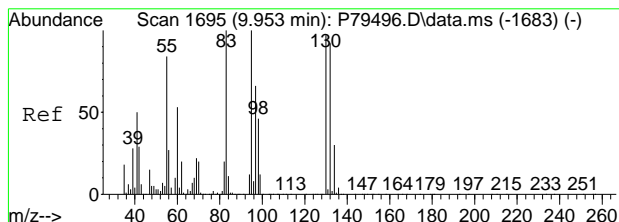
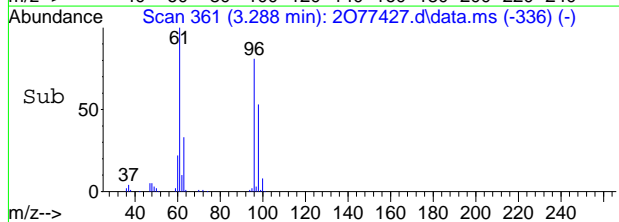
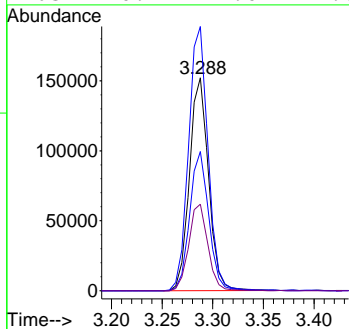
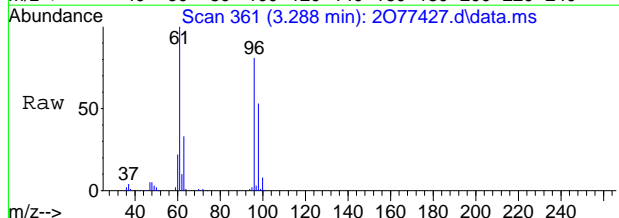


7.17  
7



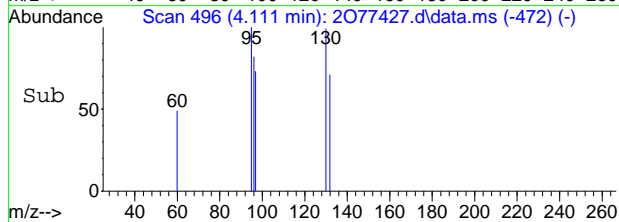
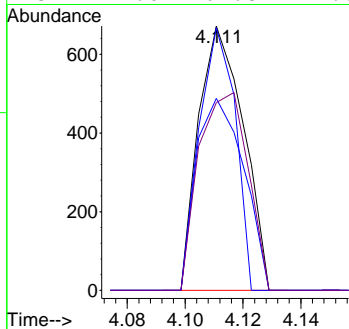
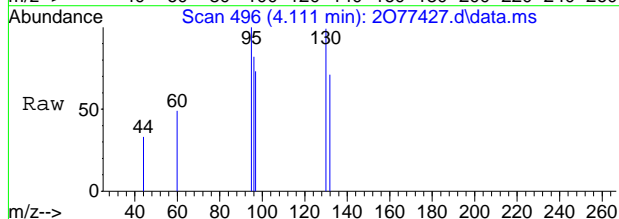
#32  
 cis-1,2-Dichloroethene  
 Concen: 132.07 ug/L  
 RT: 3.288 min Scan# 361  
 Delta R.T. -0.000 min  
 Lab File: 2077427.d  
 Acq: 5 Jul 2023 2:58 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	124.1	95.8	155.8
98	65.5	32.6	92.6
63	40.7	11.0	71.0



#53  
 Trichloroethene  
 Concen: 0.48 ug/L  
 RT: 4.111 min Scan# 496  
 Delta R.T. -0.006 min  
 Lab File: 2077427.d  
 Acq: 5 Jul 2023 2:58 pm

Tgt Ion	Ratio	Lower	Upper
95	100		
130	99.4	76.7	136.7
97	72.6	36.5	96.5
132	71.0	67.8	127.8



7.17  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757722.d  
 Acq On : 6 Jul 2023 6:00 pm  
 Operator : jeniferw  
 Sample : FC7381-4 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:38:22 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

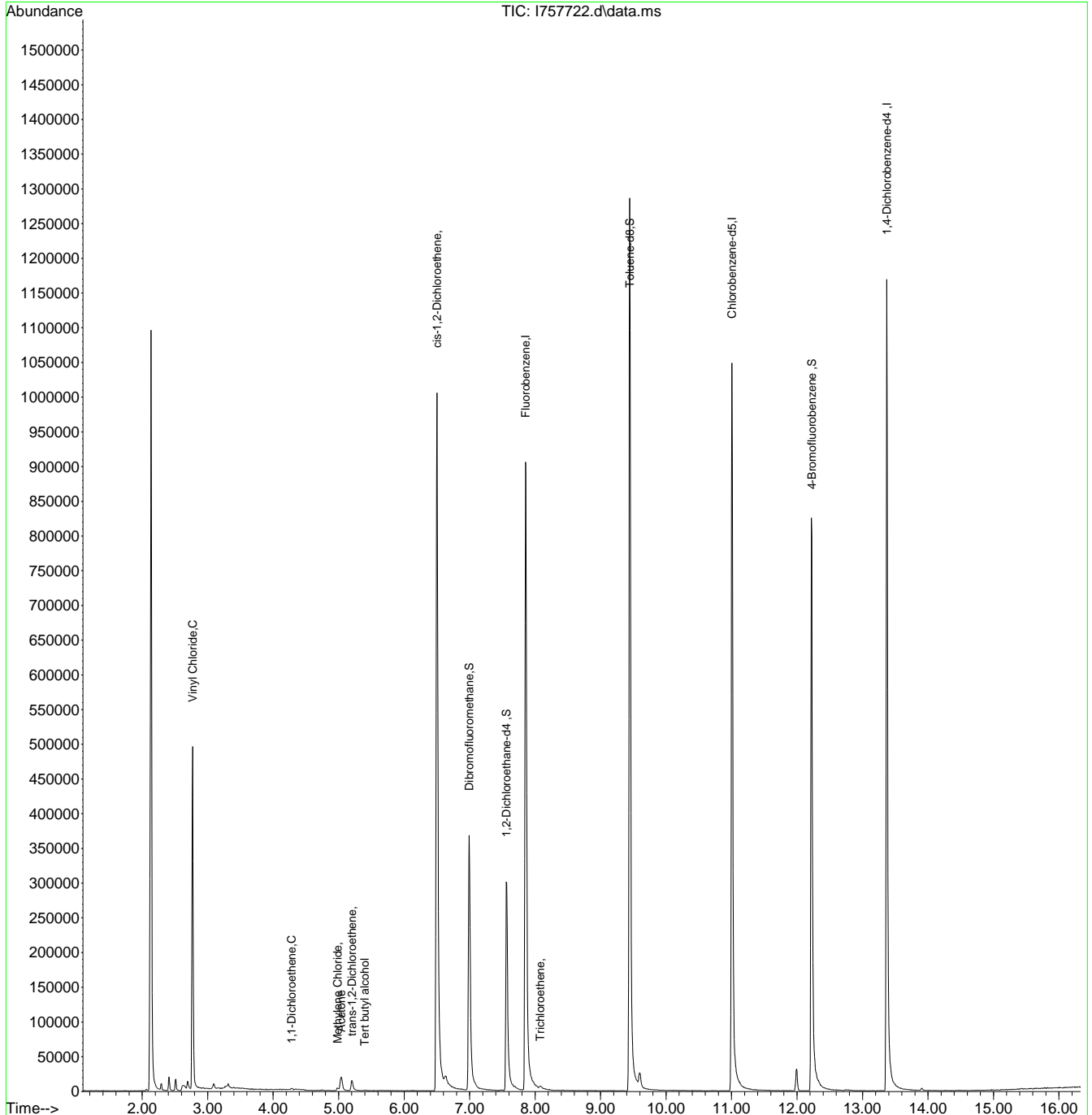
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	862581	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	620681	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	349831	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.994	113	240454	49.11	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.22%		
49) 1,2-Dichloroethane-d4	7.561	65	233307	52.41	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	104.82%		
63) Toluene-d8	9.445	98	866652	48.96	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.92%		
86) 4-Bromofluorobenzene	12.225	174	285669	48.50	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.00%		
Target Compounds							
							Qvalue
4) Vinyl Chloride	2.770	62	384629	99.89	ug/L		99
11) 1,1-Dichloroethene	4.281	61	1054	0.23	ug/L		91
18) Methylene Chloride	4.982	49	2782	0.57	ug/L		93
19) Acetone	5.037	43	5668	2.44	ug/L		88
21) trans-1,2-Dichloroethene	5.202	61	10932	2.23	ug/L		97
24) Tert butyl alcohol	5.397	59	1635	1.15	ug/L		55
32) cis-1,2-Dichloroethene	6.500	96	475701	122.78	ug/L		93
53) Trichloroethene	8.079	95	2874	0.76	ug/L		82
-----							

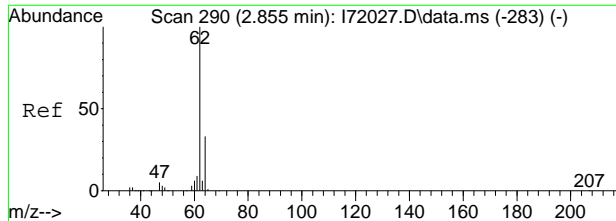
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757722.d  
 Acq On : 6 Jul 2023 6:00 pm  
 Operator : jeniferw  
 Sample : FC7381-4 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 19 Sample Multiplier: 1

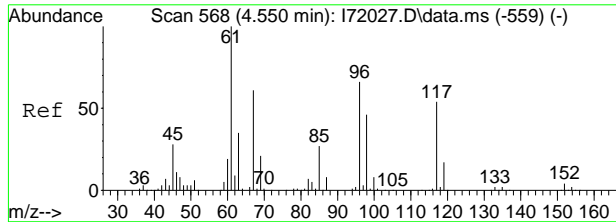
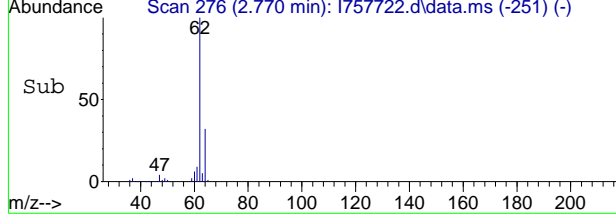
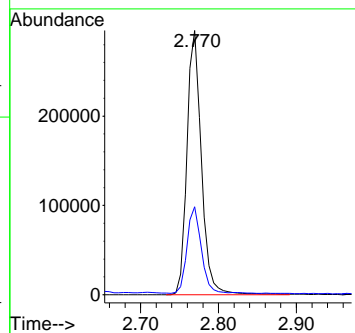
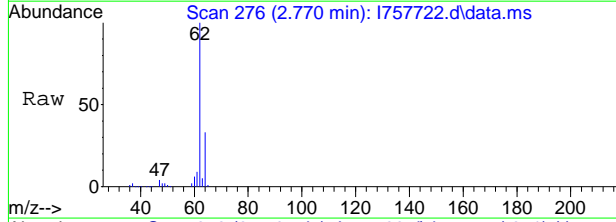
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:38:22 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration





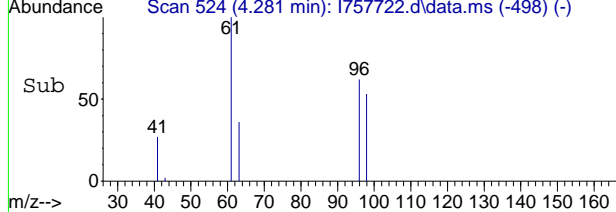
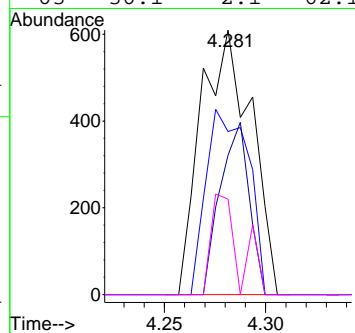
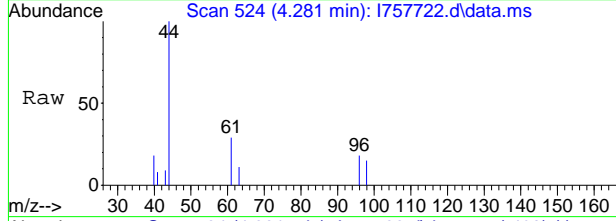
#4  
 Vinyl Chloride  
 Concen: 99.89 ug/L  
 RT: 2.770 min Scan# 276  
 Delta R.T. 0.001 min  
 Lab File: I757722.d  
 Acq: 6 Jul 2023 6:00 pm

Tgt Ion	Resp	Lower	Upper
62	384629		
64	32.8	3.6	63.6



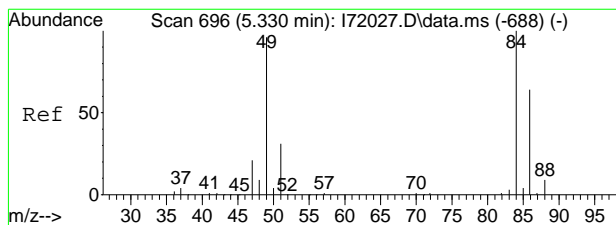
#11  
 1,1-Dichloroethene  
 Concen: 0.23 ug/L  
 RT: 4.281 min Scan# 524  
 Delta R.T. 0.006 min  
 Lab File: I757722.d  
 Acq: 6 Jul 2023 6:00 pm

Tgt Ion	Resp	Lower	Upper
61	1054		
96	61.6	30.9	90.9
98	52.6	9.4	69.4
63	36.1	2.1	62.1



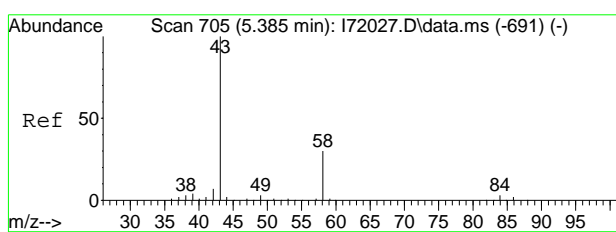
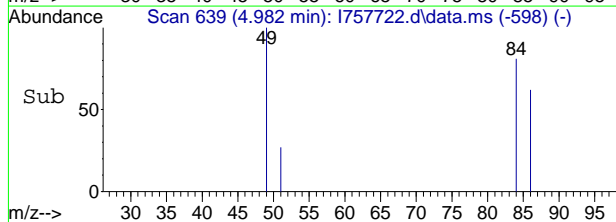
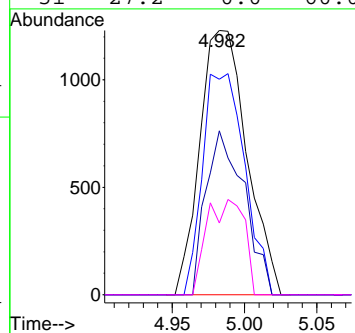
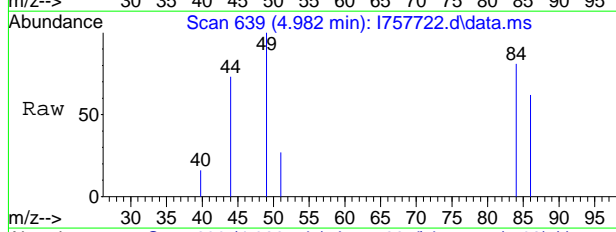
7.1.8  
7





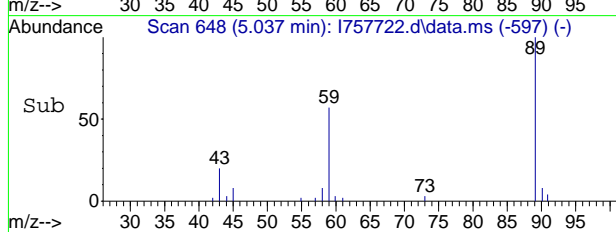
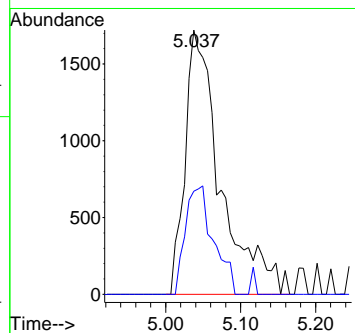
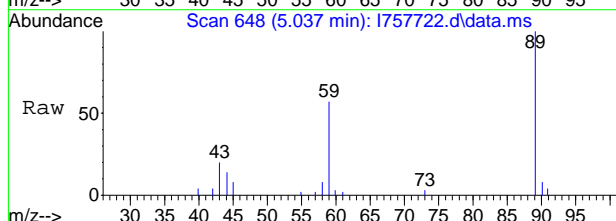
#18  
 Methylene Chloride  
 Concen: 0.57 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757722.d  
 Acq: 6 Jul 2023 6:00 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	81.5	51.5	111.5
86	62.0	19.4	79.4
51	27.2	0.0	60.0



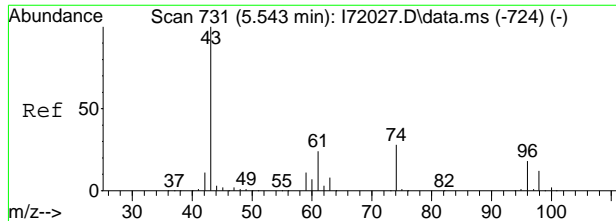
#19  
 Acetone  
 Concen: 2.44 ug/L  
 RT: 5.037 min Scan# 648  
 Delta R.T. 0.012 min  
 Lab File: I757722.d  
 Acq: 6 Jul 2023 6:00 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	39.0	2.3	62.3



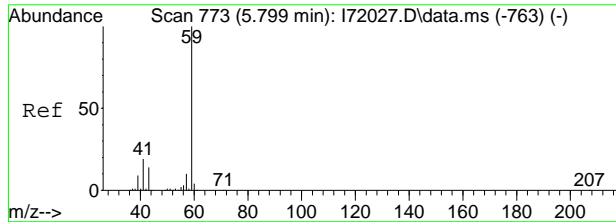
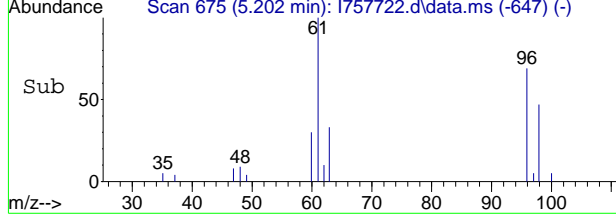
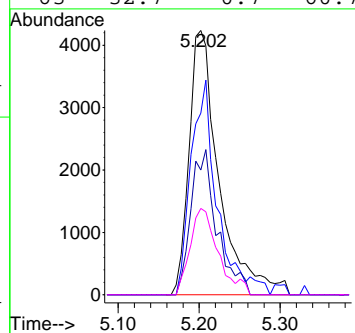
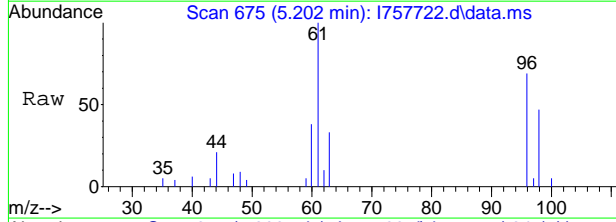
7.18  
7





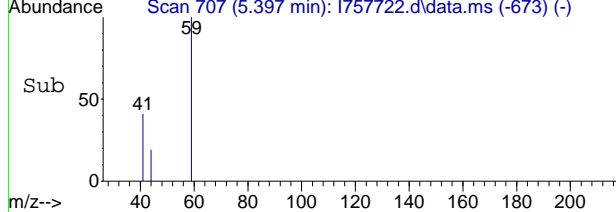
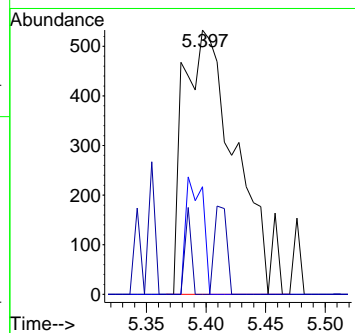
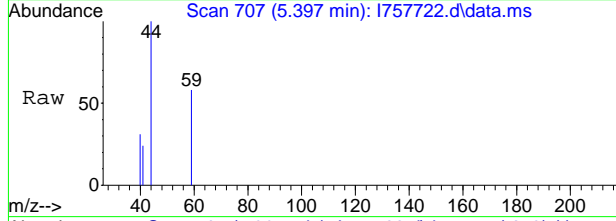
#21  
 trans-1,2-Dichloroethene  
 Concen: 2.23 ug/L  
 RT: 5.202 min Scan# 675  
 Delta R.T. 0.018 min  
 Lab File: I757722.d  
 Acq: 6 Jul 2023 6:00 pm

Tgt Ion	Resp	Lower	Upper
61	10932		
61	100		
96	68.6	41.3	101.3
98	47.2	15.3	75.3
63	32.7	0.7	60.7



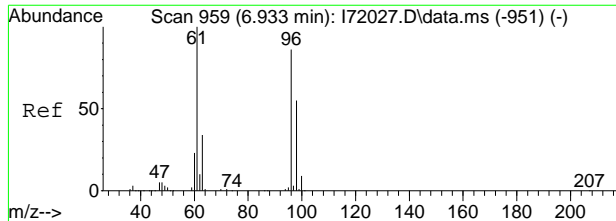
#24  
 Tert butyl alcohol  
 Concen: 1.15 ug/L  
 RT: 5.397 min Scan# 707  
 Delta R.T. 0.006 min  
 Lab File: I757722.d  
 Acq: 6 Jul 2023 6:00 pm

Tgt Ion	Resp	Lower	Upper
59	1635		
59	100		
41	40.7	0.0	47.2
43	0.0	0.0	44.0



7.18  
7

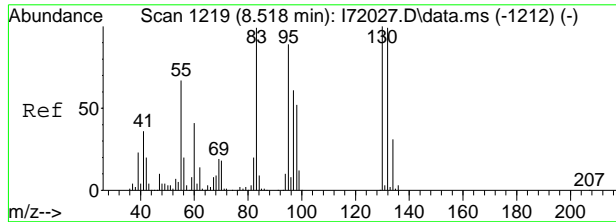
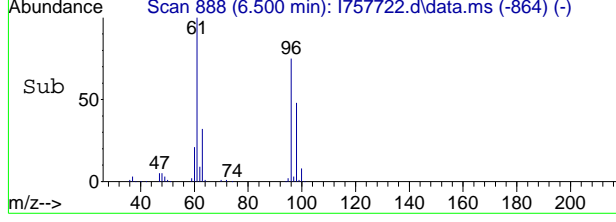
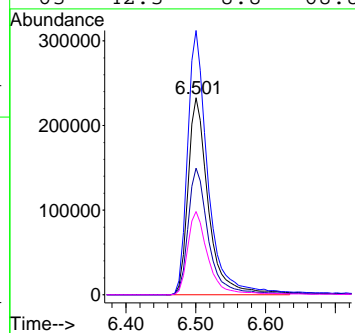
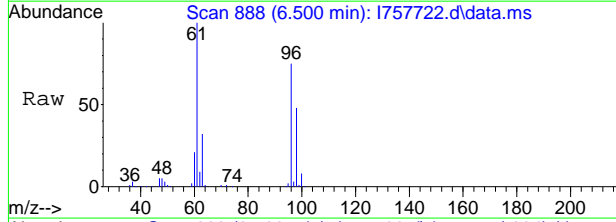




#32  
 cis-1,2-Dichloroethene  
 Concen: 122.78 ug/L  
 RT: 6.500 min Scan# 888  
 Delta R.T. -0.006 min  
 Lab File: I757722.d  
 Acq: 6 Jul 2023 6:00 pm

Tgt Ion: 96 Resp: 475701

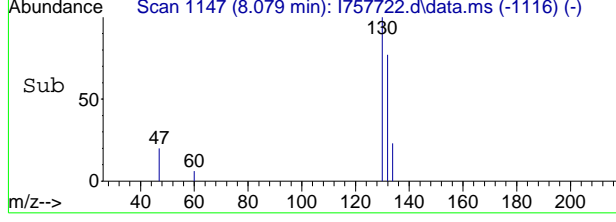
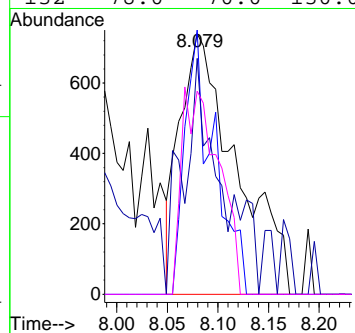
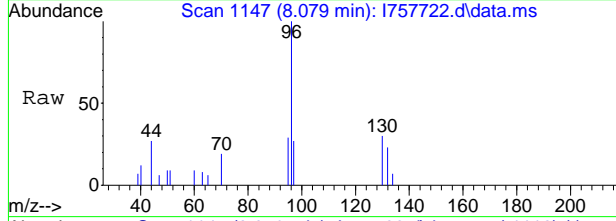
Ion	Ratio	Lower	Upper
96	100		
61	134.2	92.6	152.6
98	64.4	33.8	93.8
63	42.3	8.8	68.8



#53  
 Trichloroethene  
 Concen: 0.76 ug/L  
 RT: 8.079 min Scan# 1147  
 Delta R.T. 0.036 min  
 Lab File: I757722.d  
 Acq: 6 Jul 2023 6:00 pm

Tgt Ion: 95 Resp: 2874

Ion	Ratio	Lower	Upper
95	100		
130	101.5	75.2	135.2
97	90.5	32.6	92.6
132	78.0	70.0	130.0



7.18  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757723.d  
 Acq On : 6 Jul 2023 6:24 pm  
 Operator : jeniferw  
 Sample : FC7381-4 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:39:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

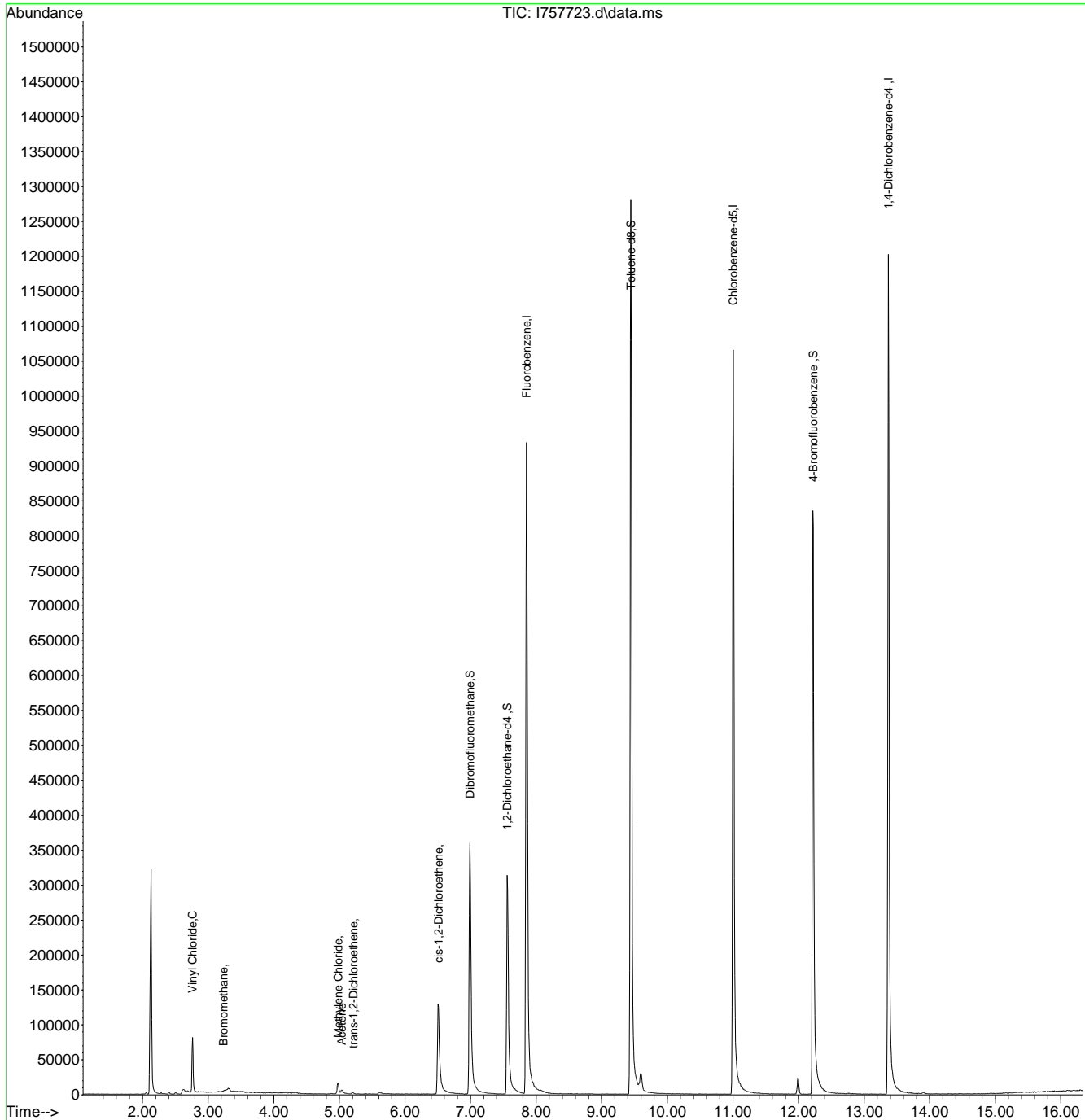
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	861541	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	625358	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	348540	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	241298	49.34	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.68%	
49) 1,2-Dichloroethane-d4	7.561	65	236523	53.19	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	106.38%	
63) Toluene-d8	9.445	98	875511	49.09	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.18%	
86) 4-Bromofluorobenzene	12.225	174	289313	49.30	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.60%	
Target Compounds						
						Qvalue
4) Vinyl Chloride	2.763	62	59472	15.46	ug/L	98
6) Bromomethane	3.233	94	529	0.41	ug/L	75
18) Methylene Chloride	4.982	49	9970	2.06	ug/L	93
19) Acetone	5.037	43	9057	3.91	ug/L	100
21) trans-1,2-Dichloroethene	5.214	61	1709	0.35	ug/L	84
32) cis-1,2-Dichloroethene	6.512	96	75914	19.62	ug/L	96
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

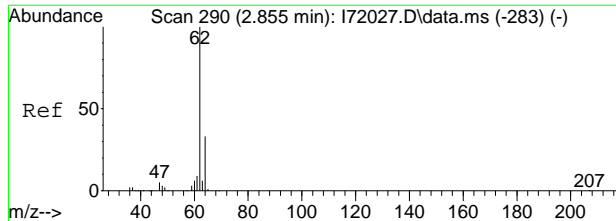
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757723.d  
 Acq On : 6 Jul 2023 6:24 pm  
 Operator : jeniferw  
 Sample : FC7381-4 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:39:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

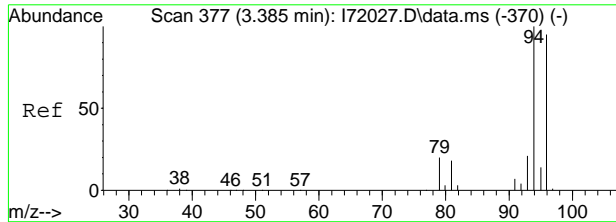
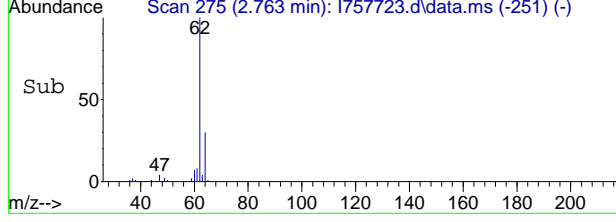
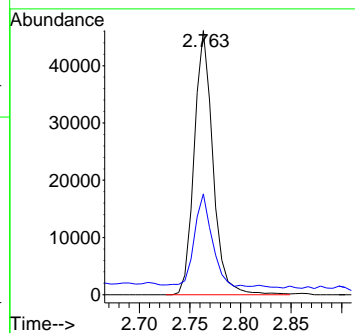
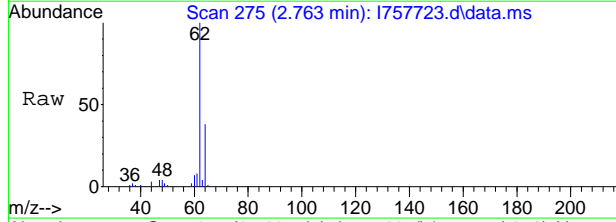


6.1.2



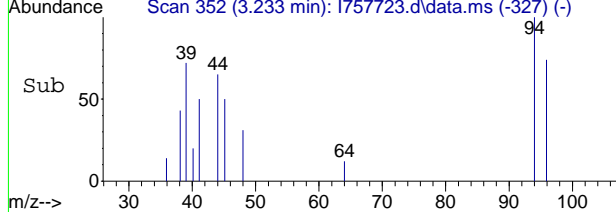
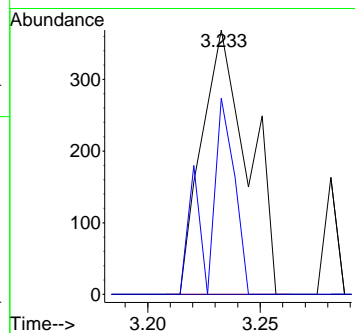
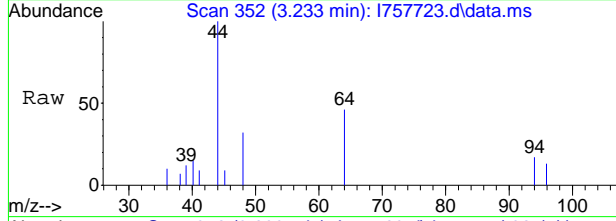
#4  
 Vinyl Chloride  
 Concen: 15.46 ug/L  
 RT: 2.763 min Scan# 275  
 Delta R.T. -0.006 min  
 Lab File: I757723.d  
 Acq: 6 Jul 2023 6:24 pm

Tgt Ion	Resp	Lower	Upper
62	59472		
64	34.9	3.6	63.6



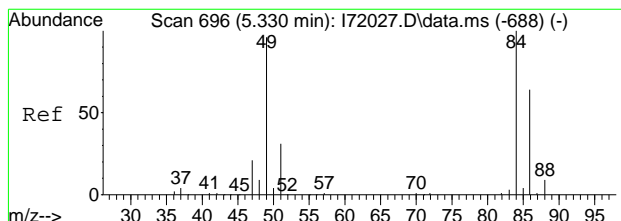
#6  
 Bromomethane  
 Concen: 0.41 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757723.d  
 Acq: 6 Jul 2023 6:24 pm

Tgt Ion	Resp	Lower	Upper
94	529		
96	74.3	63.7	123.7
93	0.0	0.0	50.9



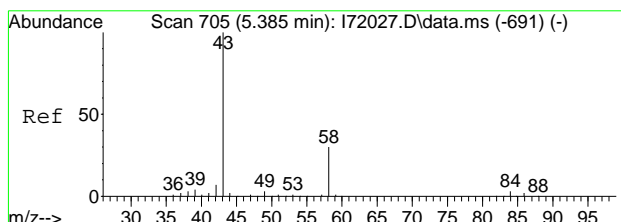
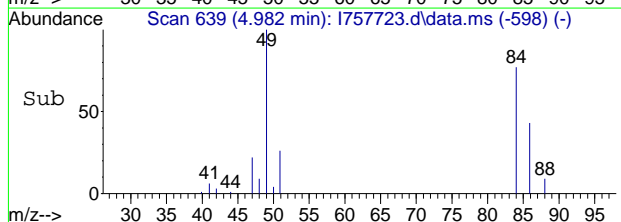
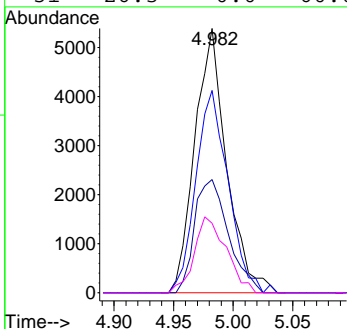
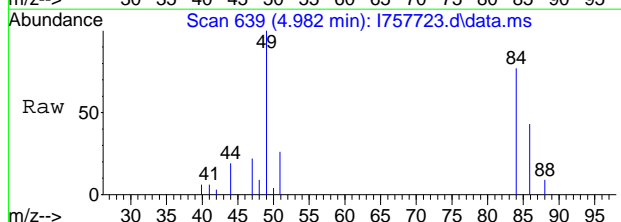
7.19  
7





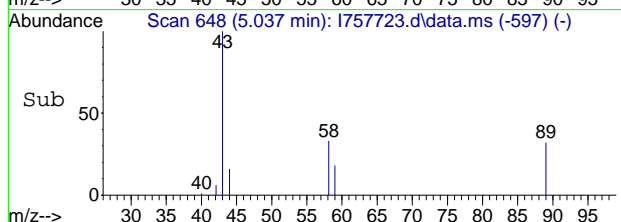
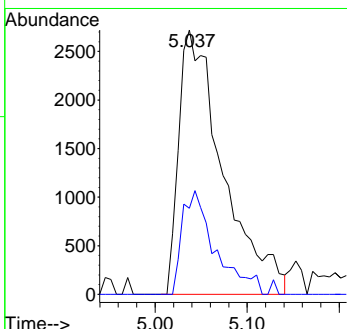
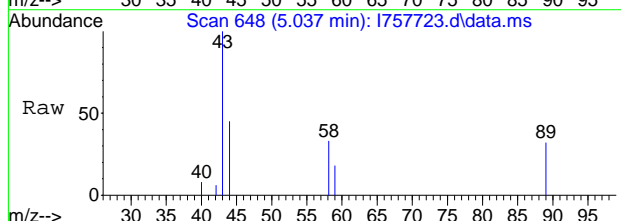
#18  
 Methylene Chloride  
 Concen: 2.06 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757723.d  
 Acq: 6 Jul 2023 6:24 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	76.5	51.5	111.5
86	42.9	19.4	79.4
51	26.3	0.0	60.0

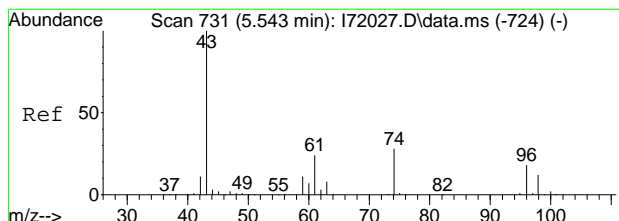


#19  
 Acetone  
 Concen: 3.91 ug/L  
 RT: 5.037 min Scan# 648  
 Delta R.T. 0.012 min  
 Lab File: I757723.d  
 Acq: 6 Jul 2023 6:24 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	32.5	2.3	62.3

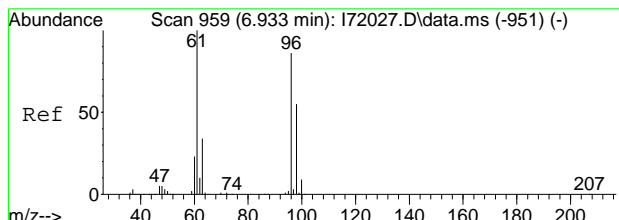
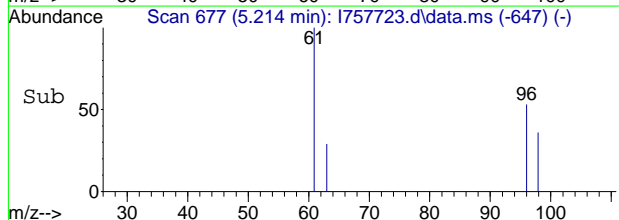
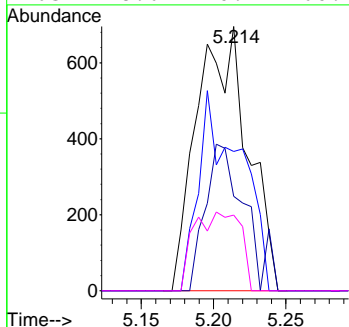
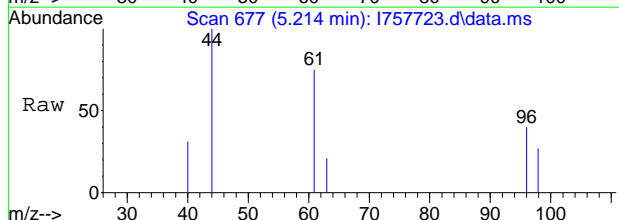


7.19  
7



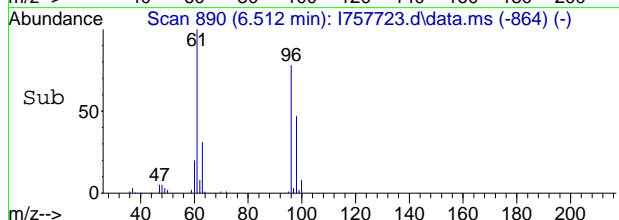
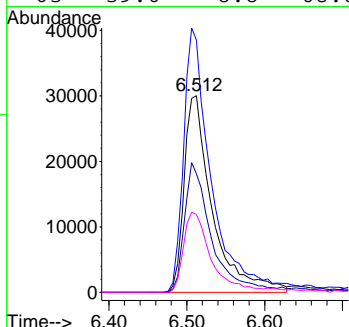
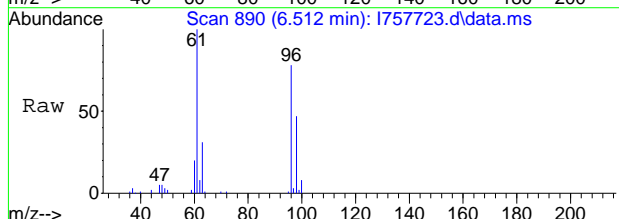
#21  
 trans-1,2-Dichloroethene  
 Concen: 0.35 ug/L  
 RT: 5.214 min Scan# 677  
 Delta R.T. 0.030 min  
 Lab File: I757723.d  
 Acq: 6 Jul 2023 6:24 pm

Tgt Ion	Resp	Lower	Upper
61	1709		
61	100		
96	52.7	41.3	101.3
98	35.8	15.3	75.3
63	28.6	0.7	60.7



#32  
 cis-1,2-Dichloroethene  
 Concen: 19.62 ug/L  
 RT: 6.512 min Scan# 890  
 Delta R.T. 0.005 min  
 Lab File: I757723.d  
 Acq: 6 Jul 2023 6:24 pm

Tgt Ion	Resp	Lower	Upper
96	75914		
96	100		
61	128.1	92.6	152.6
98	60.3	33.8	93.8
63	39.6	8.8	68.8



7.19  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077422.d  
 Acq On : 5 Jul 2023 12:50 pm  
 Operator : jeniferw  
 Sample : FC7381-5  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 05 21:36:08 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	289053	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	200590	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.775	152	100630	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	86129	54.79	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	109.58%	
50) 1,2-Dichloroethane-d4	3.849	65	99522	53.34	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	106.68%	
63) Toluene-d8	4.970	98	270184	50.52	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	101.04%	
86) 4-Bromofluorobenzene	6.915	174	72574	49.35	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.70%	
Target Compounds						
						Qvalue
5) Vinyl Chloride	1.428	62	6782	6.04	ug/L	99
21) trans-1,2-Dichloroethene	2.623	61	685	0.38	ug/L	84
25) Acetonitrile	2.824	41	1409	5.42	ug/L	76
32) cis-1,2-Dichloroethene	3.288	96	15540	10.17	ug/L	95
53) Trichloroethene	4.117	95	5772	3.78	ug/L	90
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.10  
7

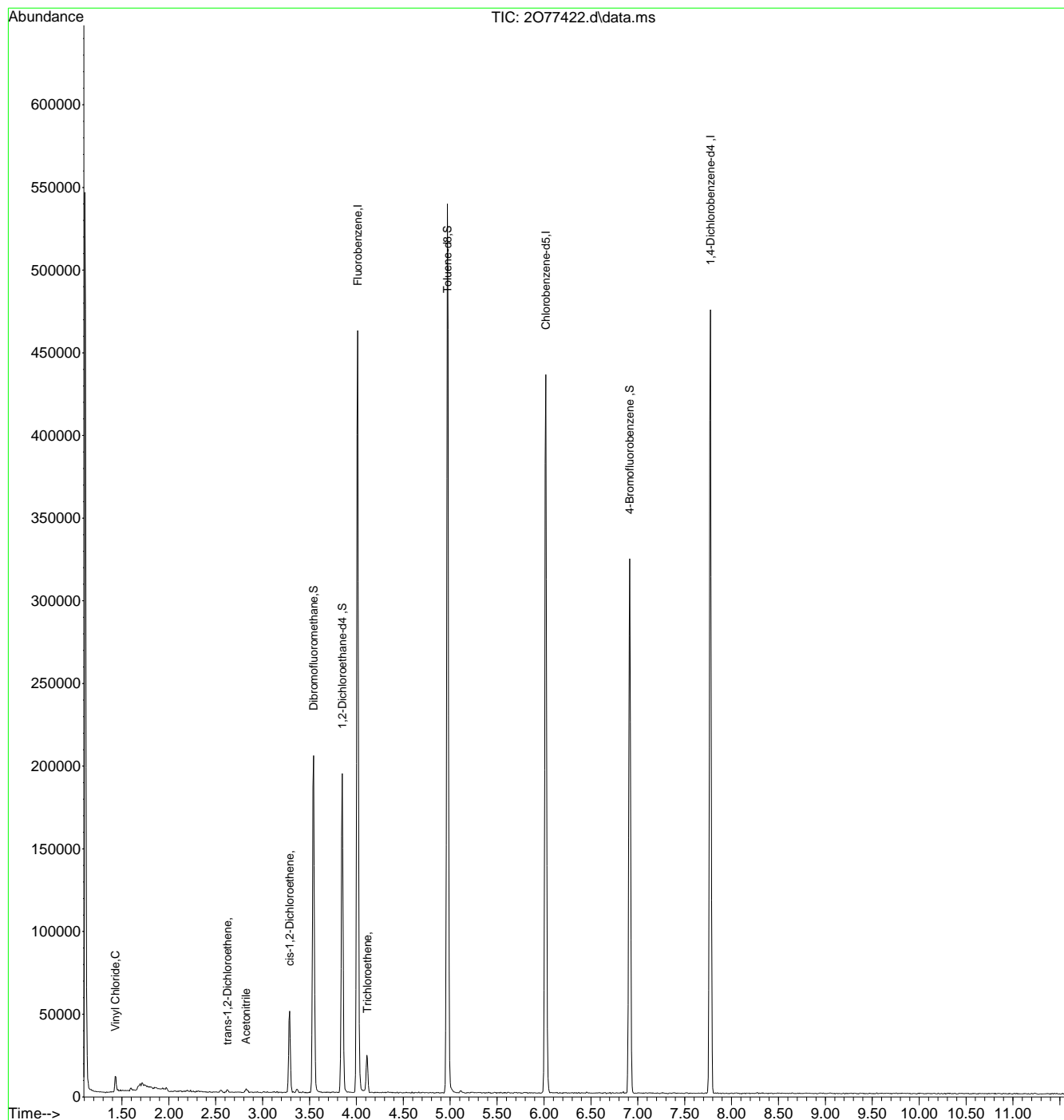




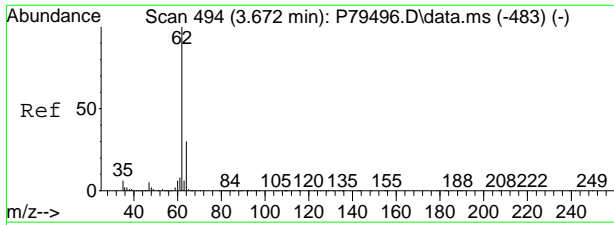
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077422.d  
 Acq On : 5 Jul 2023 12:50 pm  
 Operator : jeniferw  
 Sample : FC7381-5  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jul 05 21:36:08 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

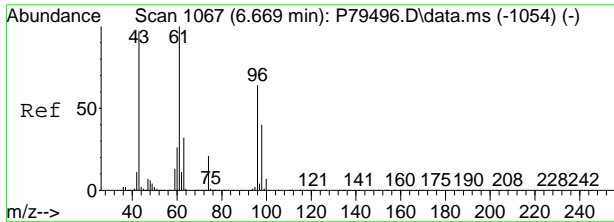
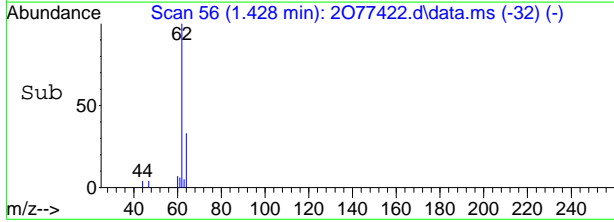
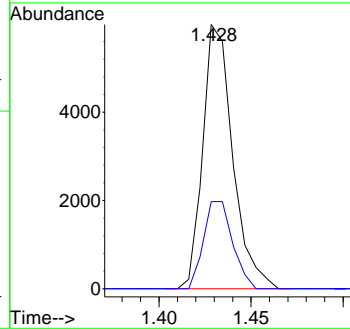
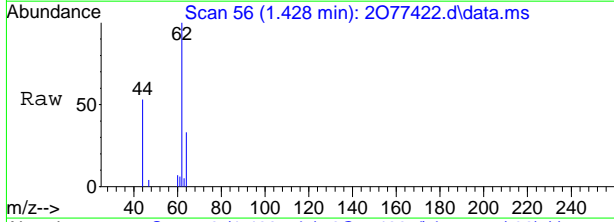


7.1.10  
7



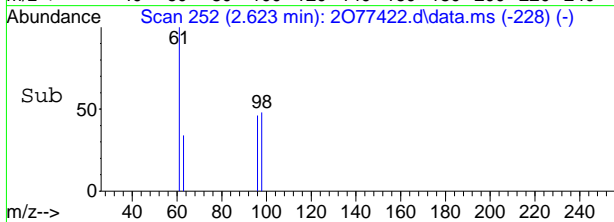
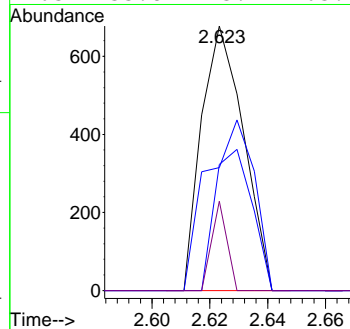
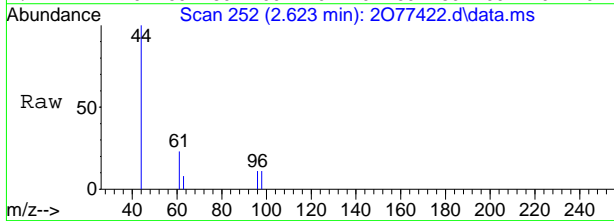
#5  
 Vinyl Chloride  
 Concen: 6.04 ug/L  
 RT: 1.428 min Scan# 56  
 Delta R.T. -0.006 min  
 Lab File: 2077422.d  
 Acq: 5 Jul 2023 12:50 pm

Tgt Ion	Resp	Lower	Upper
62	6782		
64	33.0	3.4	63.4

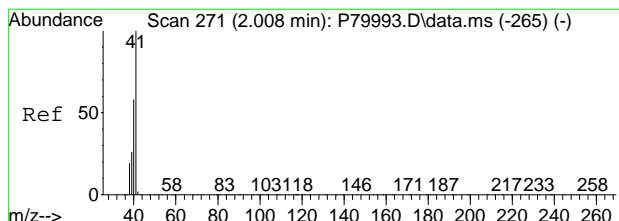


#21  
 trans-1,2-Dichloroethene  
 Concen: 0.38 ug/L  
 RT: 2.623 min Scan# 252  
 Delta R.T. -0.006 min  
 Lab File: 2077422.d  
 Acq: 5 Jul 2023 12:50 pm

Tgt Ion	Resp	Lower	Upper
61	685		
61	100		
96	46.5	43.2	103.2
98	47.6	17.1	77.1
63	33.8	3.2	63.2

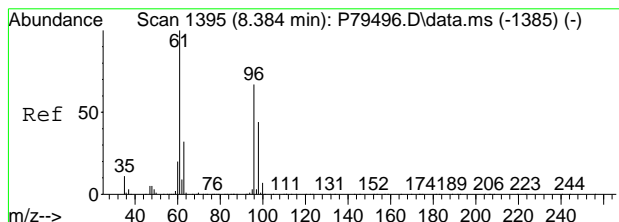
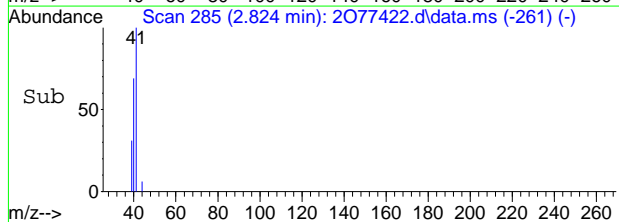
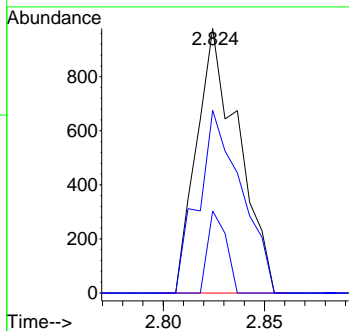
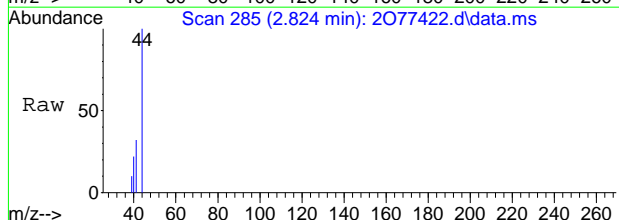


7.1.10  
7



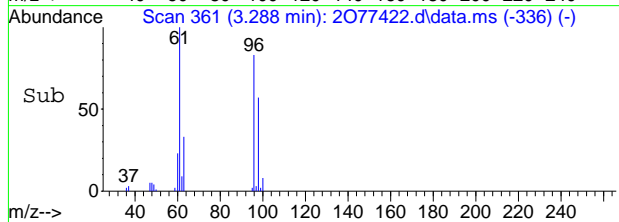
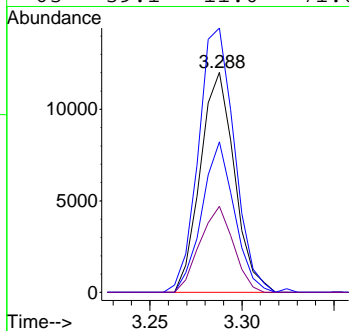
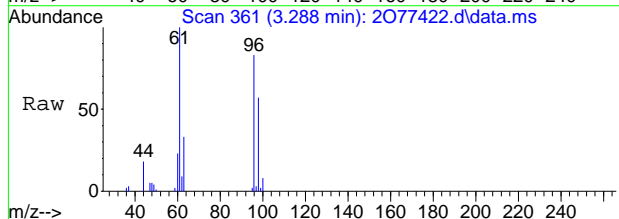
#25  
 Acetonitrile  
 Concen: 5.42 ug/L  
 RT: 2.824 min Scan# 285  
 Delta R.T. -0.006 min  
 Lab File: 2077422.d  
 Acq: 5 Jul 2023 12:50 pm

Tgt Ion	Resp	Lower	Upper
41	1409		
40	69.1	32.7	72.7
39	30.9	0.0	39.4

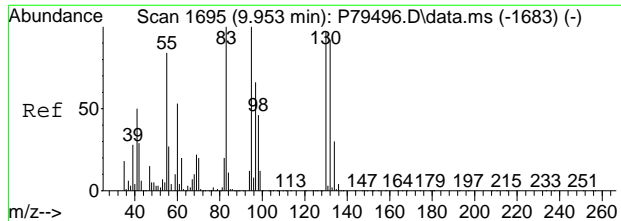


#32  
 cis-1,2-Dichloroethene  
 Concen: 10.17 ug/L  
 RT: 3.288 min Scan# 361  
 Delta R.T. -0.000 min  
 Lab File: 2077422.d  
 Acq: 5 Jul 2023 12:50 pm

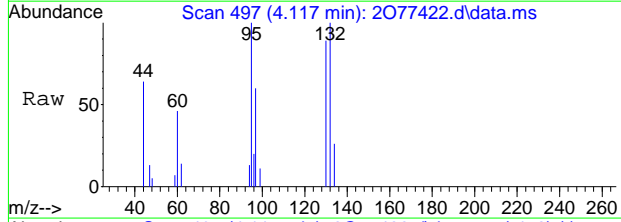
Tgt Ion	Resp	Lower	Upper
96	15540		
61	120.2	95.8	155.8
98	68.4	32.6	92.6
63	39.1	11.0	71.0



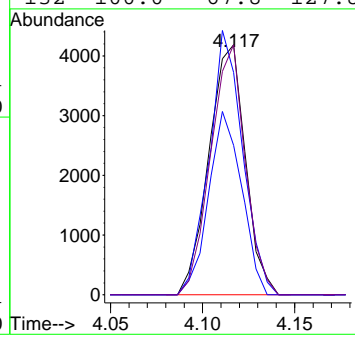
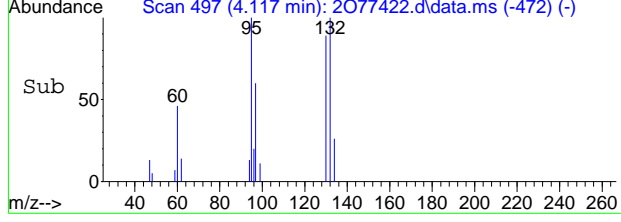
7.1.10  
7



#53  
 Trichloroethene  
 Concen: 3.78 ug/L  
 RT: 4.117 min Scan# 497  
 Delta R.T. -0.000 min  
 Lab File: 2077422.d  
 Acq: 5 Jul 2023 12:50 pm



Tgt Ion	Resp	Lower	Upper
95	100		
130	88.8	76.7	136.7
97	59.7	36.5	96.5
132	100.0	67.8	127.8



7.1.10  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757713.d  
 Acq On : 6 Jul 2023 1:18 pm  
 Operator : jeniferw  
 Sample : FC7381-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:25:40 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

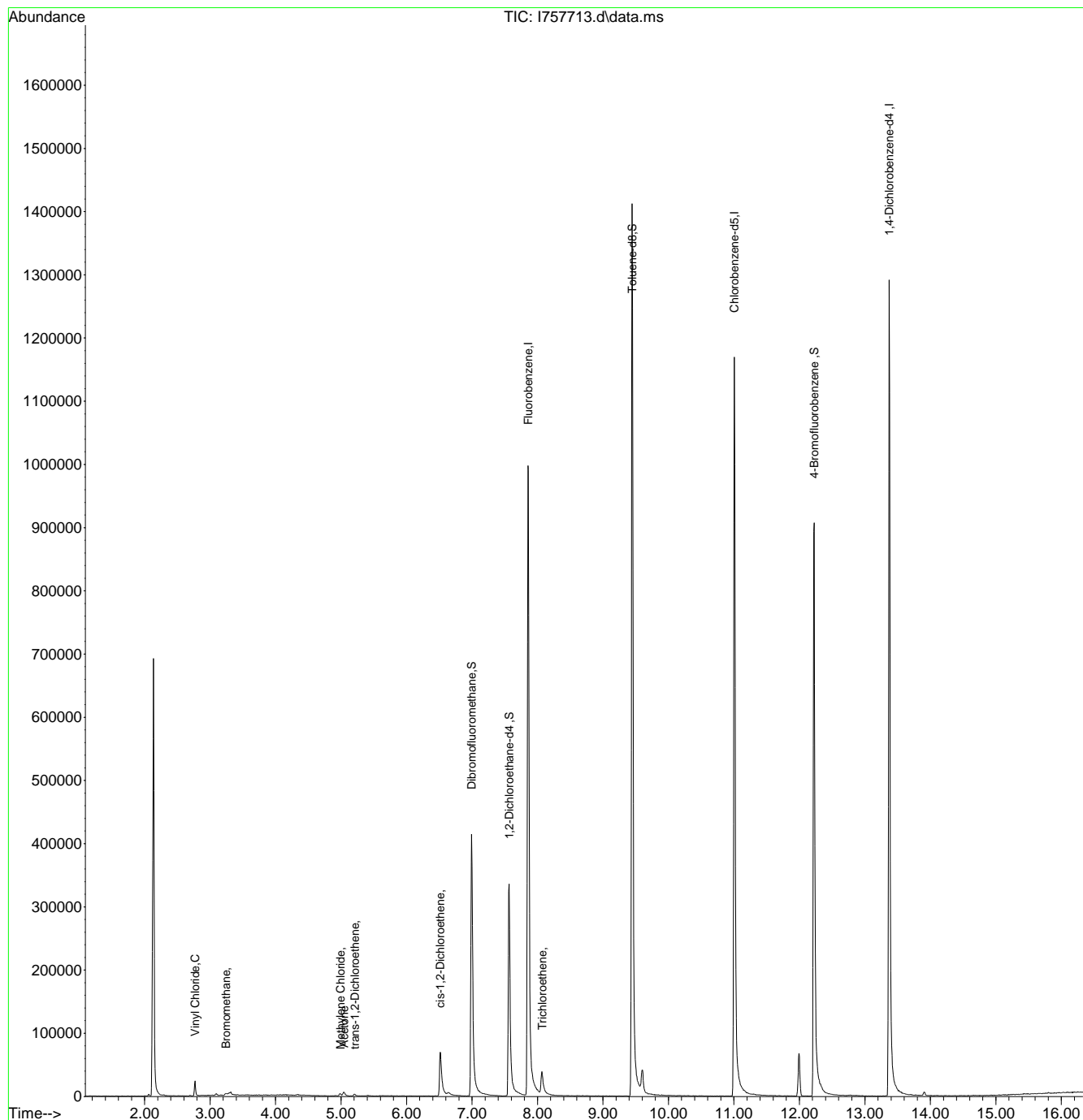
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.860	96	961151	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	700073	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	395687	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	270120	49.51	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.02%	
49) 1,2-Dichloroethane-d4	7.567	65	256439	51.70	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.40%	
63) Toluene-d8	9.445	98	968291	48.50	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.00%	
86) 4-Bromofluorobenzene	12.225	174	327794	49.20	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.40%	
Target Compounds						
						Qvalue
4) Vinyl Chloride	2.769	62	17650	4.11	ug/L	96
6) Bromomethane	3.239	94	1706	1.18	ug/L	99
18) Methylene Chloride	4.989	49	2431	0.45	ug/L	90
19) Acetone	5.043	43	2954	1.14	ug/L	99
21) trans-1,2-Dichloroethene	5.208	61	2177	0.40	ug/L	84
32) cis-1,2-Dichloroethene	6.513	96	44540	10.32	ug/L	96
53) Trichloroethene	8.073	95	15175	3.62	ug/L	85
-----						

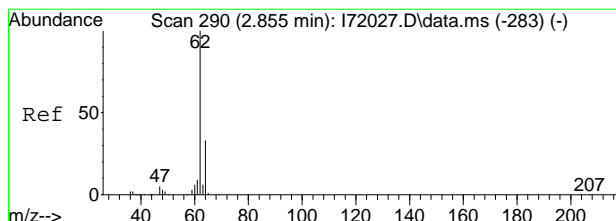
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
Data File : I757713.d  
Acq On : 6 Jul 2023 1:18 pm  
Operator : jeniferw  
Sample : FC7381-5 Inst : MSVOA16  
Misc : MS54368,VI2963,,,,,  
ALS Vial : 12 Sample Multiplier: 1

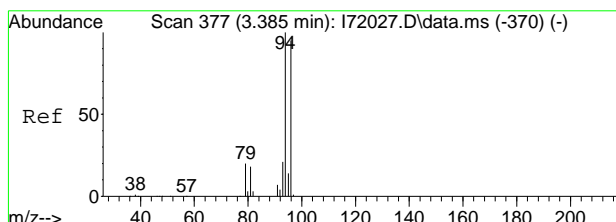
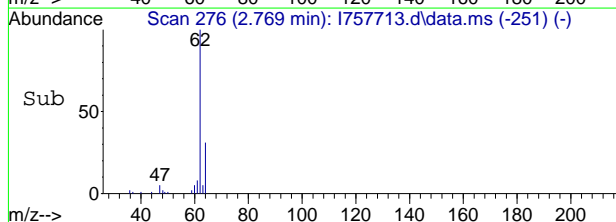
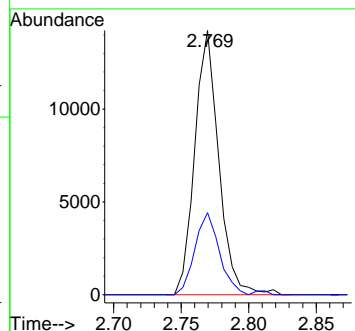
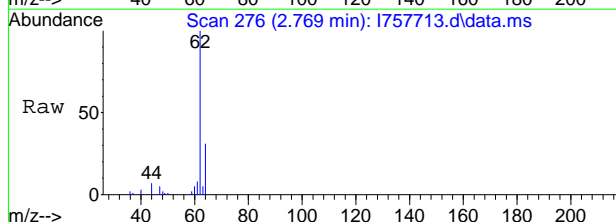
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jul 06 23:25:40 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration





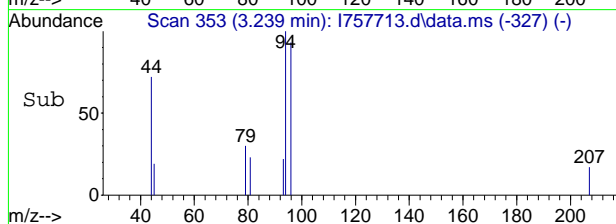
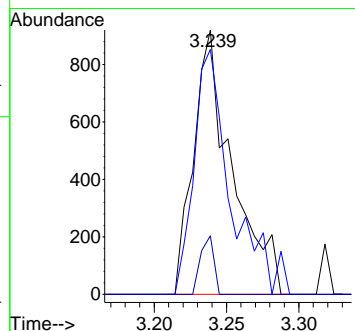
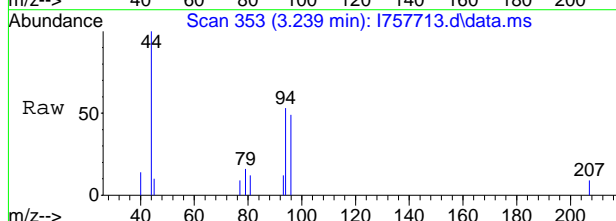
#4  
 Vinyl Chloride  
 Concen: 4.11 ug/L  
 RT: 2.769 min Scan# 276  
 Delta R.T. 0.000 min  
 Lab File: I757713.d  
 Acq: 6 Jul 2023 1:18 pm

Tgt Ion	Resp	Lower	Upper
62	17650		
64	31.0	3.6	63.6

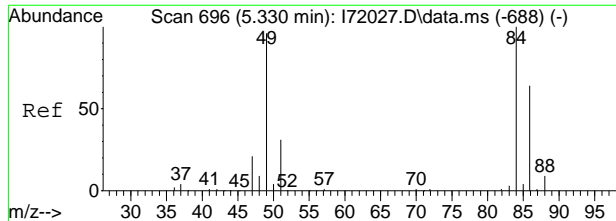


#6  
 Bromomethane  
 Concen: 1.18 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757713.d  
 Acq: 6 Jul 2023 1:18 pm

Tgt Ion	Resp	Lower	Upper
94	1706		
96	92.6	63.7	123.7
93	22.2	0.0	50.9

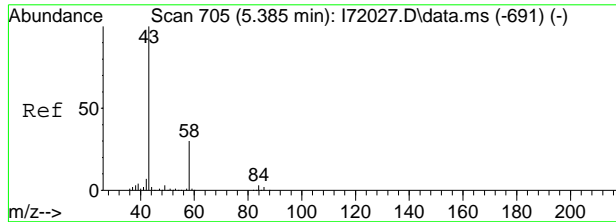
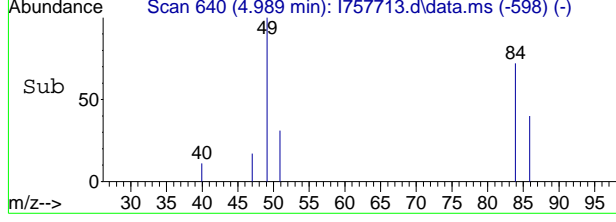
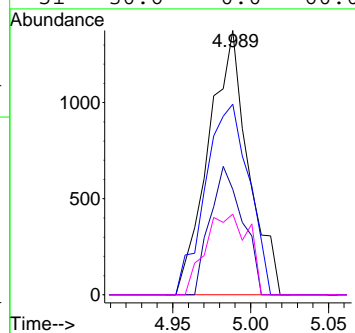
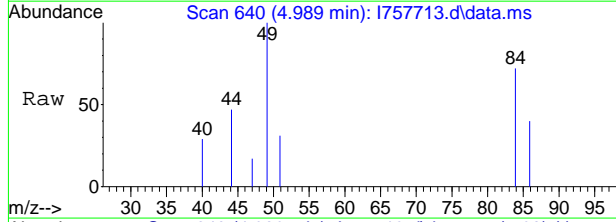


7.1.11  
7



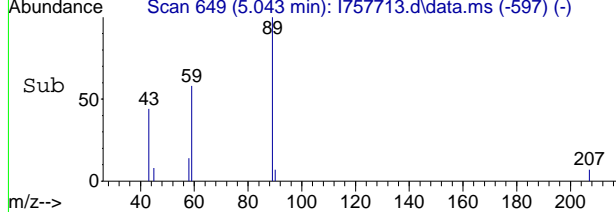
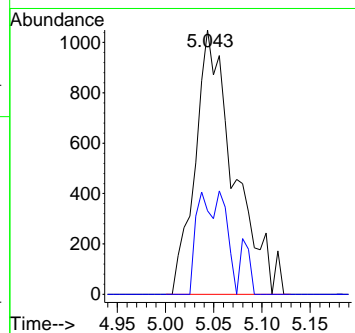
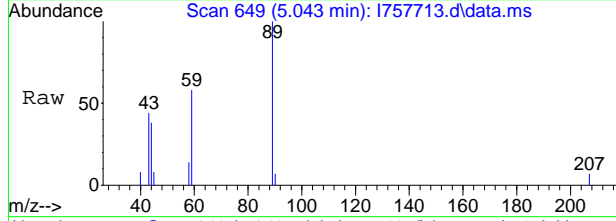
#18  
 Methylene Chloride  
 Concen: 0.45 ug/L  
 RT: 4.989 min Scan# 640  
 Delta R.T. 0.006 min  
 Lab File: I757713.d  
 Acq: 6 Jul 2023 1:18 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	72.1	51.5	111.5
86	39.9	19.4	79.4
51	30.6	0.0	60.0



#19  
 Acetone  
 Concen: 1.14 ug/L  
 RT: 5.043 min Scan# 649  
 Delta R.T. 0.018 min  
 Lab File: I757713.d  
 Acq: 6 Jul 2023 1:18 pm

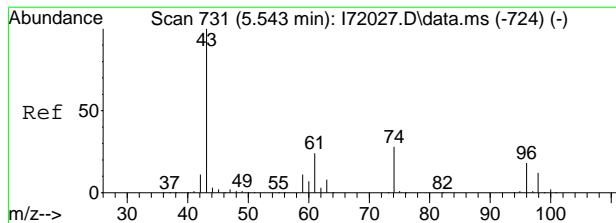
Tgt Ion	Ratio	Lower	Upper
43	100		
58	31.5	2.3	62.3



7.1.11  
7

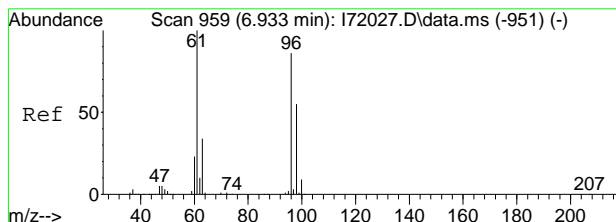
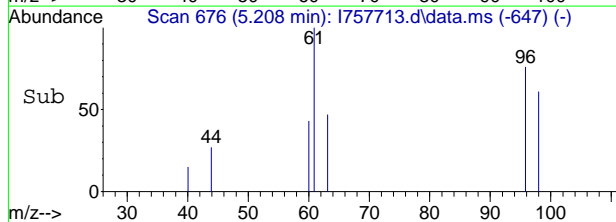
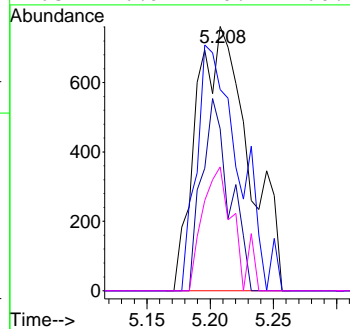
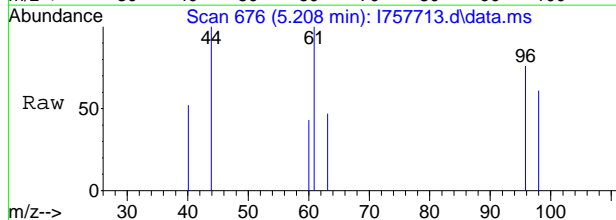






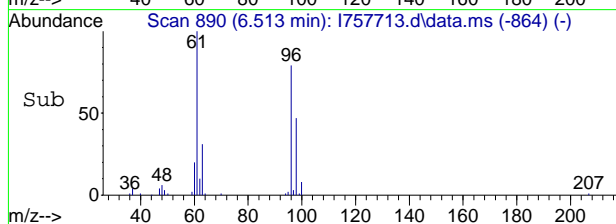
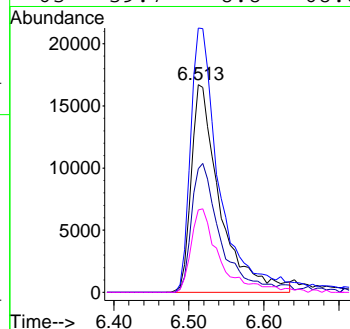
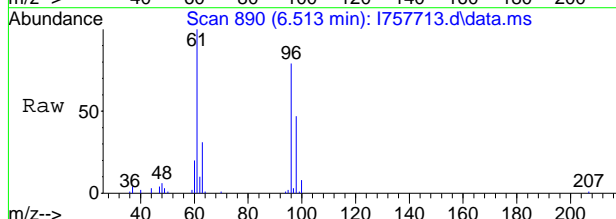
#21  
 trans-1,2-Dichloroethene  
 Concen: 0.40 ug/L  
 RT: 5.208 min Scan# 676  
 Delta R.T. 0.024 min  
 Lab File: I757713.d  
 Acq: 6 Jul 2023 1:18 pm

Tgt Ion	Resp	Lower	Upper
61	2177		
61	100		
96	76.1	41.3	101.3
98	61.3	15.3	75.3
63	46.9	0.7	60.7

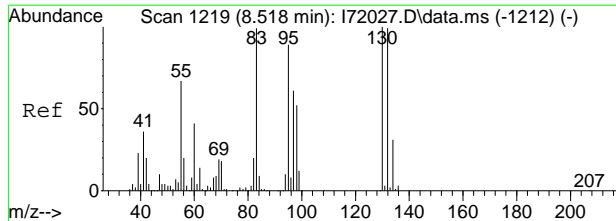


#32  
 cis-1,2-Dichloroethene  
 Concen: 10.32 ug/L  
 RT: 6.513 min Scan# 890  
 Delta R.T. 0.006 min  
 Lab File: I757713.d  
 Acq: 6 Jul 2023 1:18 pm

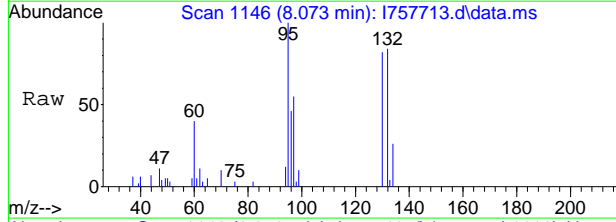
Tgt Ion	Resp	Lower	Upper
96	44540		
96	100		
61	127.3	92.6	152.6
98	59.5	33.8	93.8
63	39.7	8.8	68.8



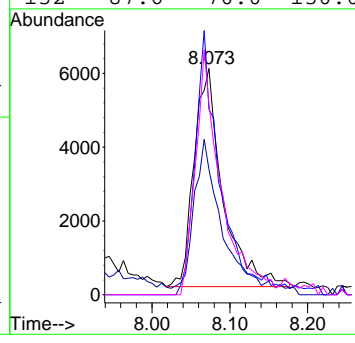
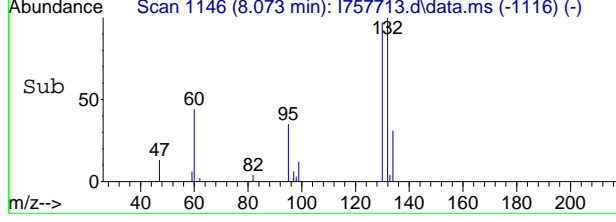
7.1.11  
7



#53  
 Trichloroethene  
 Concen: 3.62 ug/L  
 RT: 8.073 min Scan# 1146  
 Delta R.T. 0.030 min  
 Lab File: I757713.d  
 Acq: 6 Jul 2023 1:18 pm



Tgt Ion	Ratio	Lower	Upper
95	100		
130	84.9	75.2	135.2
97	54.1	32.6	92.6
132	87.6	70.0	130.0



7.1.11  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077423.d  
 Acq On : 5 Jul 2023 1:16 pm  
 Operator : jeniferw  
 Sample : FC7381-6  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 05 21:36:34 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	276019	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	188682	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.774	152	95947	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	83024	55.31	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	110.62%	
50) 1,2-Dichloroethane-d4	3.848	65	94154	52.84	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	105.68%	
63) Toluene-d8	4.970	98	259265	51.54	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	103.08%	
86) 4-Bromofluorobenzene	6.915	174	75157	53.61	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	107.22%	
Target Compounds						
						Qvalue
5) Vinyl Chloride	1.434	62	1499	1.40	ug/L	84
19) Acetone	2.556	43	6980	10.96	ug/L	100
25) Acetonitrile	2.830	41	2062	8.31	ug/L	90
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

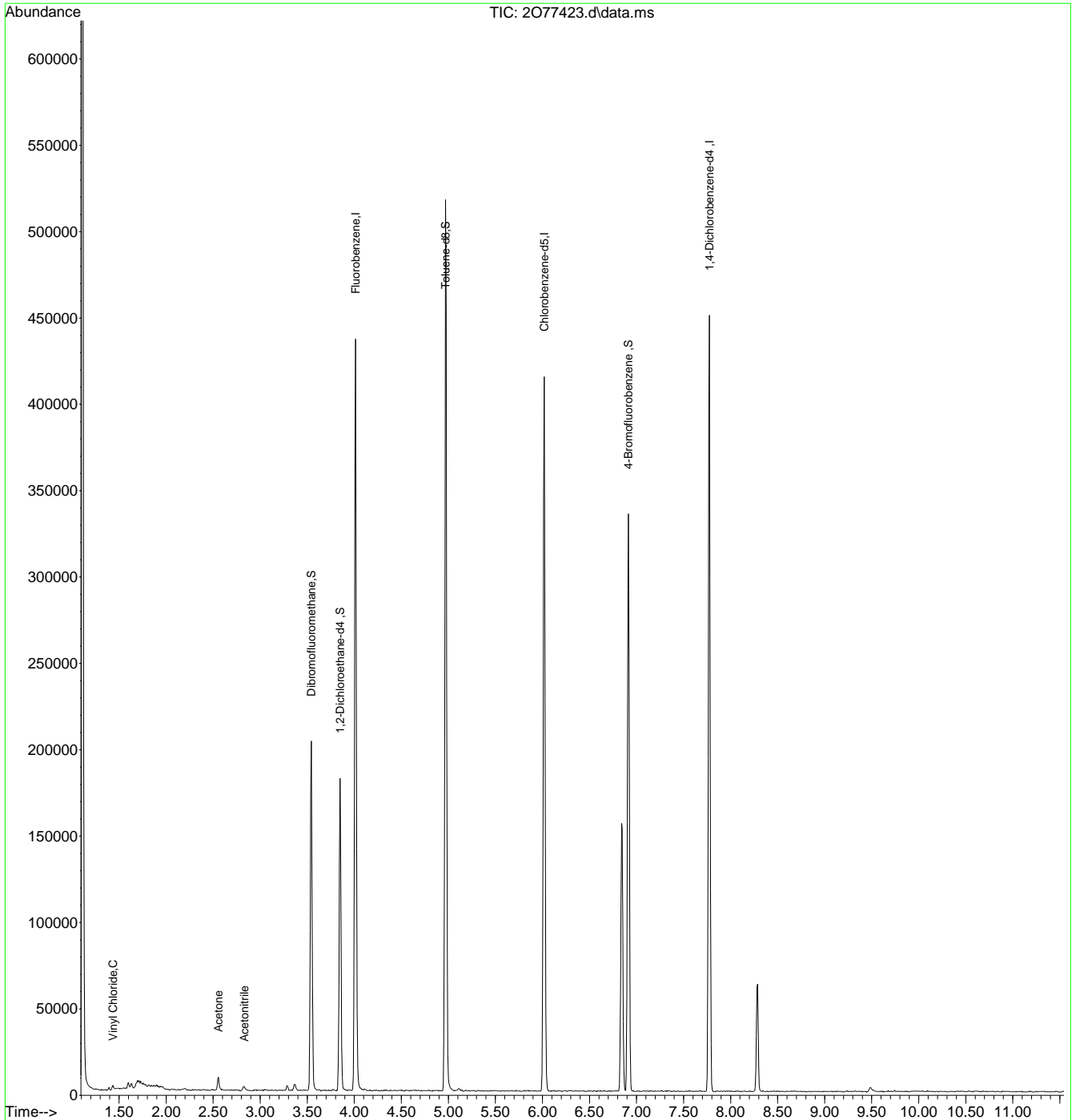
7.1.12  
7



Quantitation Report (QT Reviewed)

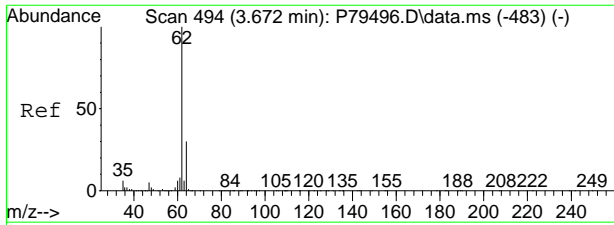
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077423.d  
 Acq On : 5 Jul 2023 1:16 pm  
 Operator : jeniferw  
 Sample : FC7381-6  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jul 05 21:36:34 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



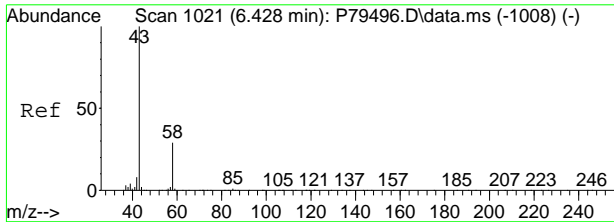
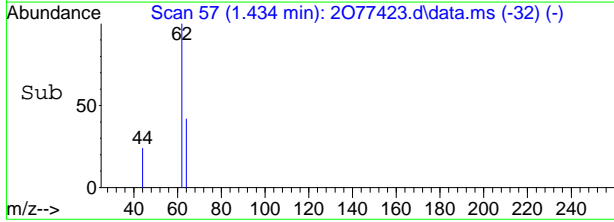
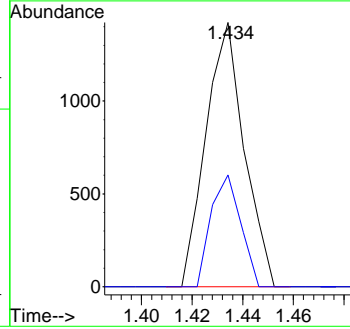
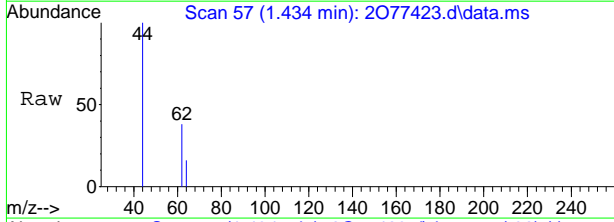
7.1.12  
7





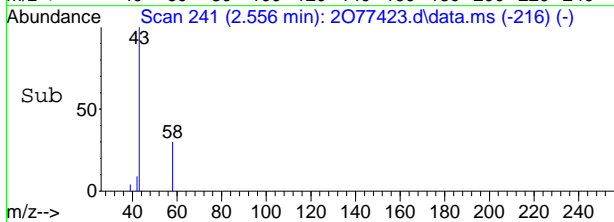
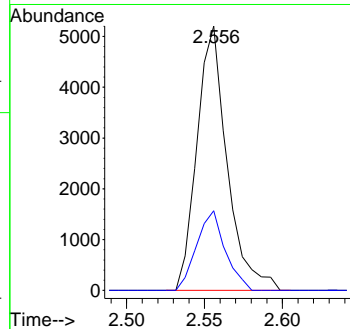
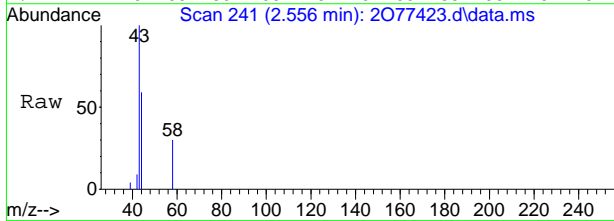
#5  
 Vinyl Chloride  
 Concen: 1.40 ug/L  
 RT: 1.434 min Scan# 57  
 Delta R.T. 0.000 min  
 Lab File: 2077423.d  
 Acq: 5 Jul 2023 1:16 pm

Tgt Ion	Ratio	Lower	Upper
62	100		
64	42.3	3.4	63.4

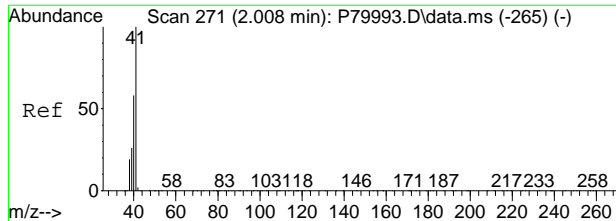


#19  
 Acetone  
 Concen: 10.96 ug/L  
 RT: 2.556 min Scan# 241  
 Delta R.T. -0.000 min  
 Lab File: 2077423.d  
 Acq: 5 Jul 2023 1:16 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	30.1	0.1	60.1

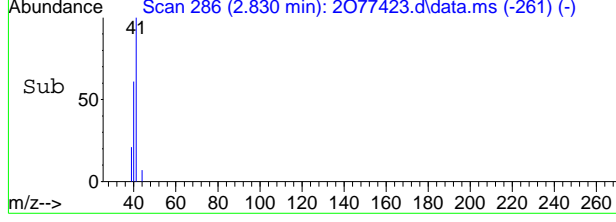
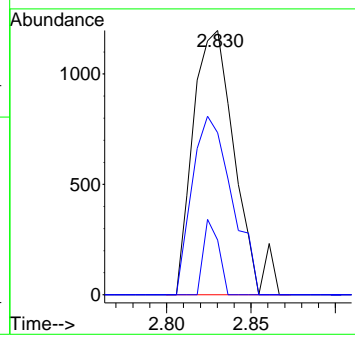
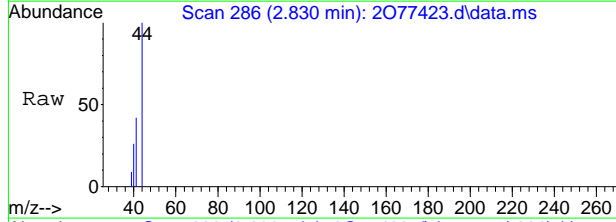


7.1.12  
7



#25  
 Acetonitrile  
 Concen: 8.31 ug/L  
 RT: 2.830 min Scan# 286  
 Delta R.T. 0.000 min  
 Lab File: 2077423.d  
 Acq: 5 Jul 2023 1:16 pm

Tgt Ion	Ratio	Lower	Upper
41	100		
40	61.3	32.7	72.7
39	20.7	0.0	39.4



7.1.12  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757716.d  
 Acq On : 6 Jul 2023 3:41 pm  
 Operator : jeniferw  
 Sample : FC7381-6 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:30:25 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

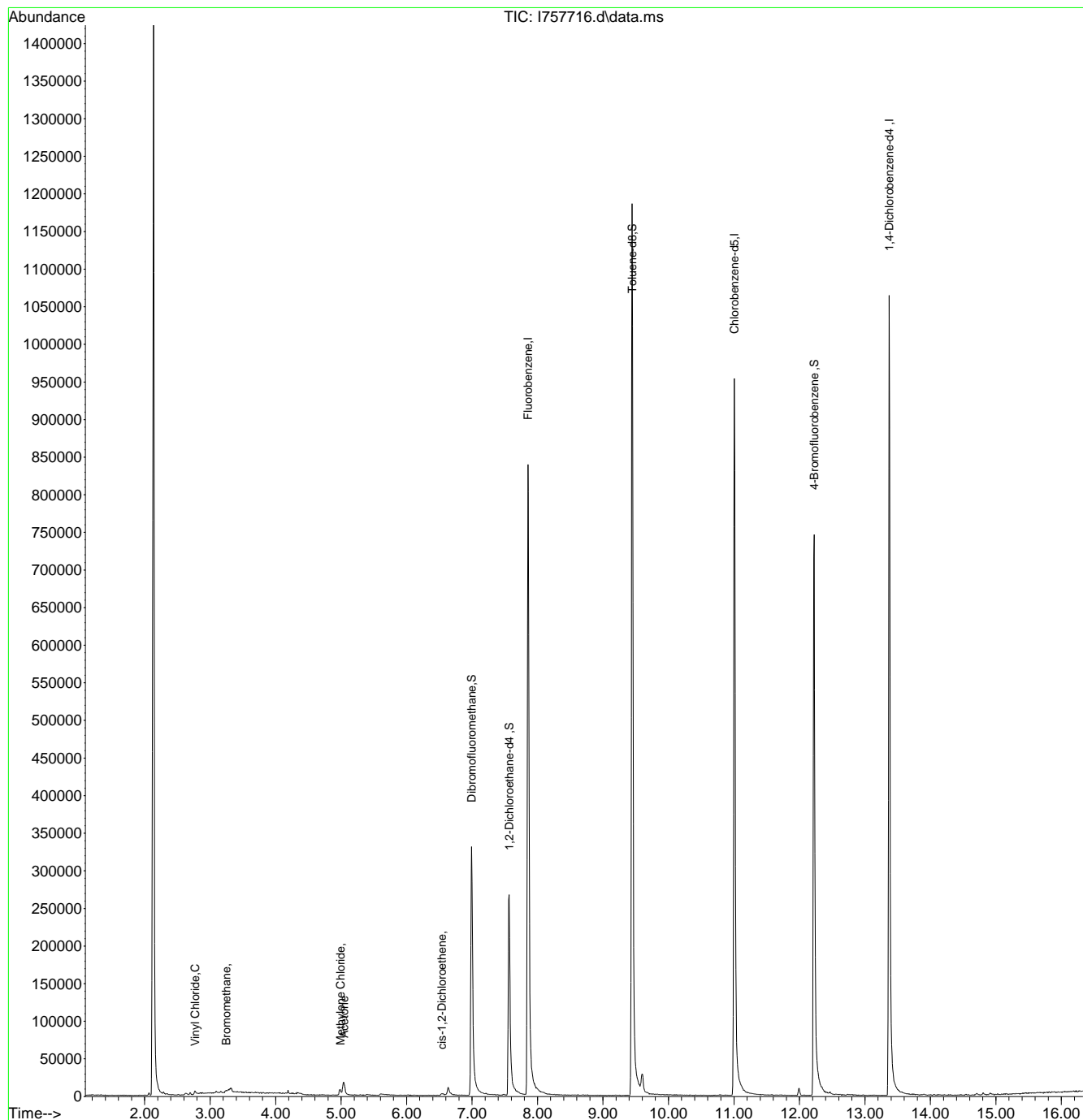
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	788833	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	570982	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	314511	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	216159	48.28	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.56%	
49) 1,2-Dichloroethane-d4	7.567	65	207519	50.97	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	101.94%	
63) Toluene-d8	9.445	98	801146	49.20	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.40%	
86) 4-Bromofluorobenzene	12.225	174	259734	49.05	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.10%	
Target Compounds						
						Qvalue
4) Vinyl Chloride	2.769	62	3612	1.03	ug/L	87
6) Bromomethane	3.245	94	1555	1.31	ug/L	68
18) Methylene Chloride	4.988	49	5065	1.14	ug/L	89
19) Acetone	5.043	43	8374	3.95	ug/L	86
32) cis-1,2-Dichloroethene	6.537	96	2386	0.67	ug/L #	82
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

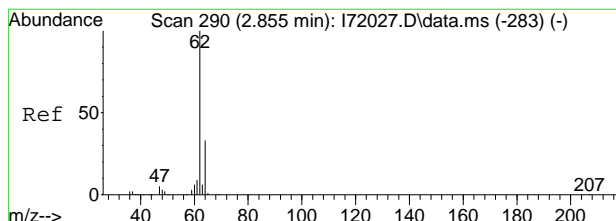
## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
Data File : I757716.d  
Acq On : 6 Jul 2023 3:41 pm  
Operator : jeniferw  
Sample : FC7381-6 Inst : MSVOA16  
Misc : MS54368,VI2963,,,,,  
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jul 06 23:30:25 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration

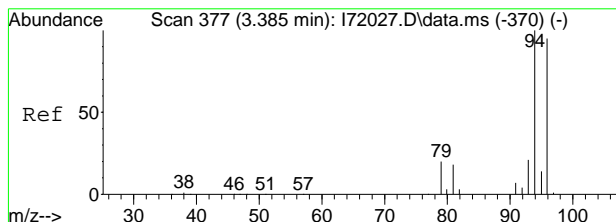
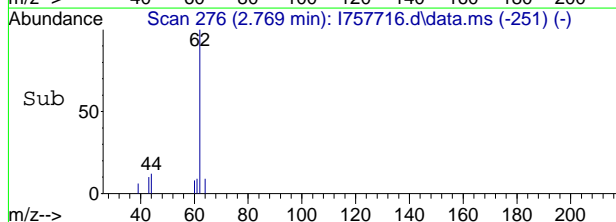
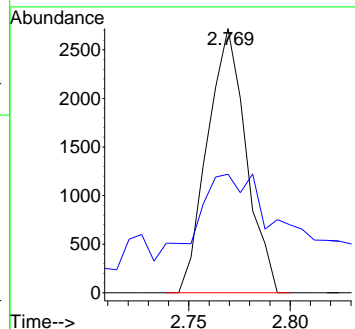
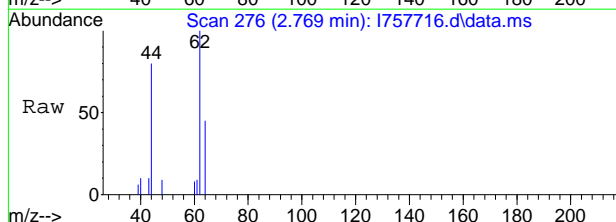






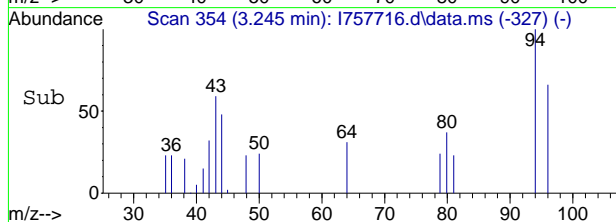
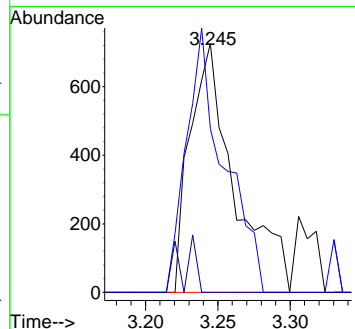
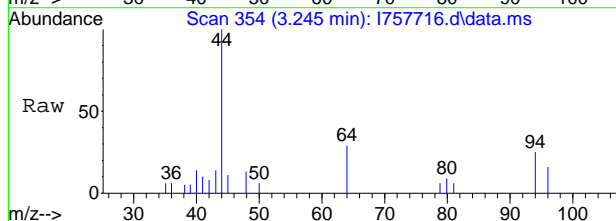
#4  
 Vinyl Chloride  
 Concen: 1.03 ug/L  
 RT: 2.769 min Scan# 276  
 Delta R.T. 0.000 min  
 Lab File: I757716.d  
 Acq: 6 Jul 2023 3:41 pm

Tgt Ion	Resp	Lower	Upper
62	3612		
64	26.0	3.6	63.6

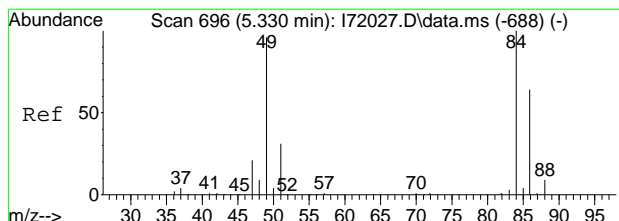


#6  
 Bromomethane  
 Concen: 1.31 ug/L  
 RT: 3.245 min Scan# 354  
 Delta R.T. 0.012 min  
 Lab File: I757716.d  
 Acq: 6 Jul 2023 3:41 pm

Tgt Ion	Resp	Lower	Upper
94	1555		
96	65.7	63.7	123.7
93	0.0	0.0	50.9

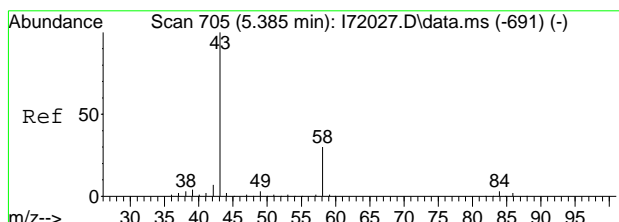
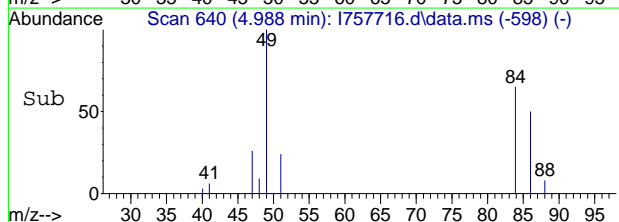
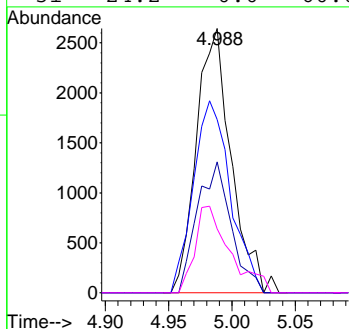
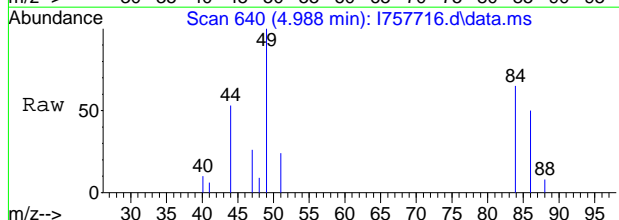


7.1.13  
7



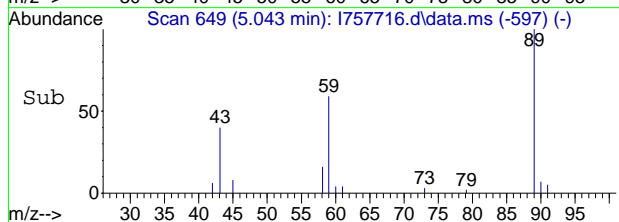
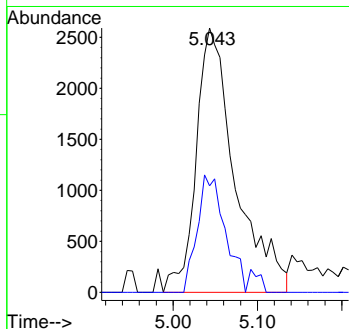
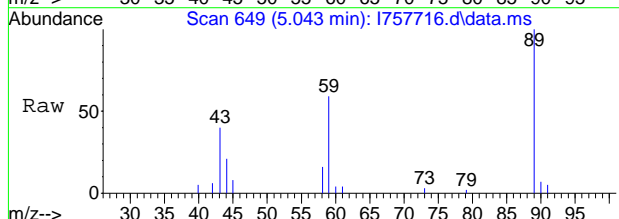
#18  
 Methylene Chloride  
 Concen: 1.14 ug/L  
 RT: 4.988 min Scan# 640  
 Delta R.T. 0.006 min  
 Lab File: I757716.d  
 Acq: 6 Jul 2023 3:41 pm

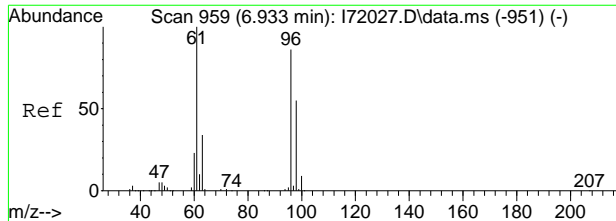
Tgt Ion	Ratio	Lower	Upper
49	100		
84	65.5	51.5	111.5
86	49.5	19.4	79.4
51	24.2	0.0	60.0



#19  
 Acetone  
 Concen: 3.95 ug/L  
 RT: 5.043 min Scan# 649  
 Delta R.T. 0.018 min  
 Lab File: I757716.d  
 Acq: 6 Jul 2023 3:41 pm

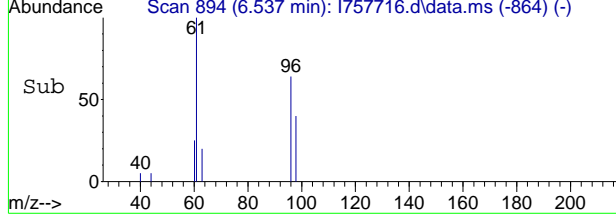
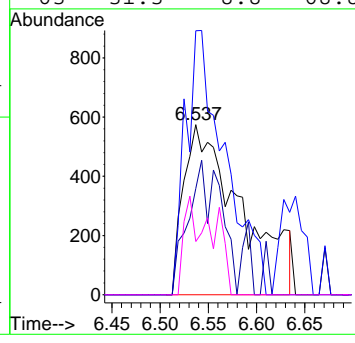
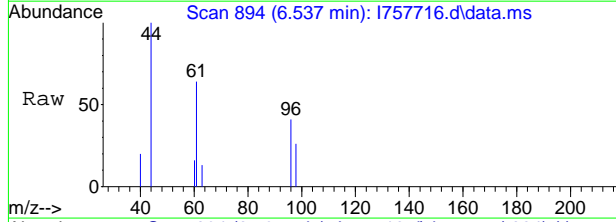
Tgt Ion	Ratio	Lower	Upper
43	100		
58	40.3	2.3	62.3





#32  
 cis-1,2-Dichloroethene  
 Concen: 0.67 ug/L  
 RT: 6.537 min Scan# 894  
 Delta R.T. 0.030 min  
 Lab File: I757716.d  
 Acq: 6 Jul 2023 3:41 pm

Tgt Ion	Ratio	Lower	Upper
96	100		
61	155.1	92.6	152.6#
98	62.4	33.8	93.8
63	31.3	8.8	68.8



7.1.13  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077416.d  
 Acq On : 5 Jul 2023 10:17 am  
 Operator : jeniferw  
 Sample : FC7381-7  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 05 21:29:55 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

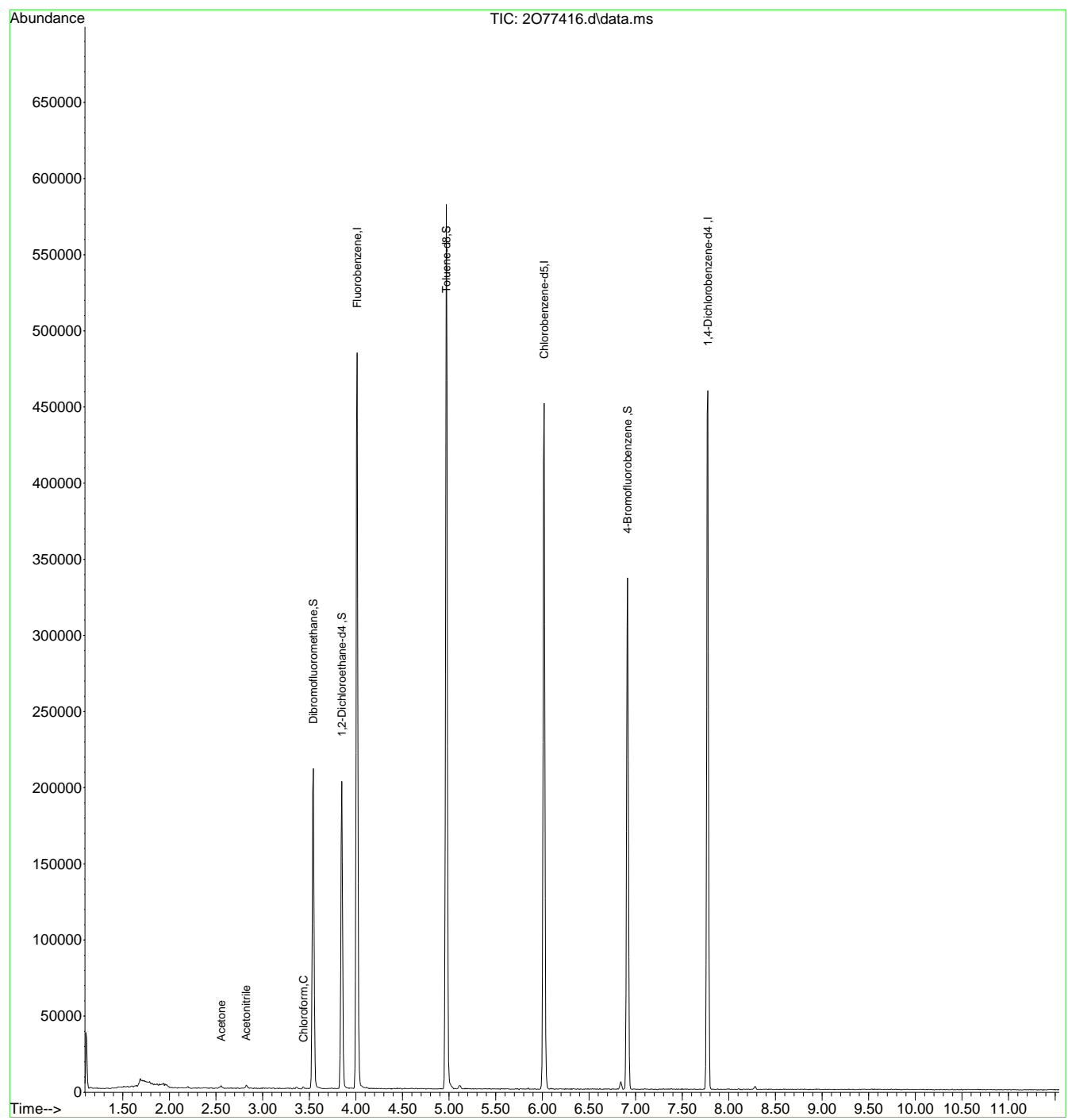
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	307795	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	207791	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.775	152	102460	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	90004	53.77	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	107.54%	
50) 1,2-Dichloroethane-d4	3.848	65	102011	51.34	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.68%	
63) Toluene-d8	4.970	98	291025	52.53	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	105.06%	
86) 4-Bromofluorobenzene	6.915	174	75904	50.70	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.40%	
Target Compounds						
19) Acetone	2.556	43	1584	2.23	ug/L	95
25) Acetonitrile	2.824	41	1565	5.65	ug/L	91
36) Chloroform	3.440	83	721	0.26	ug/L	66
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

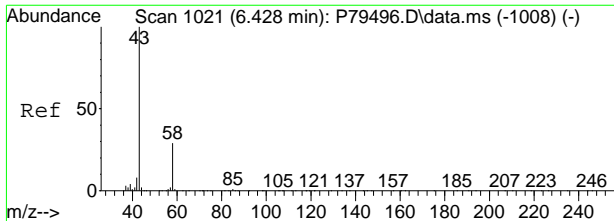
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077416.d  
Acq On : 5 Jul 2023 10:17 am  
Operator : jeniferw  
Sample : FC7381-7  
Misc : MS54357,V203017,,,,,  
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 05 21:29:55 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration



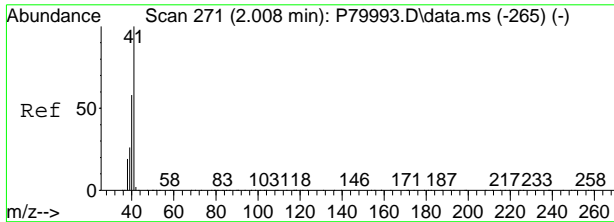
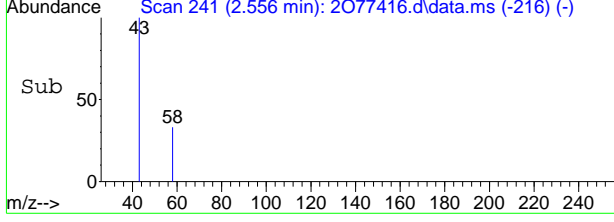
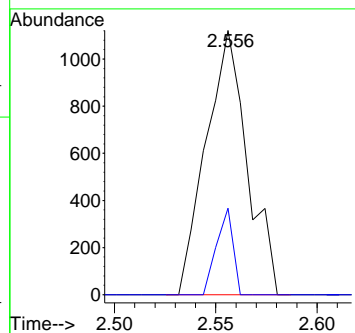
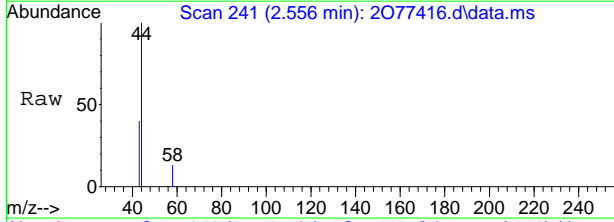
7.1.14  
7





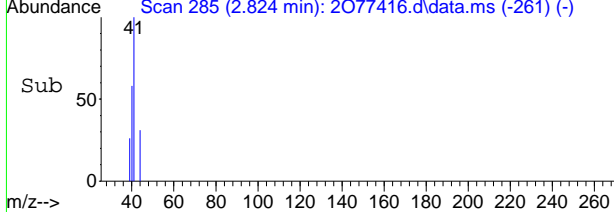
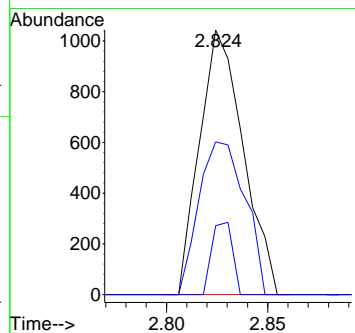
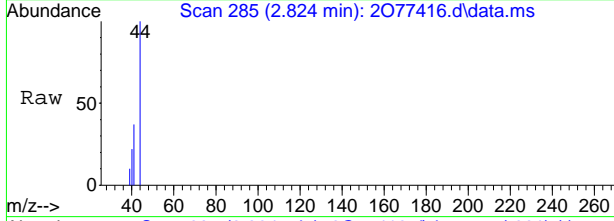
#19  
 Acetone  
 Concen: 2.23 ug/L  
 RT: 2.556 min Scan# 241  
 Delta R.T. 0.000 min  
 Lab File: 2077416.d  
 Acq: 5 Jul 2023 10:17 am

Tgt Ion	Resp	Lower	Upper
43	1584		
43	100		
58	32.7	0.1	60.1

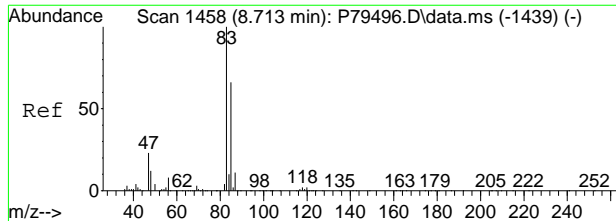


#25  
 Acetonitrile  
 Concen: 5.65 ug/L  
 RT: 2.824 min Scan# 285  
 Delta R.T. -0.006 min  
 Lab File: 2077416.d  
 Acq: 5 Jul 2023 10:17 am

Tgt Ion	Resp	Lower	Upper
41	1565		
41	100		
40	57.7	32.7	72.7
39	26.1	0.0	39.4

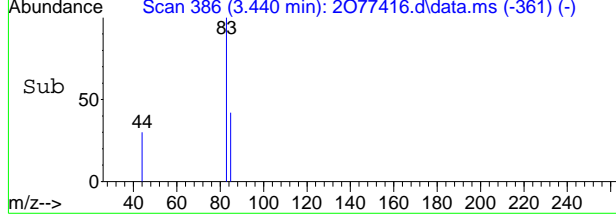
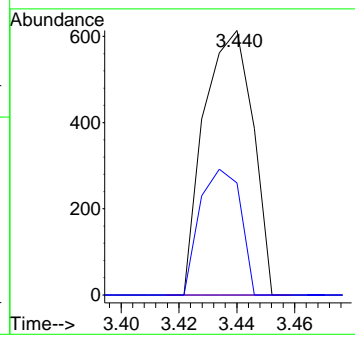
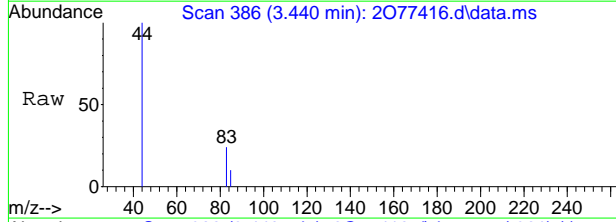


7.1.14  
7



#36  
 Chloroform  
 Concen: 0.26 ug/L  
 RT: 3.440 min Scan# 386  
 Delta R.T. 0.000 min  
 Lab File: 2077416.d  
 Acq: 5 Jul 2023 10:17 am

Tgt Ion	Ratio	Lower	Upper
83	100		
85	42.3	36.2	96.2
47	0.0	0.0	52.3



7.1.14  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757707.d  
 Acq On : 6 Jul 2023 10:55 am  
 Operator : jeniferw  
 Sample : FC7381-7 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:20:46 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	984662	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	712109	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	402091	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	273052	48.85	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.70%	
49) 1,2-Dichloroethane-d4	7.561	65	260319	51.22	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.44%	
63) Toluene-d8	9.445	98	990228	48.76	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.52%	
86) 4-Bromofluorobenzene	12.225	174	333823	49.31	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.62%	
Target Compounds						
						Qvalue
6) Bromomethane	3.233	94	3280	2.21	ug/L	98
15) Iodomethane	4.464	142	1134	0.46	ug/L	84
18) Methylene Chloride	4.976	49	13487	2.44	ug/L	96
19) Acetone	5.037	43	15520	5.86	ug/L	88
25) Acetonitrile	5.586	41	18594	15.62	ug/L	93
-----						

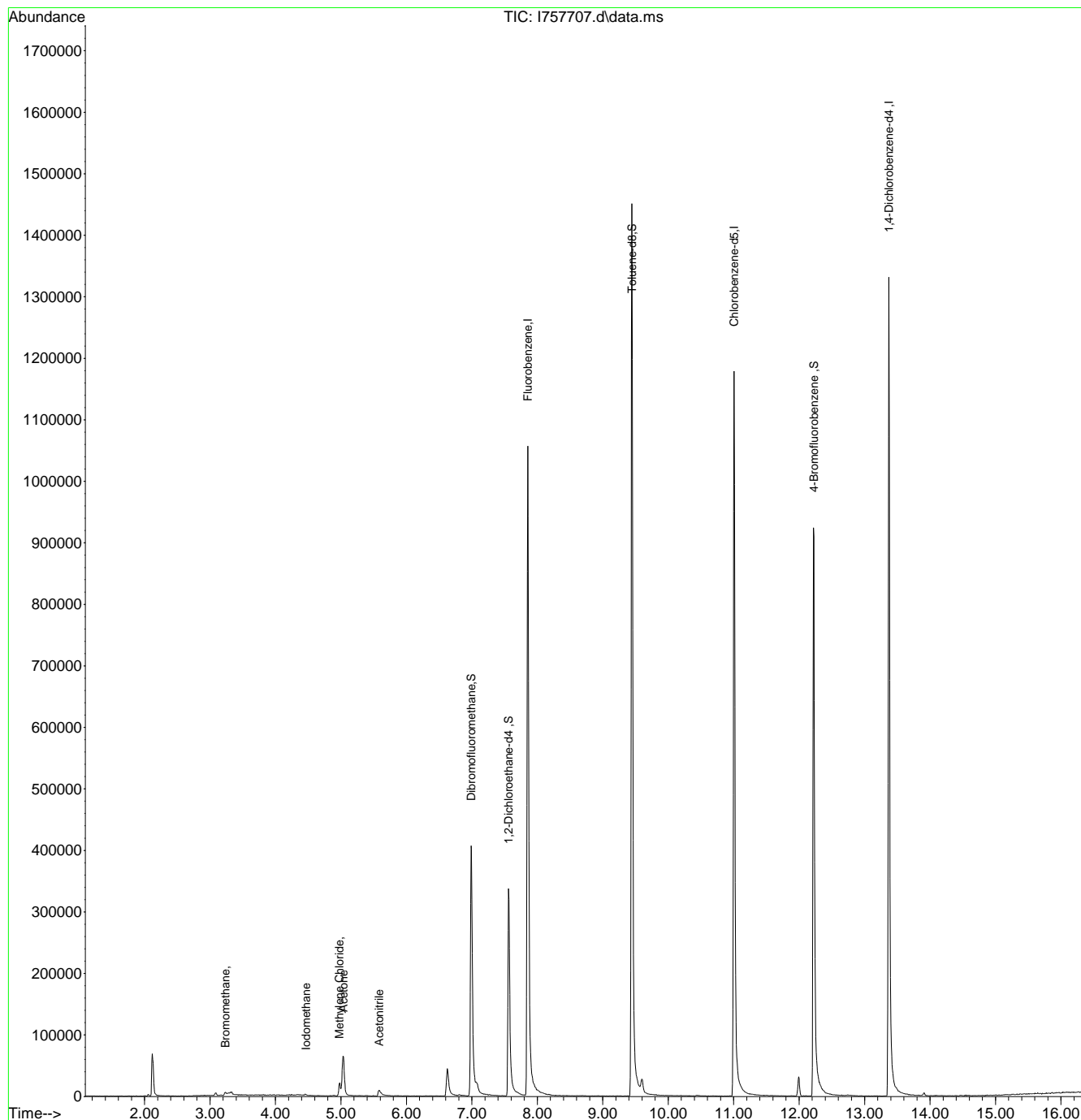
(#) = qualifier out of range (m) = manual integration (+) = signals summed

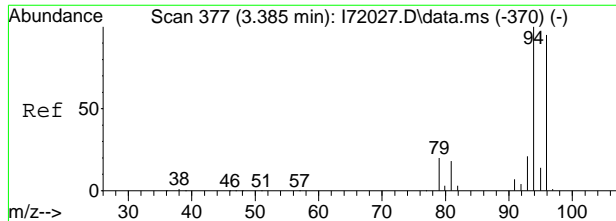


## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
Data File : I757707.d  
Acq On : 6 Jul 2023 10:55 am  
Operator : jeniferw  
Sample : FC7381-7 Inst : MSVOA16  
Misc : MS54368,VI2963,,,,,  
ALS Vial : 6 Sample Multiplier: 1

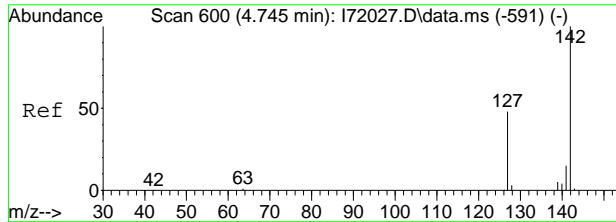
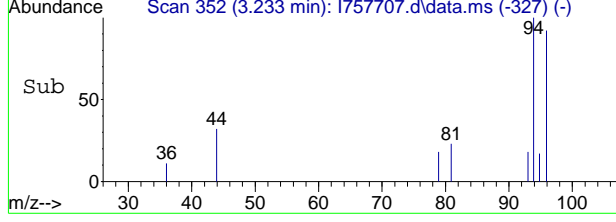
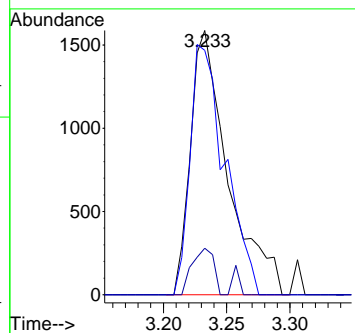
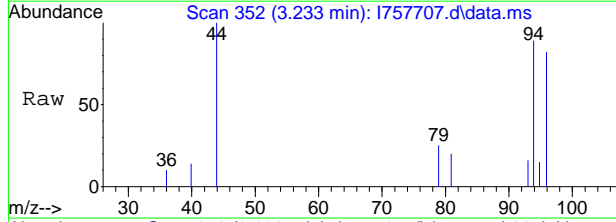
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jul 06 23:20:46 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration





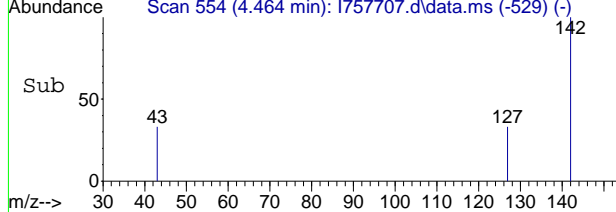
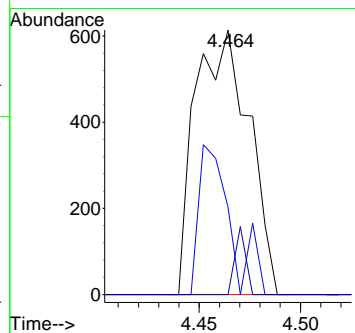
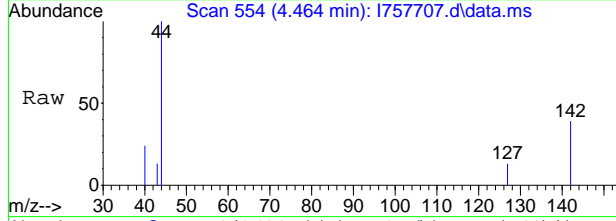
#6  
 Bromomethane  
 Concen: 2.21 ug/L  
 RT: 3.233 min Scan# 352  
 Delta R.T. -0.000 min  
 Lab File: I757707.d  
 Acq: 6 Jul 2023 10:55 am

Tgt Ion	Resp	Lower	Upper
94	3280		
96	92.4	63.7	123.7
93	17.6	0.0	50.9

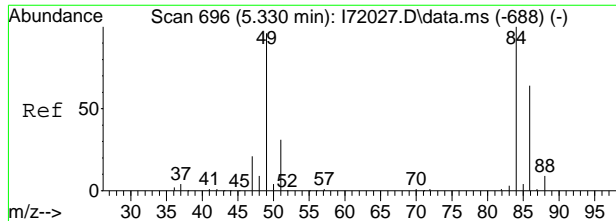


#15  
 Iodomethane  
 Concen: 0.46 ug/L  
 RT: 4.464 min Scan# 554  
 Delta R.T. 0.000 min  
 Lab File: I757707.d  
 Acq: 6 Jul 2023 10:55 am

Tgt Ion	Resp	Lower	Upper
142	1134		
127	33.1	9.6	69.6
141	0.0	0.0	43.4

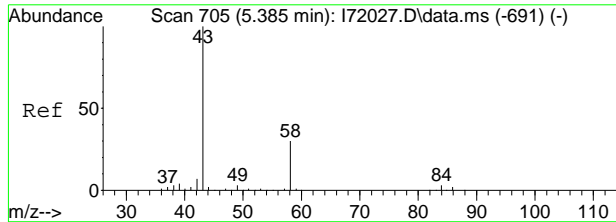
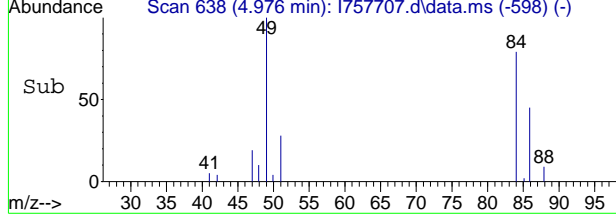
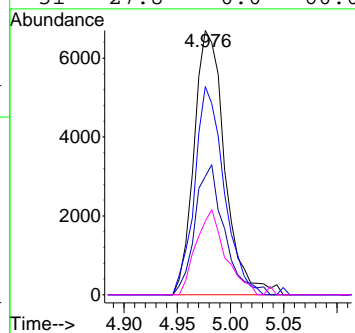
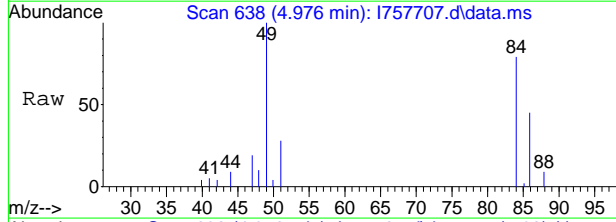


7.1.15  
7



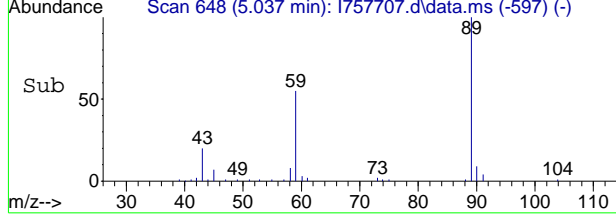
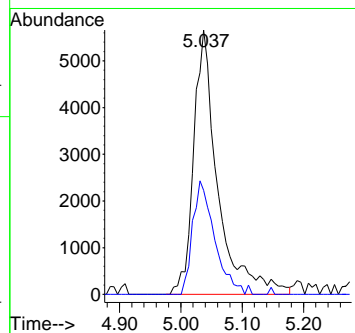
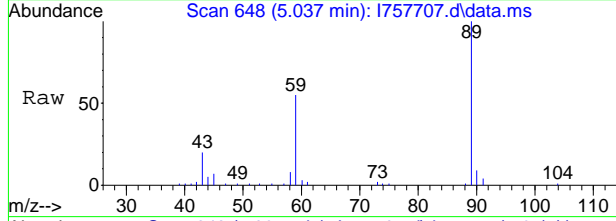
#18  
 Methylene Chloride  
 Concen: 2.44 ug/L  
 RT: 4.976 min Scan# 638  
 Delta R.T. -0.006 min  
 Lab File: I757707.d  
 Acq: 6 Jul 2023 10:55 am

Tgt Ion	Resp	Lower	Upper
49	13487		
49	100		
84	78.8	51.5	111.5
86	44.8	19.4	79.4
51	27.8	0.0	60.0

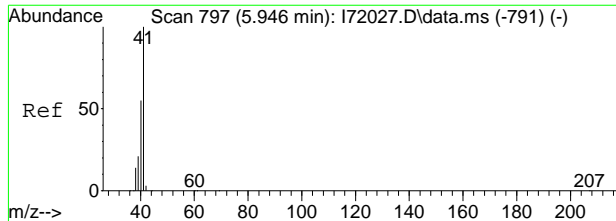


#19  
 Acetone  
 Concen: 5.86 ug/L  
 RT: 5.037 min Scan# 648  
 Delta R.T. 0.012 min  
 Lab File: I757707.d  
 Acq: 6 Jul 2023 10:55 am

Tgt Ion	Resp	Lower	Upper
43	15520		
43	100		
58	39.3	2.3	62.3

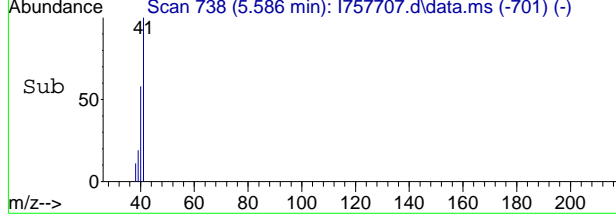
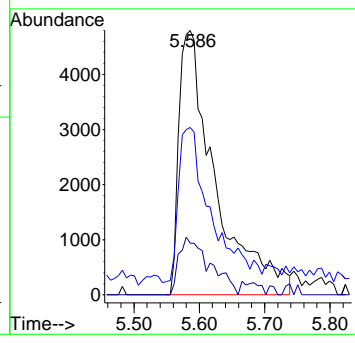
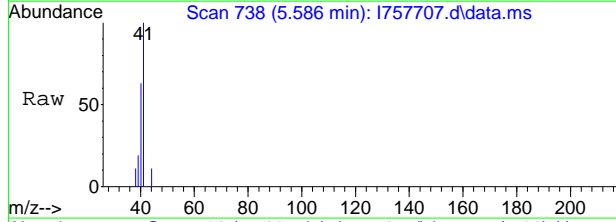


7.1.15  
7



#25  
 Acetonitrile  
 Concen: 15.62 ug/L  
 RT: 5.586 min Scan# 738  
 Delta R.T. 0.024 min  
 Lab File: I757707.d  
 Acq: 6 Jul 2023 10:55 am

Tgt Ion	Resp	Lower	Upper
41	18594		
40	58.3	22.1	82.1
39	19.5	0.0	48.9



7.1.15  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077415.d  
 Acq On : 5 Jul 2023 9:52 am  
 Operator : jeniferw  
 Sample : MB  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 05 21:27:54 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	305171	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	212296	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.775	152	106160	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	88250	53.18	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	106.36%	
50) 1,2-Dichloroethane-d4	3.849	65	100635	51.08	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.16%	
63) Toluene-d8	4.970	98	292071	51.60	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	103.20%	
86) 4-Bromofluorobenzene	6.915	174	85000	54.79	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	109.58%	
Target Compounds						
18) Methylene Chloride	2.532	49	947	0.55	ug/L	78
19) Acetone	2.550	43	18610	26.43	ug/L	96
25) Acetonitrile	2.830	41	5224	19.04	ug/L	95
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

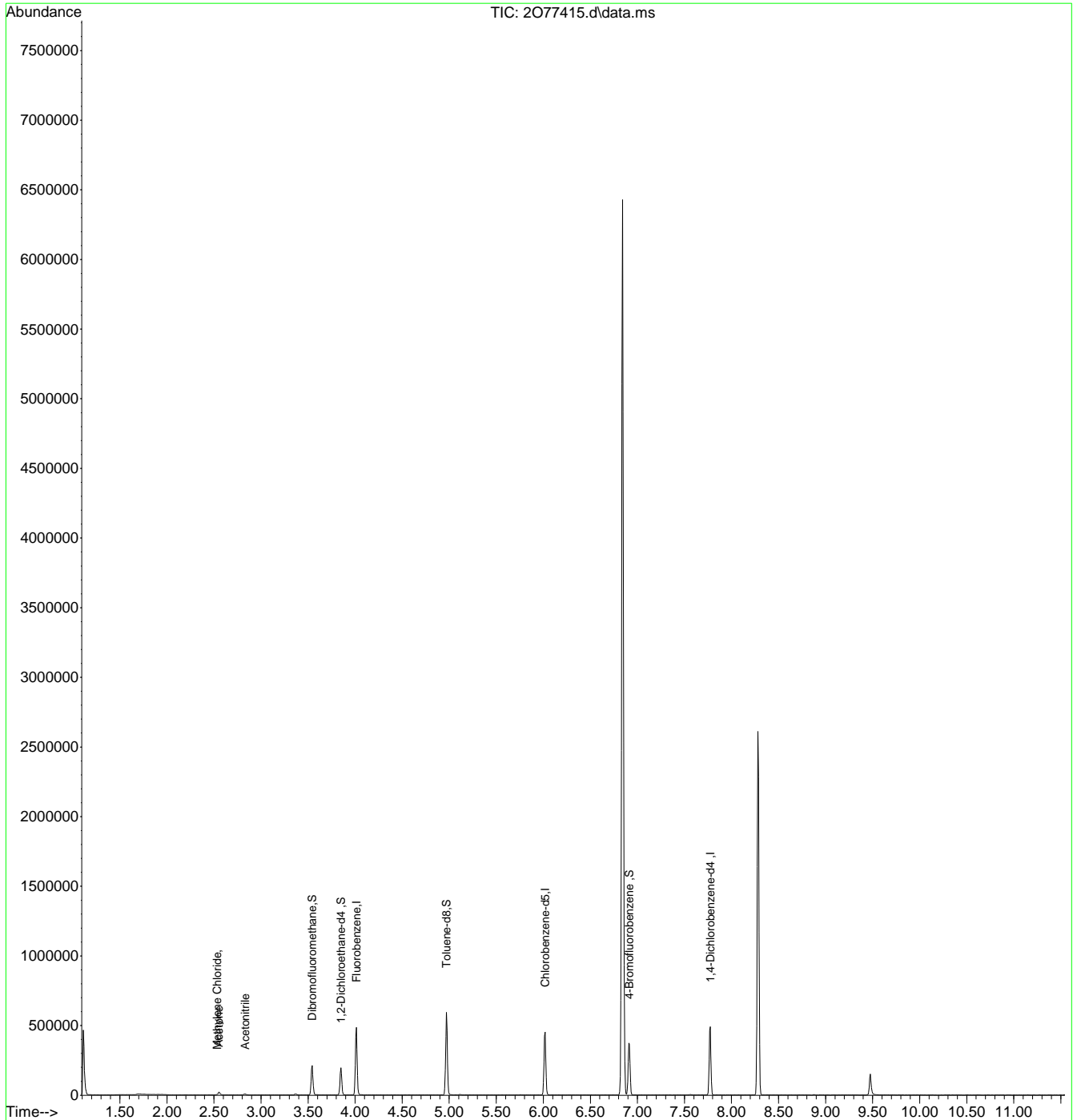
7.2.1  
7



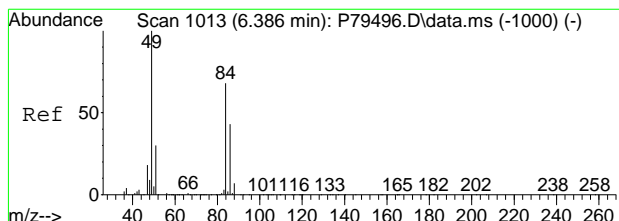
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077415.d  
 Acq On : 5 Jul 2023 9:52 am  
 Operator : jeniferw  
 Sample : MB  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 05 21:27:54 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

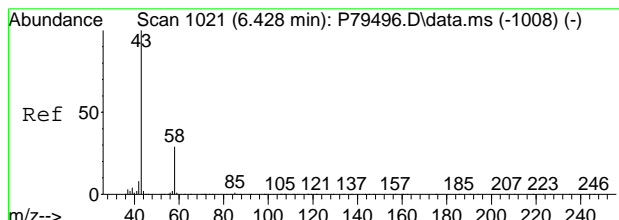
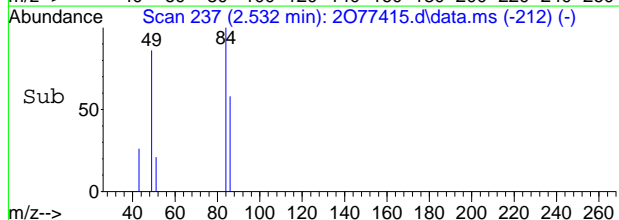
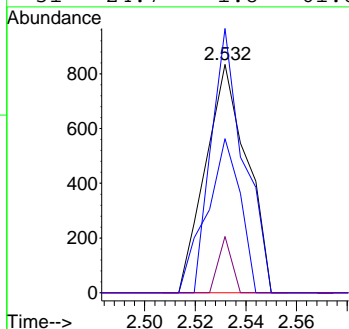
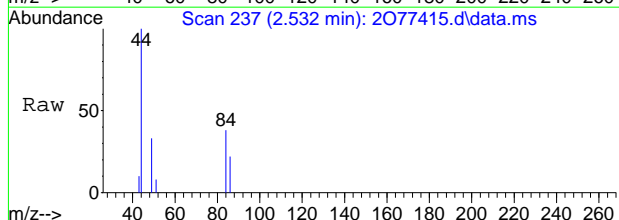


7.2.1  
7



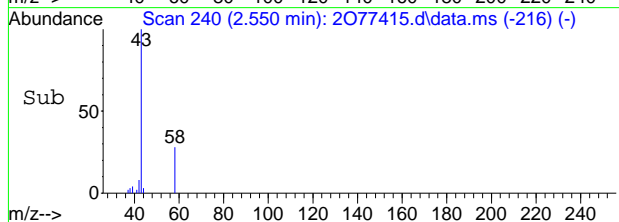
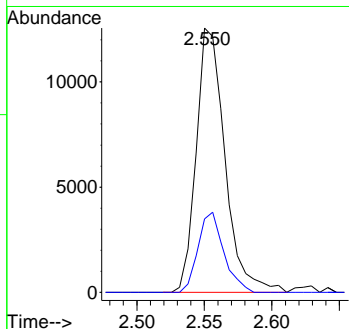
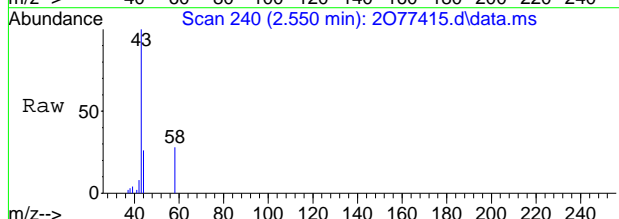
#18  
 Methylene Chloride  
 Concen: 0.55 ug/L  
 RT: 2.532 min Scan# 237  
 Delta R.T. -0.000 min  
 Lab File: 2077415.d  
 Acq: 5 Jul 2023 9:52 am

Tgt Ion	Ratio	Lower	Upper
49	100		
84	115.8	58.2	118.2
86	67.5	26.1	86.1
51	24.7	1.8	61.8

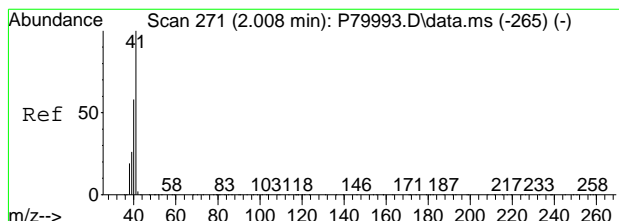


#19  
 Acetone  
 Concen: 26.43 ug/L  
 RT: 2.550 min Scan# 240  
 Delta R.T. -0.006 min  
 Lab File: 2077415.d  
 Acq: 5 Jul 2023 9:52 am

Tgt Ion	Ratio	Lower	Upper
43	100		
58	27.8	0.1	60.1

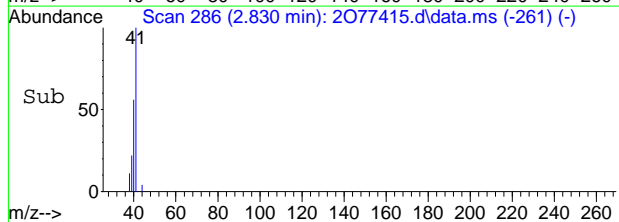
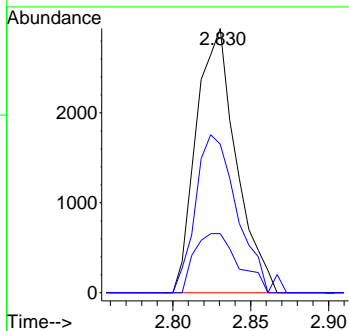
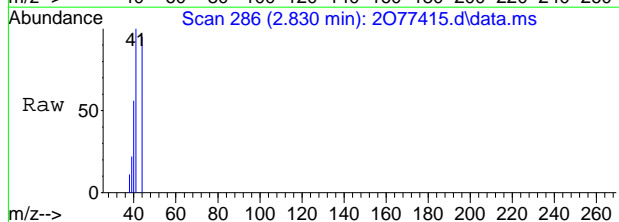


7.2.1  
7



#25  
 Acetonitrile  
 Concen: 19.04 ug/L  
 RT: 2.830 min Scan# 286  
 Delta R.T. 0.000 min  
 Lab File: 2077415.d  
 Acq: 5 Jul 2023 9:52 am

Tgt Ion	Ratio	Lower	Upper
41	100		
40	56.2	32.7	72.7
39	22.4	0.0	39.4



7.2.1  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757706.d  
 Acq On : 6 Jul 2023 10:31 am  
 Operator : jeniferw  
 Sample : MB Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:20:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.860	96	999716	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.005	117	726062	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	408938	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	274709	48.41	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.82%	
49) 1,2-Dichloroethane-d4	7.567	65	256784	49.77	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	99.54%	
63) Toluene-d8	9.445	98	1007111	48.64	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.28%	
86) 4-Bromofluorobenzene	12.225	174	339637	49.33	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.66%	
Target Compounds						
						Qvalue
6) Bromomethane	3.239	94	3627	2.40	ug/L	97
15) Iodomethane	4.470	142	1917	0.77	ug/L	82
18) Methylene Chloride	4.976	49	3157	0.56	ug/L	77
19) Acetone	5.043	43	5232	1.95	ug/L	90
-----						

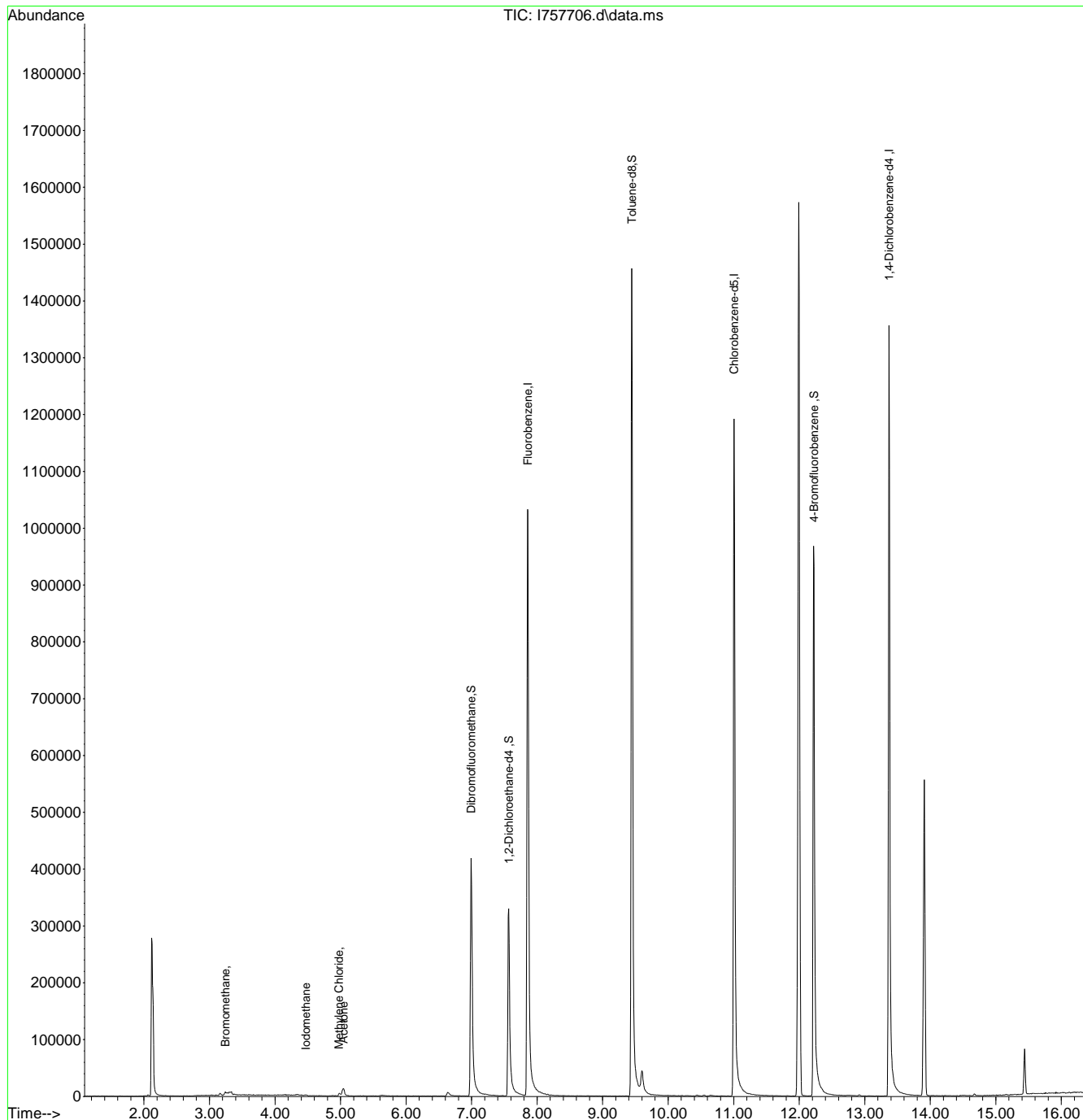
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.22  
7

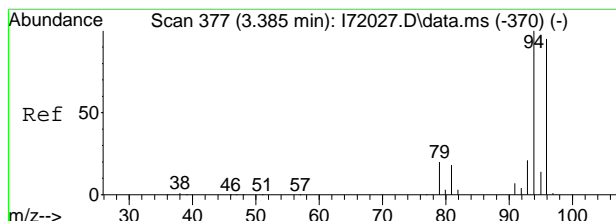
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
Data File : I757706.d  
Acq On : 6 Jul 2023 10:31 am  
Operator : jeniferw  
Sample : MB Inst : MSVOA16  
Misc : MS54358,VI2963,,,,,  
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jul 06 23:20:09 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration

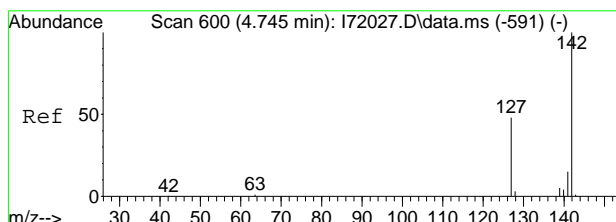
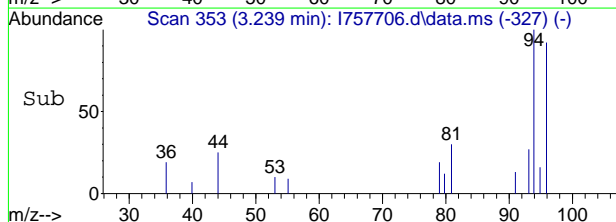
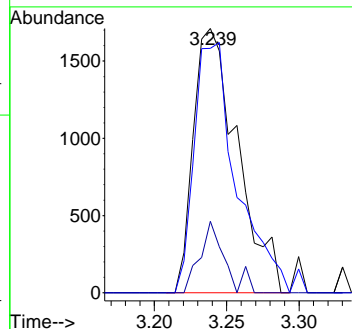
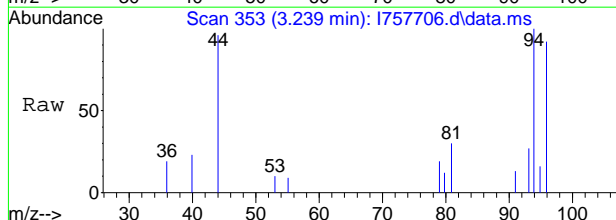


7.2.2  
7



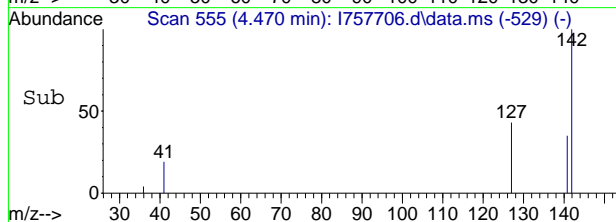
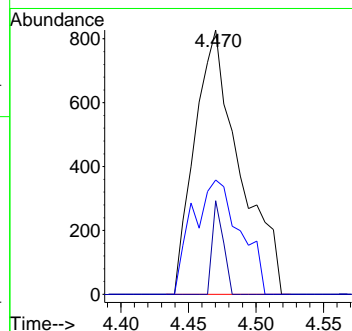
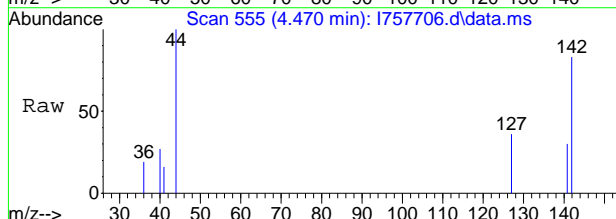
#6  
 Bromomethane  
 Concen: 2.40 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

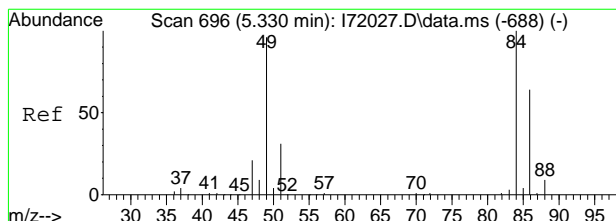
Tgt Ion	Resp	Lower	Upper
94	3627		
96	92.4	63.7	123.7
93	27.0	0.0	50.9



#15  
 Iodomethane  
 Concen: 0.77 ug/L  
 RT: 4.470 min Scan# 555  
 Delta R.T. 0.006 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

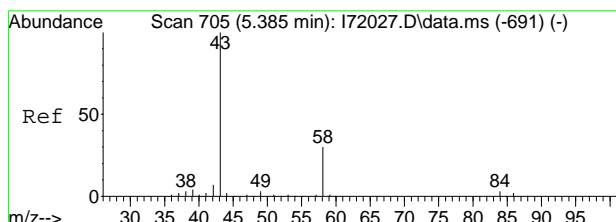
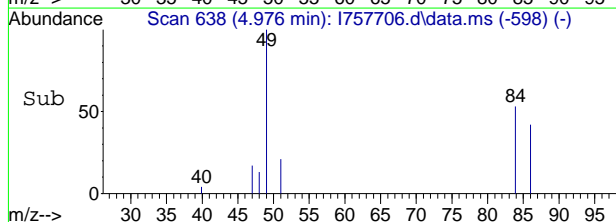
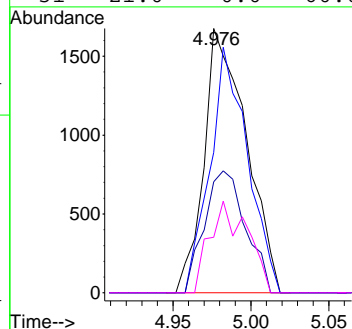
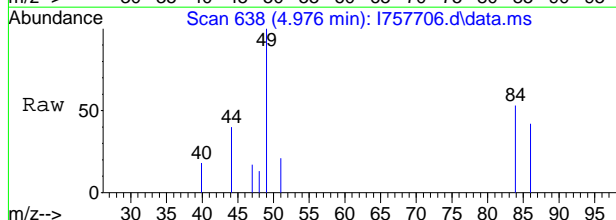
Tgt Ion	Resp	Lower	Upper
142	1917		
127	43.2	9.6	69.6
141	35.4	0.0	43.4





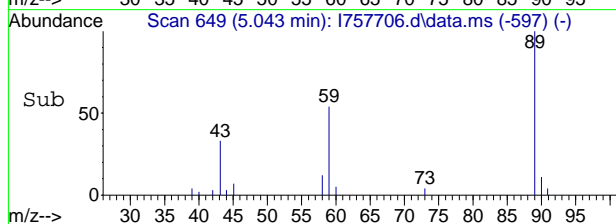
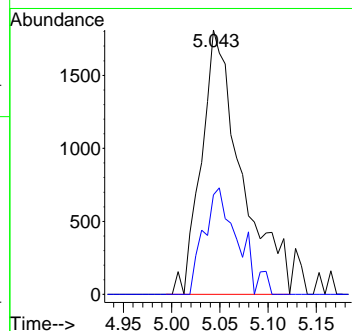
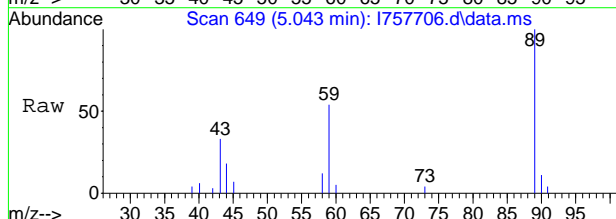
#18  
 Methylene Chloride  
 Concen: 0.56 ug/L  
 RT: 4.976 min Scan# 638  
 Delta R.T. -0.006 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

Tgt Ion	Ratio	Lower	Upper
49	100		
84	53.1	51.5	111.5
86	42.0	19.4	79.4
51	21.0	0.0	60.0



#19  
 Acetone  
 Concen: 1.95 ug/L  
 RT: 5.043 min Scan# 649  
 Delta R.T. 0.018 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

Tgt Ion	Ratio	Lower	Upper
43	100		
58	37.7	2.3	62.3



7.2.2  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	375787	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	268562	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.769	152	130962	50.00	ug/L	-0.01
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	102408	50.11	ug/L	0.00
Spiked Amount	50.000	Range 83	- 118	Recovery	=	100.22%
50) 1,2-Dichloroethane-d4	3.849	65	125574	51.76	ug/L	0.00
Spiked Amount	50.000	Range 79	- 125	Recovery	=	103.52%
63) Toluene-d8	4.970	98	358023	50.00	ug/L	0.00
Spiked Amount	50.000	Range 85	- 112	Recovery	=	100.00%
86) 4-Bromofluorobenzene	6.915	174	93058	48.63	ug/L	0.00
Spiked Amount	50.000	Range 83	- 118	Recovery	=	97.26%
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	43952	31.68	ug/L	97
3) Chloromethane	1.380	50	38582	27.28	ug/L	96
4) 1,3-butadiene	1.447	39	36635	22.69	ug/L	97
5) Vinyl Chloride	1.434	62	42386	29.05	ug/L	99
6) Bromomethane	1.666	94	27976	24.67	ug/L	98
7) Chloroethane	1.751	64	30428	34.04	ug/L	99
8) Trichlorofluoromethane	1.849	101	85382	31.02	ug/L	100
9) Ethyl Ether	2.056	59	33474	25.82	ug/L	99
10) Ethanol	2.148	45	18164	621.12	ug/L	97
11) 1,2-Dichlorotrifluoro...	2.178	67	51006	27.75	ug/L	99
12) 1,1-Dichloroethene	2.178	61	57358	24.85	ug/L	97
13) Freon 113	2.209	101	42865	26.42	ug/L	98
14) Carbon Disulfide	2.196	76	118612	27.62	ug/L	100
15) Iodomethane	2.270	142	34448	24.18	ug/L	96
16) Acrolein	2.379	56	55364	132.20	ug/L	100
17) Allyl chloride	2.471	41	46862	27.85	ug/L	98
18) Methylene Chloride	2.532	49	54488	26.14	ug/L	97
19) Acetone	2.556	43	132659	153.01	ug/L	98
20) Methyl acetate	2.629	43	237278	115.90	ug/L	99
21) trans-1,2-Dichloroethene	2.629	61	55590	23.83	ug/L	97
22) Hexane	2.678	56	28724	24.21	ug/L	93
23) Methyl Tert Butyl Ether	2.690	73	116801	24.90	ug/L	92
24) Tert Butyl Alcohol	2.739	59	75420	259.64	ug/L	88
25) Acetonitrile	2.824	41	98119	290.39	ug/L	99
26) Di-isopropyl ether	2.904	45	110767	23.99	ug/L	97
27) Chloroprene	2.971	53	44373	19.31	ug/L	98
28) 1,1-Dichloroethane	2.983	63	71999	23.75	ug/L	99
29) Acrylonitrile	3.007	52	100547	120.11	ug/L	98
30) ETBE	3.111	59	112837	25.70	ug/L	98
31) Vinyl acetate	3.117	43	460163	139.86	ug/L	99
32) cis-1,2-Dichloroethene	3.288	96	44803	22.55	ug/L	98
33) 2,2-Dichloropropane	3.349	77	55678	27.48	ug/L	100
34) Bromochloromethane	3.397	128	23943	24.77	ug/L	95
35) Cyclohexane	3.410	56	52430	22.66	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	84523	24.68	ug/L	99
37) Ethyl acetate	3.495	43	302711	122.91	ug/L	99
38) Tetrahydrofuran	3.532	42	21125	23.94	ug/L	94
40) Carbon Tetrachloride	3.525	117	56407m	25.56	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	66085	24.46	ug/L	98
42) 2-Butanone	3.605	43	168538	125.74	ug/L	100
43) 1,1-Dichloropropene	3.629	75	55675	24.58	ug/L	98
44) tert-Butyl formate	3.690	59	124204	204.80	ug/L	92
45) Propionitrile	3.775	54	116812	281.35	ug/L	87
46) Methacrylonitrile	3.794	41	415149	287.55	ug/L	96
47) Benzene	3.775	78	175851	25.72	ug/L	98
48) TAME	3.830	73	110097	26.44	ug/L	96
49) Isobutyl alcohol	3.873	43	74033m	596.56	ug/L	
51) 1,2-Dichloroethane	3.885	62	68796	24.45	ug/L	98
52) Tert Amyl Alcohol	3.934	59	60057	269.73	ug/L	96
53) Trichloroethene	4.111	95	47684	24.04	ug/L	97
54) Methylcyclohexane	4.117	83	55433	22.76	ug/L	98
55) Dibromomethane	4.361	93	32857	24.32	ug/L	93
56) 1,2-Dichloropropane	4.422	63	42588	26.03	ug/L	98
57) Bromodichloromethane	4.458	83	58150	25.38	ug/L	98
58) Methyl methacrylate	4.544	41	39379	22.65	ug/L	97
59) 1,4-Dioxane	4.580	88	15135	470.62	ug/L	99
60) 2-Chloroethyl vinyl ether	4.800	63	160751	120.15	ug/L	99
61) cis-1,3-Dichloropropene	4.848	75	65689	26.53	ug/L	96
64) Toluene	5.001	91	178539	24.88	ug/L	99
65) 2-Nitropropane	5.147	41	71996	140.74	ug/L	99
66) 4-Methyl-2-pentanone	5.239	43	299973	134.53	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	62491	25.80	ug/L	93
68) Tetrachloroethene	5.257	166	45947	24.64	ug/L	97
69) Ethyl methacrylate	5.360	69	54269	26.13	ug/L	93
70) 1,1,2-Trichloroethane	5.373	83	38871	25.79	ug/L	94
71) Dibromochloromethane	5.501	129	46597	27.49	ug/L	98
72) 1,3-Dichloropropane	5.562	76	74081	25.75	ug/L	99
73) 1,2-Dibromoethane	5.665	107	46711	23.78	ug/L	97
74) 3,3-dimethyl-1-butanol	5.775	57	417459	1350.13	ug/L	100
75) 2-hexanone	5.799	43	308215	136.95	ug/L	97
76) 1-Chlorohexane	6.007	91	49783m	22.65	ug/L	
77) Ethylbenzene	6.043	91	188956	24.10	ug/L	99
78) Chlorobenzene	6.031	112	121327	24.32	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.074	131	43131	27.02	ug/L	98
80) m,p-Xylene	6.147	91	302939	48.91	ug/L	100
81) o-Xylene	6.464	91	136073	21.87	ug/L	99
82) Styrene	6.500	104	113716	23.97	ug/L	99
83) Bromoform	6.525	173	27950	26.93	ug/L	98
84) Isopropylbenzene	6.696	105	156292	21.81	ug/L	97
87) cis-1,4-Dichloro-2-butene	6.958	53	13356	26.10	ug/L	95
88) n-Propylbenzene	7.013	91	194336	24.16	ug/L	98
89) Bromobenzene	6.994	156	45564	25.25	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.061	83	68227	26.15	ug/L	98
91) 1,3,5-Trimethylbenzene	7.165	105	142185	24.73	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.135	91	132522	23.52	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.202	53	9956	21.13	ug/L	99
94) 1,2,3-Trichloropropane	7.171	110	22855	27.34	ug/L	97
95) Cyclohexanone	7.202	55	17395	195.76	ug/L	97
96) 4-Chlorotoluene	7.263	91	127716	23.83	ug/L	97
97) tert-Butylbenzene	7.415	91	71944	23.05	ug/L	96
99) 1,2,4-Trimethylbenzene	7.470	105	138743	24.10	ug/L	99
100) Pentachloroethane	7.433	167	23909	29.07	ug/L #	78
101) sec-Butylbenzene	7.555	105	146855	22.28	ug/L	99
102) 4-Isopropyltoluene	7.665	119	126890	22.54	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	84975	23.71	ug/L	98
104) 1,2,3-Trimethylbenzene	7.799	105	155388	25.40	ug/L	99
105) 1,4-Dichlorobenzene	7.781	146	88898	24.83	ug/L	94
106) n-Butylbenzene	7.976	92	70940	24.60	ug/L	96
107) Benzyl Chloride	7.970	126	18851	30.79	ug/L	96
108) 1,2-Dichlorobenzene	8.092	146	80823	23.56	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.665	75	13473	25.94	ug/L	91
110) Hexachlorobutadiene	9.128	225	15613	24.20	ug/L	98
111) 1,2,4-Trichlorobenzene	9.140	180	43983	22.45	ug/L	98
112) Naphthalene	9.366	128	155351	21.76	ug/L	99
113) 1,2,3-Trichlorobenzene	9.488	180	43705	22.44	ug/L	96

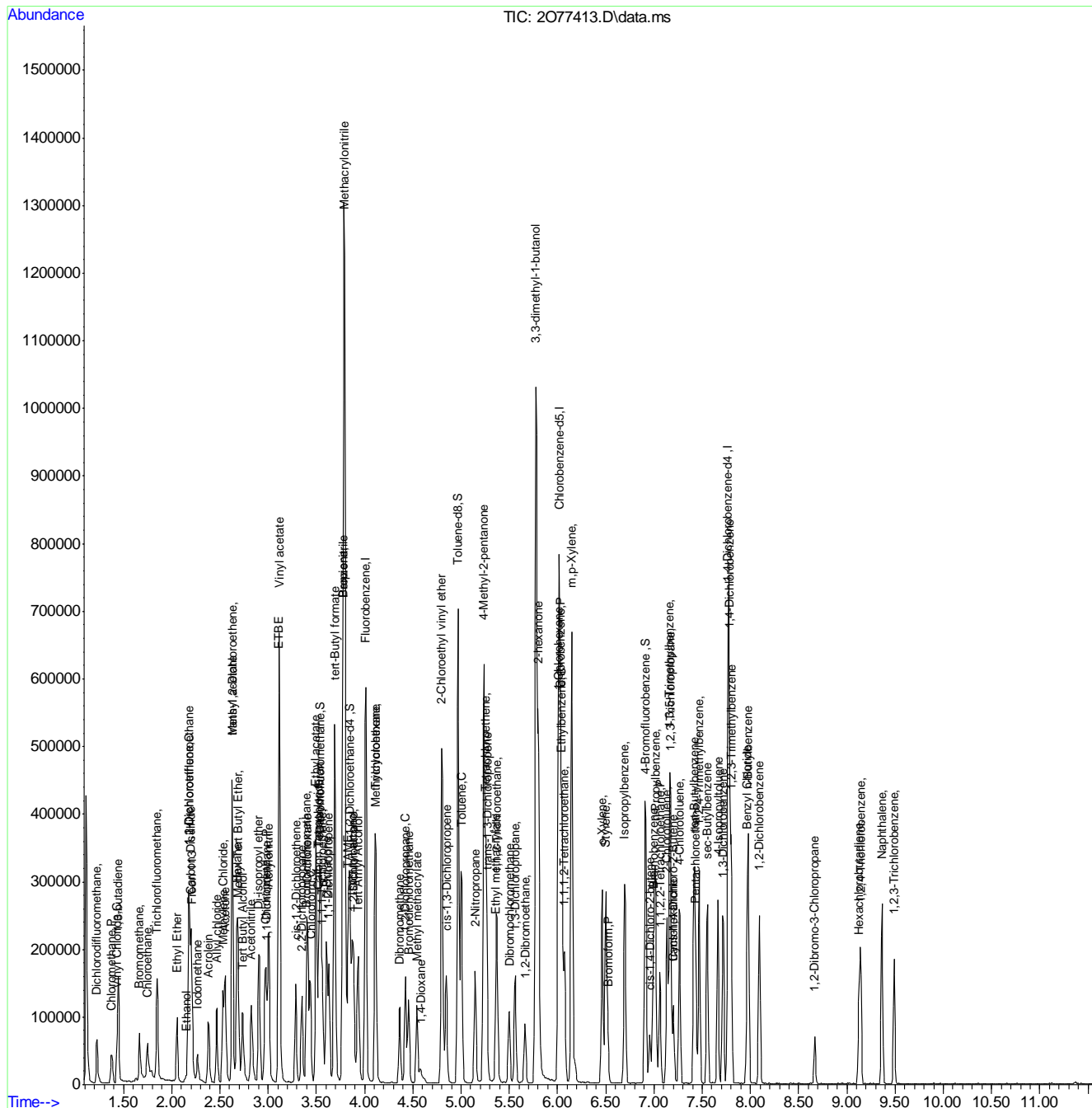
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7.3.1  
7



# Manual Integration Approval Summary

**Sample Number:** V2O3017-BS      **Method:** SW846 8260D  
**Lab FileID:** 2O77413.D      **Analyst approved:** 07/05/23 09:17 Jenifer Willis  
**Injection Time:** 07/05/23 09:01      **Supervisor approved:** 07/06/23 13:22 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

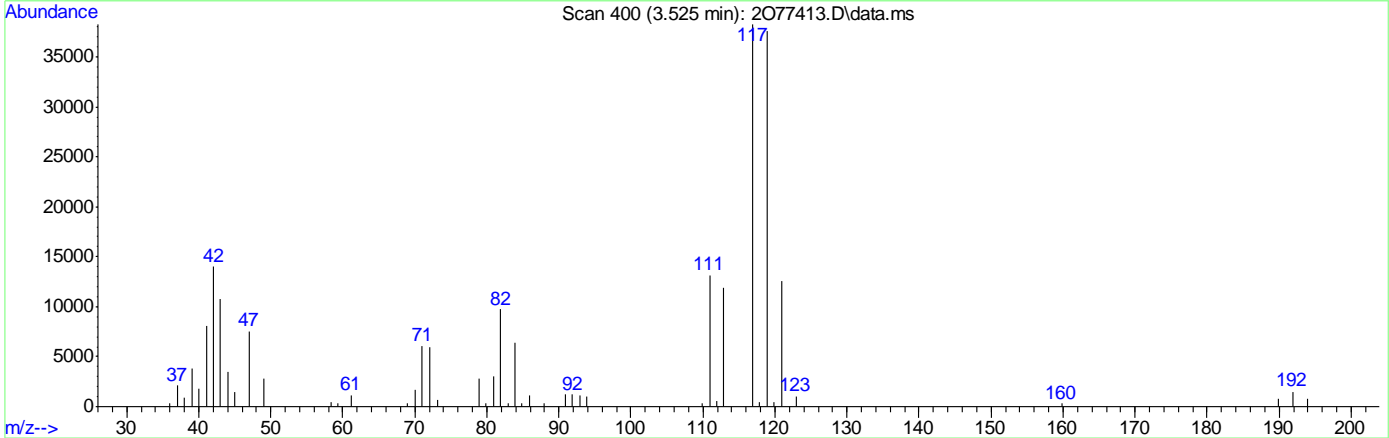
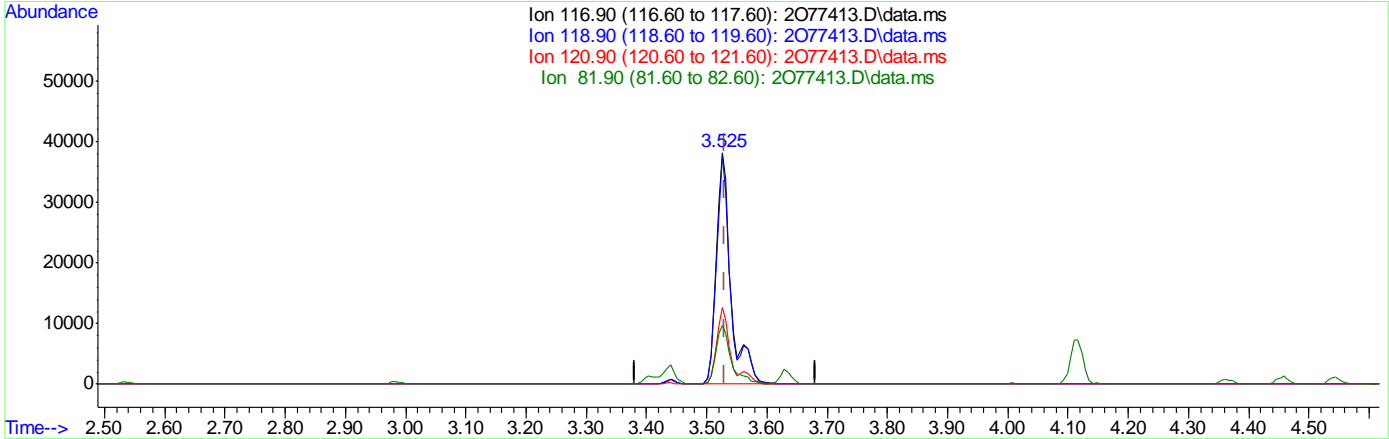
7.3.1.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.59ug/L

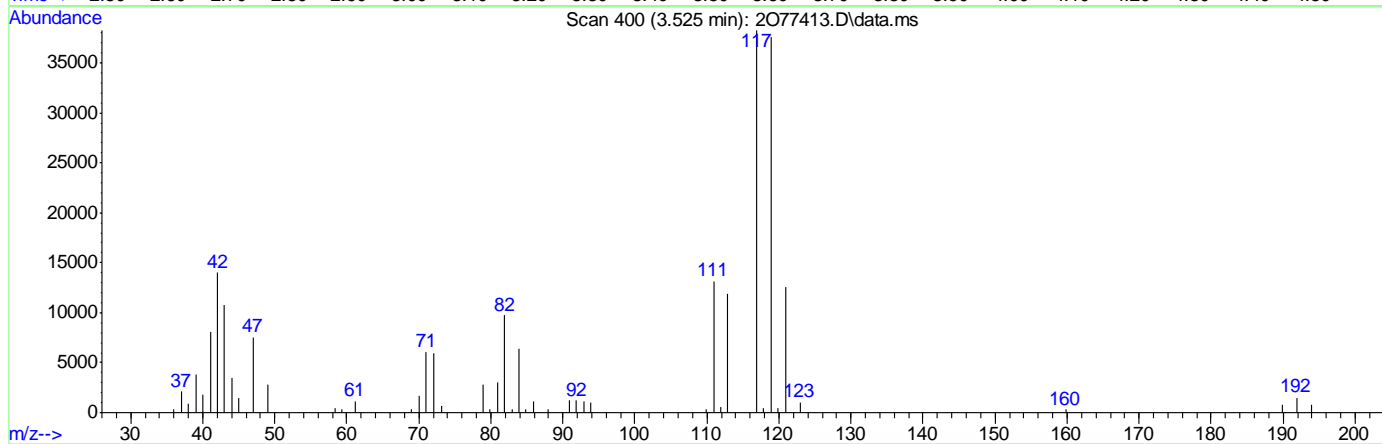
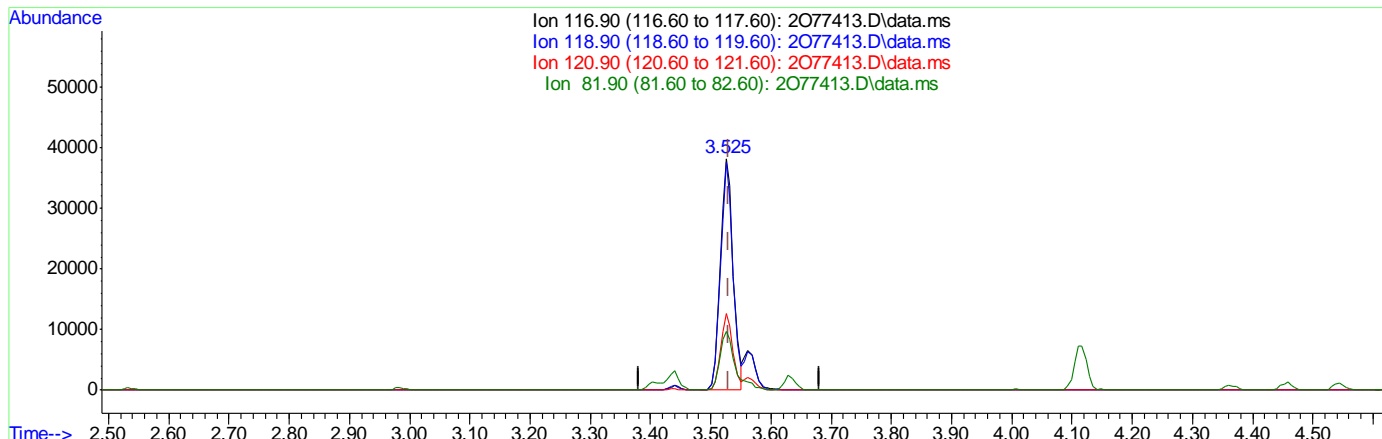
response 65312

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.35
120.90	31.50	32.96
81.90	24.40	25.39

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
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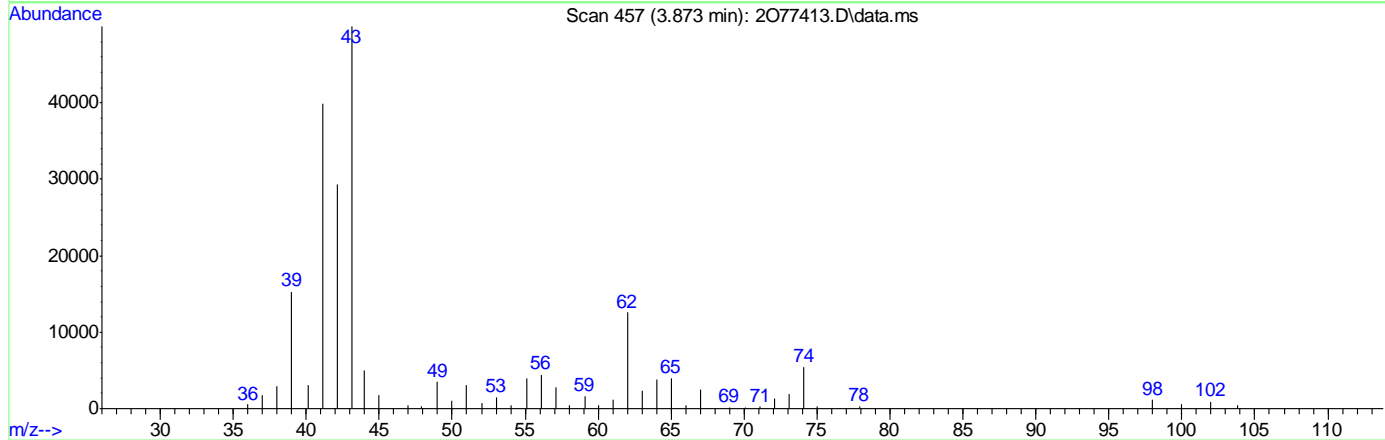
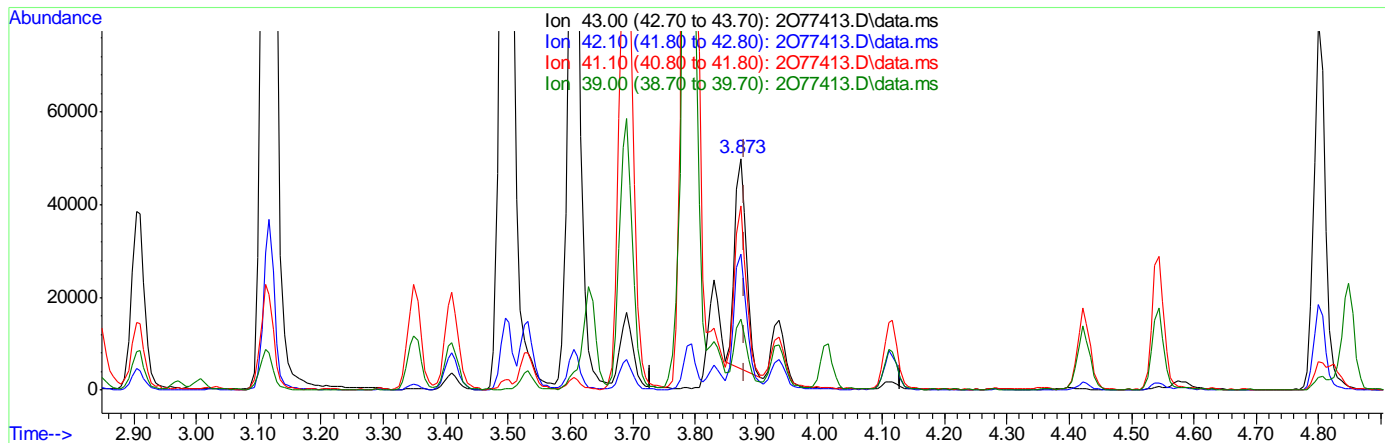
(40) Carbon Tetrachloride ( )  
 3.525min (-0.006) 25.56ug/L m  
 response 56407

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.35
120.90	31.50	32.96
81.90	24.40	25.39

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 475.66ug/L  
 response 58473

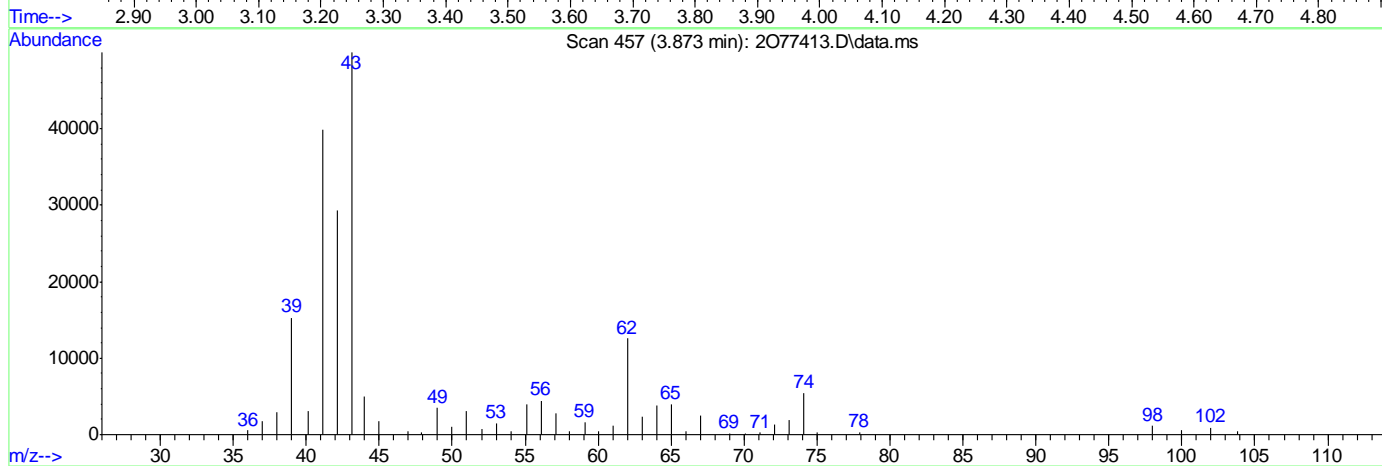
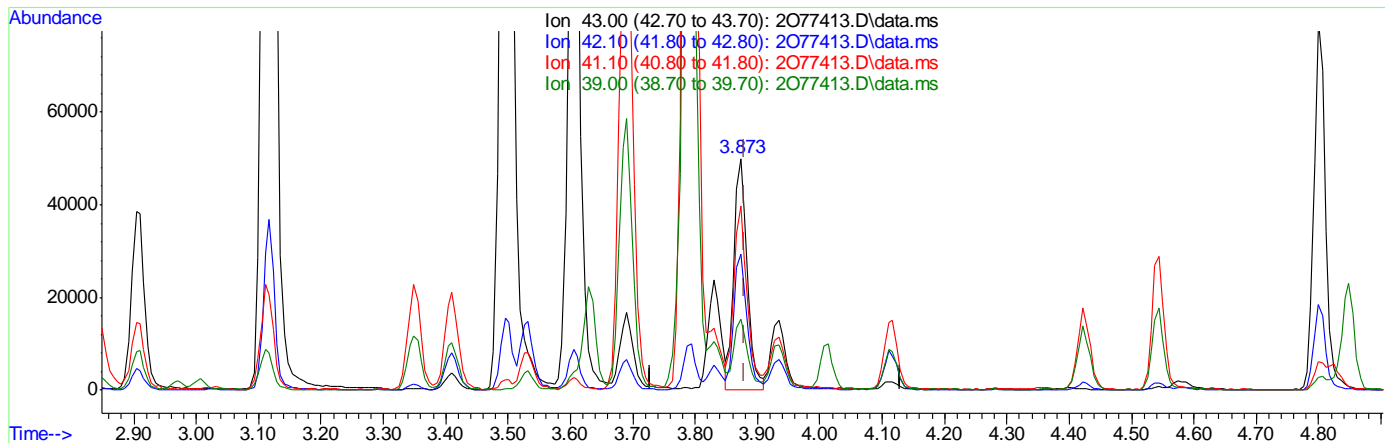
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.28
41.10	77.50	77.47
39.00	31.30	28.78

7.3.14  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 596.56ug/L m  
 response 74033

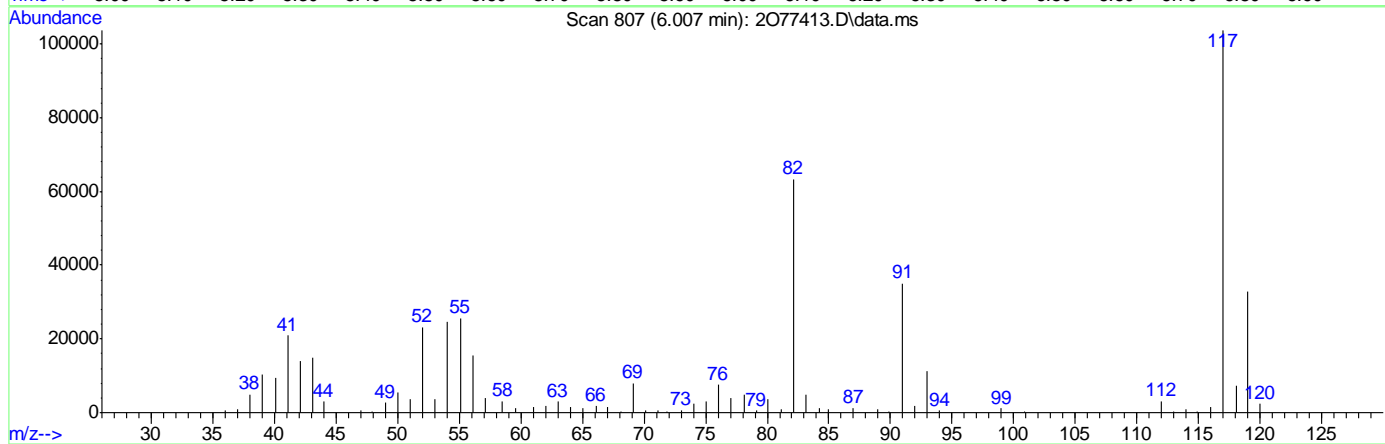
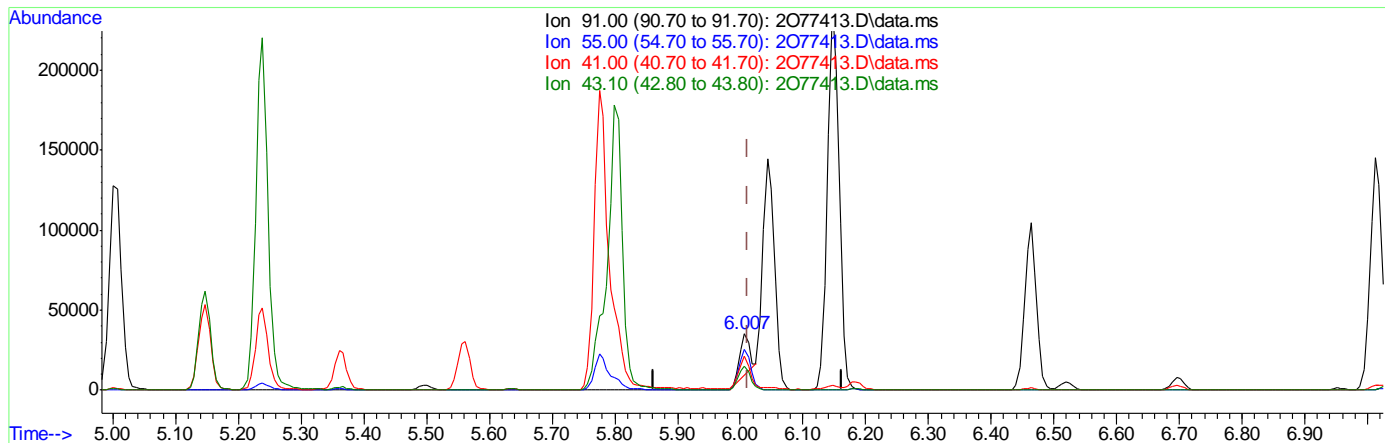
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.52
41.10	77.50	79.68
39.00	31.30	30.61

7.3.1.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 13.09ug/L  
 response 28762

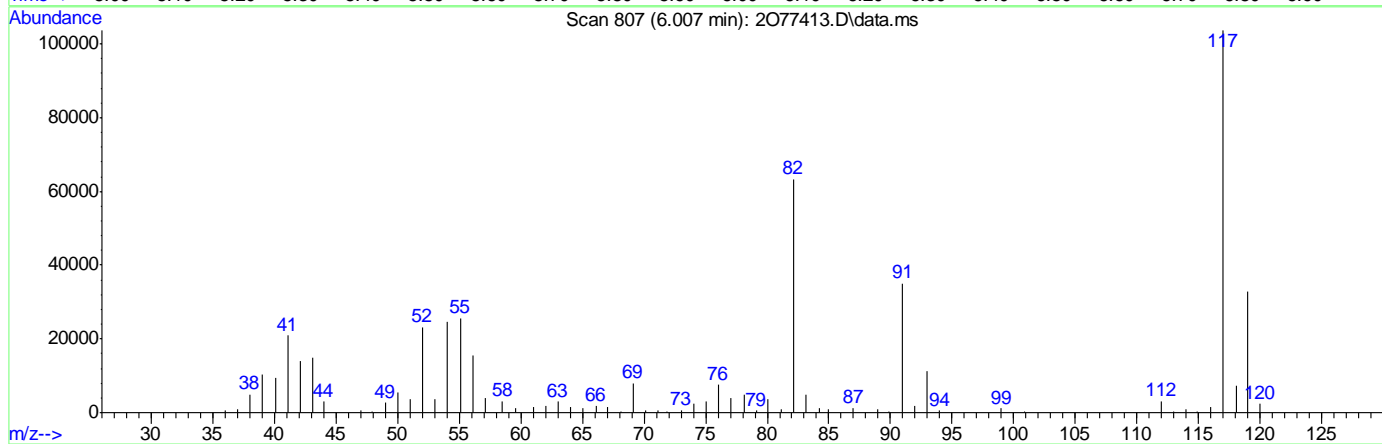
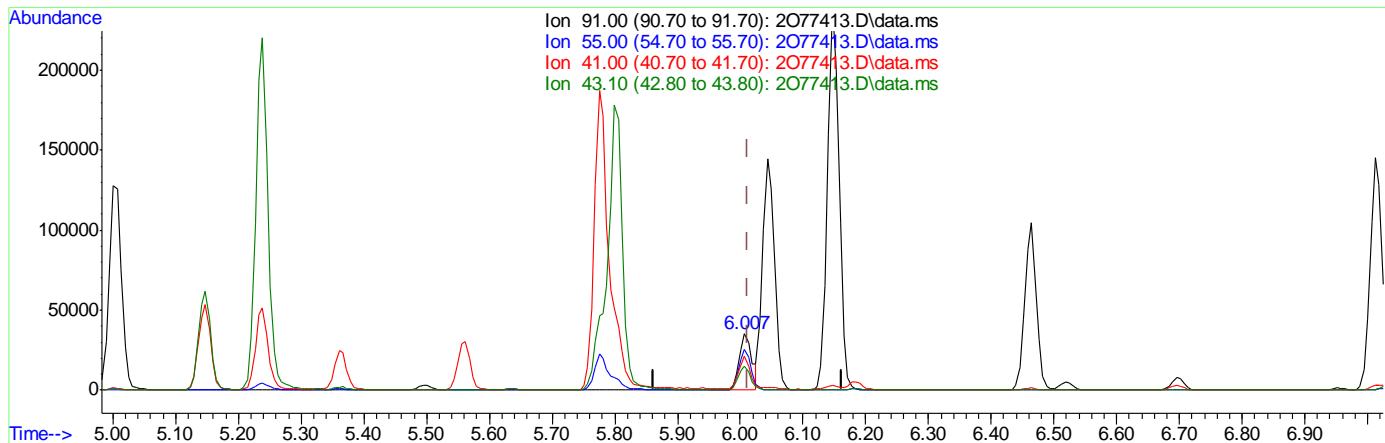
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.39
41.00	55.00	56.93
43.10	42.40	41.31

7.3.1.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane

6.007min (-0.006) 22.65ug/L m

response 49783

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.10
41.00	55.00	59.87
43.10	42.40	42.47

7.3.17  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1010121	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	711222	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	434708	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	288440	50.31	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.62%	
49) 1,2-Dichloroethane-d4	7.561	65	272870	52.34	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	104.68%	
63) Toluene-d8	9.445	98	1037109	51.14	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.28%	
86) 4-Bromofluorobenzene	12.219	174	364342	49.78	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.56%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	63099	14.22	ug/L		96
3) Chloromethane	2.635	50	76923	16.82	ug/L		95
4) Vinyl Chloride	2.763	62	75302	16.70	ug/L		100
5) 1,3-Butadiene	2.794	39	76421	19.66	ug/L		95
6) Bromomethane	3.227	94	42381	27.56	ug/L		98
7) Chloroethane	3.391	64	41251	21.82	ug/L		97
8) Trichlorofluoromethane	3.599	101	114796	19.24	ug/L		99
9) Ethyl Ether	4.013	59	79363	25.41	ug/L		97
10) 1,2-Dichlorotrifluoro...	4.239	67	112083	26.98	ug/L		98
11) 1,1-Dichloroethene	4.269	61	135068	24.64	ug/L		98
12) Ethanol	4.190	45	64989	416.67	ug/L		99
13) Freon 113	4.318	101	97048	28.50	ug/L		97
14) Carbon Disulfide	4.330	76	265035	23.54	ug/L		99
15) Iodomethane	4.458	142	92166	34.23	ug/L		93
16) Acrolein	4.678	56	152841	107.07	ug/L		97
17) Allyl chloride	4.848	41	123012	23.27	ug/L		98
18) Methylene Chloride	4.976	49	139233	24.97	ug/L		97
19) Acetone	5.019	43	303460	111.64	ug/L		97
20) Methyl acetate	5.165	43	625387	109.77	ug/L		98
21) trans-1,2-Dichloroethene	5.178	61	135321	23.53	ug/L		97
22) Hexane	5.275	56	74625	26.47	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	283544	23.34	ug/L		85
24) Tert butyl alcohol	5.379	59	360233	216.70	ug/L		96
25) Acetonitrile	5.555	41	261193	224.28	ug/L		98
26) Di-isopropyl ether	5.720	45	288121	22.67	ug/L		97
27) Chloroprene	5.866	53	110676	20.41	ug/L		99
28) 1,1-Dichloroethane	5.879	63	171905	22.77	ug/L		98
29) Acrylonitrile	5.921	53	329833	119.10	ug/L		99
30) ETBE	6.135	59	288762	23.60	ug/L		99
31) Vinyl acetate	6.135	43	1009244	125.76	ug/L		99
32) cis-1,2-Dichloroethene	6.500	96	102751	22.65	ug/L		94
33) 2,2-Dichloropropane	6.616	77	140169	24.36	ug/L		98
34) Bromochloromethane	6.726	128	55612	23.75	ug/L		96
35) Cyclohexane	6.756	56	151808	25.87	ug/L		98
36) Chloroform	6.787	83	184670	23.45	ug/L		100
37) Ethyl acetate	6.884	43	800262	121.72	ug/L		99
38) Tetrahydrofuran	6.982	42	68200	21.72	ug/L		95
40) Carbon Tetrachloride	6.970	117	137913	24.94	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	155365	23.85	ug/L		100
42) 2-Butanone	7.098	43	457465	111.92	ug/L		98
43) 1,1-Dichloropropene	7.171	75	127014	24.70	ug/L		98
44) tert-Butyl Formate	7.250	59	457334	144.77	ug/L		91



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	313008	225.52	ug/L	95
46) Methacrylonitrile	7.433	41	918845	225.80	ug/L	99
47) Benzene	7.427	78	371697	23.57	ug/L	96
48) TAME	7.525	73	269841	22.78	ug/L	97
50) Isobutyl alcohol	7.586	42	161308	438.84	ug/L	98
51) 1,2-Dichloroethane	7.634	62	124618	22.75	ug/L	98
52) Tert Amyl Alcohol	7.695	59	292578	214.43	ug/L	95
53) Trichloroethene	8.043	95	99502	22.56	ug/L	97
54) Methylcyclohexane	8.049	83	132965	25.10	ug/L	97
55) Dibromomethane	8.482	93	67175	23.85	ug/L	97
56) 1,2-Dichloropropane	8.567	63	98415	24.22	ug/L	95
57) Bromodichloromethane	8.622	83	125082	22.33	ug/L	98
58) Methyl methacrylate	8.744	41	97271	22.15	ug/L	98
59) 1,4-Dioxane	8.811	88	46680	368.48	ug/L	93
60) 2-Chloroethyl vinyl ether	9.158	63	279282	112.72	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	146179	23.15	ug/L	99
64) Toluene	9.500	91	388207	23.92	ug/L	98
65) 2-Nitropropane	9.695	41	198254	130.77	ug/L	93
66) 4-Methyl-2-pentanone	9.823	43	829616	117.95	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	121483	22.34	ug/L	92
68) Tetrachloroethene	9.908	166	121394	24.72	ug/L	98
69) Ethyl methacrylate	10.012	69	133741	25.82	ug/L	98
70) 1,1,2-Trichloroethane	10.061	83	80723	24.39	ug/L	97
71) Dibromochloromethane	10.256	129	114386	24.98	ug/L	98
72) 1,3-Dichloropropane	10.335	76	151148	26.21	ug/L	96
73) 1,2-Dibromoethane	10.518	107	105128	24.62	ug/L	96
74) 3,3-dimethyl-1-butanol	10.609	57	1576760	1256.91	ug/L	99
75) 2-hexanone	10.652	43	663893	117.86	ug/L	99
76) 1-Chlorohexane	10.963	91	108616	23.66	ug/L	96
77) Ethylbenzene	11.024	91	417250	23.81	ug/L	99
78) Chlorobenzene	11.024	112	256911	23.96	ug/L	98
79) 1,1,1,2-Tetrachloroethane	11.073	131	97541	23.50	ug/L	97
80) m,p-Xylene	11.164	91	635142	48.28	ug/L	99
81) o-Xylene	11.603	91	316650	22.38	ug/L	98
82) Styrene	11.658	104	234833	23.76	ug/L	99
83) Bromoform	11.713	173	92905	24.08	ug/L	98
84) Isopropylbenzene	11.908	105	388071	23.32	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.261	53	40959	26.27	ug/L	87
88) n-Propylbenzene	12.329	91	447112	23.36	ug/L	99
89) Bromobenzene	12.347	156	121967	24.86	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	160337	23.97	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	319026	23.26	ug/L	99
92) 2-Chlorotoluene	12.518	91	312010	23.90	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.572	53	36272	21.03	ug/L	86
94) 1,2,3-Trimethylpropane	12.542	110	53332	25.79	ug/L	97
95) Cyclohexanone	12.603	55	67687	146.44	ug/L	95
96) 4-Chlorotoluene	12.682	91	273762	23.30	ug/L	98
97) tert-Butylbenzene	12.853	91	169189	23.21	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	314073	23.25	ug/L	97
99) Pentachloroethane	12.902	167	75522	25.18	ug/L	99
100) sec-Butylbenzene	13.036	105	357180	23.25	ug/L	99
101) 4-Isopropyltoluene	13.170	119	312540	22.88	ug/L	98
102) 1,3-Dichlorobenzene	13.304	146	198228	23.45	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	341806	24.15	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	214469	23.60	ug/L	97
105) n-Butylbenzene	13.615	92	168781	25.13	ug/L	89
106) Benzyl Chloride	13.627	126	52062	22.23	ug/L #	71
107) 1,2-Dichlorobenzene	13.822	146	200339	24.18	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

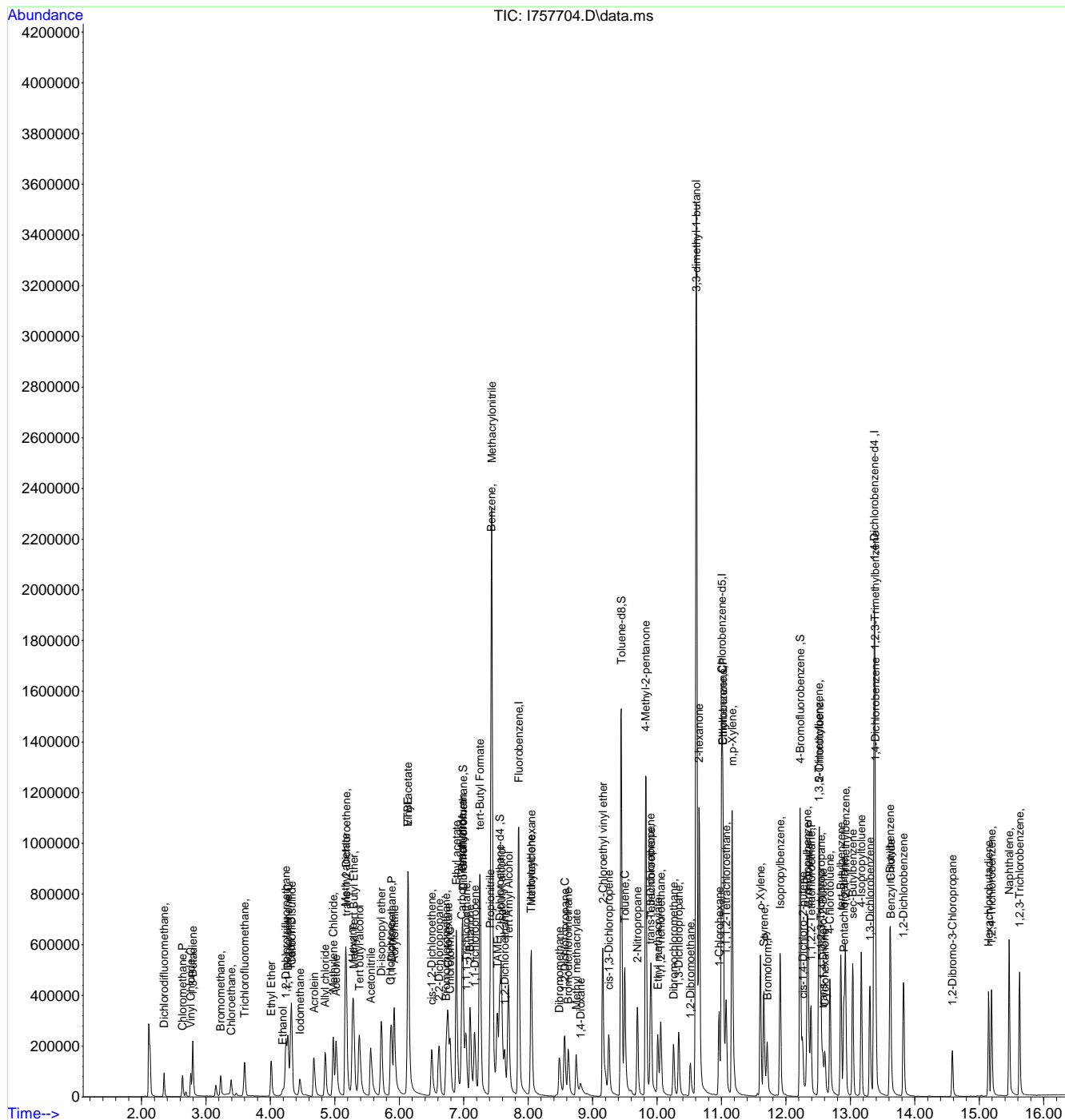
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	39549	23.39	ug/L	94
109) Hexachlorobutadiene	15.145	225	71404	25.44	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	141776	23.16	ug/L	97
111) Naphthalene	15.462	128	429180	22.42	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	143003	23.42	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
Data File : I757704.D  
Acq On : 6 Jul 2023 9:43 am  
Operator : jeniferw  
Sample : BS  
Misc : MS54358,VI2963,,,,,  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration



7.3.2  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	314648	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	245177	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.774	152	117244	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	91140	53.26	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	106.52%		
50) 1,2-Dichloroethane-d4	3.848	65	104161	51.28	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.56%		
63) Toluene-d8	4.970	98	300629	45.99	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	91.98%		
86) 4-Bromofluorobenzene	6.915	174	81133	47.36	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	94.72%		
Target Compounds							
2) Dichlorodifluoromethane	1.221	85	43971	37.86	ug/L	99	
3) Chloromethane	1.367	50	37346	31.53	ug/L	100	
4) 1,3-butadiene	1.440	39	37037	27.80	ug/L	95	
5) Vinyl Chloride	1.428	62	41164	33.69	ug/L	94	
6) Bromomethane	1.660	94	18415	19.46	ug/L	96	
7) Chloroethane	1.745	64	35254	Below	Cal	98	
8) Trichlorofluoromethane	1.849	101	82330	35.72	ug/L	100	
9) Ethyl Ether	2.050	59	28423	26.18	ug/L	97	
10) Ethanol	2.148	45	10002	408.48	ug/L	94	
11) 1,2-Dichlorotrifluoro...	2.172	67	53165	34.55	ug/L	92	
12) 1,1-Dichloroethene	2.178	61	55359	28.64	ug/L	97	
13) Freon 113	2.202	101	47285	34.81	ug/L	98	
14) Carbon Disulfide	2.196	76	119459	33.22	ug/L	100	
15) Iodomethane	2.263	142	26170	22.07	ug/L	98	
16) Acrolein	2.379	56	45254	129.10	ug/L	97	
17) Allyl chloride	2.465	41	41077	29.16	ug/L	98	
18) Methylene Chloride	2.526	49	49604	28.46	ug/L	93	
19) Acetone	2.550	43	83678	115.27	ug/L	99	
20) Methyl acetate	2.623	43	185019	107.94	ug/L	99	
21) trans-1,2-Dichloroethene	2.623	61	54763	28.04	ug/L	97	
22) Hexane	2.678	56	30387	30.59	ug/L	# 93	
23) Methyl Tert Butyl Ether	2.684	73	98383	25.04	ug/L	87	
24) Tert Butyl Alcohol	2.733	59	70149	288.42	ug/L	80	
25) Acetonitrile	2.824	41	73641	260.29	ug/L	97	
26) Di-isopropyl ether	2.903	45	93594	24.21	ug/L	95	
27) Chloroprene	2.964	53	42015	21.89	ug/L	97	
28) 1,1-Dichloroethane	2.977	63	71755	28.27	ug/L	98	
29) Acrylonitrile	3.001	52	86067	122.79	ug/L	98	
30) ETBE	3.111	59	95642	26.02	ug/L	98	
31) Vinyl acetate	3.117	43	373681	135.64	ug/L	100	
32) cis-1,2-Dichloroethene	3.288	96	49536	29.78	ug/L	95	
33) 2,2-Dichloropropane	3.349	77	48742	28.73	ug/L	98	
34) Bromochloromethane	3.397	128	22129	27.34	ug/L	96	
35) Cyclohexane	3.409	56	56592	29.22	ug/L	97	
36) Chloroform	3.434	83	80487	28.07	ug/L	99	
37) Ethyl acetate	3.495	43	240268	116.51	ug/L	98	
38) Tetrahydrofuran	3.525	42	16578	22.44	ug/L	91	
40) Carbon Tetrachloride	3.525	117	57658m	31.20	ug/L		
41) 1,1,1-Trichloroethane	3.562	97	67095	29.66	ug/L	97	
42) 2-Butanone	3.605	43	132928	118.44	ug/L	99	
43) 1,1-Dichloropropene	3.629	75	57613	30.37	ug/L	98	
44) tert-Butyl formate	3.684	59	2781	6.00	ug/L	97	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	3.775	54	88976	255.95	ug/L	99
46) Methacrylonitrile	3.787	41	331491	274.22	ug/L	99
47) Benzene	3.775	78	193301	33.76	ug/L	92
48) TAME	3.830	73	83578	23.97	ug/L	93
49) Isobutyl alcohol	3.873	43	45942m	447.34	ug/L	
51) 1,2-Dichloroethane	3.885	62	60344	25.61	ug/L	97
52) Tert Amyl Alcohol	3.934	59	39871	216.93	ug/L	92
53) Trichloroethene	4.111	95	49730	29.94	ug/L	97
54) Methylcyclohexane	4.117	83	56250	27.58	ug/L	98
55) Dibromomethane	4.361	93	29783	26.32	ug/L	97
56) 1,2-Dichloropropane	4.421	63	38404	28.04	ug/L	95
57) Bromodichloromethane	4.458	83	49915	26.02	ug/L	99
58) Methyl methacrylate	4.543	41	29799	20.51	ug/L	96
59) 1,4-Dioxane	4.580	88	9047	339.22	ug/L	96
61) cis-1,3-Dichloropropene	4.848	75	50450	24.33	ug/L	100
64) Toluene	5.007	91	178200	27.21	ug/L	98
65) 2-Nitropropane	5.147	41	59518	128.60	ug/L	95
66) 4-Methyl-2-pentanone	5.238	43	264573	129.97	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	56000	25.33	ug/L	94
68) Tetrachloroethene	5.263	166	47198	27.73	ug/L	94
69) Ethyl methacrylate	5.366	69	43287	22.90	ug/L	87
70) 1,1,2-Trichloroethane	5.373	83	37137	26.99	ug/L	98
71) Dibromochloromethane	5.501	129	42579	27.51	ug/L	100
72) 1,3-Dichloropropane	5.561	76	68267	25.99	ug/L	99
73) 1,2-Dibromoethane	5.665	107	42620	23.76	ug/L	99
74) 3,3-dimethyl-1-butanol	5.781	57	410329	1447.12	ug/L	98
75) 2-hexanone	5.805	43	280362	136.46	ug/L	94
76) 1-Chlorohexane	6.013	91	46343m	23.10	ug/L	
77) Ethylbenzene	6.043	91	196886	27.51	ug/L	98
78) Chlorobenzene	6.031	112	116275	25.54	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.074	131	37906	26.01	ug/L	97
80) m,p-Xylene	6.153	91	634605	112.23	ug/L	98
81) o-Xylene	6.464	91	650471	114.50	ug/L	98
82) Styrene	6.500	104	104088	24.03	ug/L	99
83) Bromoform	6.525	173	22705	24.16	ug/L	98
84) Isopropylbenzene	6.702	105	146458	22.39	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.958	53	9228	20.15	ug/L	95
88) n-Propylbenzene	7.019	91	188021	26.11	ug/L	99
89) Bromobenzene	6.994	156	40837	25.28	ug/L	98
90) 1,1,2,2-Tetrachloroethane	7.061	83	60831	26.04	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	192745	37.45	ug/L	99
92) 2-Chlorotoluene	7.140	91	134148	26.60	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.201	53	7411	17.57	ug/L	89
94) 1,2,3-Trichloropropane	7.171	110	19843	26.51	ug/L	94
95) Cyclohexanone	7.208	55	8798	110.60	ug/L	88
96) 4-Chlorotoluene	7.268	91	117505	24.49	ug/L	99
97) tert-Butylbenzene	7.421	91	69211	24.77	ug/L	98
99) 1,2,4-Trimethylbenzene	7.470	105	194548	37.74	ug/L	100
100) Pentachloroethane	7.433	167	20236	27.54	ug/L	93
101) sec-Butylbenzene	7.555	105	143556	24.33	ug/L	98
102) 4-Isopropyltoluene	7.665	119	123204	24.45	ug/L	100
103) 1,3-Dichlorobenzene	7.720	146	77912	24.28	ug/L	98
104) 1,2,3-Trimethylbenzene	7.805	105	230257	42.04	ug/L	99
105) 1,4-Dichlorobenzene	7.787	146	82602	25.78	ug/L	97
106) n-Butylbenzene	7.982	92	71433	27.67	ug/L #	77
107) Benzyl Chloride	7.970	126	12822	24.17	ug/L #	86
108) 1,2-Dichlorobenzene	8.098	146	73076	23.79	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.671	75	11300	24.39	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) Hexachlorobutadiene	9.128	225	16533	28.69	ug/L	95
111) 1,2,4-Trichlorobenzene	9.146	180	42002	23.94	ug/L	95
112) Naphthalene	9.366	128	147038	23.01	ug/L	99
113) 1,2,3-Trichlorobenzene	9.494	180	39988	22.94	ug/L	96

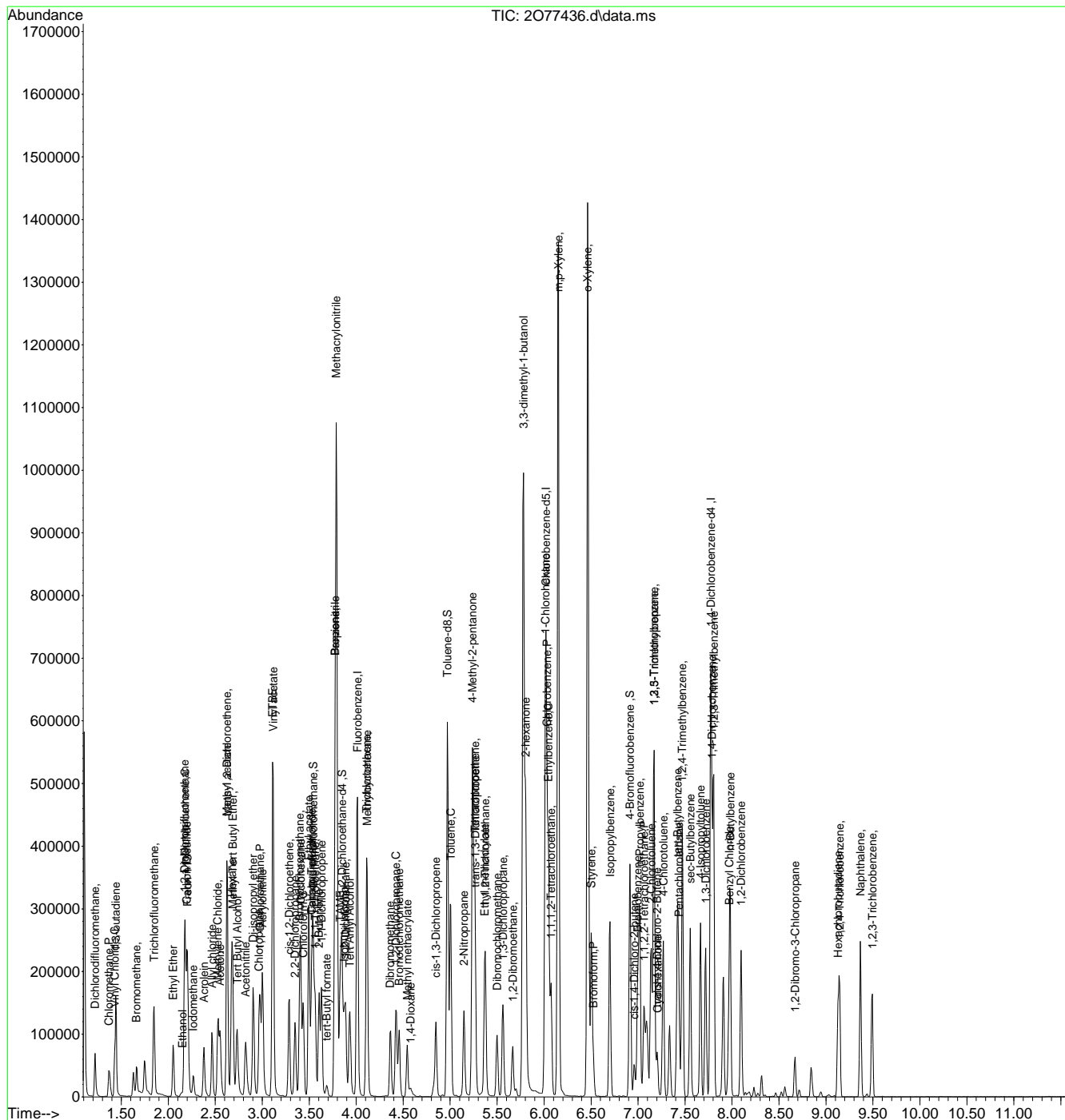
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.4.1  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7.4.1  
7

# Manual Integration Approval Summary

**Sample Number:** FC7382-1MS      **Method:** SW846 8260D  
**Lab FileID:** 2077436.D      **Analyst approved:** 07/05/23 21:25 Celine Celis  
**Injection Time:** 07/05/23 18:47      **Supervisor approved:** 07/07/23 09:33 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

7.4.1.1

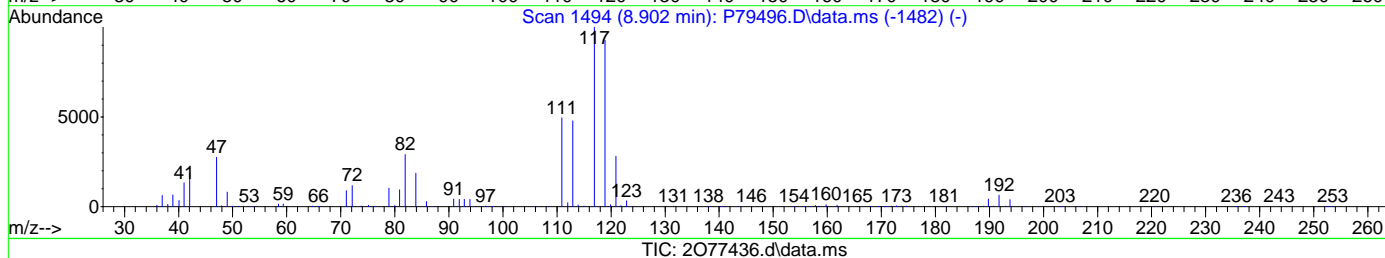
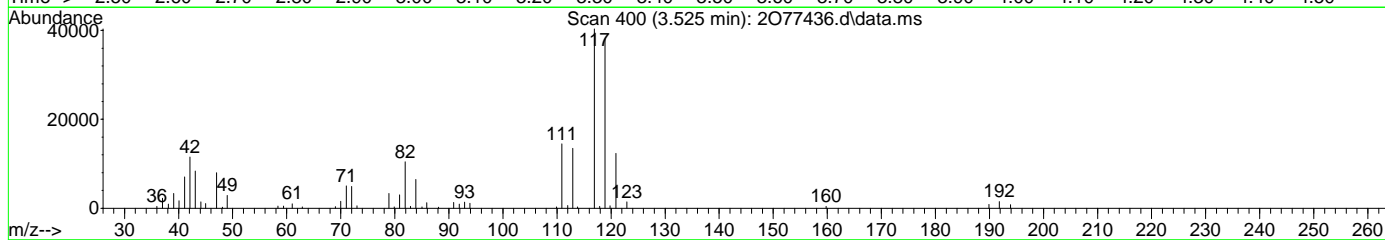
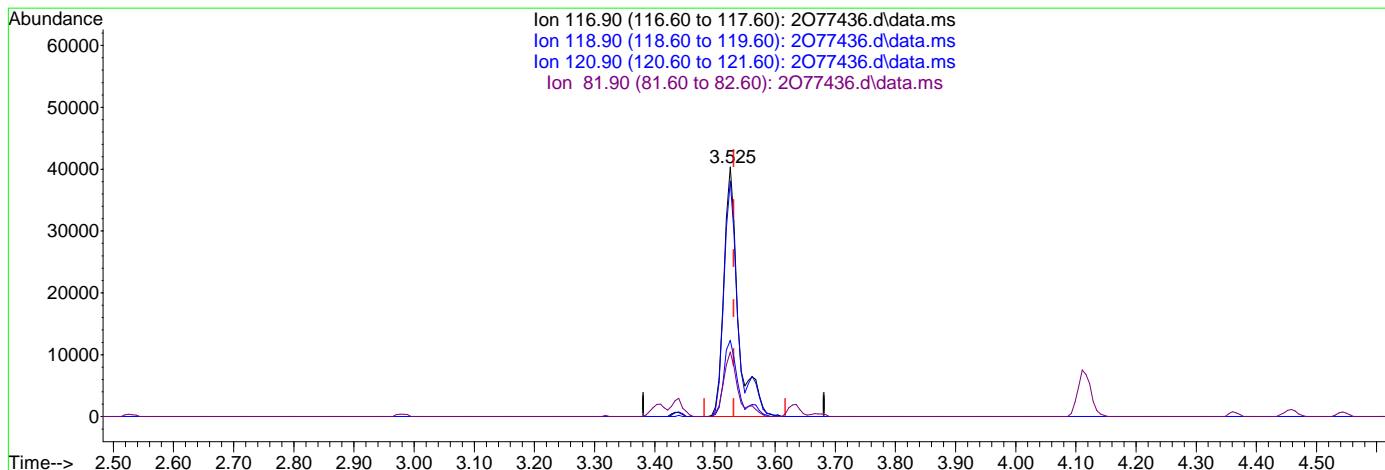
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 36.06ug/L

response 66637

Ion Exp% Act%

116.90 100 100

118.90 99.30 94.33

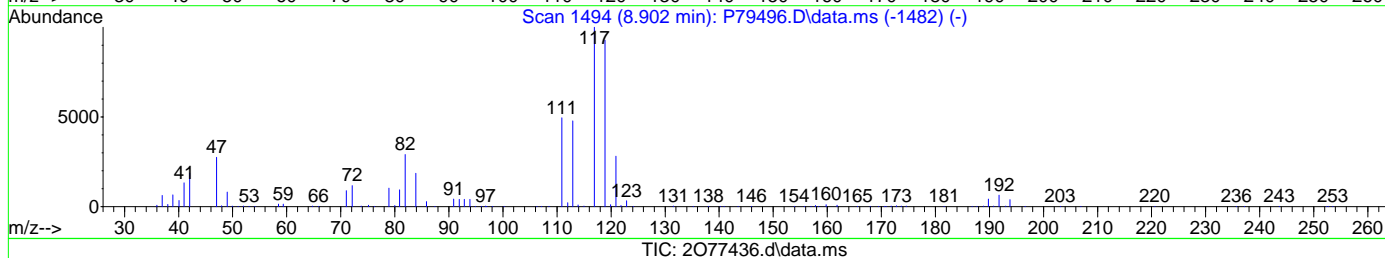
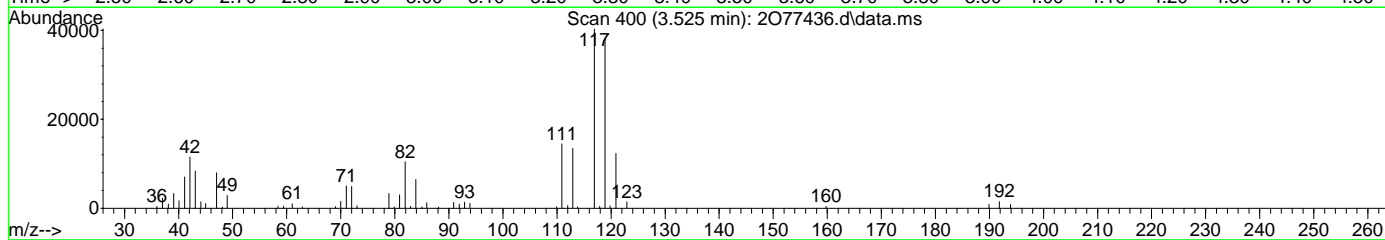
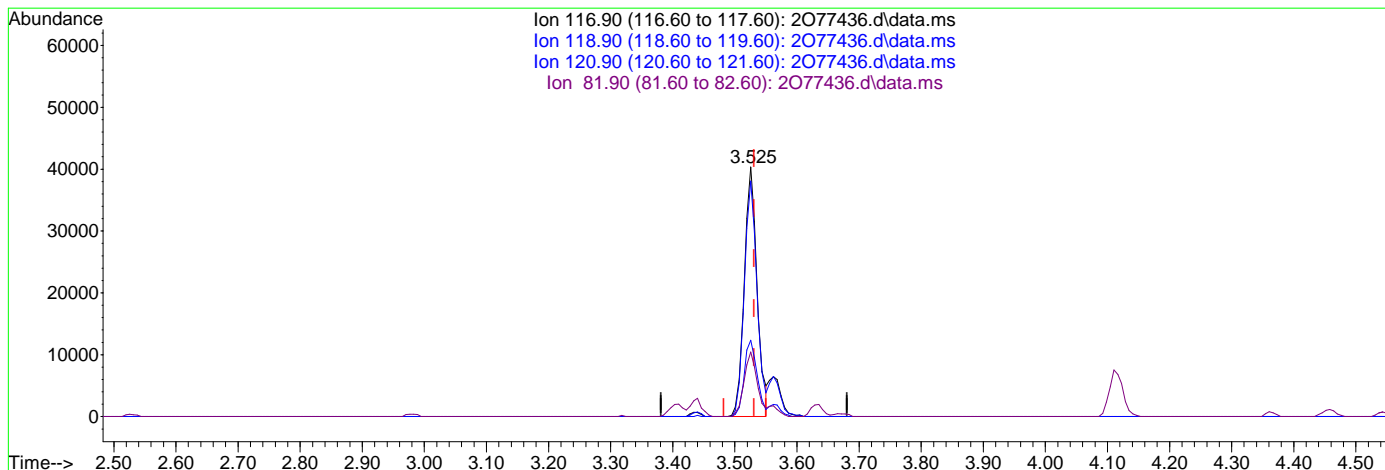
120.90 31.50 30.57

81.90 24.40 25.92

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 31.20ug/L m

response 57658

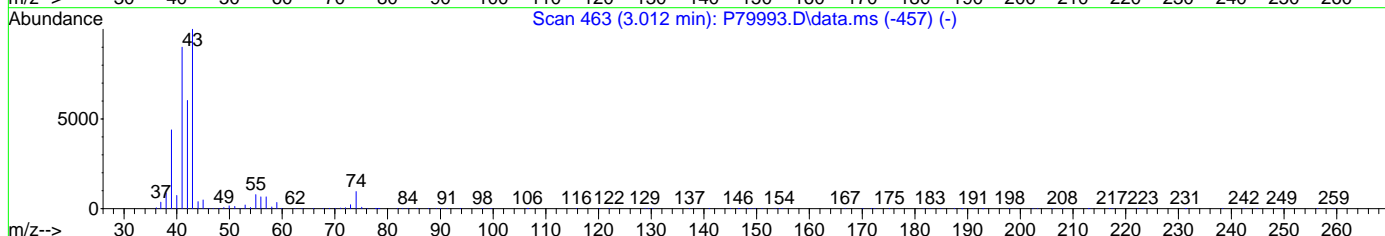
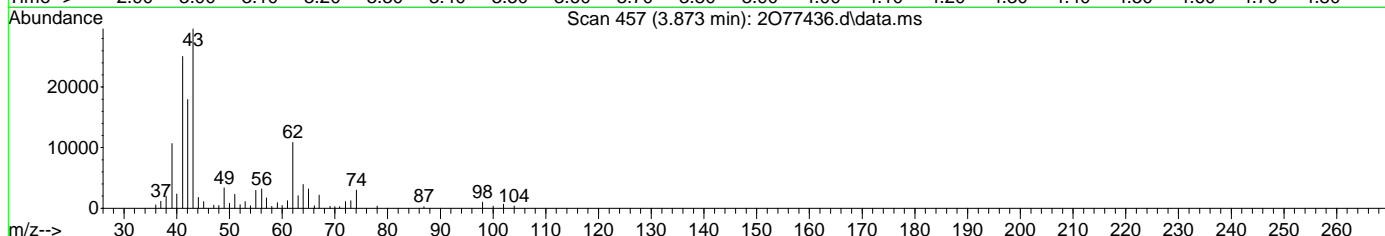
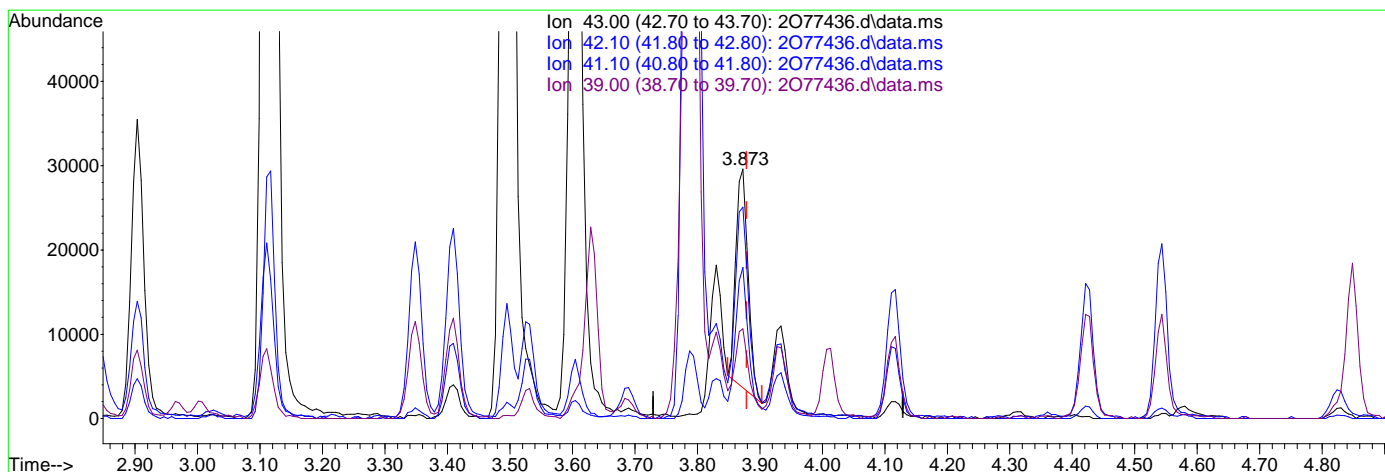
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	94.33
120.90	31.50	30.57
81.90	24.40	25.92

7.4.1.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



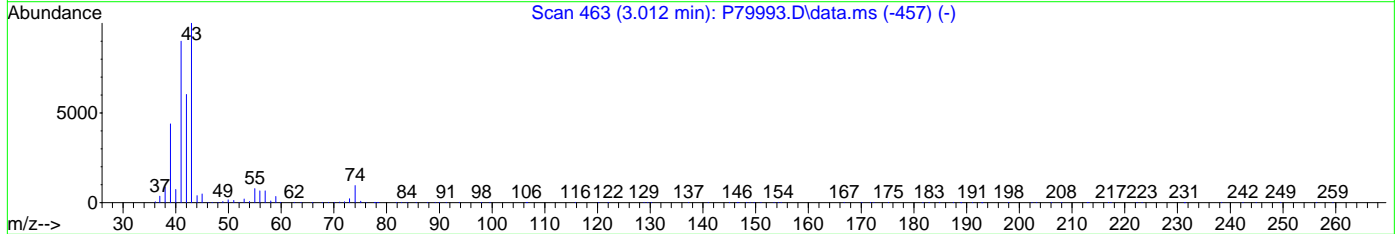
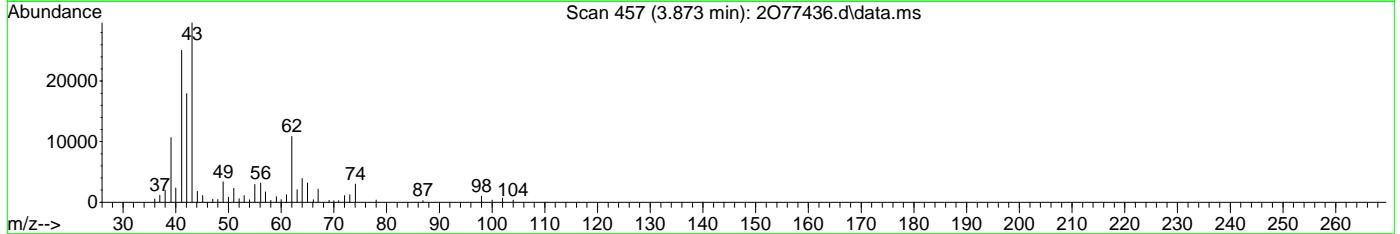
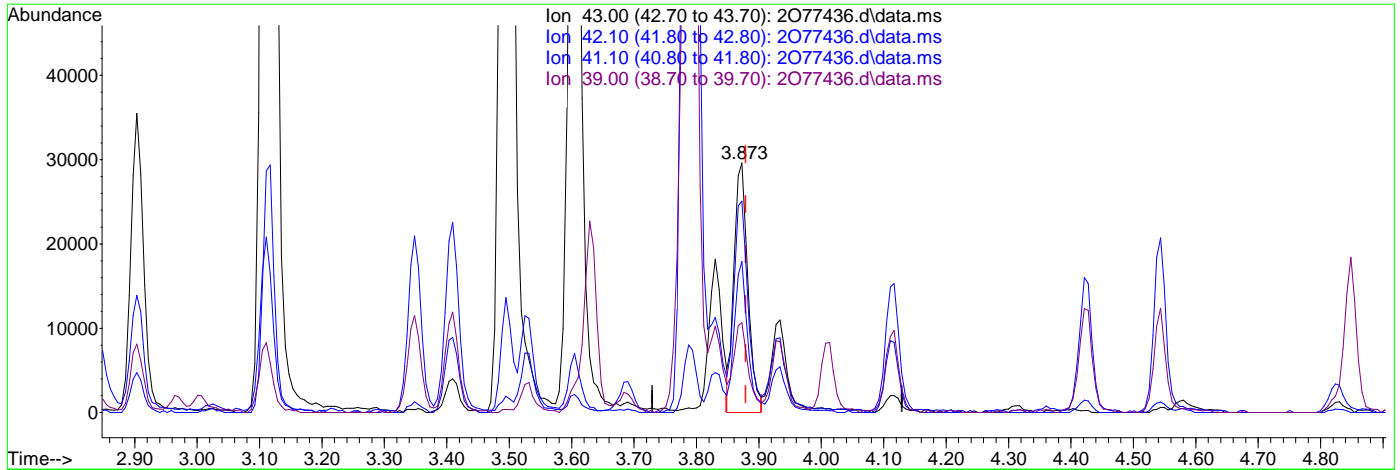
(49) Isobutyl alcohol  
 3.873min (-0.006) 339.18ug/L  
 response 34537

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.03
41.10	77.50	83.44
39.00	31.30	34.27

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077436.d\data.ms

(49) Isobutyl alcohol

3.873min (-0.006) 447.34ug/L m

response 45942

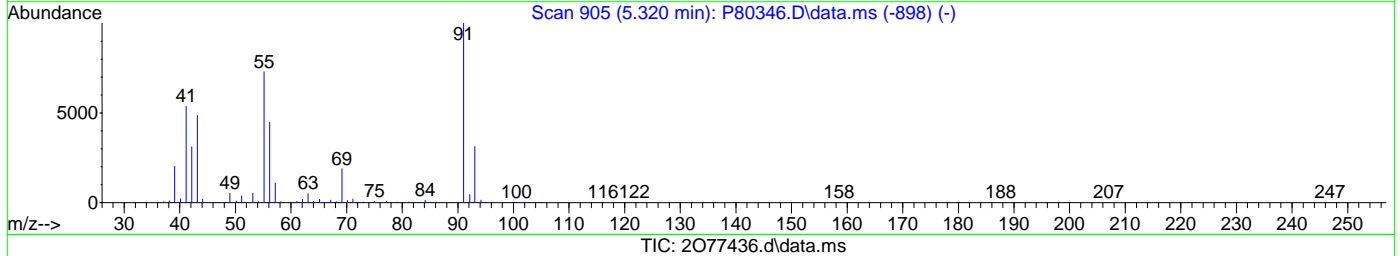
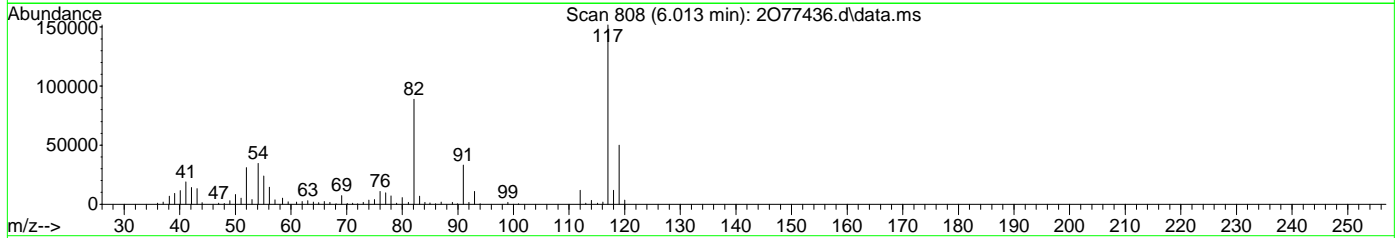
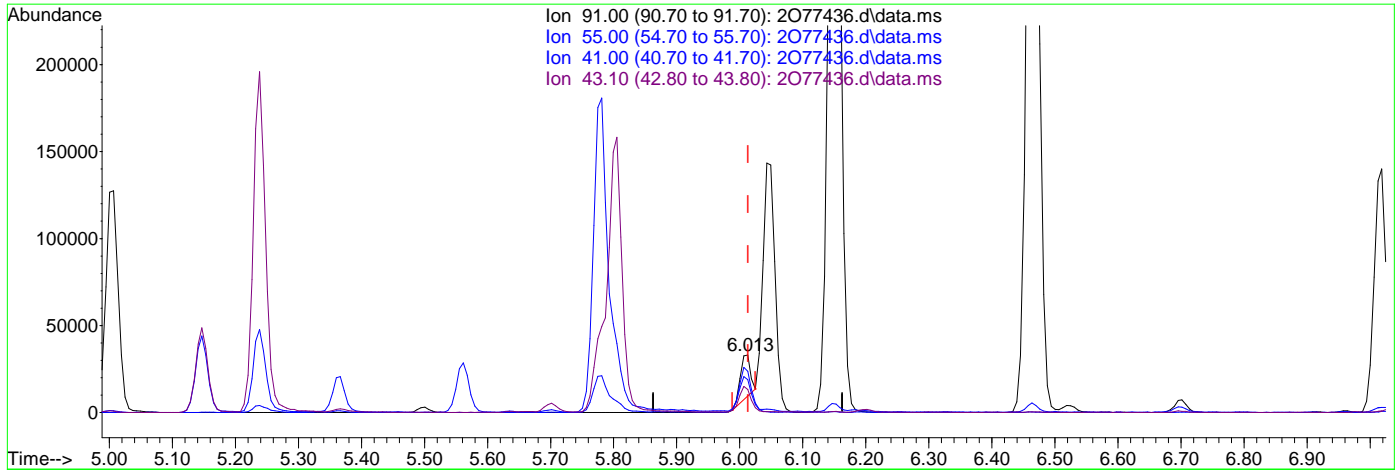
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.53
41.10	77.50	84.66
39.00	31.30	35.96

7.4.1.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane

6.013min (-0.000) 14.80ug/L

response 29685

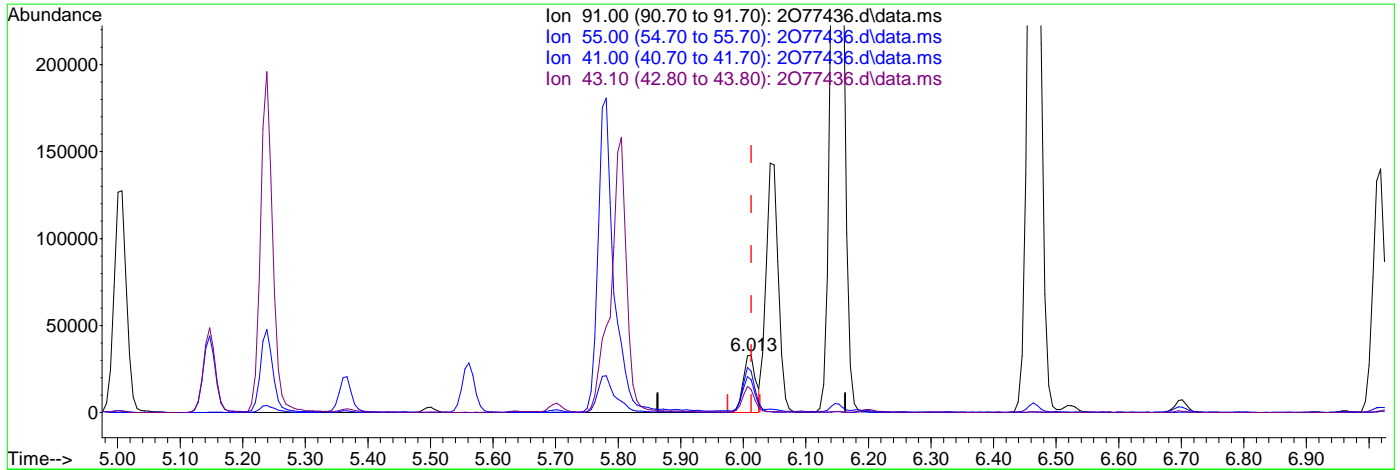
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	70.44
41.00	55.00	52.85
43.10	42.40	37.60

7.4.1.6  
7

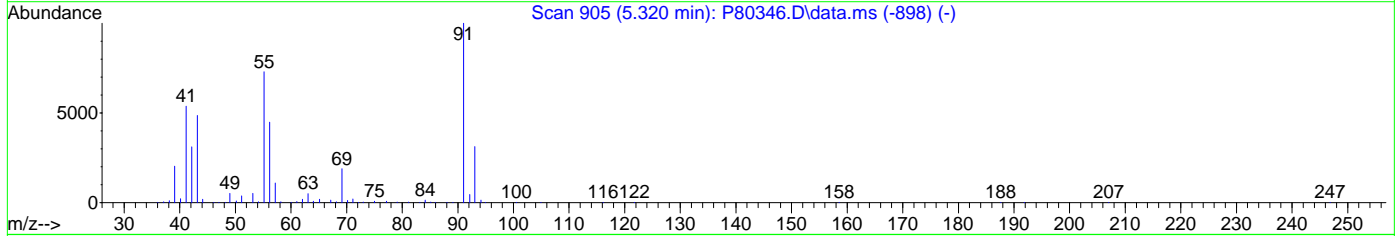
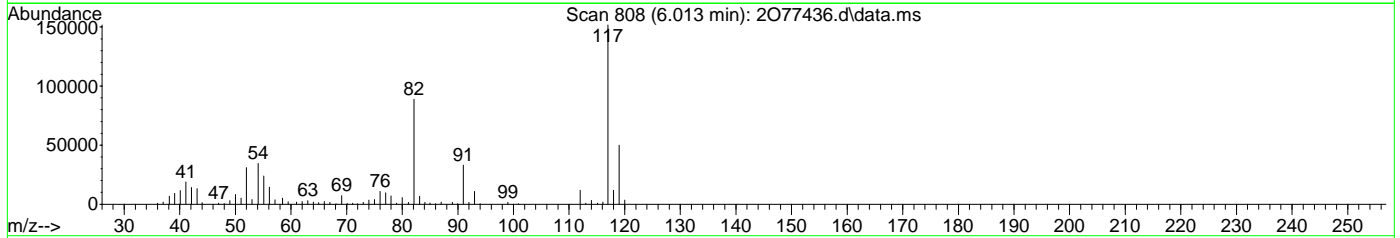
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



Ion 91.00 (90.70 to 91.70): 2077436.d\data.ms  
 Ion 55.00 (54.70 to 55.70): 2077436.d\data.ms  
 Ion 41.00 (40.70 to 41.70): 2077436.d\data.ms  
 Ion 43.10 (42.80 to 43.80): 2077436.d\data.ms



(76) 1-Chlorohexane  
 6.013min (-0.000) 23.10ug/L m  
 response 46343

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.03
41.00	55.00	57.36
43.10	42.40	39.96

7.4.1.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	364378	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	244262	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.775	152	123741	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	91074	45.96	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	91.92%	
50) 1,2-Dichloroethane-d4	3.849	65	125364	53.30	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	106.60%	
63) Toluene-d8	4.970	98	311944	47.90	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	95.80%	
86) 4-Bromofluorobenzene	6.915	174	84168	46.55	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	93.10%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	49147	36.54	ug/L		98
3) Chloromethane	1.373	50	41903	30.55	ug/L		100
4) 1,3-butadiene	1.441	39	40827	26.35	ug/L		99
5) Vinyl Chloride	1.428	62	46735	33.03	ug/L		98
6) Bromomethane	1.666	94	23914	21.79	ug/L		95
7) Chloroethane	1.751	64	35137	Below	Cal		99
8) Trichlorofluoromethane	1.849	101	91581	34.31	ug/L		98
9) Ethyl Ether	2.050	59	28388	22.58	ug/L		97
10) Ethanol	2.148	45	12973	457.50	ug/L		95
11) 1,2-Dichlorotrifluoro...	2.178	67	52043	29.20	ug/L		97
12) 1,1-Dichloroethene	2.178	61	55076	24.61	ug/L		97
13) Freon 113	2.209	101	45920	29.19	ug/L		98
14) Carbon Disulfide	2.196	76	117393	28.19	ug/L		99
15) Iodomethane	2.270	142	35438	25.56	ug/L		98
16) Acrolein	2.379	56	49099	121.07	ug/L		99
17) Allyl chloride	2.465	41	48028	29.44	ug/L		96
18) Methylene Chloride	2.532	49	48352	23.89	ug/L		96
19) Acetone	2.550	43	90704	107.89	ug/L		98
20) Methyl acetate	2.623	43	186847	94.13	ug/L		99
21) trans-1,2-Dichloroethene	2.623	61	54802	24.23	ug/L		97
22) Hexane	2.678	56	30299	26.34	ug/L		95
23) Methyl Tert Butyl Ether	2.684	73	99450	21.86	ug/L		84
24) Tert Butyl Alcohol	2.733	59	79063	280.70	ug/L #		63
25) Acetonitrile	2.824	41	80481	245.64	ug/L		98
26) Di-isopropyl ether	2.904	45	95278	21.28	ug/L		95
27) Chloroprene	2.971	53	47406	21.32	ug/L		99
28) 1,1-Dichloroethane	2.977	63	71889	24.46	ug/L		99
29) Acrylonitrile	3.001	52	92380	113.81	ug/L		96
30) ETBE	3.111	59	96403	22.64	ug/L		98
31) Vinyl acetate	3.117	43	407914	127.86	ug/L		100
32) cis-1,2-Dichloroethene	3.288	96	49240	25.56	ug/L		98
33) 2,2-Dichloropropane	3.349	77	49528	25.21	ug/L		99
34) Bromochloromethane	3.397	128	21600	23.04	ug/L		93
35) Cyclohexane	3.410	56	56187	25.05	ug/L		93
36) Chloroform	3.434	83	78639	23.68	ug/L		98
37) Ethyl acetate	3.495	43	256701	107.49	ug/L		99
38) Tetrahydrofuran	3.532	42	17778	20.78	ug/L		95
40) Carbon Tetrachloride	3.525	117	55700m	26.03	ug/L		
41) 1,1,1-Trichloroethane	3.562	97	65294	24.92	ug/L		97
42) 2-Butanone	3.605	43	138608	106.65	ug/L		100
43) 1,1-Dichloropropene	3.629	75	55375	25.21	ug/L		98
44) tert-Butyl formate	3.690	59	2610	4.87	ug/L #		81

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	3.775	54	109361	271.65	ug/L	94
46) Methacrylonitrile	3.788	41	411294	293.80	ug/L	99
47) Benzene	3.775	78	215791	32.55	ug/L	92
48) TAME	3.830	73	97176	24.07	ug/L	93
49) Isobutyl alcohol	3.873	43	62930m	525.86	ug/L	
51) 1,2-Dichloroethane	3.885	62	66878	24.51	ug/L	98
52) Tert Amyl Alcohol	3.934	59	49722	232.61	ug/L	94
53) Trichloroethene	4.111	95	55716	28.97	ug/L	93
54) Methylcyclohexane	4.117	83	63702	26.97	ug/L	98
55) Dibromomethane	4.367	93	30217	23.06	ug/L	97
56) 1,2-Dichloropropane	4.422	63	41556	26.20	ug/L	97
57) Bromodichloromethane	4.458	83	53936	24.28	ug/L	97
58) Methyl methacrylate	4.544	41	38055	22.58	ug/L	96
59) 1,4-Dioxane	4.580	88	12855	413.95	ug/L	97
61) cis-1,3-Dichloropropene	4.848	75	53458	22.26	ug/L	96
64) Toluene	5.007	91	174490	26.74	ug/L	99
65) 2-Nitropropane	5.147	41	54355	118.75	ug/L	95
66) 4-Methyl-2-pentanone	5.239	43	254695	125.59	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	51191	23.24	ug/L	96
68) Tetrachloroethene	5.263	166	41700	24.59	ug/L	97
69) Ethyl methacrylate	5.367	69	46206	24.50	ug/L	88
70) 1,1,2-Trichloroethane	5.373	83	32663	23.82	ug/L	95
71) Dibromochloromethane	5.501	129	37082	24.05	ug/L	96
72) 1,3-Dichloropropane	5.562	76	62924	24.04	ug/L	98
73) 1,2-Dibromoethane	5.665	107	39446	22.08	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	428706	1512.99	ug/L	100
75) 2-hexanone	5.806	43	285253	139.36	ug/L	93
76) 1-Chlorohexane	6.007	91	44857m	22.44	ug/L	
77) Ethylbenzene	6.049	91	191405	26.84	ug/L	97
78) Chlorobenzene	6.031	112	108590	23.94	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.074	131	36545	25.17	ug/L	97
80) m,p-Xylene	6.153	91	678692	120.47	ug/L	100
81) o-Xylene	6.464	91	705273	124.61	ug/L	99
82) Styrene	6.500	104	103600	24.01	ug/L	98
83) Bromoform	6.525	173	22302	23.84	ug/L	99
84) Isopropylbenzene	6.702	105	150697	23.13	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.958	53	10621	21.97	ug/L	92
88) n-Propylbenzene	7.019	91	187249	24.64	ug/L	98
89) Bromobenzene	6.994	156	41095	24.10	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.061	83	59886	24.29	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	195634	36.02	ug/L	98
92) 2-Chlorotoluene	7.141	91	130211	24.46	ug/L	97
93) trans-1,4-Dichloro-2-B...	7.202	53	7620	17.11	ug/L	97
94) 1,2,3-Trichloropropane	7.171	110	20285	25.68	ug/L	94
95) Cyclohexanone	7.202	55	10290	122.56	ug/L	95
96) 4-Chlorotoluene	7.269	91	117005	23.11	ug/L	99
97) tert-Butylbenzene	7.415	91	70324	23.84	ug/L	96
99) 1,2,4-Trimethylbenzene	7.470	105	198521	36.49	ug/L	99
100) Pentachloroethane	7.433	167	22786	29.31	ug/L	98
101) sec-Butylbenzene	7.555	105	144266	23.17	ug/L	98
102) 4-Isopropyltoluene	7.665	119	124457	23.40	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	77239	22.80	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	232550	40.23	ug/L	98
105) 1,4-Dichlorobenzene	7.787	146	81143	23.98	ug/L	97
106) n-Butylbenzene	7.982	92	71614	26.28	ug/L #	78
107) Benzyl Chloride	7.970	126	12859	23.09	ug/L #	92
108) 1,2-Dichlorobenzene	8.098	146	72504	22.36	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.671	75	11810	24.17	ug/L	96



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

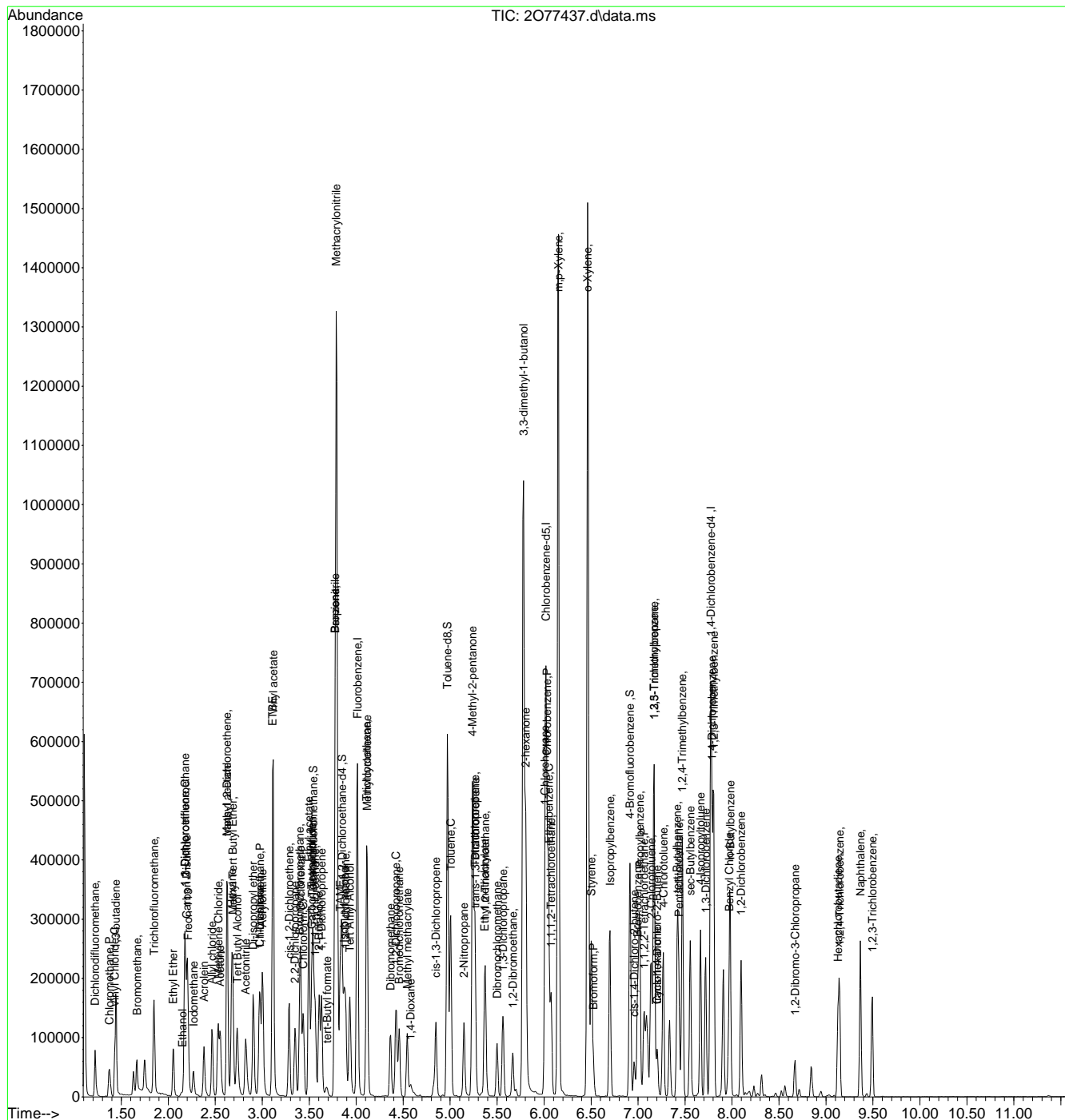
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) Hexachlorobutadiene	9.128	225	16646	27.35	ug/L	98
111) 1,2,4-Trichlorobenzene	9.146	180	42035	22.70	ug/L	99
112) Naphthalene	9.366	128	153113	22.70	ug/L	100
113) 1,2,3-Trichlorobenzene	9.494	180	39736	21.60	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077437.d  
Acq On : 5 Jul 2023 7:12 pm  
Operator : jeniferw  
Sample : FC7382-1MSD  
Misc : MS54357,V203017,,,,,  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration



7.4.2  
7

# Manual Integration Approval Summary

**Sample Number:** FC7382-1MSD      **Method:** SW846 8260D  
**Lab FileID:** 2077437.D      **Analyst approved:** 07/05/23 21:25 Celine Celis  
**Injection Time:** 07/05/23 19:12      **Supervisor approved:** 07/07/23 09:33 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

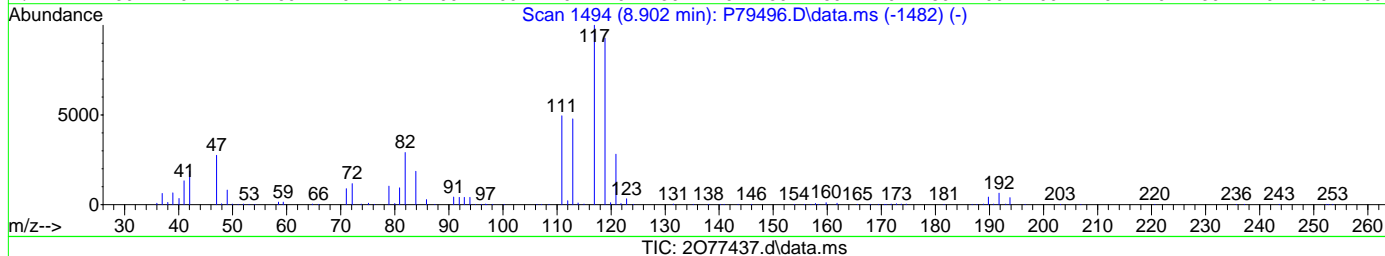
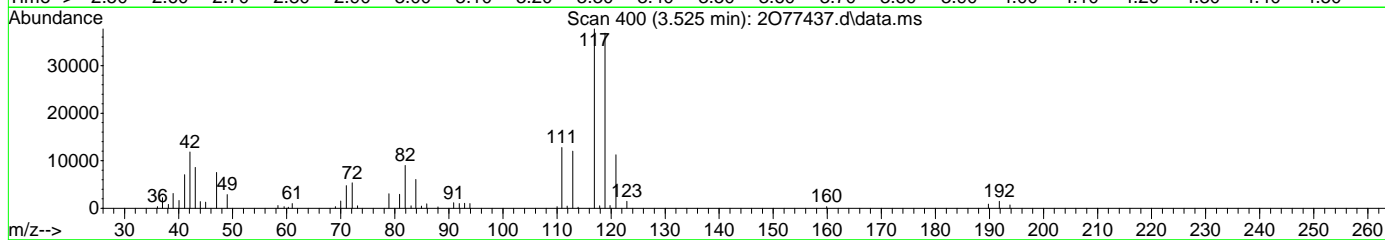
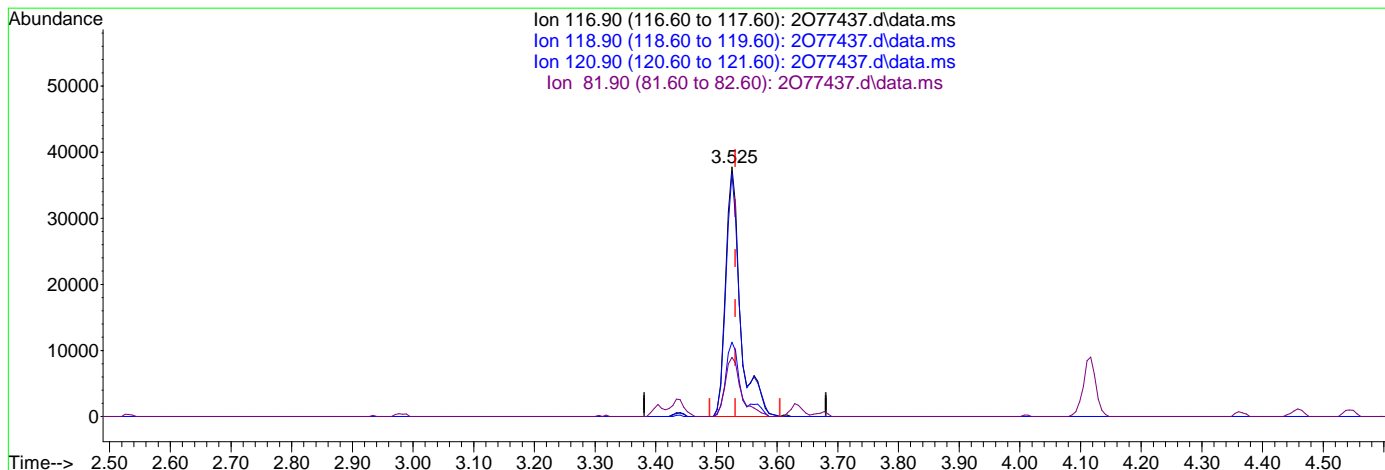
7.4.2.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.81ug/L

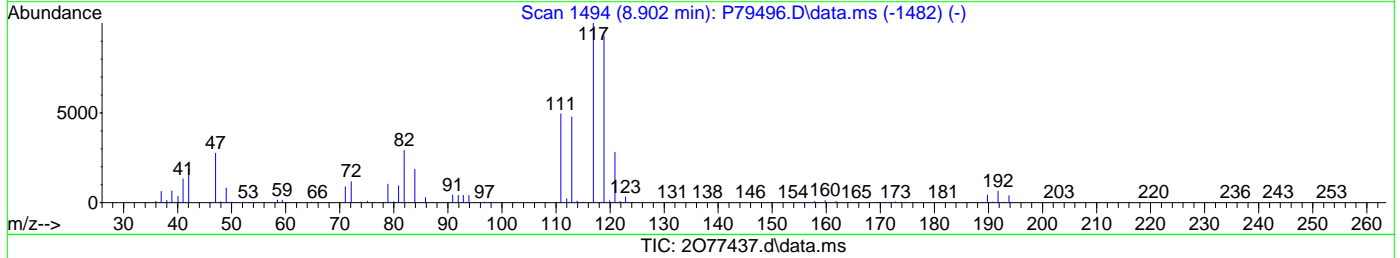
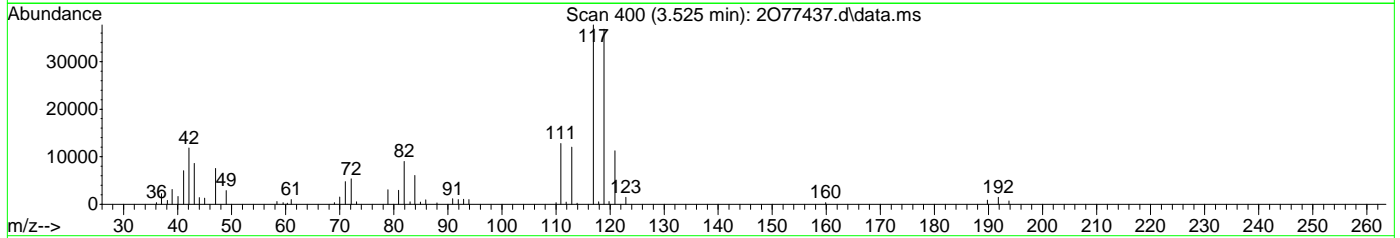
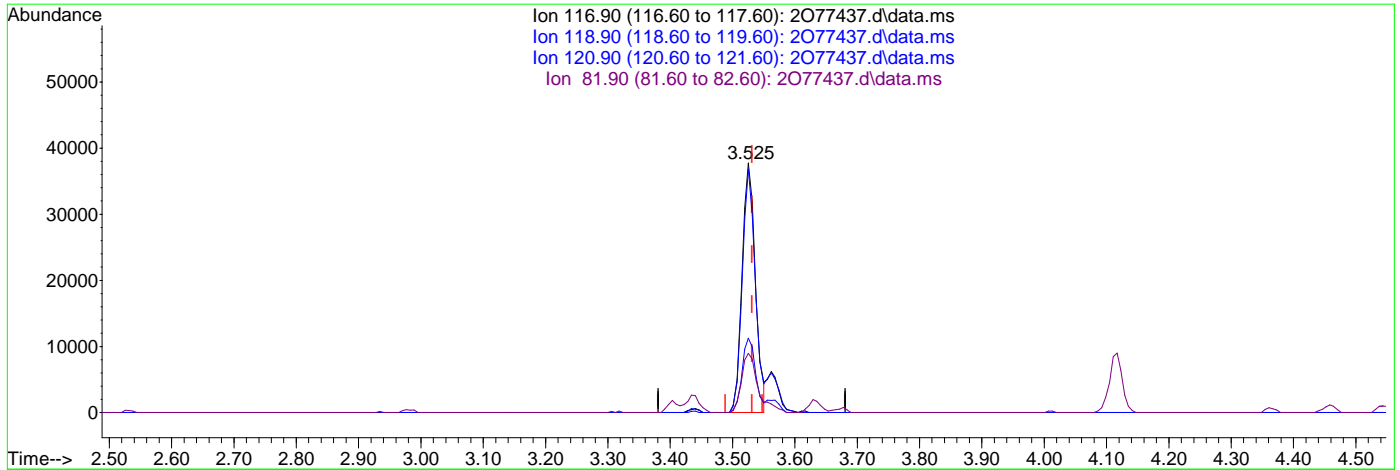
response 63780

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.52
120.90	31.50	29.77
81.90	24.40	23.79

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 26.03ug/L m

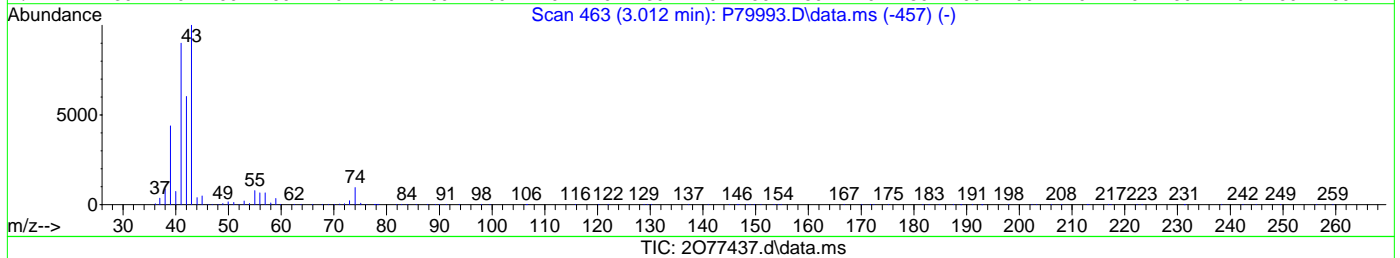
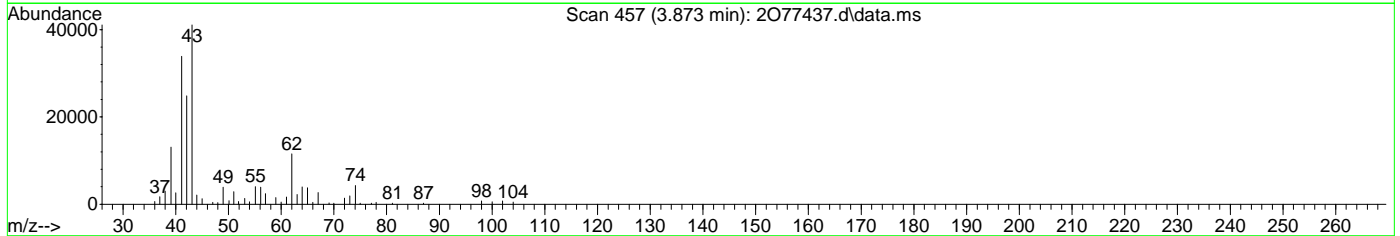
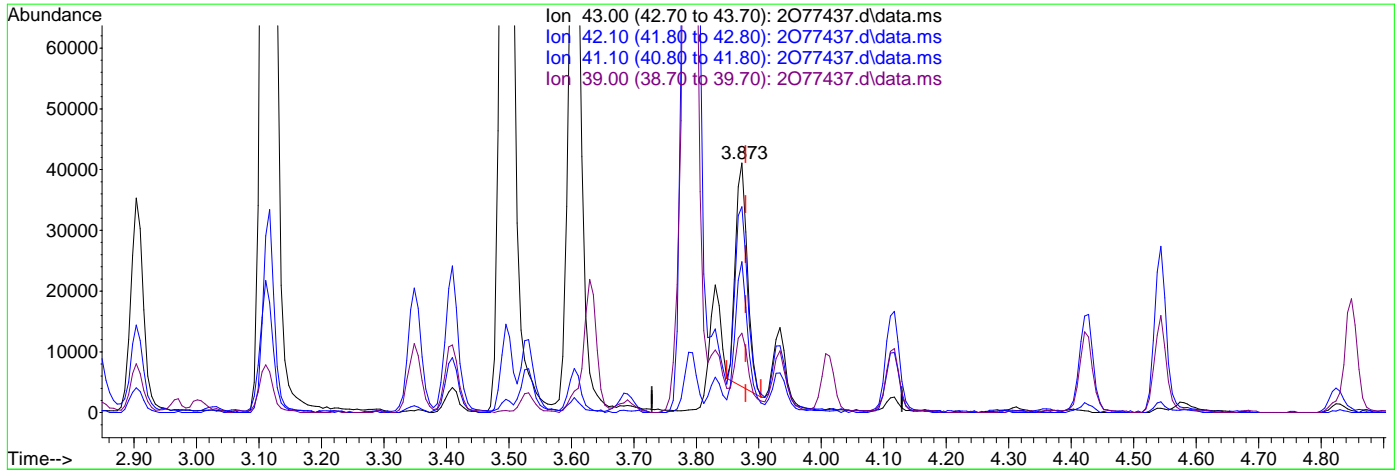
response 55700

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.52
120.90	31.50	29.77
81.90	24.40	23.79

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol

3.873min (-0.006) 409.08ug/L

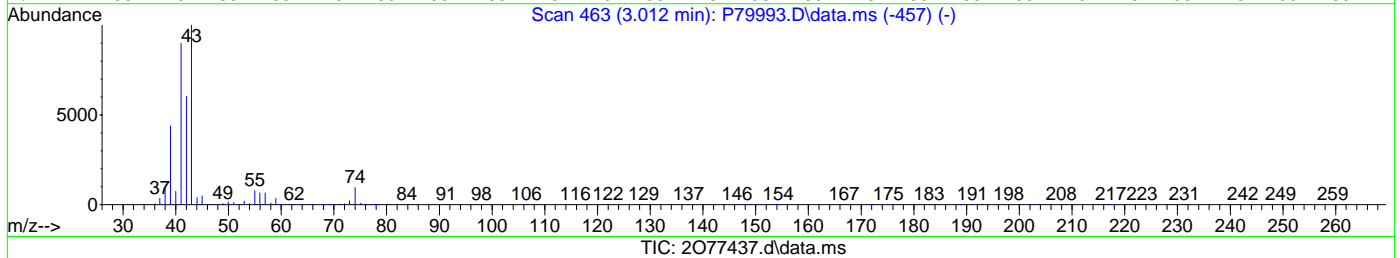
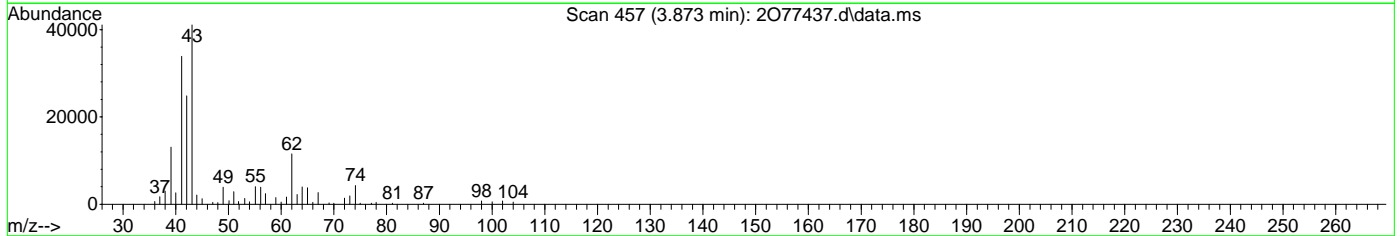
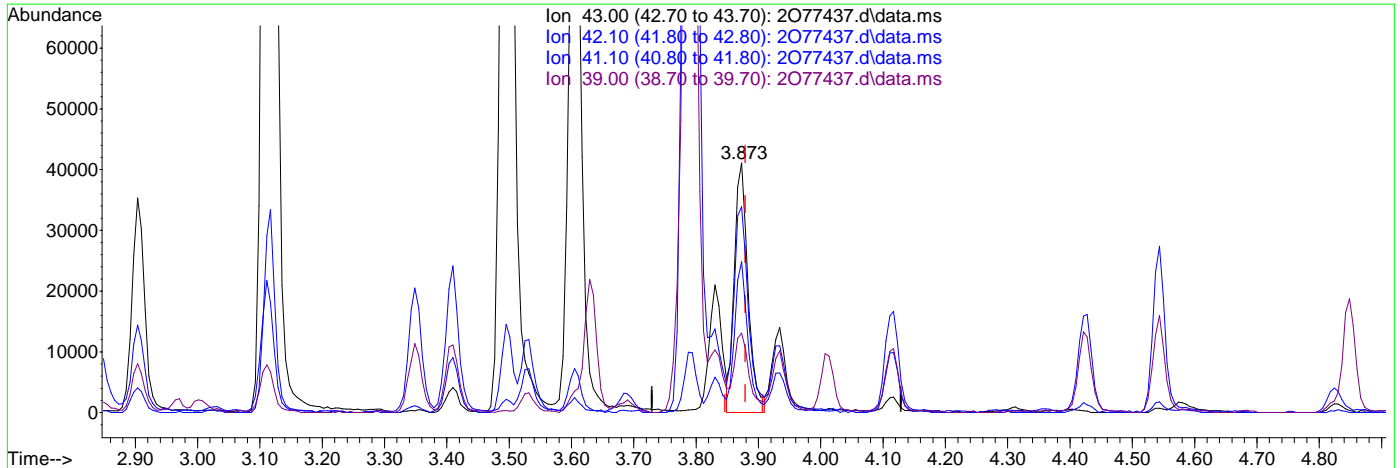
response 48507

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.22
41.10	77.50	79.92
39.00	31.30	29.03

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.873min (-0.006) 525.86ug/L m  
 response 62930

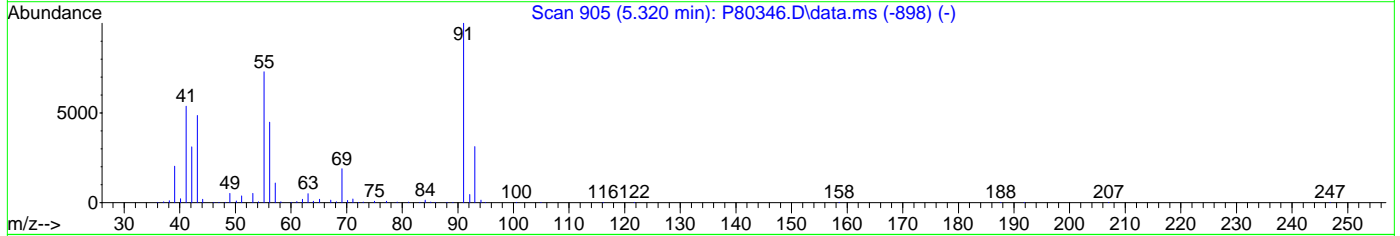
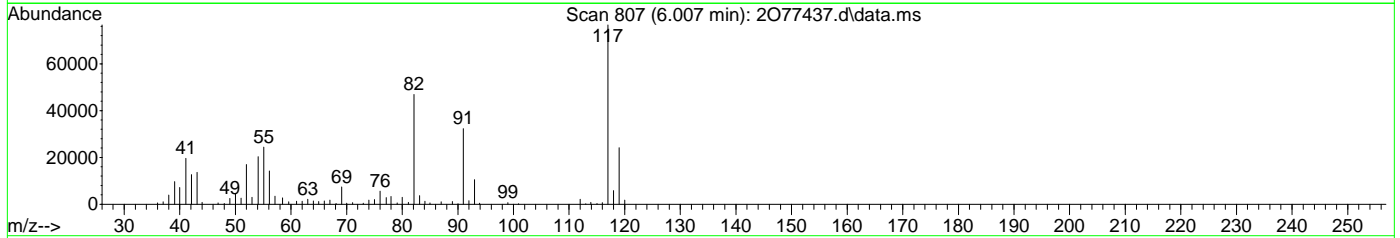
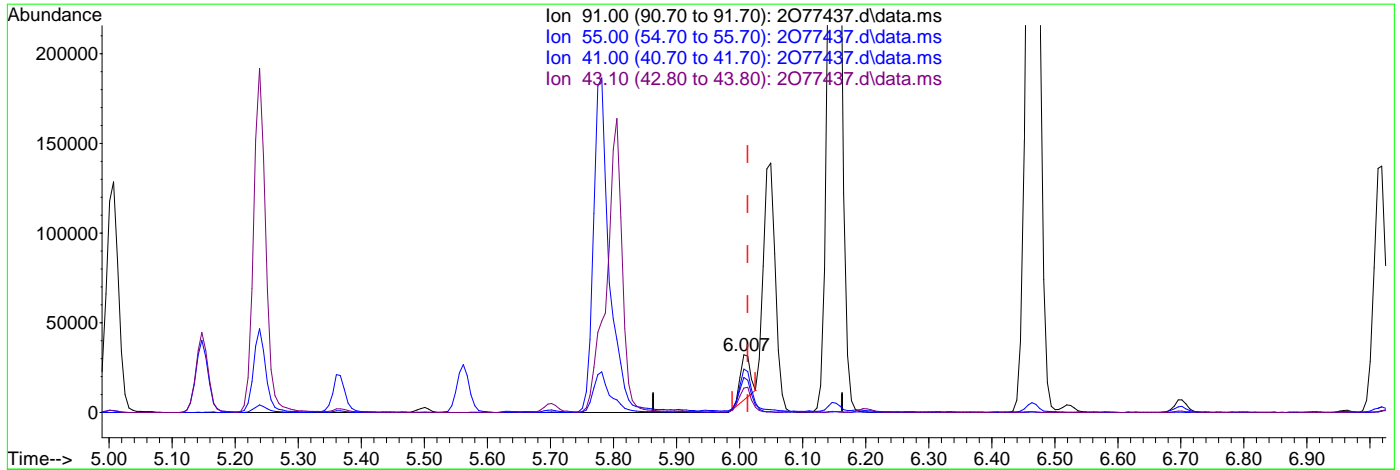
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.39
41.10	77.50	82.40
39.00	31.30	31.85

7.4.2.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane  
 6.007min (-0.006) 14.74ug/L  
 response 29454

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.93
41.00	55.00	56.64
43.10	42.40	40.48

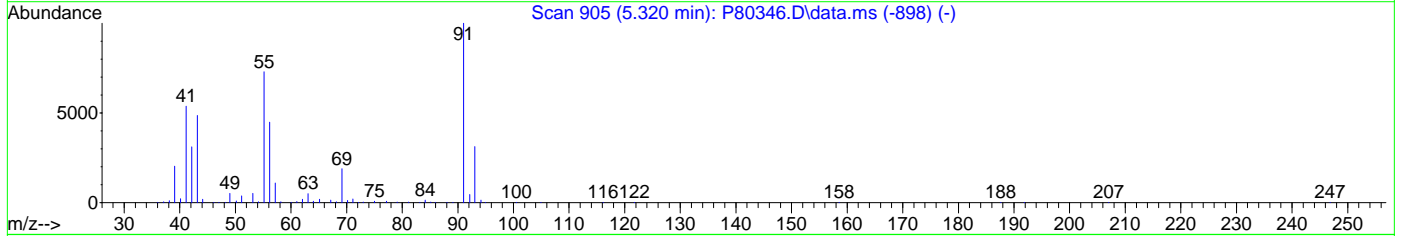
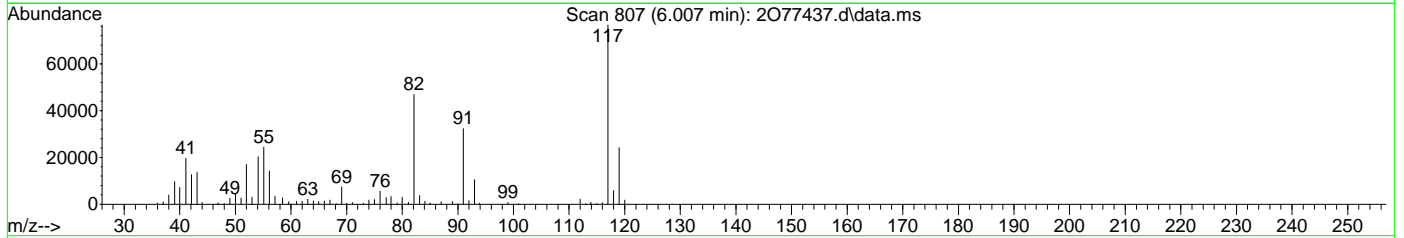
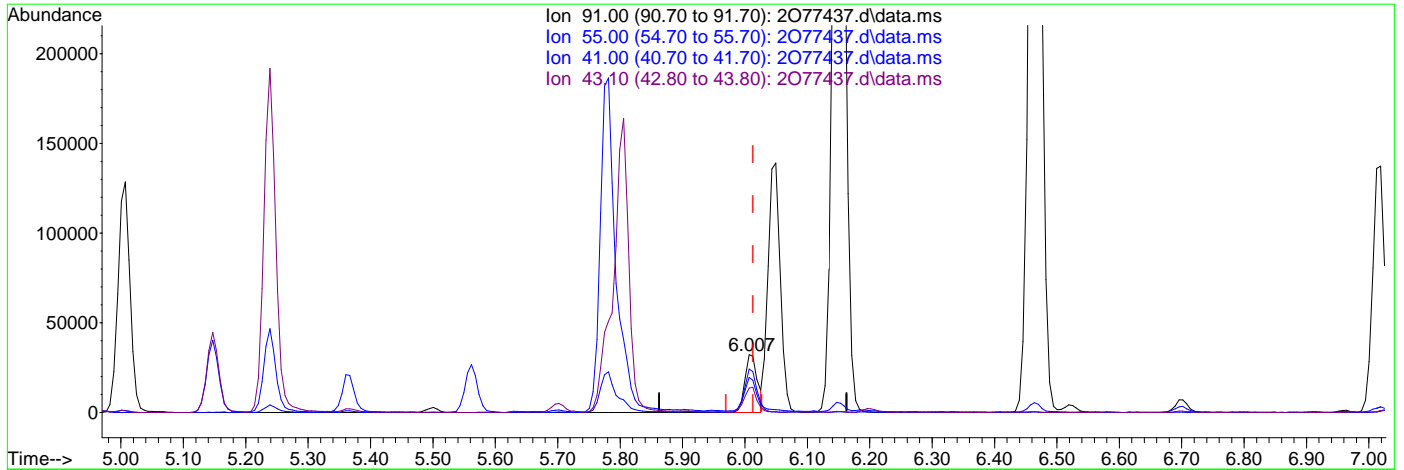
7.4.2.6  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane

6.007min (-0.006) 22.44ug/L m

response 44857

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	75.48
41.00	55.00	60.58
43.10	42.40	42.32

7.4.2.7  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.854	96	847446	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	593693	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	358049	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	242387	50.39	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.78%	
49) 1,2-Dichloroethane-d4	7.561	65	233694	53.43	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	106.86%	
63) Toluene-d8	9.445	98	867991	51.27	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.54%	
86) 4-Bromofluorobenzene	12.225	174	296385	49.16	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.32%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	113413	30.46	ug/L		98
3) Chloromethane	2.635	50	112606	29.41	ug/L		100
4) Vinyl Chloride	2.763	62	105041	27.77	ug/L		97
5) 1,3-Butadiene	2.794	39	84592	26.06	ug/L		90
6) Bromomethane	3.233	94	23363	18.16	ug/L		99
7) Chloroethane	3.391	64	57119	36.01	ug/L		98
8) Trichlorofluoromethane	3.598	101	142760	28.52	ug/L		99
9) Ethyl Ether	4.013	59	74365	28.38	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	109550	31.43	ug/L		96
11) 1,1-Dichloroethene	4.275	61	129758	28.22	ug/L		99
12) Ethanol	4.196	45	56641	433.39	ug/L		91
13) Freon 113	4.318	101	93640	32.77	ug/L		97
14) Carbon Disulfide	4.330	76	263071	27.85	ug/L		99
15) Iodomethane	4.458	142	84433	37.18	ug/L		94
16) Acrolein	4.678	56	146959	122.17	ug/L		96
17) Allyl chloride	4.854	41	117424	26.50	ug/L		98
18) Methylene Chloride	4.976	49	143883	30.88	ug/L		93
19) Acetone	5.025	43	308145	135.13	ug/L		100
20) Methyl acetate	5.165	43	600080	125.55	ug/L		98
21) trans-1,2-Dichloroethene	5.184	61	125489	26.01	ug/L		98
22) Hexane	5.281	56	69627	29.43	ug/L		92
23) Methyl Tert Butyl Ether	5.293	73	264676	25.97	ug/L		77
24) Tert butyl alcohol	5.385	59	382618	274.34	ug/L		95
25) Acetonitrile	5.561	41	245718	253.19	ug/L		97
26) Di-isopropyl ether	5.726	45	274835	25.78	ug/L		96
27) Chloroprene	5.866	53	104075	22.80	ug/L		97
28) 1,1-Dichloroethane	5.885	63	163014	25.74	ug/L		97
29) Acrylonitrile	5.921	53	317880	136.82	ug/L		96
30) ETBE	6.135	59	271145	26.42	ug/L		98
31) Vinyl acetate	6.141	43	1014865	149.66	ug/L		100
32) cis-1,2-Dichloroethene	6.506	96	95135	24.99	ug/L		95
33) 2,2-Dichloropropane	6.622	77	120852	25.03	ug/L		99
34) Bromochloromethane	6.732	128	48845	24.87	ug/L		91
35) Cyclohexane	6.756	56	145065	29.29	ug/L		96
36) Chloroform	6.793	83	170741	25.85	ug/L		99
37) Ethyl acetate	6.891	43	783221	141.08	ug/L		98
38) Tetrahydrofuran	6.976	42	67038	25.45	ug/L		92
40) Carbon Tetrachloride	6.976	117	126193	27.20	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	146004	26.71	ug/L		96
42) 2-Butanone	7.098	43	462976	133.91	ug/L		95
43) 1,1-Dichloropropene	7.171	75	120034	27.83	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	217948	82.24	ug/L	85
45) Propionitrile	7.409	54	290069	249.11	ug/L	99
46) Methacrylonitrile	7.439	41	873943	255.99	ug/L	98
47) Benzene	7.433	78	351265	26.55	ug/L	99
48) TAME	7.525	73	243436	24.50	ug/L	93
50) Isobutyl alcohol	7.585	42	150564	488.24	ug/L	97
51) 1,2-Dichloroethane	7.640	62	119153	25.93	ug/L	97
52) Tert Amyl Alcohol	7.695	59	277611	242.52	ug/L	94
53) Trichloroethene	8.049	95	90203	24.38	ug/L	94
54) Methylcyclohexane	8.049	83	121509	27.23	ug/L	100
55) Dibromomethane	8.488	93	60169	25.47	ug/L	98
56) 1,2-Dichloropropane	8.567	63	92063	27.01	ug/L	98
57) Bromodichloromethane	8.628	83	116916	24.88	ug/L	97
58) Methyl methacrylate	8.750	41	86261	23.34	ug/L	97
59) 1,4-Dioxane	8.811	88	38281	360.41	ug/L	95
61) cis-1,3-Dichloropropene	9.262	75	123813	23.37	ug/L	99
64) Toluene	9.500	91	364831	26.93	ug/L	97
65) 2-Nitropropane	9.695	41	201422	156.93	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	828597	141.12	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	106121	23.34	ug/L	89
68) Tetrachloroethene	9.908	166	108813	26.54	ug/L	98
69) Ethyl methacrylate	10.012	69	118291	27.30	ug/L	96
70) 1,1,2-Trichloroethane	10.061	83	72761	26.34	ug/L	99
71) Dibromochloromethane	10.256	129	102857	26.91	ug/L	99
72) 1,3-Dichloropropane	10.341	76	140725	29.23	ug/L	98
73) 1,2-Dibromoethane	10.518	107	94253	26.44	ug/L	97
74) 3,3-dimethyl-1-butanol	10.609	57	1510852	1431.46	ug/L	99
75) 2-hexanone	10.658	43	669826	141.74	ug/L	97
76) 1-Chlorohexane	10.963	91	98088	25.59	ug/L	91
77) Ethylbenzene	11.024	91	395467	27.04	ug/L	99
78) Chlorobenzene	11.024	112	236031	26.37	ug/L	95
79) 1,1,1,2-Tetrachloroethane	11.073	131	90401	26.10	ug/L	96
80) m,p-Xylene	11.164	91	590956	53.82	ug/L	98
81) o-Xylene	11.603	91	294117	24.91	ug/L	98
82) Styrene	11.658	104	216449	26.12	ug/L	100
83) Bromoform	11.713	173	80162	24.89	ug/L	97
84) Isopropylbenzene	11.914	105	357265	25.72	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.261	53	30575	23.81	ug/L	88
88) n-Propylbenzene	12.335	91	417792	26.51	ug/L	99
89) Bromobenzene	12.347	156	110158	27.26	ug/L	94
90) 1,1,2,2-Tetrachloroethane	12.389	83	153219	27.81	ug/L	97
91) 1,3,5-Trimethylbenzene	12.517	105	296483	26.25	ug/L	98
92) 2-Chlorotoluene	12.517	91	284222	26.44	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.578	53	26769	18.90	ug/L	96
94) 1,2,3-Trichloropropane	12.548	110	49318	28.95	ug/L	96
95) Cyclohexanone	12.609	55	40570	106.56	ug/L	96
96) 4-Chlorotoluene	12.682	91	247799	25.61	ug/L	95
97) tert-Butylbenzene	12.853	91	154416	25.72	ug/L	95
98) 1,2,4-Trimethylbenzene	12.926	105	293609	26.39	ug/L	97
99) Pentachloroethane	12.902	167	68093	27.56	ug/L	98
100) sec-Butylbenzene	13.036	105	323902	25.56	ug/L	98
101) 4-Isopropyltoluene	13.170	119	281946	25.06	ug/L	98
102) 1,3-Dichlorobenzene	13.304	146	179329	25.75	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	316933	27.19	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	191207	25.55	ug/L	98
105) n-Butylbenzene	13.615	92	149779	27.07	ug/L #	80
106) Benzyl Chloride	13.627	126	40427	21.01	ug/L #	43

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

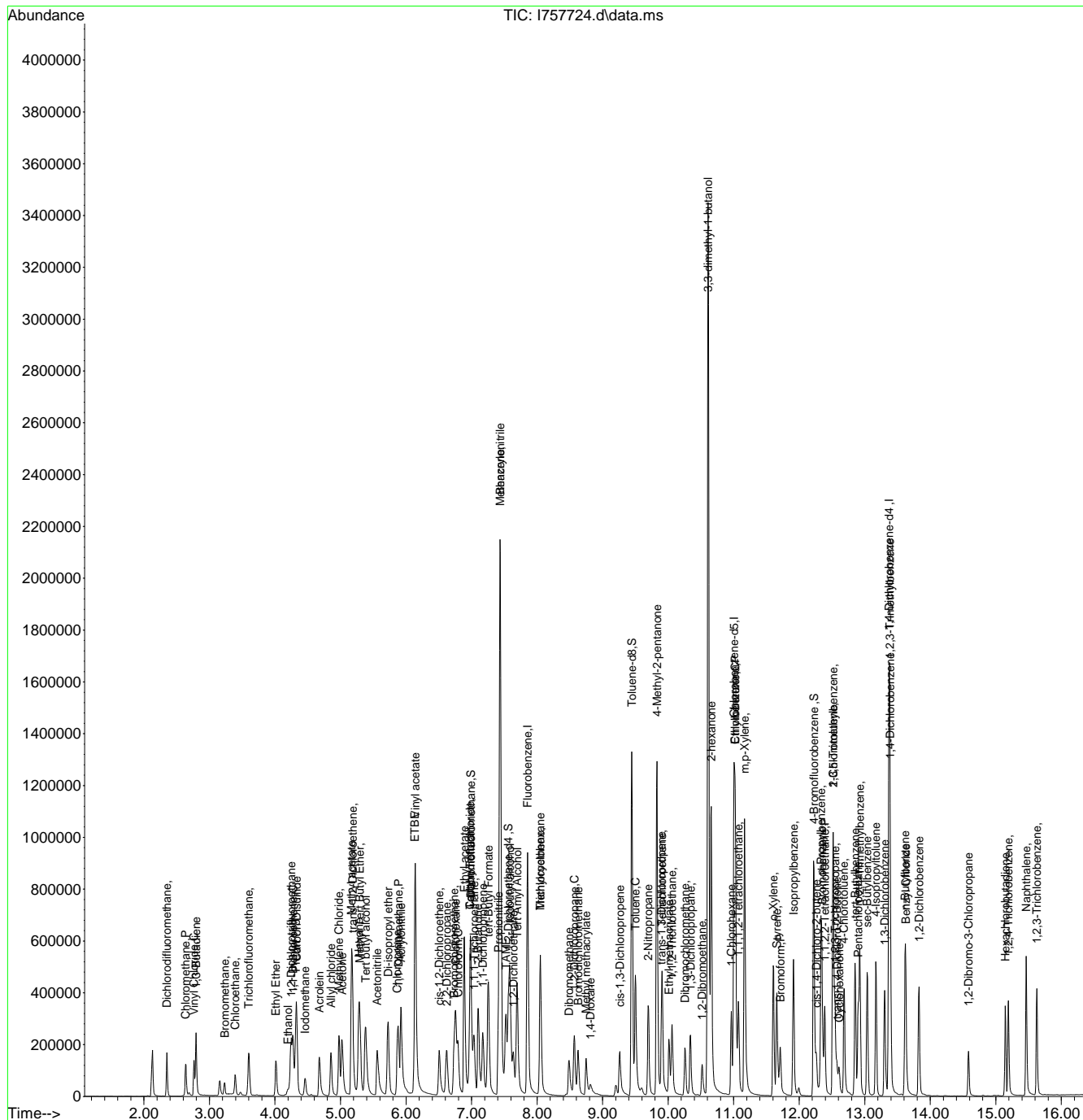
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2-Dichlorobenzene	13.828	146	176305	25.84	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	38318	27.52	ug/L	88
109) Hexachlorobutadiene	15.145	225	58169	25.16	ug/L	98
110) 1,2,4-Trichlorobenzene	15.194	180	116886	23.18	ug/L	98
111) Naphthalene	15.462	128	374014	23.72	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	119089	23.68	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.4.3  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757725.d  
 Acq On : 6 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7493-1MSD 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:08 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	862228	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	609356	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	360534	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	246048	50.27	ug/L	0.00	
Spiked Amount 50.000	Range 83	- 118	Recovery	=	100.54%		
49) 1,2-Dichloroethane-d4	7.561	65	238015	53.49	ug/L	0.00	
Spiked Amount 50.000	Range 79	- 125	Recovery	=	106.98%		
63) Toluene-d8	9.445	98	884321	50.89	ug/L	0.00	
Spiked Amount 50.000	Range 85	- 112	Recovery	=	101.78%		
86) 4-Bromofluorobenzene	12.225	174	302209	49.78	ug/L	0.00	
Spiked Amount 50.000	Range 83	- 118	Recovery	=	99.56%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	100791	26.60	ug/L		99
3) Chloromethane	2.641	50	103527	26.56	ug/L		98
4) Vinyl Chloride	2.763	62	95555	24.83	ug/L		97
5) 1,3-Butadiene	2.800	39	76455	23.10	ug/L		94
6) Bromomethane	3.233	94	31894	24.32	ug/L		98
7) Chloroethane	3.397	64	51363	31.83	ug/L		98
8) Trichlorofluoromethane	3.605	101	126302	24.80	ug/L		99
9) Ethyl Ether	4.013	59	68133	25.55	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	98725	27.84	ug/L		98
11) 1,1-Dichloroethene	4.275	61	117794	25.18	ug/L		96
12) Ethanol	4.202	45	55422	416.27	ug/L		93
13) Freon 113	4.318	101	80639	27.74	ug/L		94
14) Carbon Disulfide	4.330	76	227267	23.65	ug/L		95
15) Iodomethane	4.458	142	92599	39.88	ug/L		94
16) Acrolein	4.678	56	141313	115.68	ug/L		97
17) Allyl chloride	4.854	41	104845	23.23	ug/L		97
18) Methylene Chloride	4.976	49	132761	27.95	ug/L		94
19) Acetone	5.025	43	302186	130.24	ug/L		99
20) Methyl acetate	5.165	43	566388	116.47	ug/L		98
21) trans-1,2-Dichloroethene	5.184	61	118824	24.21	ug/L		97
22) Hexane	5.281	56	62609	26.01	ug/L		94
23) Methyl Tert Butyl Ether	5.299	73	243151	23.44	ug/L		89
24) Tert butyl alcohol	5.385	59	381530	268.87	ug/L		94
25) Acetonitrile	5.562	41	235317	237.44	ug/L		97
26) Di-isopropyl ether	5.726	45	255111	23.52	ug/L		96
27) Chloroprene	5.872	53	96000	20.73	ug/L		97
28) 1,1-Dichloroethane	5.885	63	150533	23.36	ug/L		99
29) Acrylonitrile	5.921	53	301995	127.75	ug/L		98
30) ETBE	6.135	59	253406	24.27	ug/L		97
31) Vinyl acetate	6.141	43	960509	139.64	ug/L		99
32) cis-1,2-Dichloroethene	6.506	96	87666	22.64	ug/L		94
33) 2,2-Dichloropropane	6.616	77	109065	22.20	ug/L		97
34) Bromochloromethane	6.732	128	43698	21.86	ug/L		90
35) Cyclohexane	6.756	56	130903	26.12	ug/L		93
36) Chloroform	6.793	83	156688	23.31	ug/L		98
37) Ethyl acetate	6.891	43	748406	132.86	ug/L		98
38) Tetrahydrofuran	6.982	42	63758	23.79	ug/L		95
40) Carbon Tetrachloride	6.976	117	113117	23.96	ug/L		99
41) 1,1,1-Trichloroethane	7.037	97	131198	23.59	ug/L		94
42) 2-Butanone	7.104	43	433528	123.71	ug/L		96
43) 1,1-Dichloropropene	7.171	75	108081	24.63	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757725.d  
 Acq On : 6 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7493-1MSD 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:08 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	192256	71.30	ug/L	86
45) Propionitrile	7.409	54	276186	233.12	ug/L	99
46) Methacrylonitrile	7.439	41	817743	235.43	ug/L	99
47) Benzene	7.433	78	320335	23.80	ug/L	97
48) TAME	7.525	73	225646	22.32	ug/L	98
50) Isobutyl alcohol	7.586	42	148606	473.63	ug/L	98
51) 1,2-Dichloroethane	7.640	62	111626	23.88	ug/L	98
52) Tert Amyl Alcohol	7.695	59	267582	229.75	ug/L	96
53) Trichloroethene	8.049	95	81583	21.67	ug/L	97
54) Methylcyclohexane	8.049	83	111194	24.62	ug/L	98
55) Dibromomethane	8.488	93	56744	23.61	ug/L	97
56) 1,2-Dichloropropane	8.567	63	84264	24.29	ug/L	96
57) Bromodichloromethane	8.628	83	107786	22.54	ug/L	94
58) Methyl methacrylate	8.750	41	81430	21.74	ug/L	96
59) 1,4-Dioxane	8.817	88	39245	363.07	ug/L	92
60) 2-Chloroethyl vinyl ether	9.268	63	569	0.28	ug/L #	33
61) cis-1,3-Dichloropropene	9.262	75	114743	21.29	ug/L	98
64) Toluene	9.500	91	333500	23.99	ug/L	100
65) 2-Nitropropane	9.695	41	189439	144.75	ug/L	95
66) 4-Methyl-2-pentanone	9.829	43	770674	127.88	ug/L	98
67) trans-1,3-Dichloropropene	9.902	75	100916	21.69	ug/L	89
68) Tetrachloroethene	9.908	166	97878	23.26	ug/L	98
69) Ethyl methacrylate	10.012	69	108172	24.42	ug/L	98
70) 1,1,2-Trichloroethane	10.061	83	69217	24.41	ug/L	97
71) Dibromochloromethane	10.256	129	96746	24.66	ug/L	98
72) 1,3-Dichloropropane	10.341	76	128272	25.96	ug/L	98
73) 1,2-Dibromoethane	10.518	107	85540	23.38	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	1469501	1360.82	ug/L	98
75) 2-hexanone	10.658	43	625721	129.34	ug/L	98
76) 1-Chlorohexane	10.963	91	88562	22.51	ug/L	91
77) Ethylbenzene	11.030	91	365149	24.32	ug/L	99
78) Chlorobenzene	11.024	112	217406	23.66	ug/L	94
79) 1,1,1,2-Tetrachloroethane	11.073	131	83623	23.52	ug/L	97
80) m,p-Xylene	11.164	91	544682	48.33	ug/L	99
81) o-Xylene	11.603	91	272024	22.44	ug/L	99
82) Styrene	11.658	104	196560	23.24	ug/L	98
83) Bromoform	11.713	173	75015	22.69	ug/L	98
84) Isopropylbenzene	11.914	105	326287	22.88	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.261	53	28197	21.81	ug/L	90
88) n-Propylbenzene	12.335	91	383321	24.15	ug/L	99
89) Bromobenzene	12.347	156	101746	25.00	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	143596	25.88	ug/L	98
91) 1,3,5-Trimethylbenzene	12.517	105	276690	24.32	ug/L	99
92) 2-Chlorotoluene	12.517	91	260720	24.08	ug/L	97
93) trans-1,4-Dichloro-2-B...	12.572	53	24810	17.43	ug/L #	81
94) 1,2,3-Trichloropropane	12.548	110	45113	26.30	ug/L	96
95) Cyclohexanone	12.609	55	42116	109.86	ug/L	96
96) 4-Chlorotoluene	12.682	91	229486	23.55	ug/L	99
97) tert-Butylbenzene	12.853	91	141709	23.44	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	275242	24.57	ug/L	97
99) Pentachloroethane	12.902	167	62738	25.22	ug/L	95
100) sec-Butylbenzene	13.036	105	298851	23.46	ug/L	98
101) 4-Isopropyltoluene	13.170	119	256724	22.66	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	164076	23.40	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	291564	24.84	ug/L	98
104) 1,4-Dichlorobenzene	13.389	146	175761	23.32	ug/L	99
105) n-Butylbenzene	13.615	92	136044	24.42	ug/L #	79

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757725.d  
 Acq On : 6 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7493-1MSD 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:08 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	13.627	126	37134	19.24	ug/L #	32
107) 1,2-Dichlorobenzene	13.828	146	163615	23.81	ug/L	98
108) 1,2-Dibromo-3-Chloropr...	14.584	75	35128	25.05	ug/L	94
109) Hexachlorobutadiene	15.145	225	54652	23.48	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	110122	21.69	ug/L	99
111) Naphthalene	15.462	128	349545	22.01	ug/L	96
112) 1,2,3-Trichlorobenzene	15.627	180	112483	22.21	ug/L	97

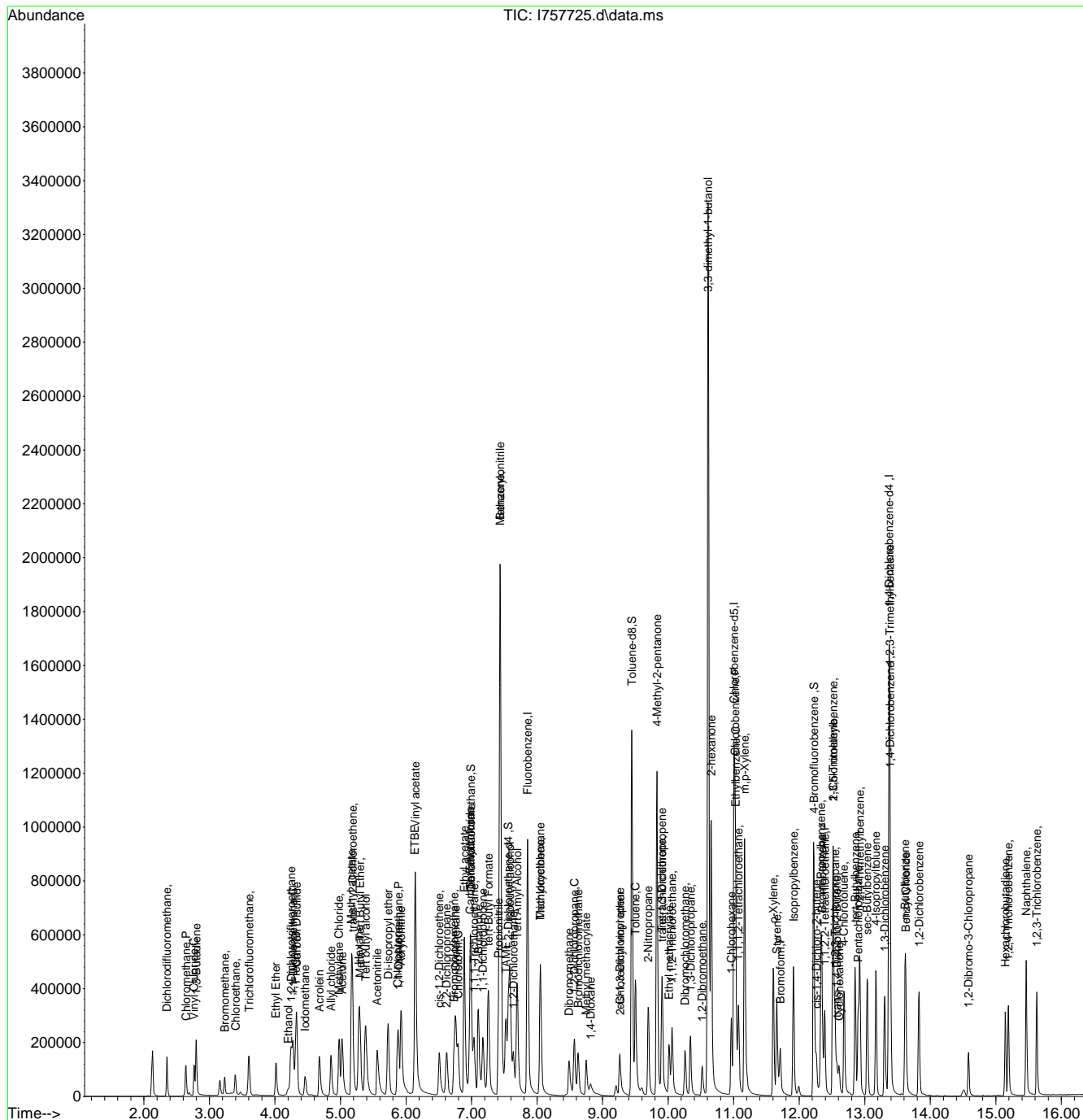
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\
Data File : I757725.d
Acq On : 6 Jul 2023 7:12 pm
Operator : jeniferw
Sample : FC7493-1MSD 5X
Misc : MS54368,VI2963,,,,,5
ALS Vial : 22 Sample Multiplier: 1
Inst : MSVOA16

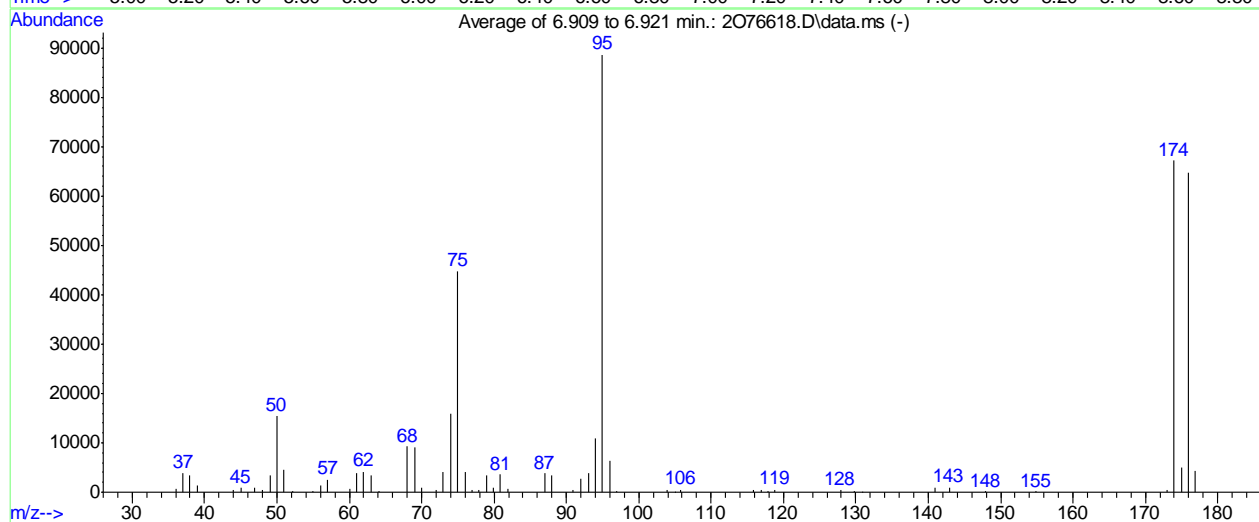
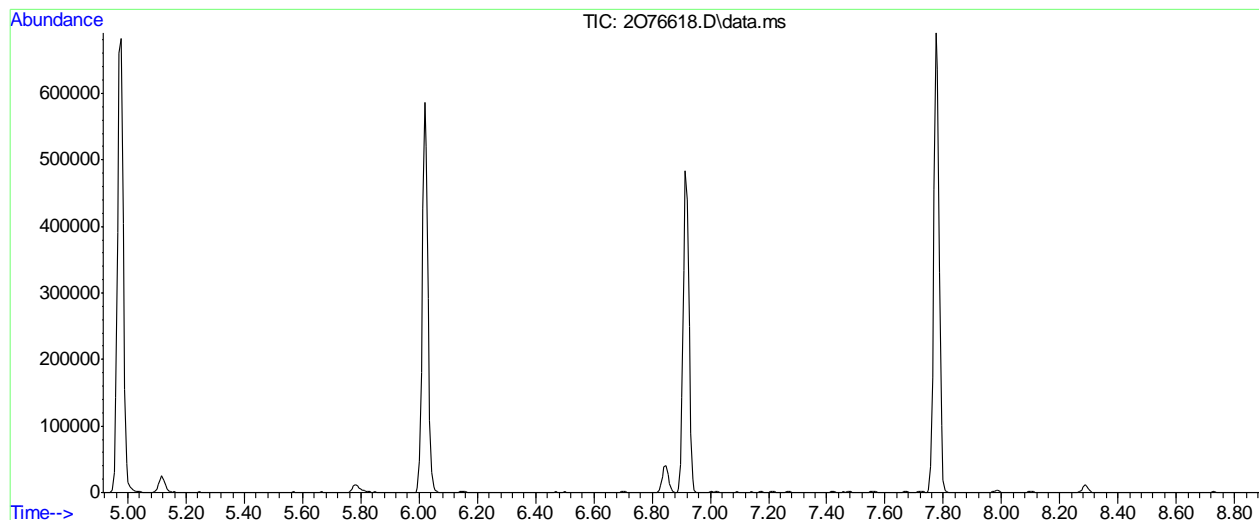
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m
Quant Results File: VI-2023-06-15.RES
Quant Time: Jul 06 23:08:08 2023
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Thu Jun 15 14:39:51 2023
Response via : Initial Calibration



Methods: SW-846 8260B

Data File : C:\msdchem\2\data\2023-06-07\2076618.D Vial: 1  
 Acq On : 7 Jun 2023 9:26 am Operator: joannel  
 Sample : BFB Inst : MSVOA12  
 Misc : MS54147,V2O2981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V2O\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



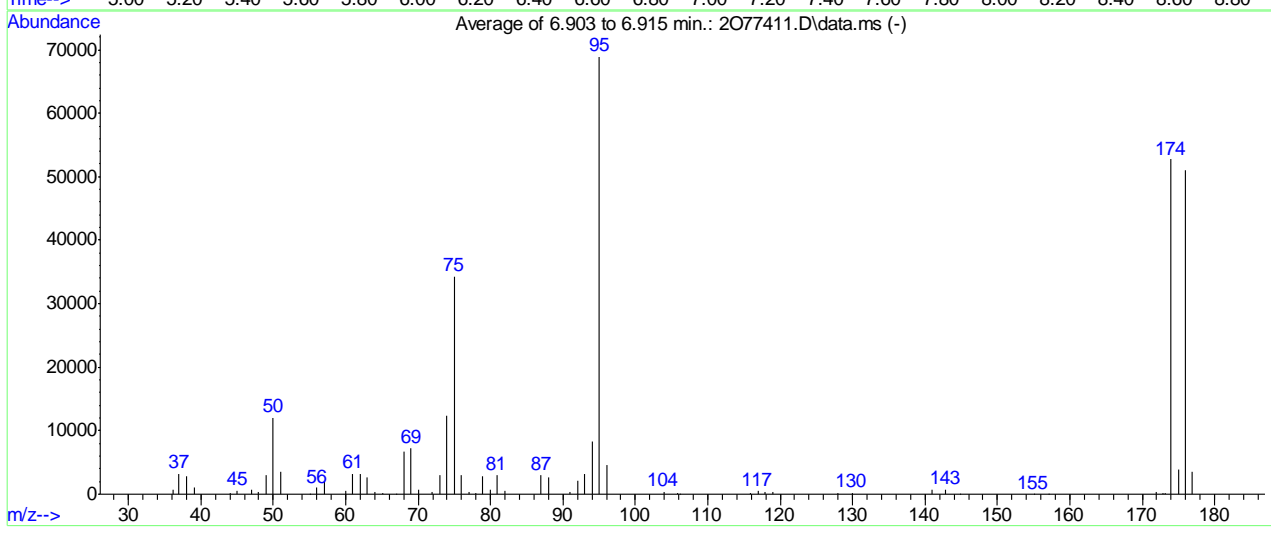
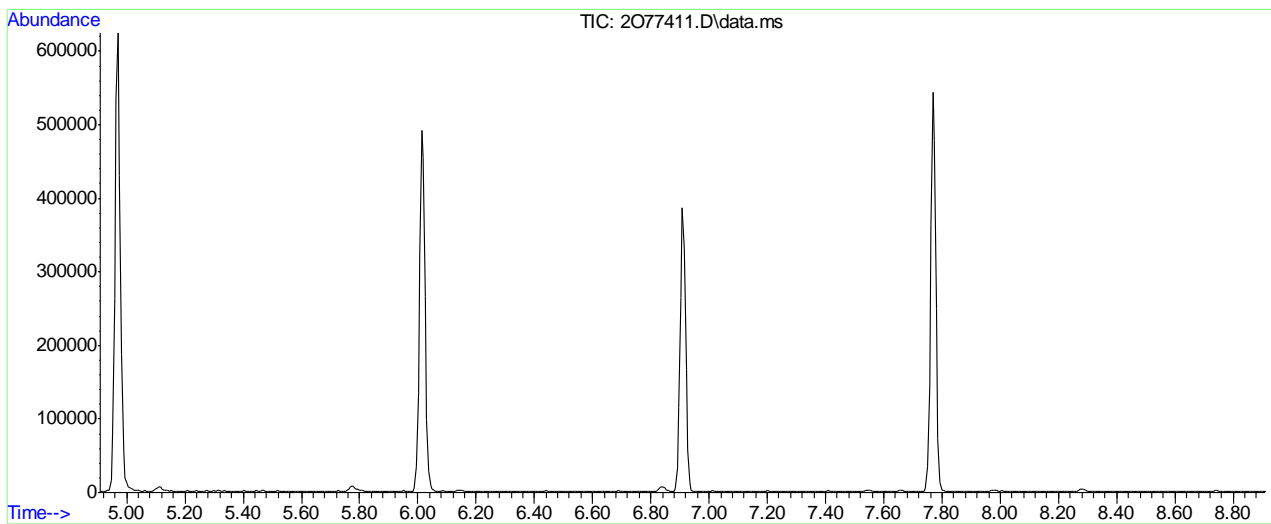
AutoFind: Scans 955, 956, 957; Background Corrected with Scan 949

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	15441	PASS
75	95	30	60	50.5	44797	PASS
95	95	100	100	100.0	88696	PASS
96	95	5	9	7.2	6368	PASS
173	174	0.00	2	0.8	520	PASS
174	95	50	100	75.7	67133	PASS
175	174	5	9	7.5	5047	PASS
176	174	95	101	96.3	64680	PASS
177	176	5	9	6.6	4269	PASS

2076618.D V2O\_06-07-2023.M

Thu Jun 08 09:37:41 2023

Methods: SW-846 8260B  
 Data File : C:\msdchem\2\data\2023-07-05\2077411.D Vial: 1  
 Acq On : 5 Jul 2023 8:10 am Operator: jeniferw  
 Sample : BFB Inst : MSVOA12  
 Misc : MS54349,V2O3017,,,,, Multiplr: 1.00  
 MS Integration Params: big.p  
 Method : C:\msdchem\2\met...V2O\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



AutoFind: Scans 954, 955, 956; Background Corrected with Scan 948

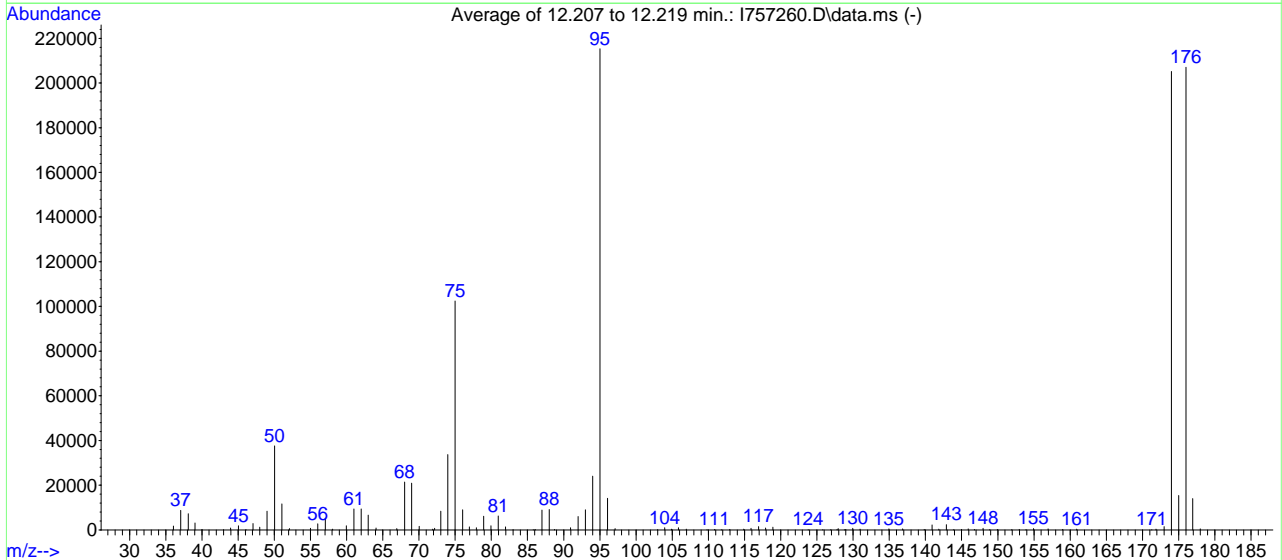
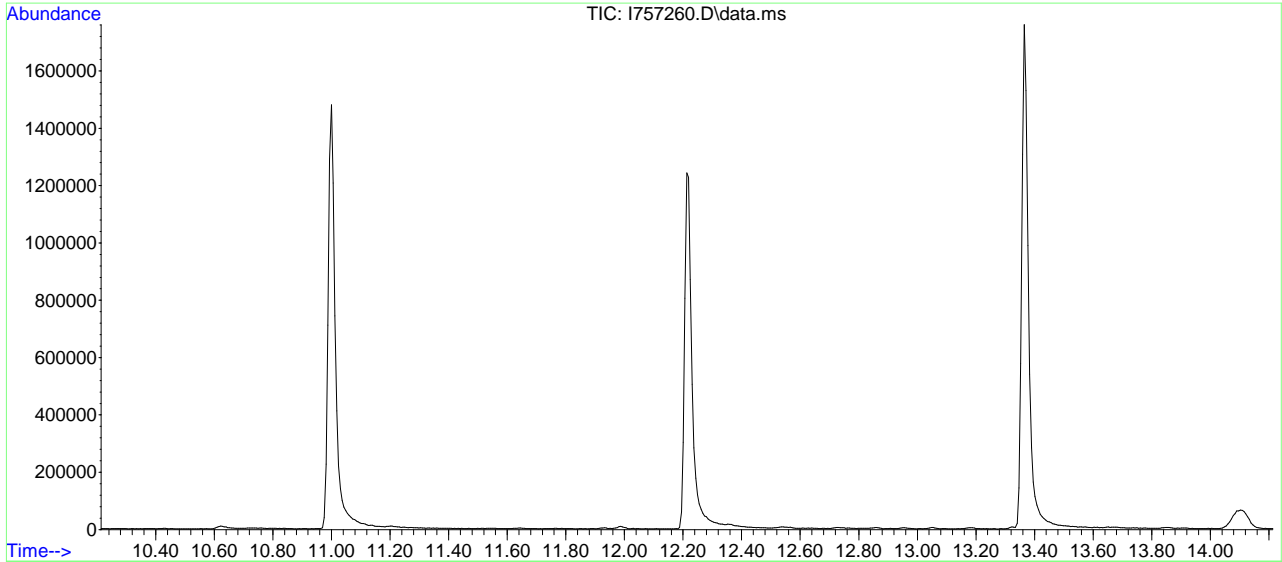
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.5	12065	PASS
75	95	30	60	49.7	34259	PASS
95	95	100	100	100.0	68939	PASS
96	95	5	9	6.7	4613	PASS
173	174	0.00	2	0.4	233	PASS
174	95	50	100	76.5	52733	PASS
175	174	5	9	7.5	3978	PASS
176	174	95	101	96.8	51037	PASS
177	176	5	9	6.8	3462	PASS

7.5.2  
7

Methods: SW-846 8260B

Data File : C:\msdchem\1\data\2023-06-15\I757260.D Vial: 1  
 Acq On : 15 Jun 2023 10:08 am Operator: joannel  
 Sample : BFB Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



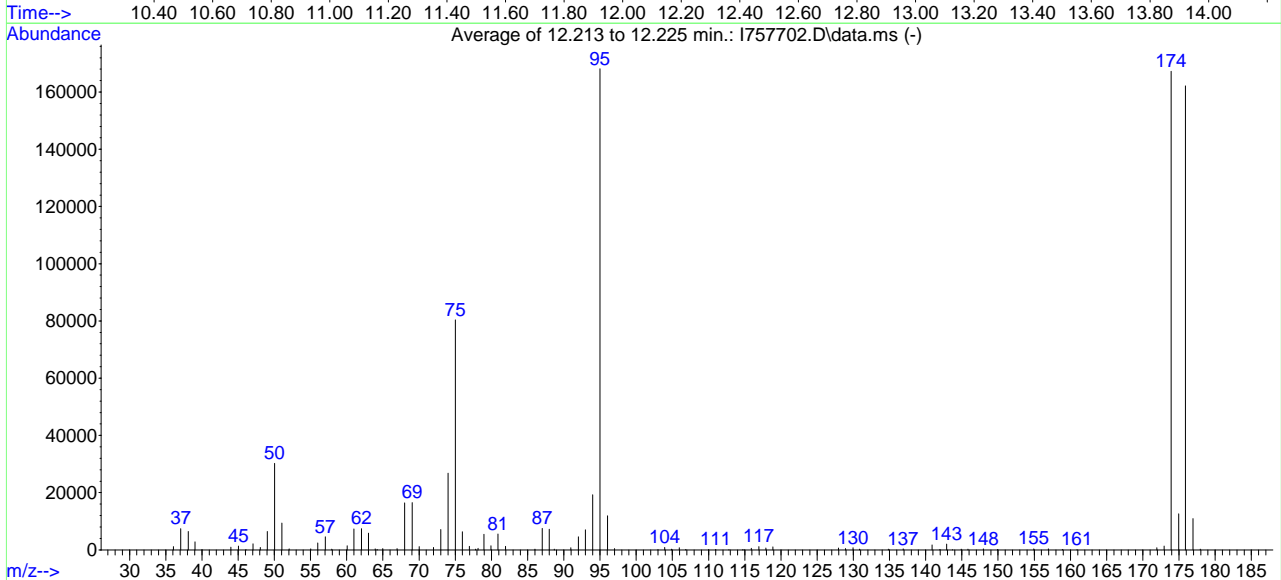
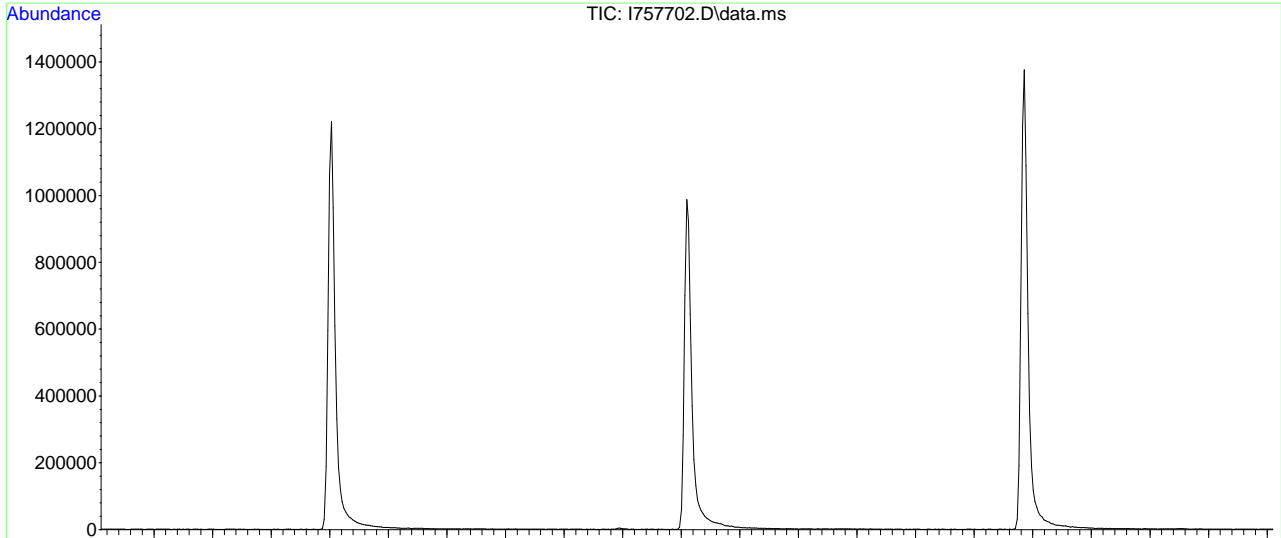
AutoFind: Scans 1824, 1825, 1826; Background Corrected with Scan 1818

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	37549	PASS
75	95	30	60	47.6	102373	PASS
95	95	100	100	100.0	215275	PASS
96	95	5	9	6.6	14176	PASS
173	174	0.00	2	0.7	1477	PASS
174	95	50	100	95.3	205205	PASS
175	174	5	9	7.5	15382	PASS
176	174	95	101	100.9	207019	PASS
177	176	5	9	6.7	13947	PASS

I757260.D VI-2023-06-15.m Thu Jun 15 14:53:06 2023

Methods: SW-846 8260B  
 Data File : C:\msdchem\1\data\2023-07-06\I757702.D Vial: 1  
 Acq On : 6 Jul 2023 8:41 am Operator: jeniferw  
 Sample : BFB Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



AutoFind: Scans 1825, 1826, 1827; Background Corrected with Scan 1819

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	30253	PASS
75	95	30	60	47.8	80371	PASS
95	95	100	100	100.0	168107	PASS
96	95	5	9	7.1	11934	PASS
173	174	0.00	2	0.8	1301	PASS
174	95	50	100	99.5	167299	PASS
175	174	5	9	7.5	12607	PASS
176	174	95	101	96.9	162133	PASS
177	176	5	9	6.7	10891	PASS

7.5.4  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	411508	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	303637	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	160349	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	112234	49.21	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery =	98.42%		
50) 1,2-Dichloroethane-d4	3.854	65	131197	54.12	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery =	108.24%		
63) Toluene-d8	4.976	98	399385	48.23	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery =	96.46%		
86) 4-Bromofluorobenzene	6.921	174	115732	47.30	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery =	94.60%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	38994	23.26	ug/L		95
3) Chloromethane	1.373	50	37269	20.56	ug/L		97
4) 1,3-butadiene	1.446	39	45293	24.92	ug/L		92
5) Vinyl Chloride	1.434	62	39991	22.22	ug/L		97
6) Bromomethane	1.666	94	29963	21.74	ug/L		99
7) Chloroethane	1.751	64	28233	32.05	ug/L		98
8) Trichlorofluoromethane	1.849	101	78549	24.57	ug/L		97
9) Ethyl Ether	2.056	59	34624	24.42	ug/L		96
10) Ethanol	2.154	45	15818	426.52	ug/L		100
11) 1,2-Dichlorotrifluoro...	2.178	67	49983	23.68	ug/L		98
12) 1,1-Dichloroethene	2.178	61	63089	23.27	ug/L		99
13) Freon 113	2.208	101	45779	25.37	ug/L		98
14) Carbon Disulfide	2.202	76	115077	21.86	ug/L		96
15) Iodomethane	2.269	142	38298	13.60	ug/L		93
16) Acrolein	2.385	56	56093	108.73	ug/L		99
17) Allyl chloride	2.471	41	47627	22.69	ug/L		92
18) Methylene Chloride	2.532	49	55845	22.36	ug/L		98
19) Acetone	2.556	43	113944	110.08	ug/L		98
20) Methyl acetate	2.629	43	272095	114.32	ug/L		98
21) trans-1,2-Dichloroethene	2.629	61	62555	24.14	ug/L		97
22) Hexane	2.678	56	32375	23.65	ug/L		97
23) Methyl Tert Butyl Ether	2.690	73	123824	24.90	ug/L		89
24) Tert Butyl Alcohol	2.739	59	79255	204.00	ug/L		90
25) Acetonitrile	2.830	41	85863	220.28	ug/L		99
26) Di-isopropyl ether	2.910	45	123738	23.46	ug/L		96
27) Chloroprene	2.970	53	64253	25.91	ug/L		98
28) 1,1-Dichloroethane	2.983	63	80909	24.04	ug/L		99
29) Acrylonitrile	3.007	52	119356	119.06	ug/L		99
30) ETBE	3.117	59	118570	24.78	ug/L		98
31) Vinyl acetate	3.117	43	505207	131.33	ug/L		100
32) cis-1,2-Dichloroethene	3.287	96	51375	24.58	ug/L		98
33) 2,2-Dichloropropane	3.355	77	54158	23.96	ug/L		98
34) Bromochloromethane	3.403	128	27012	23.97	ug/L		98
35) Cyclohexane	3.416	56	65417	23.53	ug/L		96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	93084	25.54	ug/L	98
37) Ethyl acetate	3.501	43	373906	123.71	ug/L	100
38) Tetrahydrofuran	3.537	42	23310	20.06	ug/L	98
40) Carbon Tetrachloride	3.531	117	60973	26.71	ug/L	99
41) 1,1,1-Trichloroethane	3.568	97	75228	25.43	ug/L	96
42) 2-Butanone	3.611	43	183385	106.81	ug/L	98
43) 1,1-Dichloropropene	3.635	75	61988	24.28	ug/L	98
44) tert-Butyl formate	3.696	59	74360	108.64	ug/L	98
45) Propionitrile	3.781	54	115924	227.52	ug/L	97
46) Methacrylonitrile	3.793	41	408203	236.70	ug/L	99
47) Benzene	3.781	78	183039	24.25	ug/L	84
48) TAME	3.836	73	111128	24.81	ug/L	97
49) Isobutyl alcohol	3.879	43	68115m	441.44	ug/L	
51) 1,2-Dichloroethane	3.891	62	74362	27.65	ug/L	97
52) Tert Amyl Alcohol	3.934	59	58406	190.60	ug/L	91
53) Trichloroethene	4.117	95	53300	24.50	ug/L	97
54) Methylcyclohexane	4.117	83	68228	23.96	ug/L	97
55) Dibromomethane	4.367	93	35521	25.96	ug/L	93
56) 1,2-Dichloropropane	4.428	63	43341	24.48	ug/L	96
57) Bromodichloromethane	4.464	83	62579	25.81	ug/L	98
58) Methyl methacrylate	4.549	41	47116	23.79	ug/L	97
59) 1,4-Dioxane	4.580	88	17127	454.51	ug/L	95
60) 2-Chloroethyl vinyl ether	4.805	63	183297	119.22	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	67468	24.31	ug/L	96
64) Toluene	5.007	91	196545	23.62	ug/L	99
65) 2-Nitropropane	5.153	41	72851	137.45	ug/L	99
66) 4-Methyl-2-pentanone	5.244	43	325265	109.40	ug/L	97
67) trans-1,3-Dichloropropene	5.269	75	68013	24.87	ug/L	95
68) Tetrachloroethene	5.263	166	52210	22.14	ug/L	96
69) Ethyl methacrylate	5.366	69	59216	24.49	ug/L	93
70) 1,1,2-Trichloroethane	5.379	83	42378	25.24	ug/L	97
71) Dibromochloromethane	5.507	129	48706	24.88	ug/L	99
72) 1,3-Dichloropropane	5.568	76	78704	25.59	ug/L	97
73) 1,2-Dibromoethane	5.671	107	52840	25.15	ug/L	97
74) 3,3-dimethyl-1-butanol	5.781	57	431695	1077.04	ug/L	99
75) 2-hexanone	5.811	43	327136	110.75	ug/L	94
76) 1-Chlorohexane	6.013	91	60017m	22.91	ug/L	
77) Ethylbenzene	6.049	91	217796	24.27	ug/L	97
78) Chlorobenzene	6.037	112	136215	24.22	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.080	131	46330	26.31	ug/L	98
80) m,p-Xylene	6.153	91	346730	49.64	ug/L	97
81) o-Xylene	6.470	91	175043	24.82	ug/L	97
82) Styrene	6.506	104	134964	24.36	ug/L	98
83) Bromoform	6.531	173	28902	23.20	ug/L	93
84) Isopropylbenzene	6.701	105	203447	23.93	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	14431	19.87	ug/L #	79
88) n-Propylbenzene	7.018	91	241207	24.26	ug/L	98
89) Bromobenzene	7.000	156	52433	23.77	ug/L	92
90) 1,1,2,2-Tetrachloroethane	7.067	83	77797	25.70	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	172688	24.61	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	170133	25.38	ug/L	95
93) trans-1,4-Dichloro-2-B...	7.207	53	13783	21.66	ug/L #	84
94) 1,2,3-Trichloropropane	7.177	110	24220	24.31	ug/L	97
95) Cyclohexanone	7.214	55	14856	107.54	ug/L	95
96) 4-Chlorotoluene	7.274	91	156888	25.43	ug/L	99
97) tert-Butylbenzene	7.421	91	93142	24.57	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	172851	24.93	ug/L	98
100) Pentachloroethane	7.439	167	25143	26.32	ug/L #	84
101) sec-Butylbenzene	7.561	105	200239	23.84	ug/L	98
102) 4-Isopropyltoluene	7.671	119	170775	23.30	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	104575	23.99	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	178723	24.63	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	105572	23.91	ug/L	97
106) n-Butylbenzene	7.988	92	86734	23.55	ug/L	89
107) Benzyl Chloride	7.976	126	17727	21.51	ug/L #	45
108) 1,2-Dichlorobenzene	8.104	146	99217	24.12	ug/L	99
109) 1,2-Dibromo-3-Chloropr...	8.677	75	15955	25.36	ug/L	82
110) Hexachlorobutadiene	9.134	225	19122	21.48	ug/L	95
111) 1,2,4-Trichlorobenzene	9.152	180	58507	23.43	ug/L	99
112) Naphthalene	9.372	128	212372	24.04	ug/L	100
113) 1,2,3-Trichlorobenzene	9.500	180	55697	23.49	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

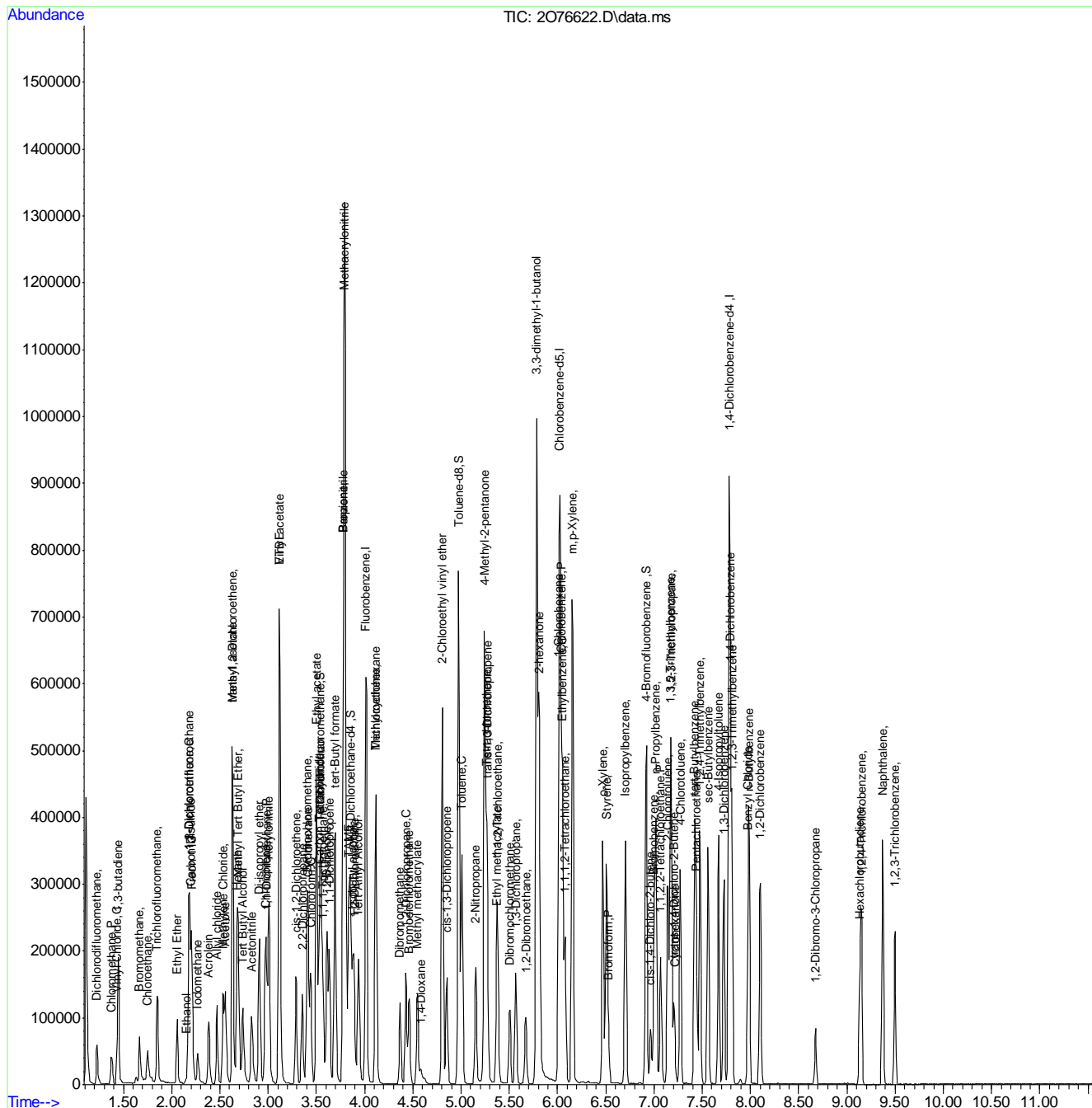


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



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# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76622.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 11:22      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

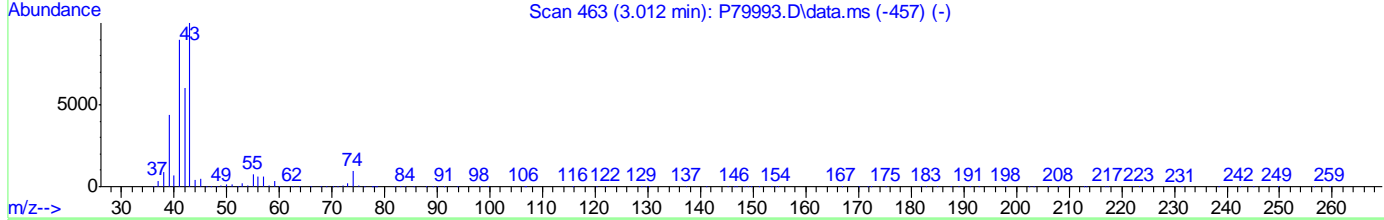
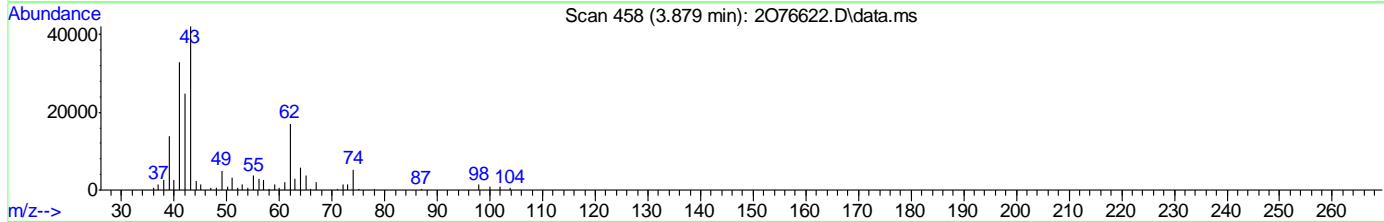
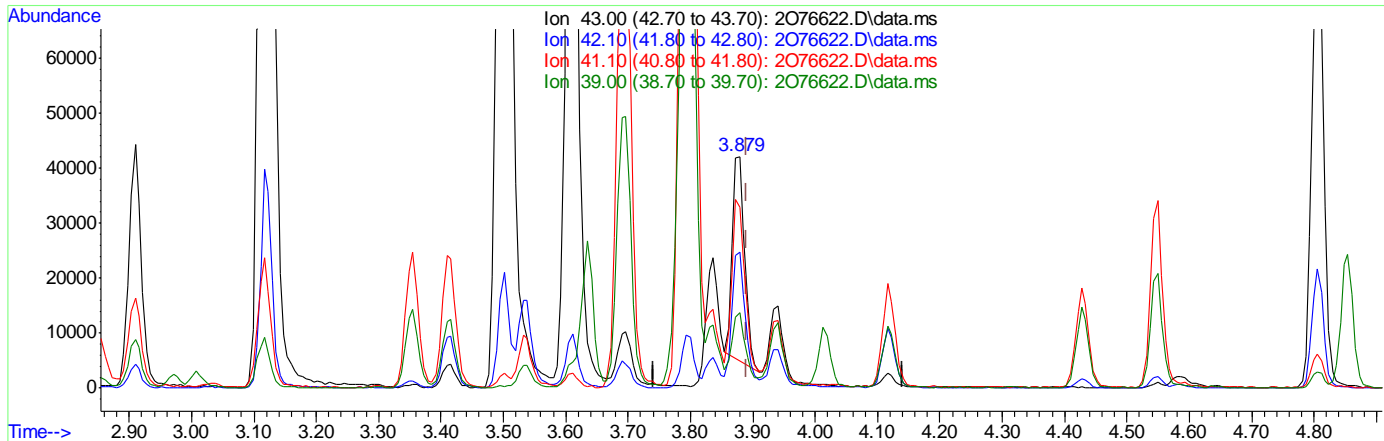
7.6.1.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 328.80ug/L  
 response 49985

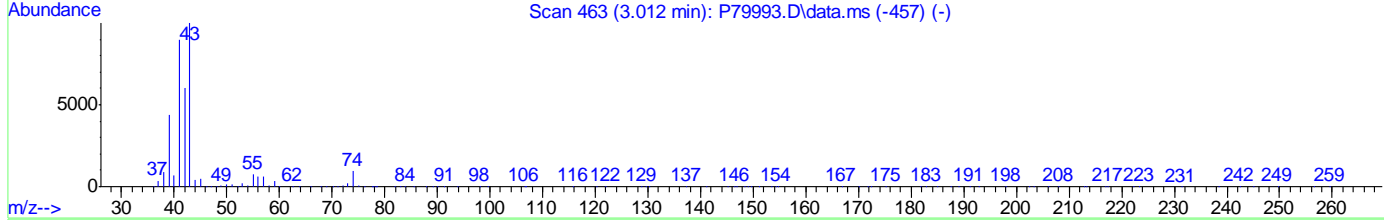
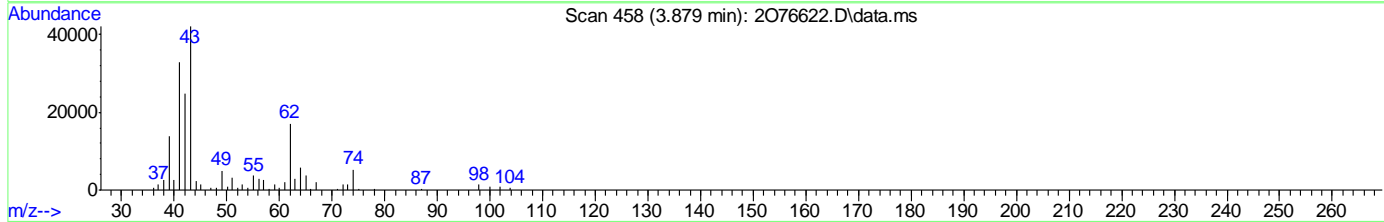
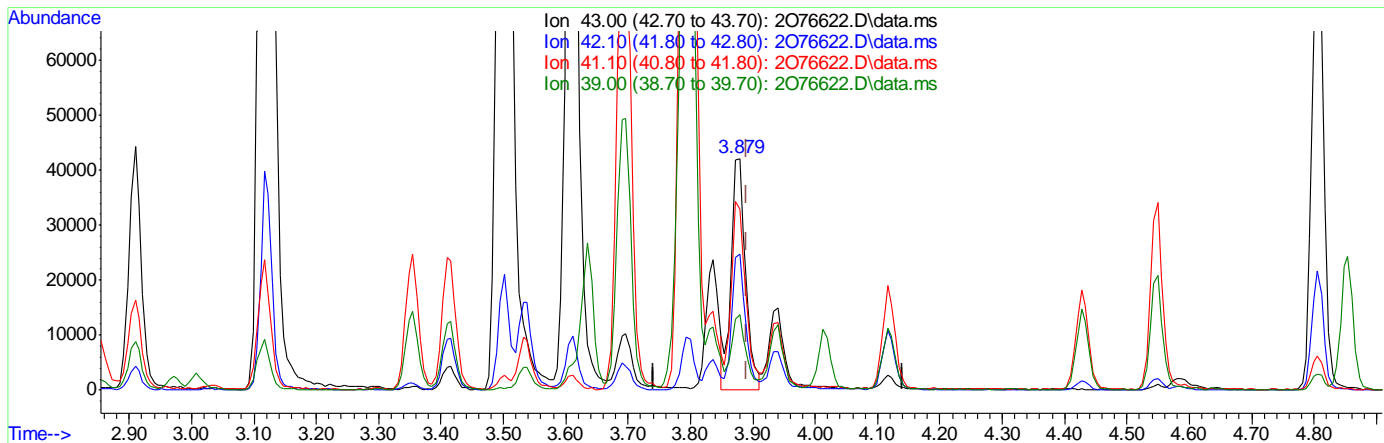
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	59.52
41.10	73.50	75.72
39.00	30.20	30.39

7.6.1.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 441.44ug/L m  
 response 68115

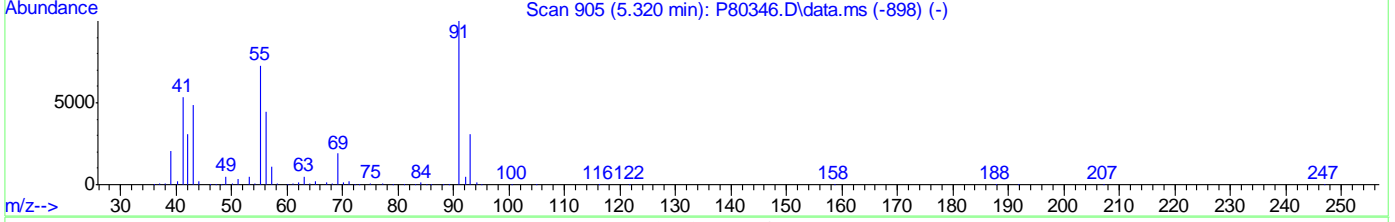
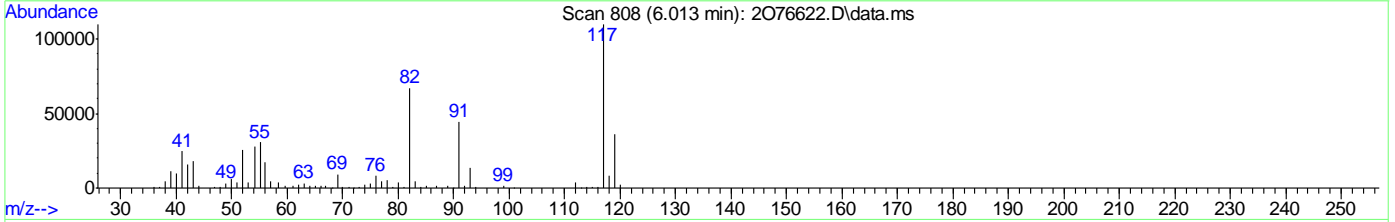
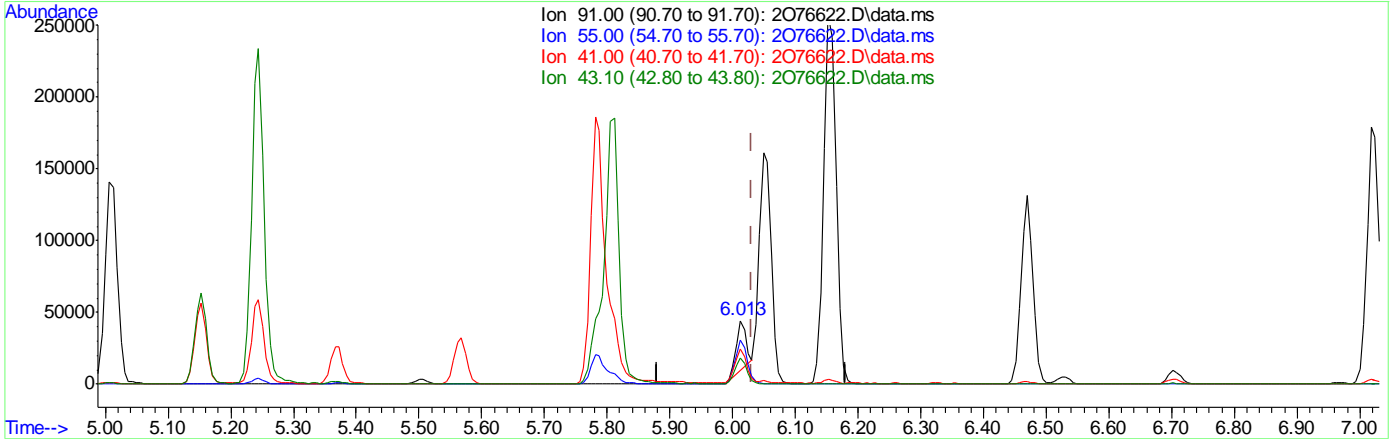
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.75
41.10	73.50	78.06
39.00	30.20	32.70

7.6.1.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 14.59ug/L  
 response 38213

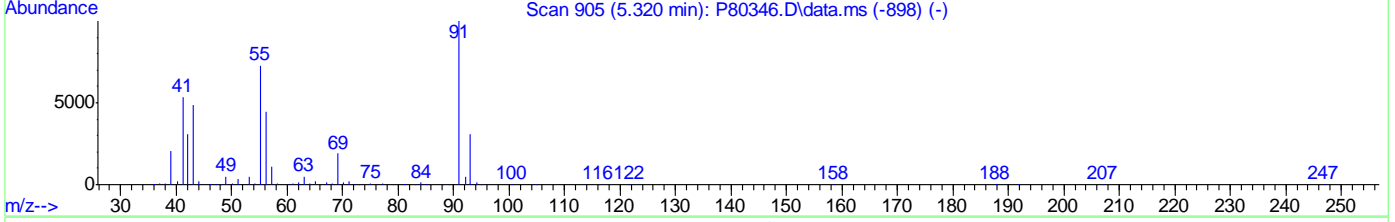
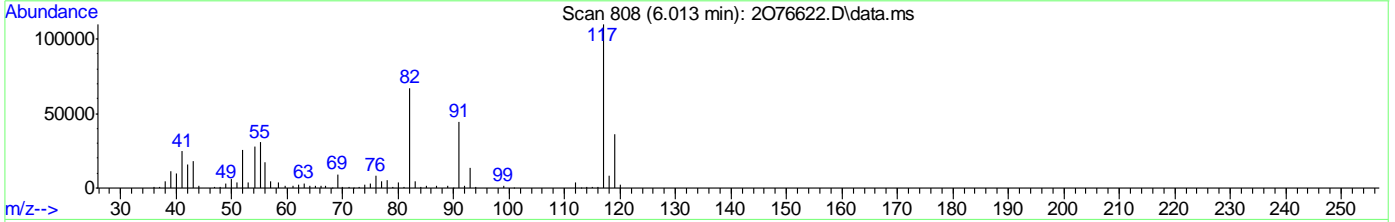
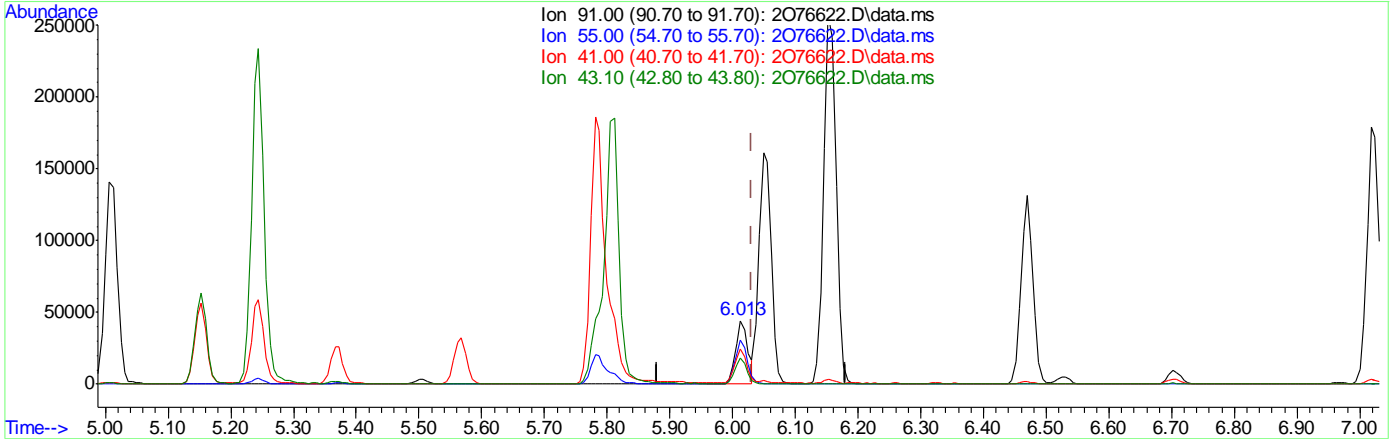
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	69.16
41.00	53.70	53.18
43.10	42.30	40.30

7.6.1.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 22.91ug/L m  
 response 60017

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	69.66
41.00	53.70	55.68
43.10	42.30	41.44

7.6.1.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	426373	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	320814	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	169764	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	116224	49.18	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	98.36%	
50) 1,2-Dichloroethane-d4	3.854	65	141050	56.15	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	112.30%	
63) Toluene-d8	4.976	98	419102	47.90	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	95.80%	
86) 4-Bromofluorobenzene	6.921	174	122824	47.41	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	94.82%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	65826	37.90	ug/L		99
3) Chloromethane	1.379	50	62443	33.25	ug/L		99
4) 1,3-butadiene	1.446	39	68924	36.60	ug/L		98
5) Vinyl Chloride	1.434	62	68903	36.95	ug/L		96
6) Bromomethane	1.672	94	53773	37.65	ug/L		98
7) Chloroethane	1.751	64	37179	Below Cal			98
8) Trichlorofluoromethane	1.849	101	135489	40.91	ug/L		100
9) Ethyl Ether	2.056	59	61952	42.17	ug/L		98
10) Ethanol	2.154	45	23426	610.76	ug/L		99
11) 1,2-Dichlorotrifluoro...	2.178	67	91695	41.93	ug/L		97
12) 1,1-Dichloroethene	2.178	61	116171	41.36	ug/L		97
13) Freon 113	2.208	101	83745	44.79	ug/L		95
14) Carbon Disulfide	2.202	76	214433	39.31	ug/L		95
15) Iodomethane	2.269	142	76584	26.24	ug/L		93
16) Acrolein	2.385	56	95417	178.50	ug/L		99
17) Allyl chloride	2.471	41	77458	35.62	ug/L		94
18) Methylene Chloride	2.532	49	98407	38.46	ug/L		96
19) Acetone	2.556	43	187001	174.37	ug/L		97
20) Methyl acetate	2.629	43	465679	188.83	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	113274	42.18	ug/L		98
22) Hexane	2.678	56	57910	40.83	ug/L		98
23) Methyl Tert Butyl Ether	2.690	73	229067	44.46	ug/L		89
24) Tert Butyl Alcohol	2.739	59	137160	331.52	ug/L		96
25) Acetonitrile	2.830	41	131978	326.78	ug/L		98
26) Di-isopropyl ether	2.910	45	224834	41.13	ug/L		96
27) Chloroprene	2.971	53	102290	39.81	ug/L		100
28) 1,1-Dichloroethane	2.983	63	147398	42.28	ug/L		100
29) Acrylonitrile	3.007	52	178389	171.74	ug/L		98
30) ETBE	3.117	59	221218	44.62	ug/L		99
31) Vinyl acetate	3.117	43	786299	197.27	ug/L		100
32) cis-1,2-Dichloroethene	3.288	96	93812	43.31	ug/L		96
33) 2,2-Dichloropropane	3.355	77	102880	43.93	ug/L		98
34) Bromochloromethane	3.403	128	45659	39.10	ug/L		97
35) Cyclohexane	3.416	56	118080	40.99	ug/L		92

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	166135	43.99	ug/L	100
37) Ethyl acetate	3.501	43	559095	178.53	ug/L	100
38) Tetrahydrofuran	3.531	42	39579	32.87	ug/L	98
40) Carbon Tetrachloride	3.531	117	116593m	49.30	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	138307	45.13	ug/L	98
42) 2-Butanone	3.611	43	300446	168.90	ug/L	99
43) 1,1-Dichloropropene	3.635	75	114328	43.23	ug/L	97
44) tert-Butyl formate	3.696	59	151609	200.97	ug/L	90
45) Propionitrile	3.781	54	178462	338.06	ug/L	92
46) Methacrylonitrile	3.794	41	638344	357.25	ug/L	99
47) Benzene	3.781	78	335332	42.87	ug/L	90
48) TAME	3.836	73	213020	45.90	ug/L	99
49) Isobutyl alcohol	3.879	43	109378m	664.69	ug/L	
51) 1,2-Dichloroethane	3.891	62	132126	47.41	ug/L	98
52) Tert Amyl Alcohol	3.940	59	105000	320.82	ug/L	97
53) Trichloroethene	4.117	95	95946	42.56	ug/L	97
54) Methylcyclohexane	4.117	83	125578	42.56	ug/L	97
55) Dibromomethane	4.367	93	62808	44.29	ug/L	98
56) 1,2-Dichloropropane	4.428	63	79539	43.36	ug/L	97
57) Bromodichloromethane	4.464	83	115870	46.13	ug/L	99
58) Methyl methacrylate	4.549	41	77860	37.95	ug/L	99
59) 1,4-Dioxane	4.586	88	30335	760.40	ug/L	95
60) 2-Chloroethyl vinyl ether	4.806	63	336704	211.37	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	129473	43.92	ug/L	98
64) Toluene	5.007	91	358502	40.78	ug/L	99
65) 2-Nitropropane	5.153	41	139242	229.70	ug/L	95
66) 4-Methyl-2-pentanone	5.244	43	547884	174.40	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	129149	43.80	ug/L	96
68) Tetrachloroethene	5.263	166	95581	38.37	ug/L	95
69) Ethyl methacrylate	5.366	69	97892	37.68	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	75298	42.45	ug/L	98
71) Dibromochloromethane	5.501	129	93044	43.54	ug/L	98
72) 1,3-Dichloropropane	5.568	76	142612	43.88	ug/L	97
73) 1,2-Dibromoethane	5.671	107	97238	43.80	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	770515	1768.71	ug/L	99
75) 2-hexanone	5.805	43	550862	176.51	ug/L	100
76) 1-Chlorohexane	6.013	91	111025m	40.12	ug/L	
77) Ethylbenzene	6.049	91	394127	41.56	ug/L	98
78) Chlorobenzene	6.037	112	246538	41.49	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	85432	45.91	ug/L	98
80) m,p-Xylene	6.153	91	632914	85.76	ug/L	97
81) o-Xylene	6.470	91	319474	42.88	ug/L	96
82) Styrene	6.506	104	253553	43.31	ug/L	97
83) Bromoform	6.531	173	55711	40.32	ug/L	98
84) Isopropylbenzene	6.702	105	375983	41.85	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	24681	32.10	ug/L #	87
88) n-Propylbenzene	7.019	91	439449	41.76	ug/L	98
89) Bromobenzene	7.000	156	96668	41.39	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.067	83	139025	43.38	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	320425	43.12	ug/L	97



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	304666	42.93	ug/L	96
93) trans-1,4-Dichloro-2-B...	7.207	53	25988	37.37	ug/L	94
94) 1,2,3-Trichloropropane	7.177	110	44519	42.21	ug/L	97
95) Cyclohexanone	7.214	55	22436	153.41	ug/L	97
96) 4-Chlorotoluene	7.275	91	288538	44.18	ug/L	99
97) tert-Butylbenzene	7.421	91	172894	43.07	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	322431	43.92	ug/L	97
100) Pentachloroethane	7.439	167	42913	40.81	ug/L #	85
101) sec-Butylbenzene	7.561	105	364792	41.02	ug/L	99
102) 4-Isopropyltoluene	7.671	119	317715	40.94	ug/L	98
103) 1,3-Dichlorobenzene	7.726	146	189630	41.09	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	333706	43.43	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	192691	41.21	ug/L	99
106) n-Butylbenzene	7.982	92	158519	40.22	ug/L #	80
107) Benzyl Chloride	7.976	126	36514	38.61	ug/L #	60
108) 1,2-Dichlorobenzene	8.104	146	180515	41.45	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	28987	41.99	ug/L	83
110) Hexachlorobutadiene	9.134	225	34012	35.64	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	104883	39.67	ug/L	98
112) Naphthalene	9.372	128	401231	42.90	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	101571	40.46	ug/L	99

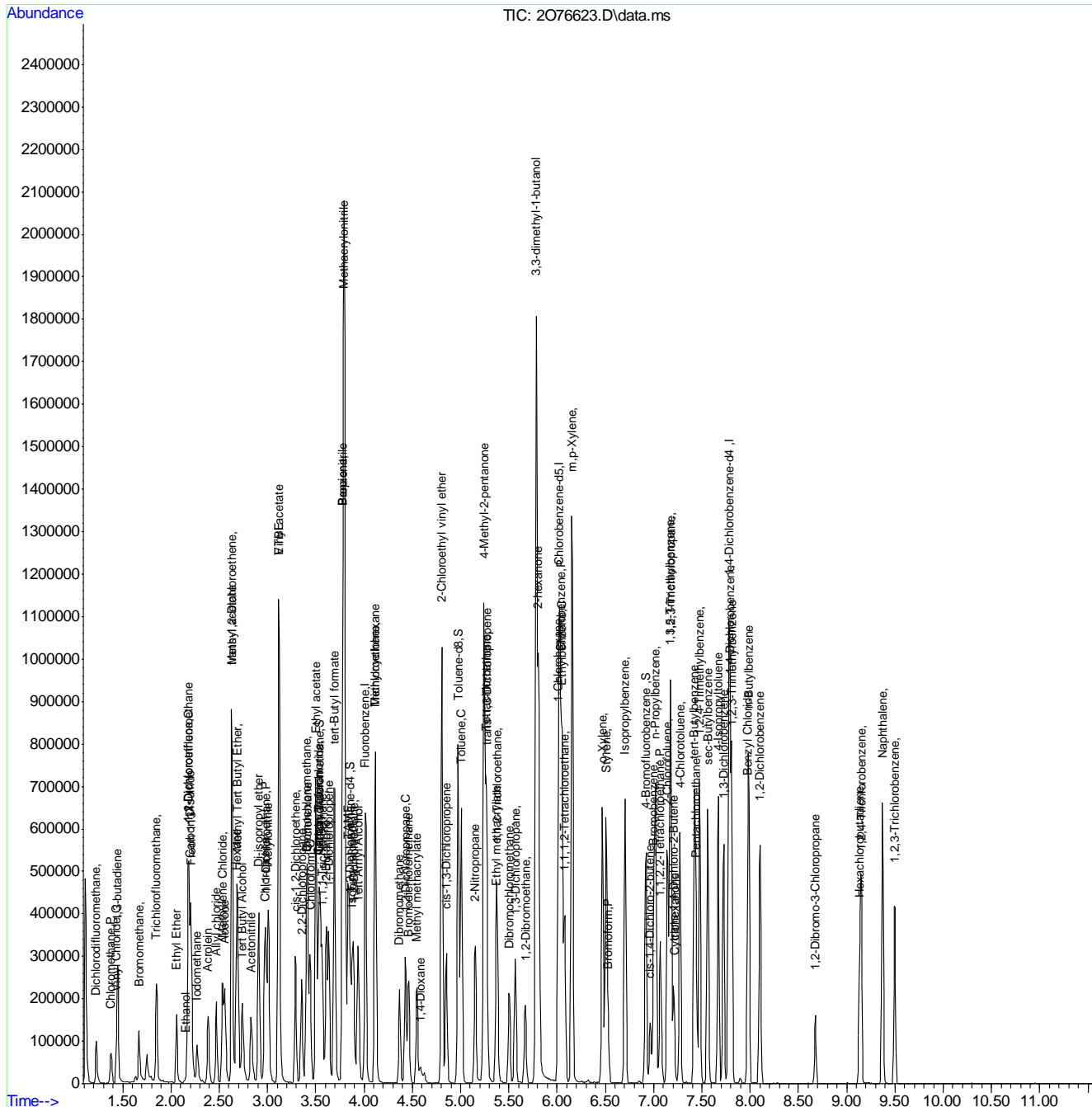
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



7.6.2  
7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-ICC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76623.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 11:47      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

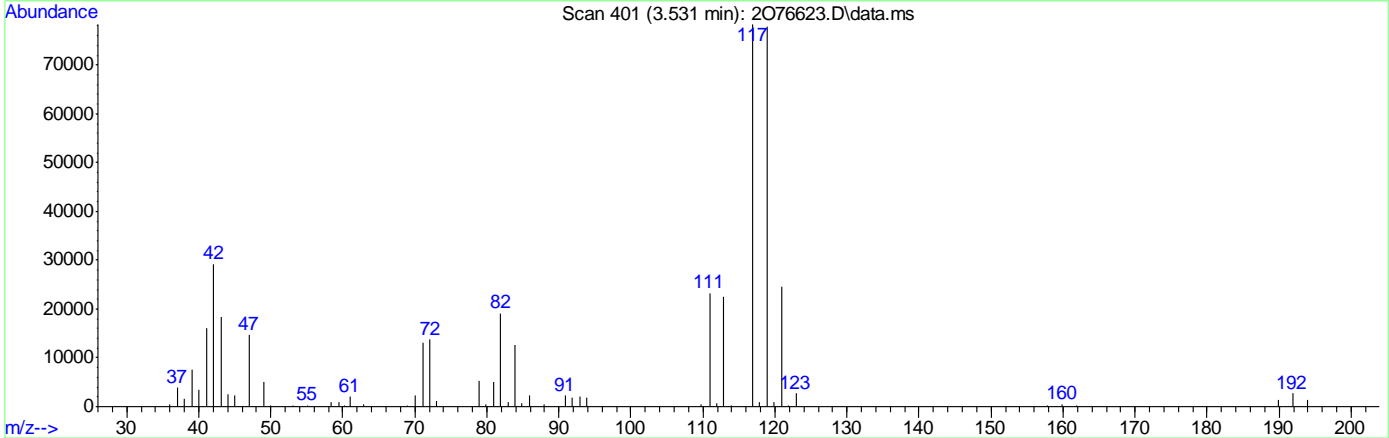
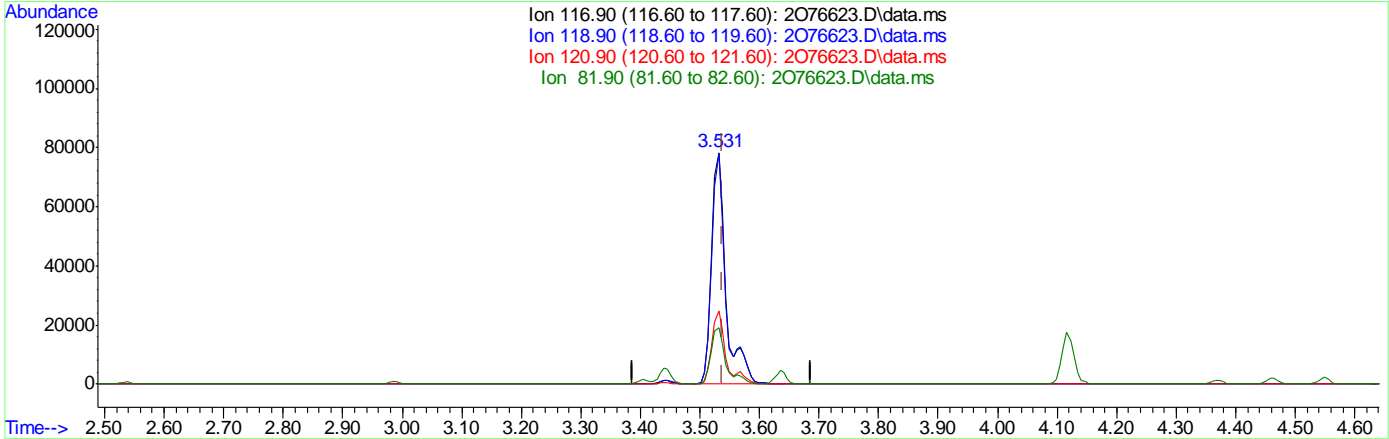
7.6.2.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.007) 56.30ug/L

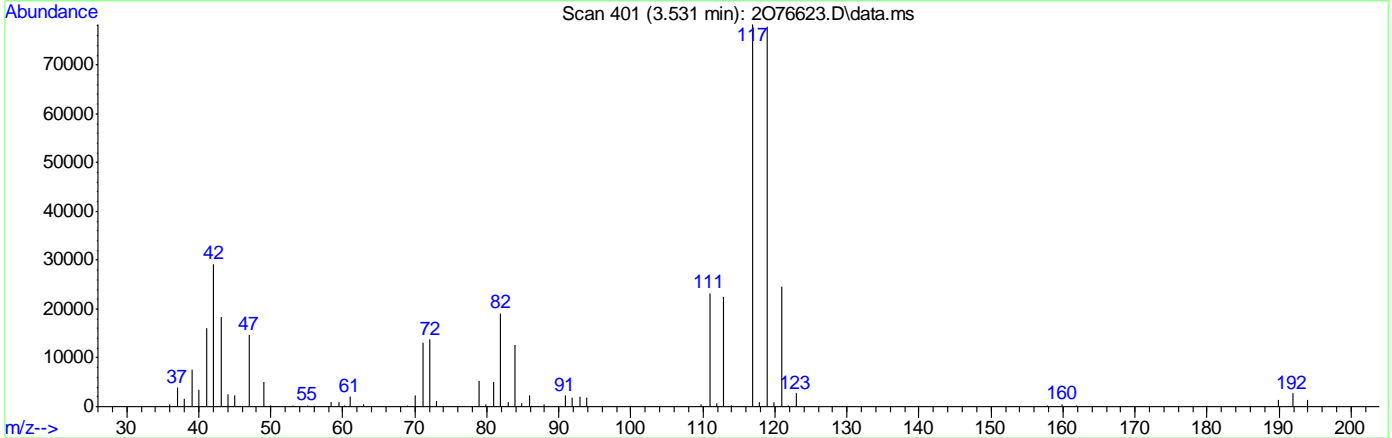
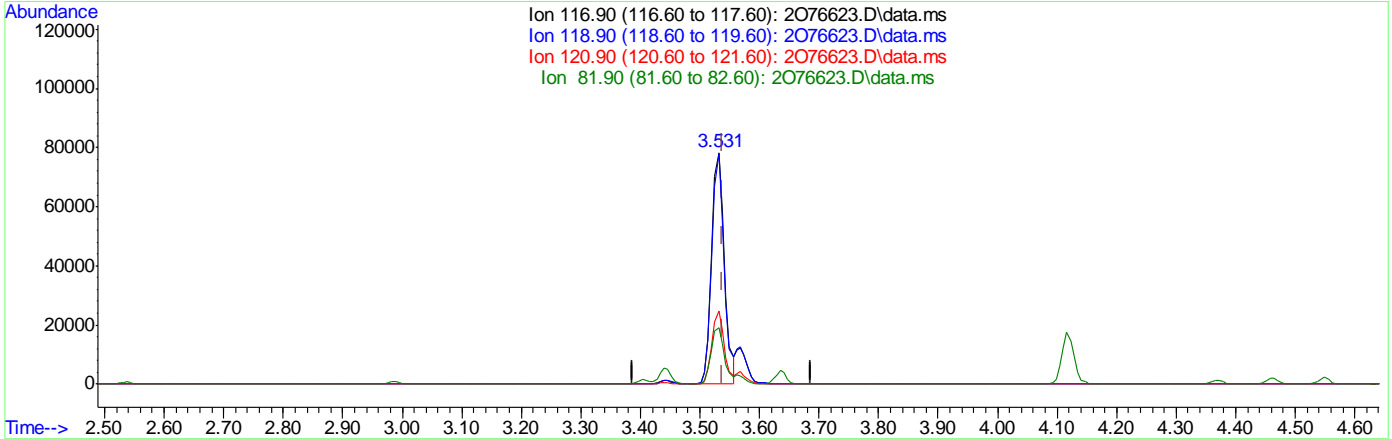
response 133150

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.29
120.90	31.00	31.46
81.90	24.80	24.43

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.531min (-0.007) 49.30ug/L m  
 response 116593

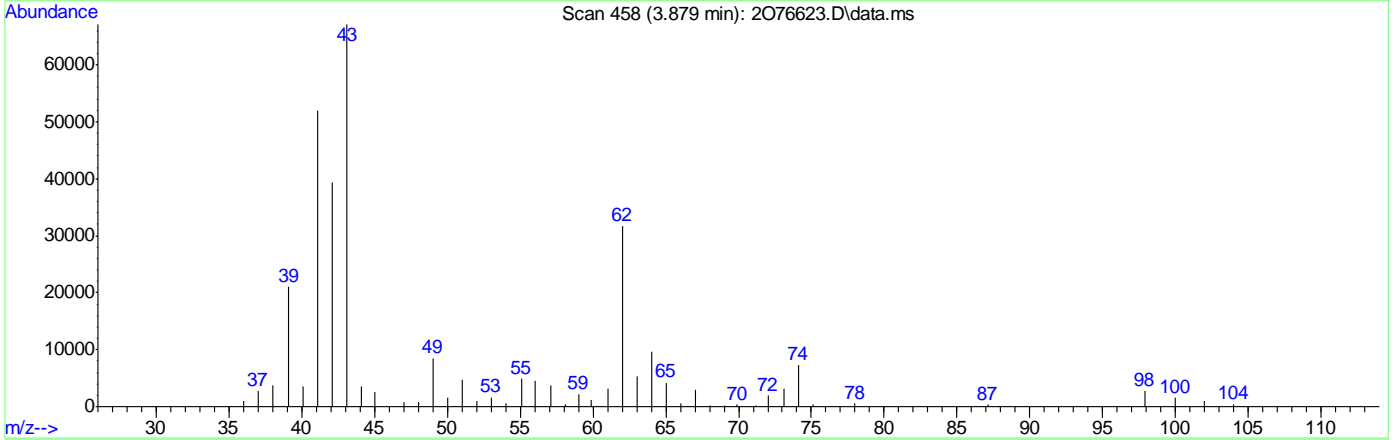
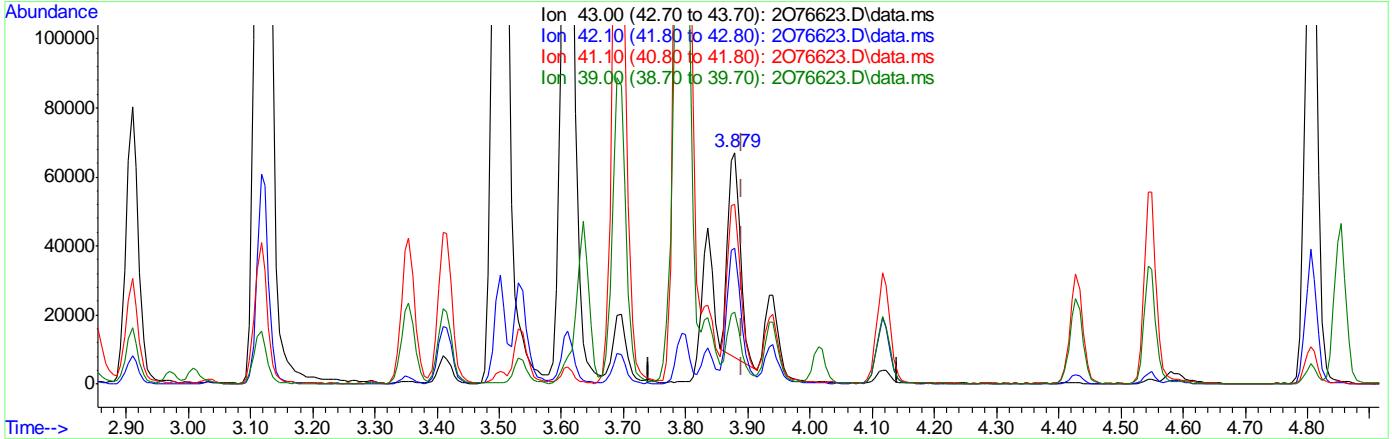
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.29
120.90	31.00	31.46
81.90	24.80	24.43

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 498.42ug/L  
 response 80281

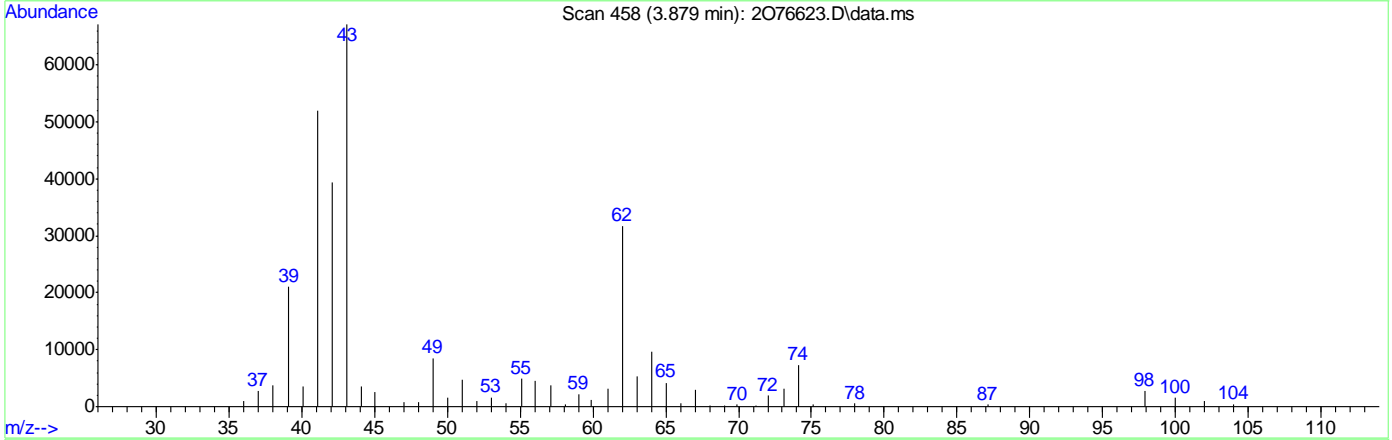
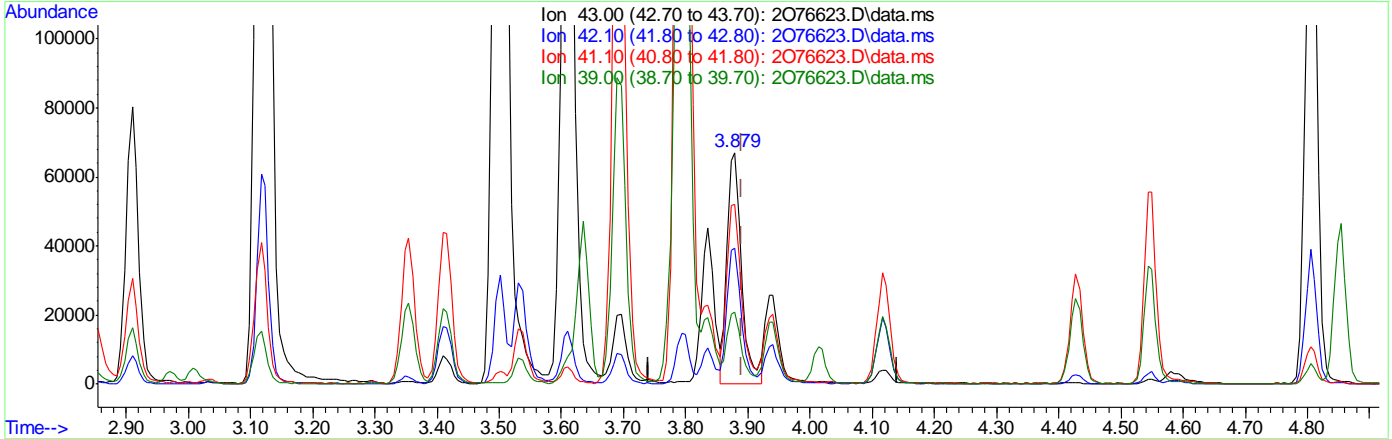
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	59.10
41.10	73.50	75.61
39.00	30.20	29.27

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

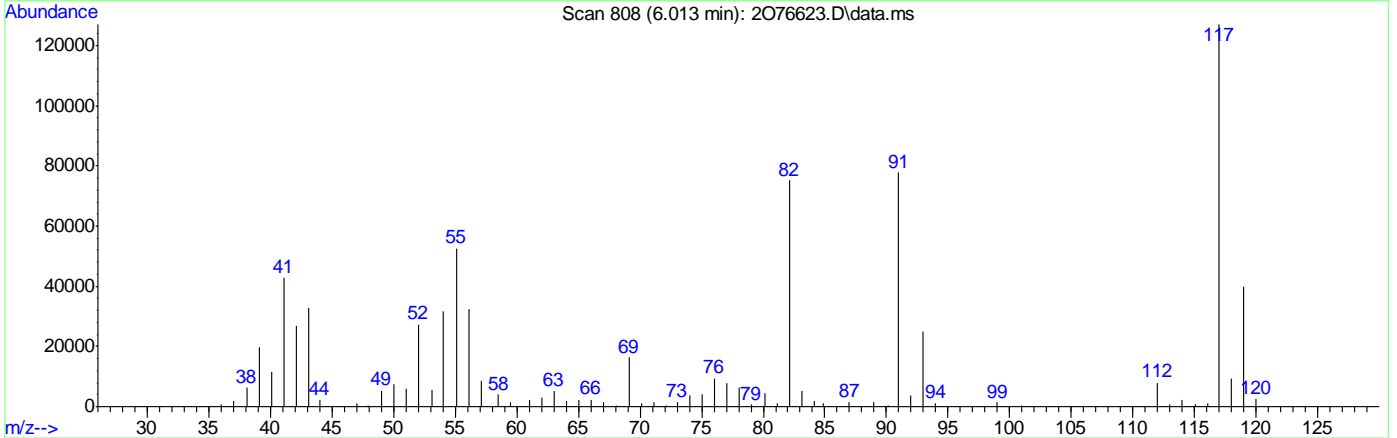
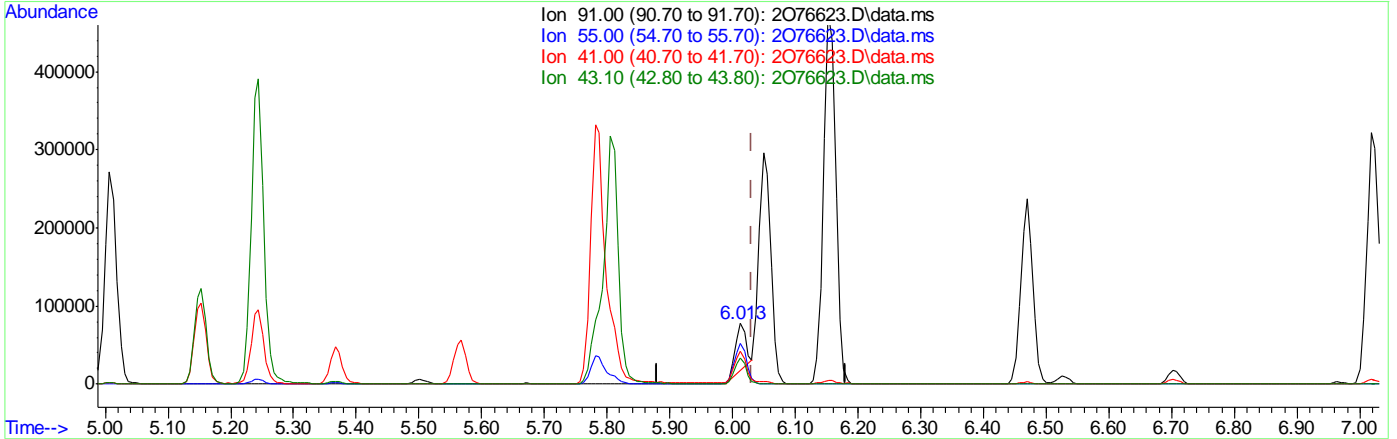
(49) Isobutyl alcohol  
 3.879min (-0.012) 664.69ug/L m  
 response 109378

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.52
41.10	73.50	77.53
39.00	30.20	31.34

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 25.37ug/L  
 response 70207

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.82
41.00	53.70	53.12
43.10	42.30	41.64

7.6.2.6  
7

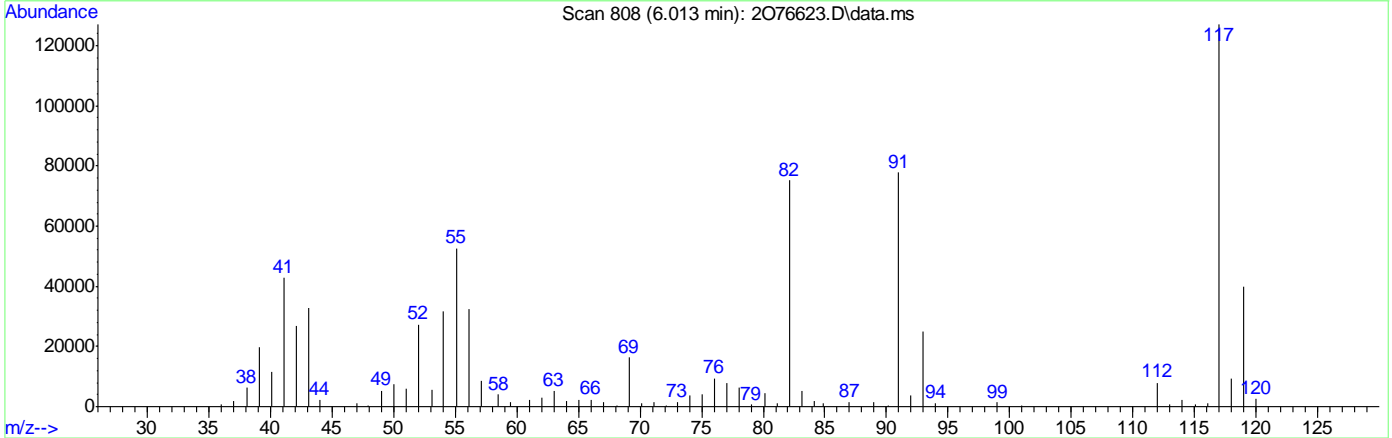
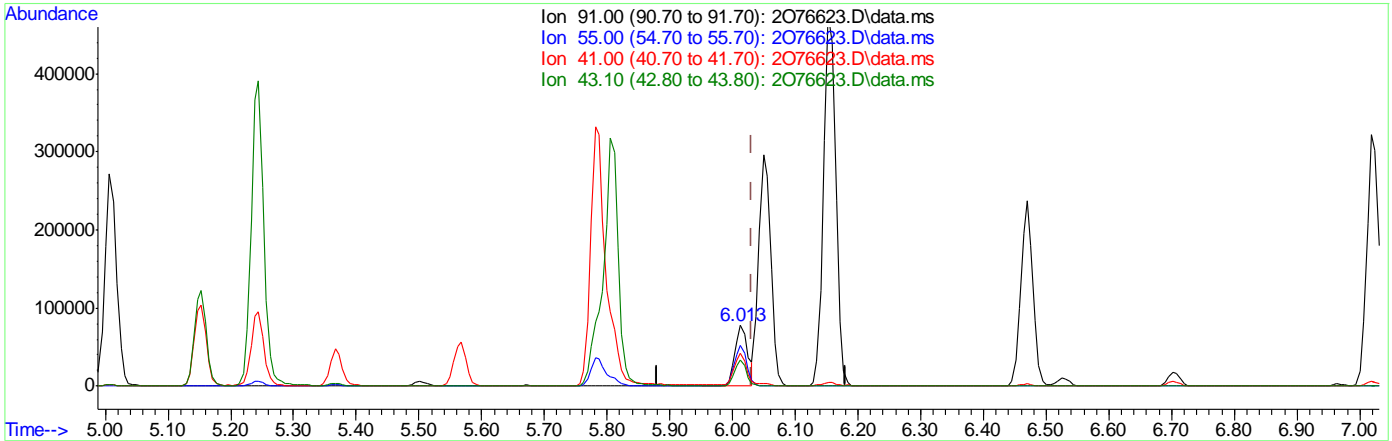


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 40.12ug/L m  
 response 111025

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	67.57
41.00	53.70	55.03
43.10	42.30	42.37

7.6.2.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	423665	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	315924	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	168870	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	116494	49.61	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	99.22%	
50) 1,2-Dichloroethane-d4	3.855	65	142277	57.00	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	114.00%	
63) Toluene-d8	4.976	98	416533	48.35	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	96.70%	
86) 4-Bromofluorobenzene	6.921	174	122505	47.54	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	95.08%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	100849	58.43	ug/L		99
3) Chloromethane	1.373	50	103507	55.46	ug/L		97
4) 1,3-butadiene	1.446	39	100557	53.74	ug/L		94
5) Vinyl Chloride	1.434	62	108811	58.72	ug/L		99
6) Bromomethane	1.666	94	89131	62.81	ug/L		99
7) Chloroethane	1.745	64	28937	31.72	ug/L		97
8) Trichlorofluoromethane	1.843	101	206704	62.81	ug/L		99
9) Ethyl Ether	2.056	59	100657	68.95	ug/L		97
10) Ethanol	2.166	45	45124	1190.84	ug/L		98
11) 1,2-Dichlorotrifluoro...	2.178	67	134609	61.95	ug/L		98
12) 1,1-Dichloroethene	2.178	61	167189	59.91	ug/L		98
13) Freon 113	2.209	101	115717	62.28	ug/L		97
14) Carbon Disulfide	2.196	76	314715	58.06	ug/L		97
15) Iodomethane	2.269	142	127042	43.80	ug/L		93
16) Acrolein	2.385	56	171860	323.56	ug/L		99
17) Allyl chloride	2.471	41	127695	59.09	ug/L		93
18) Methylene Chloride	2.532	49	156334	62.56	ug/L		97
19) Acetone	2.556	43	336383	315.66	ug/L		97
20) Methyl acetate	2.629	43	791518	323.01	ug/L		100
21) trans-1,2-Dichloroethene	2.629	61	170176	63.78	ug/L		97
22) Hexane	2.678	56	84377	59.87	ug/L	#	87
23) Methyl Tert Butyl Ether	2.690	73	379116	74.05	ug/L		98
24) Tert Butyl Alcohol	2.745	59	262994	604.66	ug/L		96
25) Acetonitrile	2.830	41	243690	607.24	ug/L		99
26) Di-isopropyl ether	2.910	45	365675	67.33	ug/L		97
27) Chloroprene	2.971	53	161613	63.30	ug/L		99
28) 1,1-Dichloroethane	2.983	63	227817	65.76	ug/L		99
29) Acrylonitrile	3.007	52	313540	303.79	ug/L		100
30) ETBE	3.117	59	359432	72.96	ug/L		97
31) Vinyl acetate	3.117	43	1341282	338.65	ug/L		100
32) cis-1,2-Dichloroethene	3.288	96	146825	68.22	ug/L		99
33) 2,2-Dichloropropane	3.355	77	157544	67.70	ug/L		99
34) Bromochloromethane	3.403	128	69690	60.06	ug/L		97
35) Cyclohexane	3.410	56	172963	60.42	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	257838	68.71	ug/L	98
37) Ethyl acetate	3.501	43	980406	315.07	ug/L	99
38) Tetrahydrofuran	3.531	42	72748	60.80	ug/L	99
40) Carbon Tetrachloride	3.531	117	172538	73.42	ug/L	99
41) 1,1,1-Trichloroethane	3.568	97	208373	68.43	ug/L	99
42) 2-Butanone	3.611	43	541327	306.25	ug/L	100
43) 1,1-Dichloropropene	3.635	75	170522	64.88	ug/L	96
44) tert-Butyl formate	3.696	59	265084	326.95	ug/L #	86
45) Propionitrile	3.781	54	333946	636.63	ug/L	96
46) Methacrylonitrile	3.794	41	1143273	643.92	ug/L	100
47) Benzene	3.775	78	516853	66.50	ug/L	96
48) TAME	3.836	73	352467	76.43	ug/L	99
49) Isobutyl alcohol	3.879	43	218491m	1244.36	ug/L	
51) 1,2-Dichloroethane	3.891	62	209385	75.62	ug/L	97
52) Tert Amyl Alcohol	3.940	59	199779	579.86	ug/L	99
53) Trichloroethene	4.117	95	145175	64.81	ug/L	97
54) Methylcyclohexane	4.117	83	181410	61.88	ug/L	97
55) Dibromomethane	4.367	93	101623	72.12	ug/L	97
56) 1,2-Dichloropropane	4.428	63	127319	69.86	ug/L	97
57) Bromodichloromethane	4.464	83	186925	74.89	ug/L	99
58) Methyl methacrylate	4.543	41	143720	70.50	ug/L	97
59) 1,4-Dioxane	4.586	88	55008	1334.34	ug/L	98
60) 2-Chloroethyl vinyl ether	4.806	63	564785	356.82	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	210443	69.62	ug/L	97
64) Toluene	5.007	91	555074	64.12	ug/L	100
65) 2-Nitropropane	5.153	41	252315	376.86	ug/L	96
66) 4-Methyl-2-pentanone	5.245	43	957840	309.62	ug/L	97
67) trans-1,3-Dichloropropene	5.269	75	211865	70.94	ug/L	98
68) Tetrachloroethene	5.263	166	143361	58.44	ug/L	95
69) Ethyl methacrylate	5.366	69	178886	67.40	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	120928	69.22	ug/L	97
71) Dibromochloromethane	5.507	129	154347	70.15	ug/L	98
72) 1,3-Dichloropropane	5.568	76	228588	71.43	ug/L	98
73) 1,2-Dibromoethane	5.671	107	158388	72.45	ug/L	99
74) 3,3-dimethyl-1-butanol	5.787	57	1473088	3241.40	ug/L	98
75) 2-hexanone	5.805	43	984752	320.43	ug/L	94
76) 1-Chlorohexane	6.013	91	165854m	60.86	ug/L	
77) Ethylbenzene	6.049	91	613129	65.66	ug/L	96
78) Chlorobenzene	6.037	112	386620	66.07	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	137976	75.30	ug/L	99
80) m,p-Xylene	6.153	91	980876	134.97	ug/L	97
81) o-Xylene	6.470	91	502925	68.55	ug/L	97
82) Styrene	6.506	104	410291	71.17	ug/L	98
83) Bromoform	6.531	173	97638	66.87	ug/L	98
84) Isopropylbenzene	6.702	105	581839	65.77	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	47332	61.88	ug/L #	90
88) n-Propylbenzene	7.019	91	686570	65.58	ug/L	99
89) Bromobenzene	7.000	156	156022	67.16	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	230627	72.35	ug/L	98
91) 1,3,5-Trimethylbenzene	7.177	105	510371	69.05	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	484219	68.60	ug/L	95
93) trans-1,4-Dichloro-2-B...	7.208	53	45900	63.10	ug/L	97
94) 1,2,3-Trichloropropane	7.177	110	73408	69.98	ug/L	98
95) Cyclohexanone	7.214	55	44123	303.29	ug/L	97
96) 4-Chlorotoluene	7.275	91	458711	70.60	ug/L	99
97) tert-Butylbenzene	7.421	91	271714	68.05	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	518007	70.93	ug/L	99
100) Pentachloroethane	7.439	167	77272	68.77	ug/L	92
101) sec-Butylbenzene	7.561	105	569271	64.35	ug/L	99
102) 4-Isopropyltoluene	7.671	119	513765	66.55	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	309150	67.34	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	546431	71.49	ug/L	100
105) 1,4-Dichlorobenzene	7.793	146	309008	66.44	ug/L	99
106) n-Butylbenzene	7.988	92	259526	65.14	ug/L	97
107) Benzyl Chloride	7.976	126	67210	64.09	ug/L #	75
108) 1,2-Dichlorobenzene	8.104	146	295952	68.32	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.677	75	53148	72.66	ug/L	82
110) Hexachlorobutadiene	9.134	225	53585	55.45	ug/L	97
111) 1,2,4-Trichlorobenzene	9.152	180	175830	66.86	ug/L	99
112) Naphthalene	9.372	128	686038	73.73	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	168246	67.37	ug/L	99

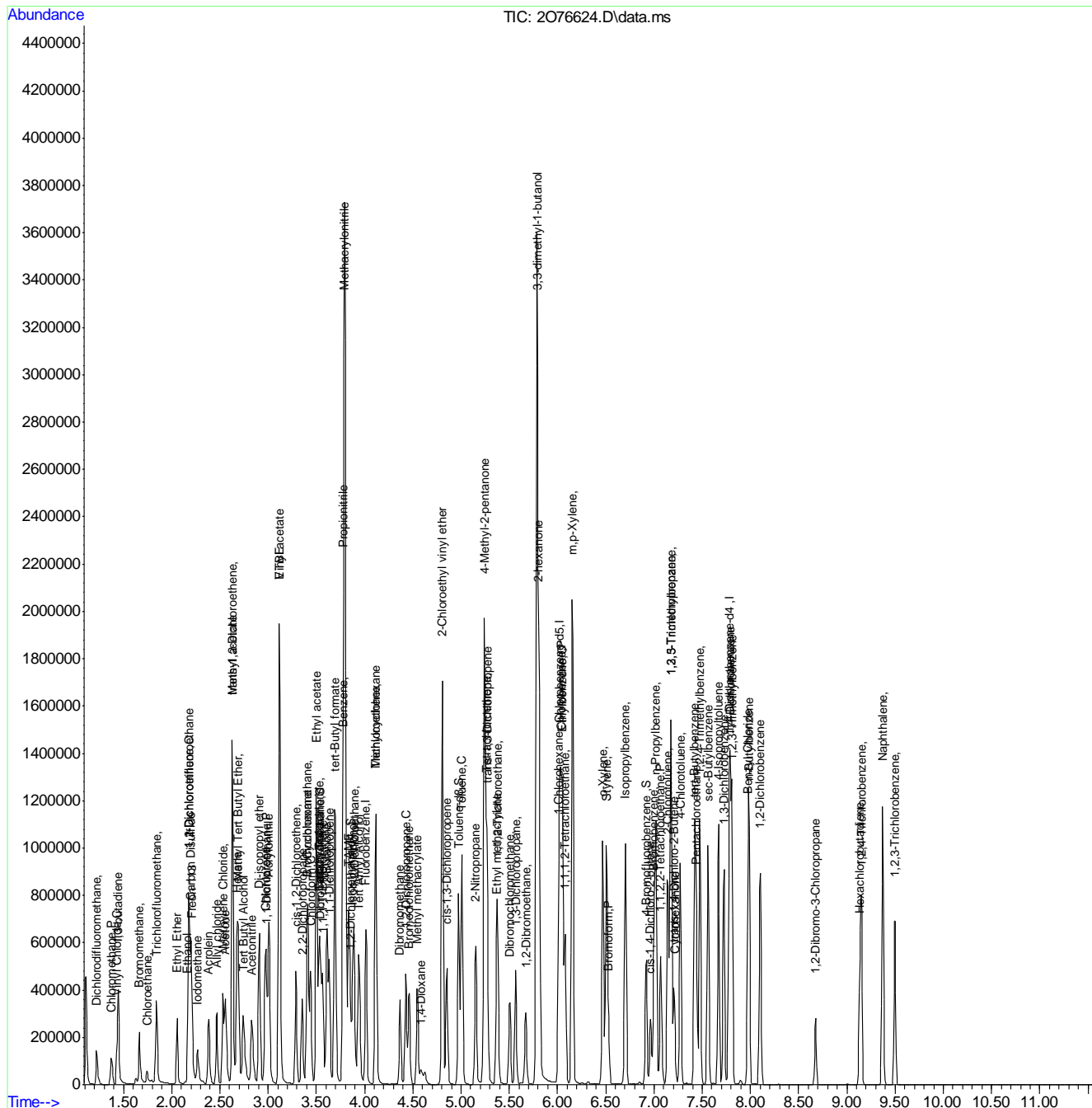
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



7.6.3  
7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76624.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 12:13      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

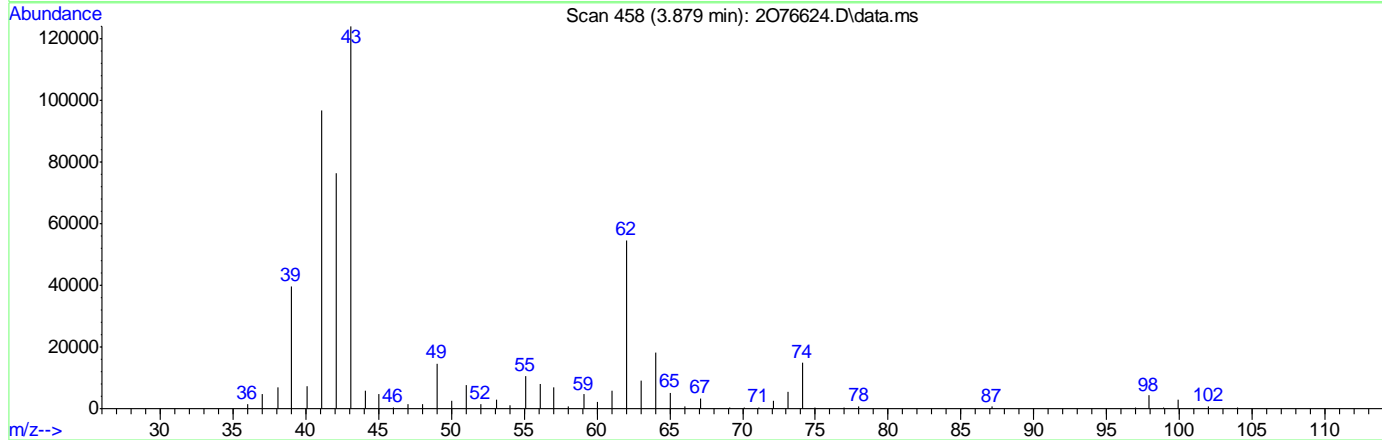
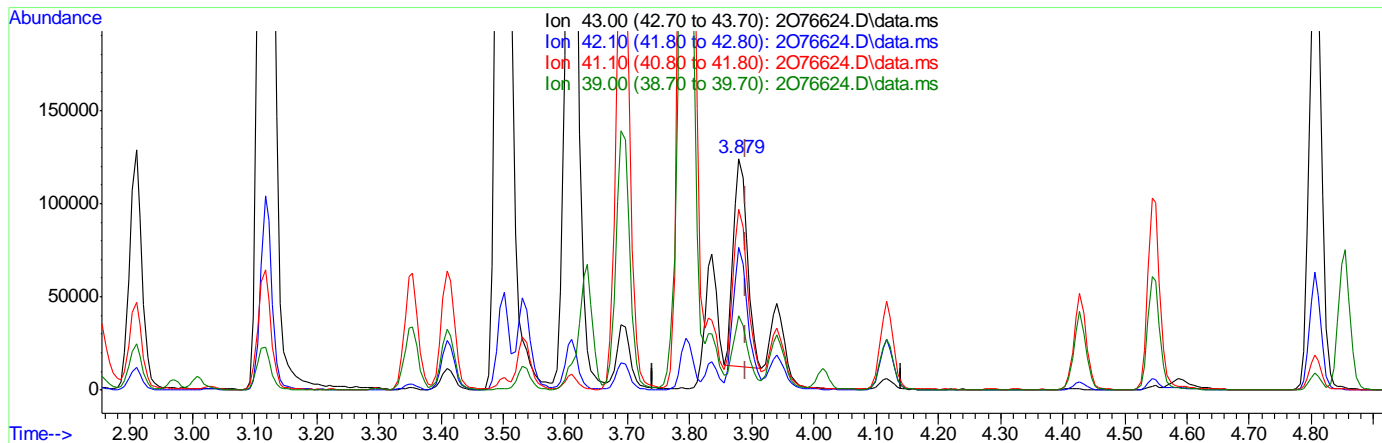
7.6.3.1  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 1012.80ug/L  
 response 172947

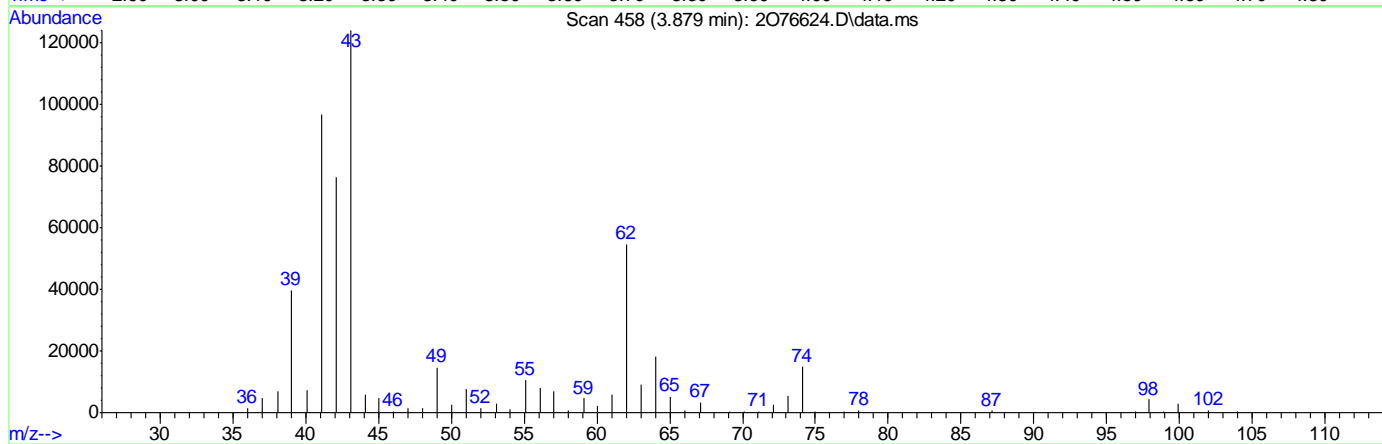
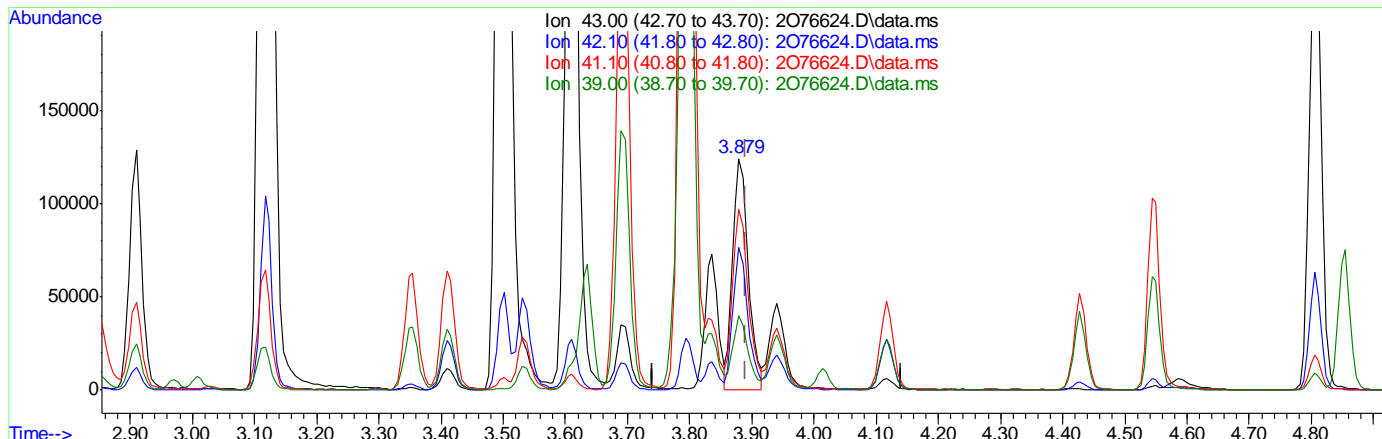
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	64.34
41.10	73.50	76.80
39.00	30.20	30.77

7.6.3.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 1244.36ug/L m  
 response 218491

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	61.69
41.10	73.50	77.87
39.00	30.20	32.07

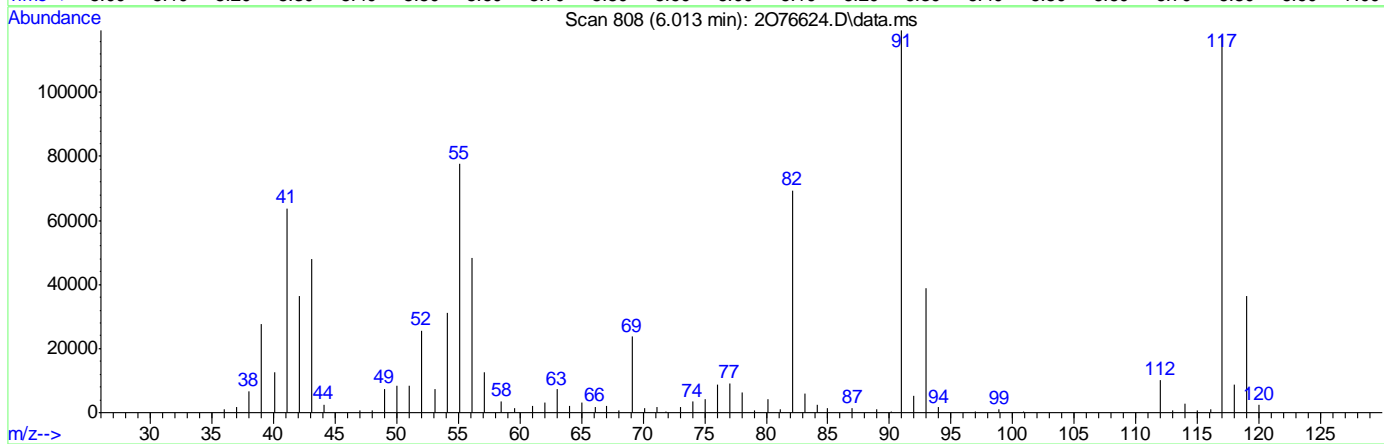
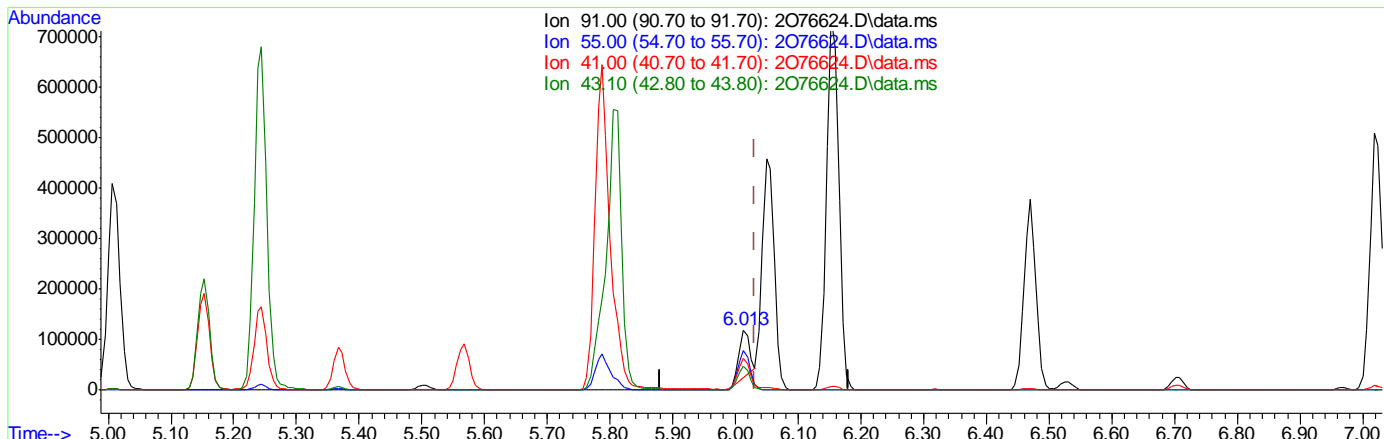
7.633  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 39.66ug/L  
 response 108079

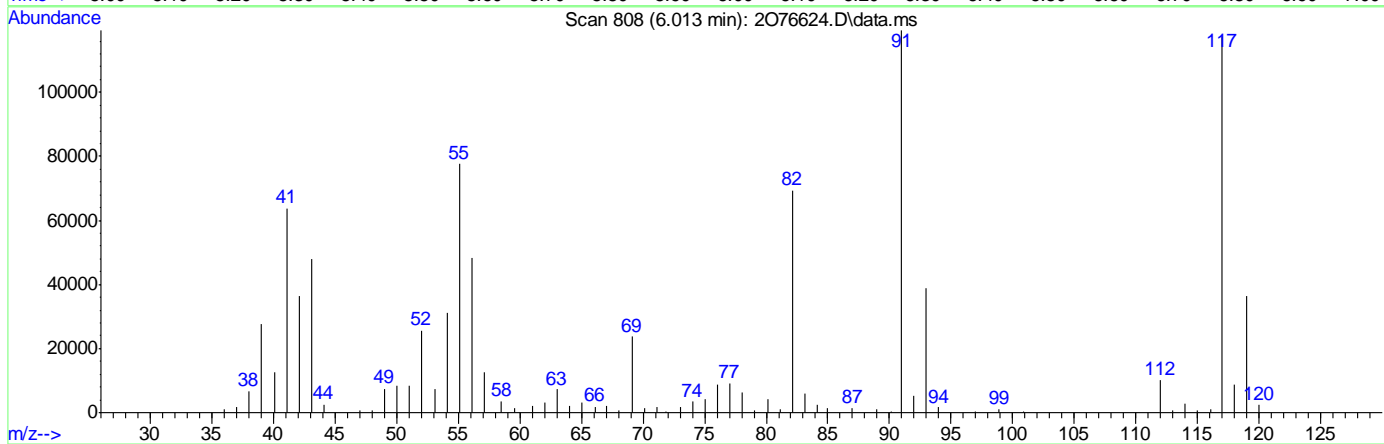
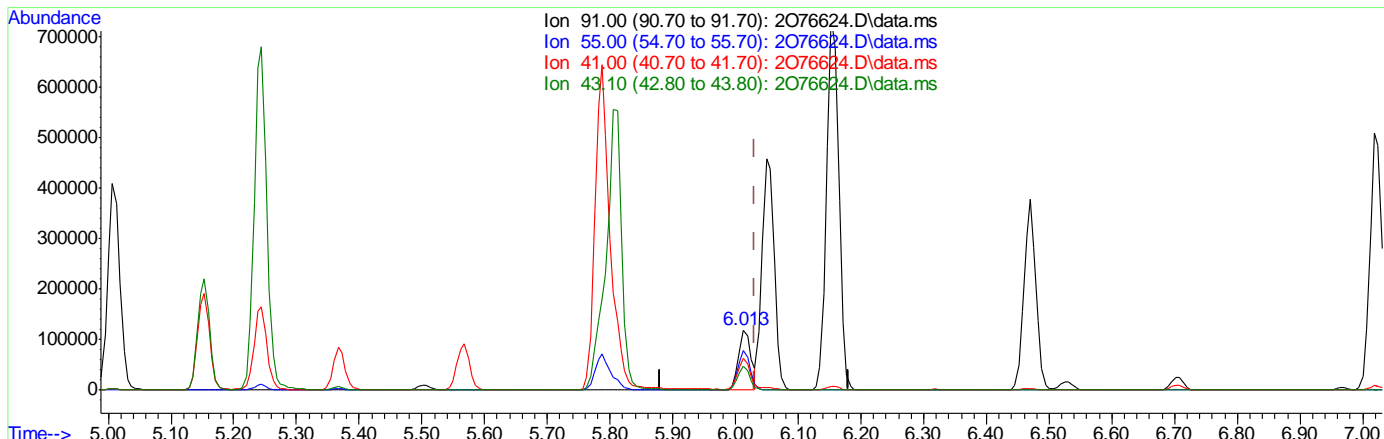
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	64.86
41.00	53.70	51.75
43.10	42.30	39.21

7.634  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 60.86ug/L m  
 response 165854

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	64.97
41.00	53.70	53.44
43.10	42.30	40.11

7.6.3.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	433256	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	322297	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	172872	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	118111	49.18	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	98.36%	
50) 1,2-Dichloroethane-d4	3.855	65	149180	58.45	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	116.90%	
63) Toluene-d8	4.976	98	426463	48.52	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	97.04%	
86) 4-Bromofluorobenzene	6.921	174	126830	48.08	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	96.16%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	154832	87.72	ug/L		99
3) Chloromethane	1.373	50	158001	82.79	ug/L		99
4) 1,3-butadiene	1.447	39	152254	79.57	ug/L		95
5) Vinyl Chloride	1.434	62	161177	85.05	ug/L		100
6) Bromomethane	1.666	94	138564	95.48	ug/L		97
7) Chloroethane	1.745	64	37255	Below Cal			98
8) Trichlorofluoromethane	1.843	101	273183	81.18	ug/L		100
9) Ethyl Ether	2.056	59	148178	99.26	ug/L		95
10) Ethanol	2.184	45	65160	1689.95	ug/L		86
11) 1,2-Dichlorotrifluoro...	2.178	67	209673	94.36	ug/L		96
12) 1,1-Dichloroethene	2.178	61	266847	93.50	ug/L		97
13) Freon 113	2.203	101	187646	98.76	ug/L		95
14) Carbon Disulfide	2.196	76	506075	91.29	ug/L		96
15) Iodomethane	2.270	142	194130	65.45	ug/L		94
16) Acrolein	2.385	56	250615	461.38	ug/L		99
17) Allyl chloride	2.465	41	195681	88.55	ug/L		95
18) Methylene Chloride	2.532	49	231703	92.70	ug/L		95
19) Acetone	2.562	43	488394	448.16	ug/L		99
20) Methyl acetate	2.629	43	1152477	459.90	ug/L		100
21) trans-1,2-Dichloroethene	2.629	61	264868	97.07	ug/L		99
22) Hexane	2.678	56	131823	91.47	ug/L		95
23) Methyl Tert Butyl Ether	2.690	73	562842	107.51	ug/L		98
24) Tert Butyl Alcohol	2.745	59	396953	850.50	ug/L		96
25) Acetonitrile	2.830	41	343309	836.54	ug/L		100
26) Di-isopropyl ether	2.910	45	544203	97.98	ug/L		96
27) Chloroprene	2.971	53	250987	96.13	ug/L		99
28) 1,1-Dichloroethane	2.983	63	349182	98.56	ug/L		99
29) Acrylonitrile	3.007	52	470696	445.96	ug/L		99
30) ETBE	3.117	59	540669	107.32	ug/L		98
31) Vinyl acetate	3.117	43	2036191	502.73	ug/L		99
32) cis-1,2-Dichloroethene	3.288	96	222184	100.95	ug/L		99
33) 2,2-Dichloropropane	3.355	77	250772	105.38	ug/L		98
34) Bromochloromethane	3.403	128	102826	86.66	ug/L		97
35) Cyclohexane	3.410	56	272861	93.21	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	388206	101.16	ug/L	98
37) Ethyl acetate	3.501	43	1473279	462.98	ug/L	99
38) Tetrahydrofuran	3.532	42	98804	80.74	ug/L	99
40) Carbon Tetrachloride	3.532	117	272511m	113.39	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	323940	104.03	ug/L	99
42) 2-Butanone	3.611	43	782113	432.68	ug/L	100
43) 1,1-Dichloropropene	3.635	75	263726	98.13	ug/L	98
44) tert-Butyl formate	3.696	59	383901	434.88	ug/L #	84
45) Propionitrile	3.788	54	482356	899.20	ug/L #	69
46) Methacrylonitrile	3.794	41	1642400	904.56	ug/L	99
47) Benzene	3.775	78	777336	97.80	ug/L	92
48) TAME	3.836	73	526926	111.74	ug/L	97
49) Isobutyl alcohol	3.885	43	311768m	1655.53	ug/L	
51) 1,2-Dichloroethane	3.891	62	305567	107.91	ug/L	97
52) Tert Amyl Alcohol	3.946	59	304927	822.29	ug/L	97
53) Trichloroethene	4.117	95	221816	96.83	ug/L	96
54) Methylcyclohexane	4.117	83	284066	94.75	ug/L	98
55) Dibromomethane	4.367	93	149138	103.50	ug/L	97
56) 1,2-Dichloropropane	4.428	63	189407	101.62	ug/L	97
57) Bromodichloromethane	4.464	83	279284	109.42	ug/L	98
58) Methyl methacrylate	4.544	41	212851	102.10	ug/L	96
59) 1,4-Dioxane	4.592	88	81805	1872.87	ug/L	97
60) 2-Chloroethyl vinyl ether	4.806	63	769213	475.21	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	315045	98.50	ug/L	99
64) Toluene	5.007	91	837018	94.78	ug/L	98
65) 2-Nitropropane	5.153	41	377382	504.91	ug/L	95
66) 4-Methyl-2-pentanone	5.245	43	1396011	442.34	ug/L	97
67) trans-1,3-Dichloropropene	5.275	75	315849	100.62	ug/L	96
68) Tetrachloroethene	5.263	166	223153	89.16	ug/L	96
69) Ethyl methacrylate	5.367	69	267100	95.41	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	176175	98.85	ug/L	97
71) Dibromochloromethane	5.507	129	229177	97.70	ug/L	98
72) 1,3-Dichloropropane	5.568	76	330755	101.31	ug/L	98
73) 1,2-Dibromoethane	5.671	107	233268	104.59	ug/L	100
74) 3,3-dimethyl-1-butanol	5.787	57	2116704	4376.52	ug/L	97
75) 2-hexanone	5.812	43	1427082	455.18	ug/L	96
76) 1-Chlorohexane	6.013	91	255764m	91.99	ug/L	
77) Ethylbenzene	6.049	91	919962	96.57	ug/L	97
78) Chlorobenzene	6.037	112	581089	97.34	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.080	131	209239	111.93	ug/L	98
80) m,p-Xylene	6.153	91	1479333	199.54	ug/L	97
81) o-Xylene	6.470	91	764307	102.11	ug/L	98
82) Styrene	6.507	104	614748	104.52	ug/L	97
83) Bromoform	6.531	173	148273	93.22	ug/L	98
84) Isopropylbenzene	6.702	105	898177	99.52	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	75008	95.80	ug/L	89
88) n-Propylbenzene	7.019	91	1054008	98.35	ug/L	99
89) Bromobenzene	7.000	156	228969	96.27	ug/L	92
90) 1,1,2,2-Tetrachloroethane	7.067	83	340637	104.38	ug/L	99
91) 1,3,5-Trimethylbenzene	7.177	105	771187	101.92	ug/L	99

## Quantitation Report (QT Reviewed)

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 Data File : 2076625.D  
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 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	726612	100.55	ug/L	96
93) trans-1,4-Dichloro-2-B...	7.208	53	70393	89.94	ug/L	98
94) 1,2,3-Trichloropropane	7.177	110	106047	98.75	ug/L	99
95) Cyclohexanone	7.214	55	68594	460.58	ug/L	97
96) 4-Chlorotoluene	7.275	91	693150	104.22	ug/L	99
97) tert-Butylbenzene	7.421	91	419726	102.68	ug/L	93
99) 1,2,4-Trimethylbenzene	7.476	105	780540	104.40	ug/L	97
100) Pentachloroethane	7.439	167	119983	97.43	ug/L #	88
101) sec-Butylbenzene	7.561	105	880243	97.19	ug/L	99
102) 4-Isopropyltoluene	7.671	119	782205	98.98	ug/L	98
103) 1,3-Dichlorobenzene	7.726	146	459390	97.75	ug/L	96
104) 1,2,3-Trimethylbenzene	7.811	105	811442	103.71	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	466203	97.92	ug/L	98
106) n-Butylbenzene	7.988	92	398030	95.72	ug/L	97
107) Benzyl Chloride	7.976	126	105960	89.51	ug/L #	84
108) 1,2-Dichlorobenzene	8.104	146	438925	98.98	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	79711	100.80	ug/L	84
110) Hexachlorobutadiene	9.134	225	83962	82.87	ug/L	95
111) 1,2,4-Trichlorobenzene	9.152	180	259138	96.26	ug/L	98
112) Naphthalene	9.372	128	1012965	106.35	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	248101	97.04	ug/L	98

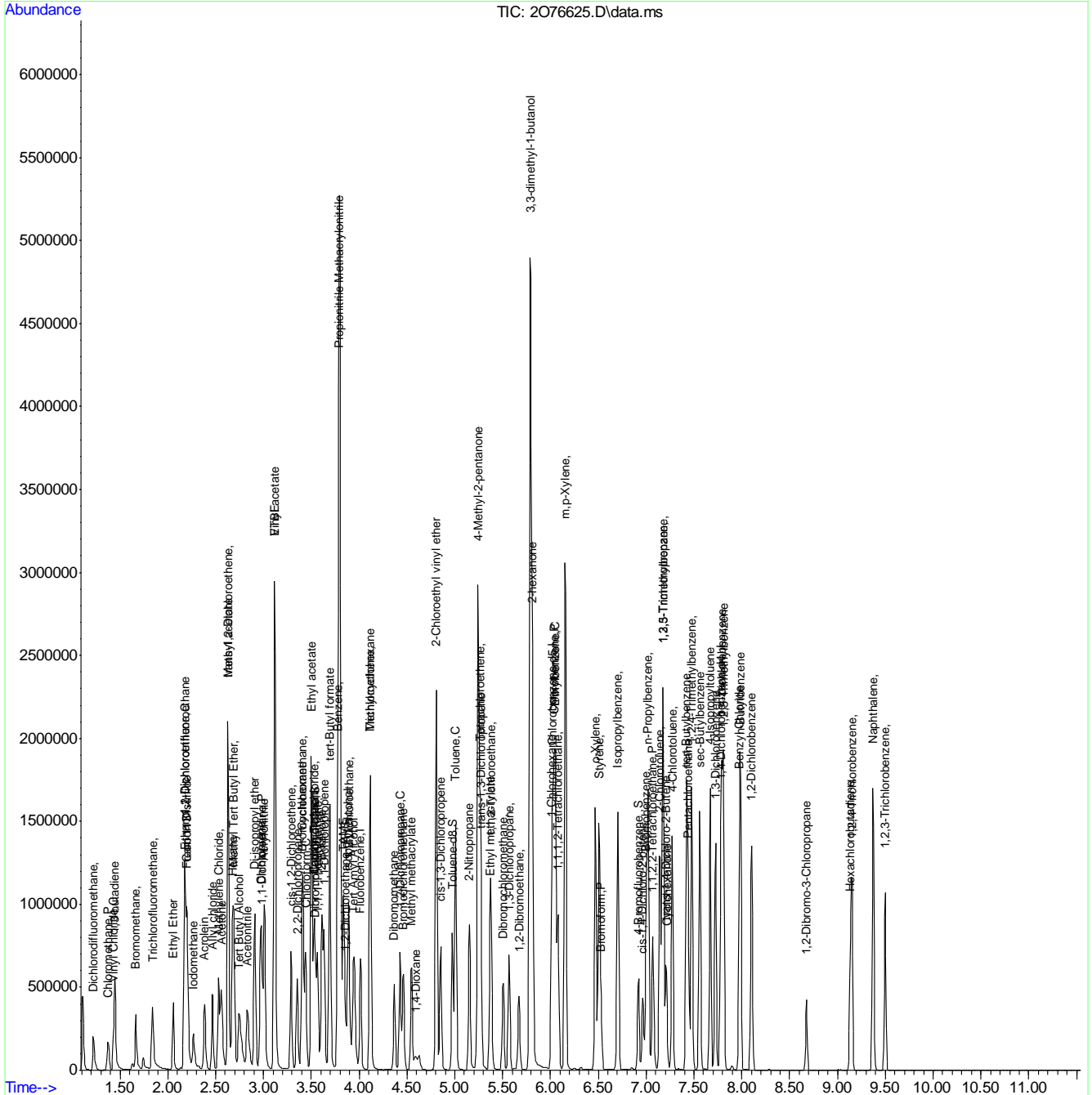
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
Data File : 2076625.D  
Acq On : 7 Jun 2023 12:38 pm  
Operator : joannel  
Sample : IC2981-7  
Misc : MS54147,V202981,,,,,  
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:48:37 2023  
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Tue Apr 11 14:22:12 2023  
Response via : Initial Calibration



# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76625.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 12:38      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.89	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

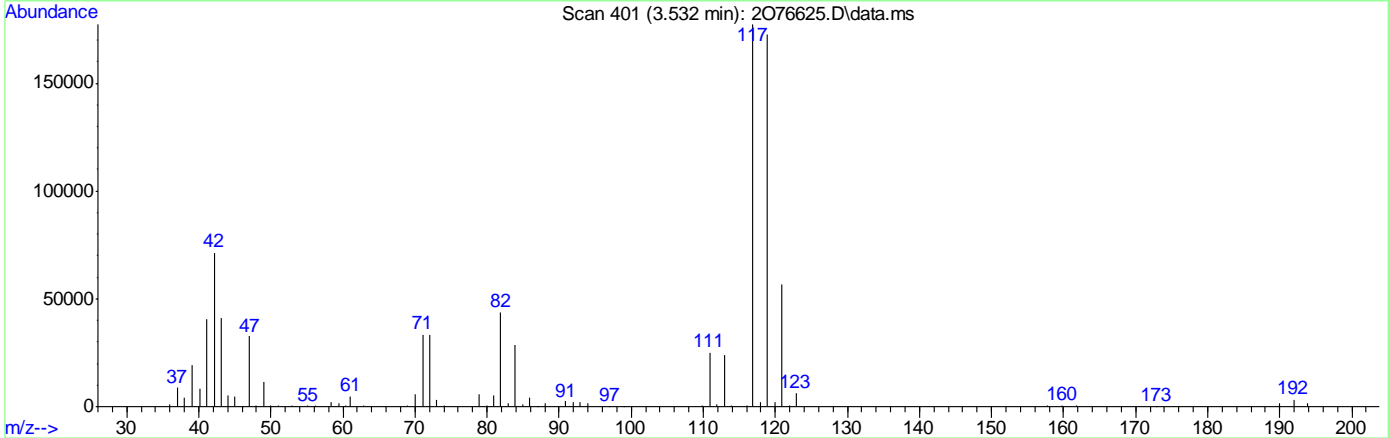
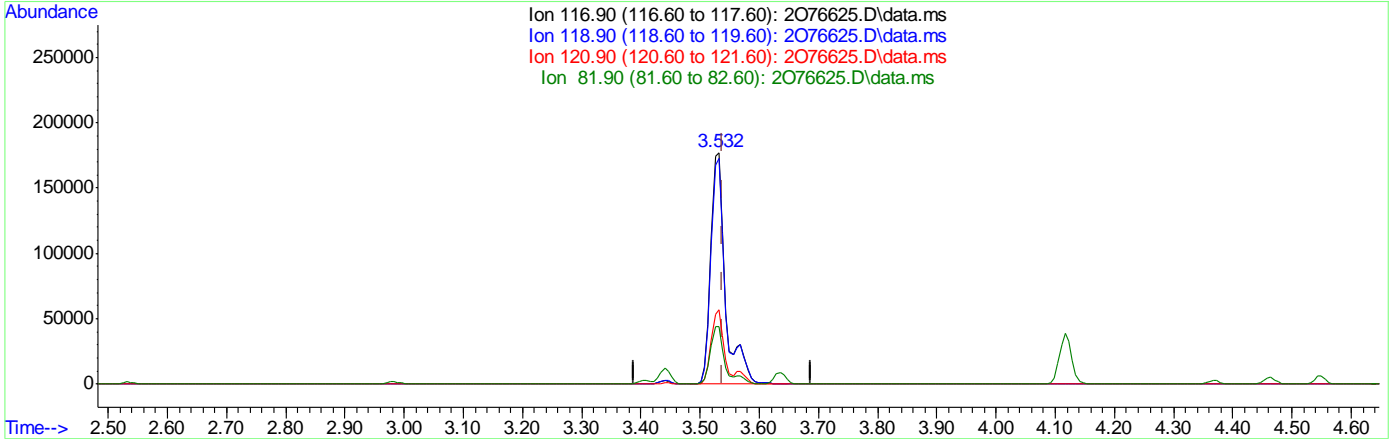
7.6.4.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (-0.006) 129.25ug/L  
 response 310617

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.51
120.90	31.00	31.88
81.90	24.80	24.61

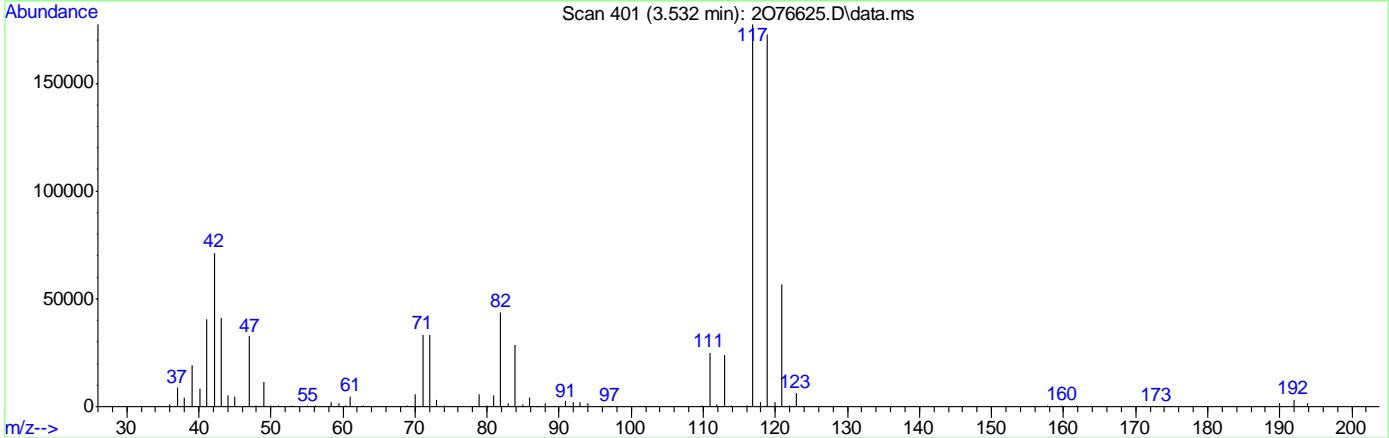
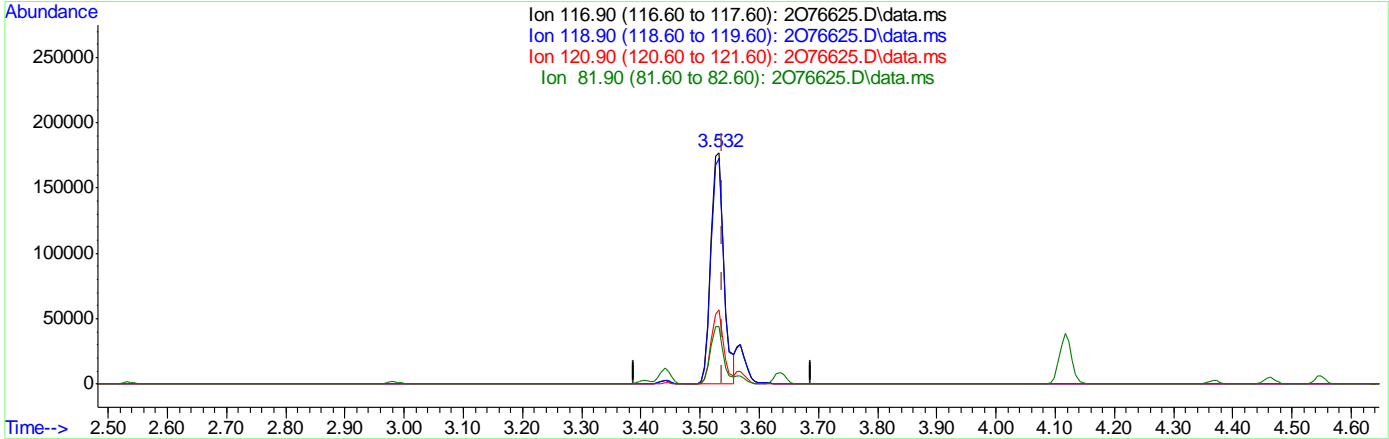
7.6.4.2  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 113.39ug/L m

response 272511

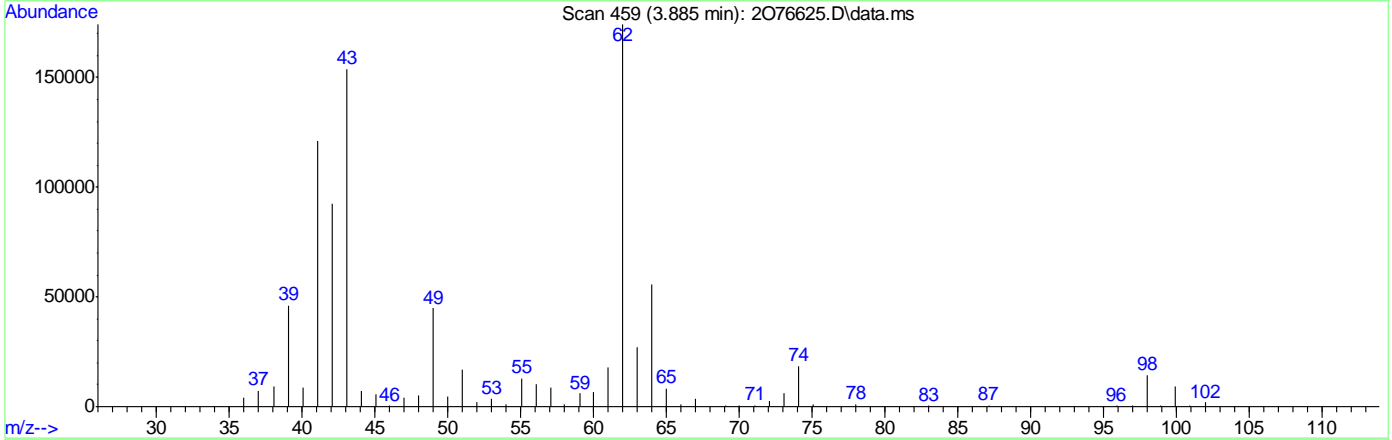
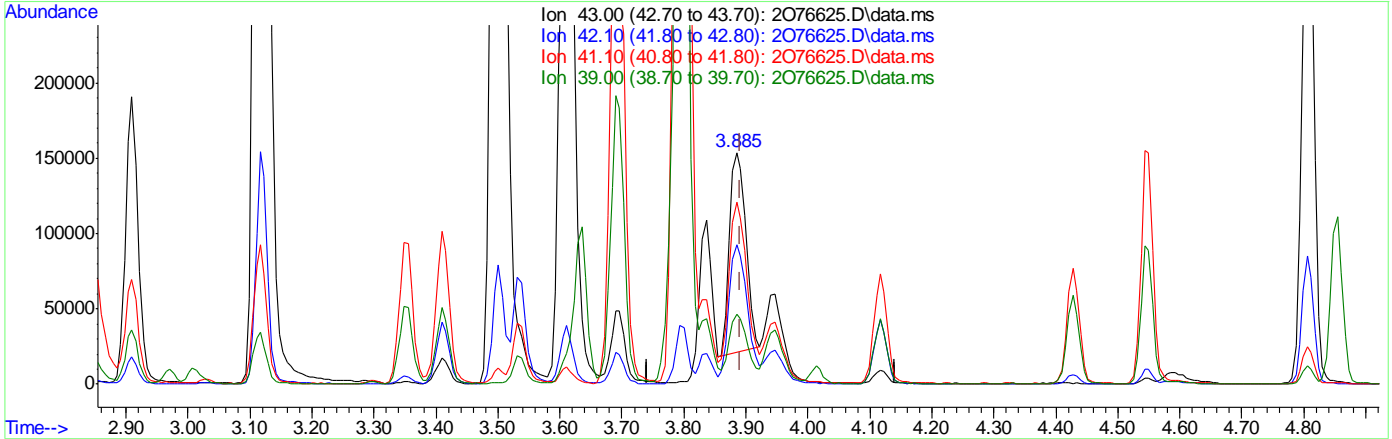
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.51
120.90	31.00	31.88
81.90	24.80	24.76

7.6.4.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
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TIC: 2076625.D\data.ms

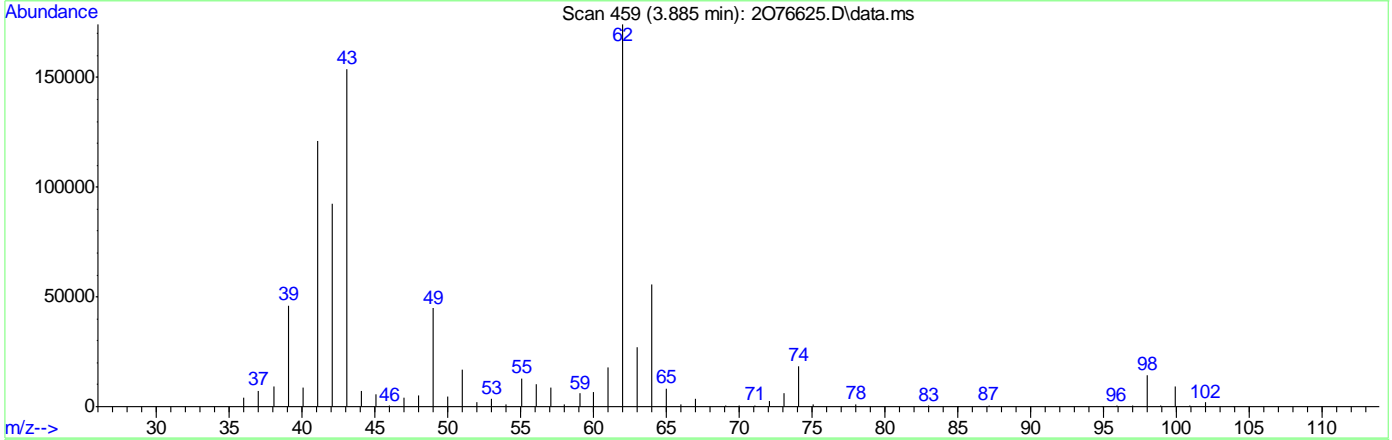
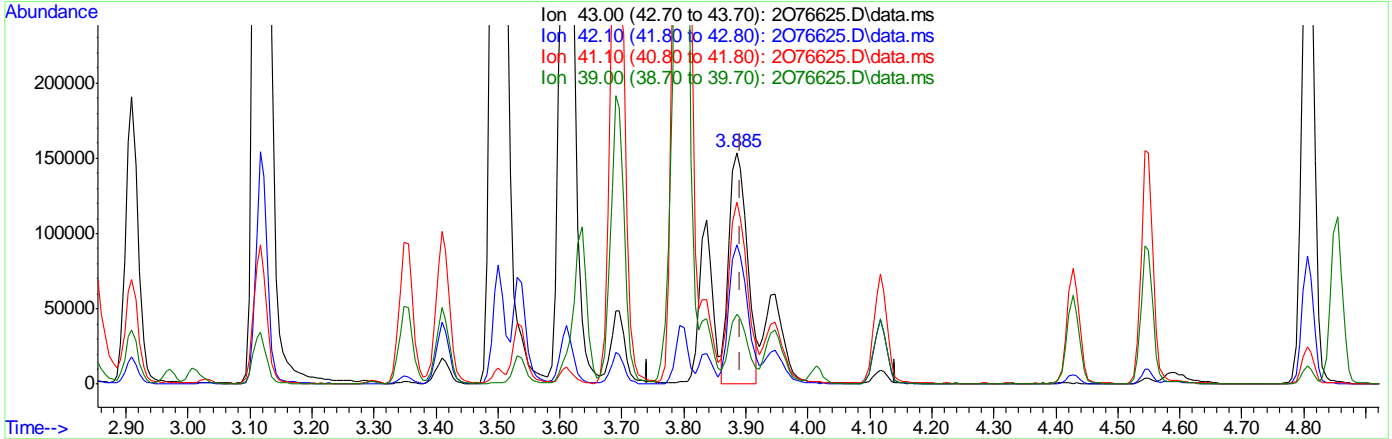
(49) Isobutyl alcohol  
 3.885min (-0.006) 1330.64ug/L  
 response 241376

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	64.63
41.10	73.50	78.41
39.00	30.20	26.55

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
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TIC: 2076625.D\data.ms

(49) Isobutyl alcohol  
 3.885min (-0.006) 1655.53ug/L m  
 response 311768

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	60.17
41.10	73.50	78.61
39.00	30.20	29.94

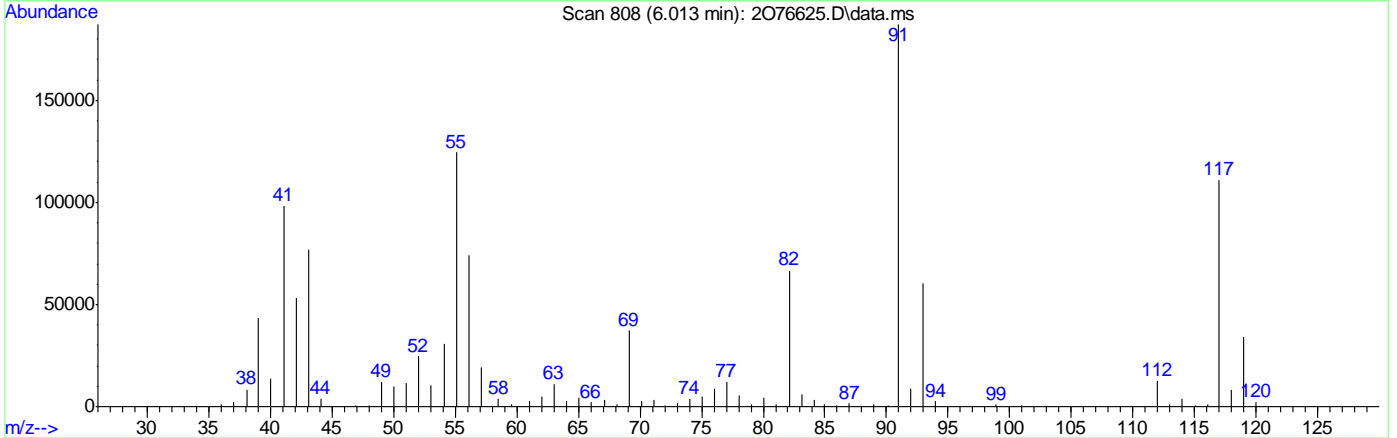
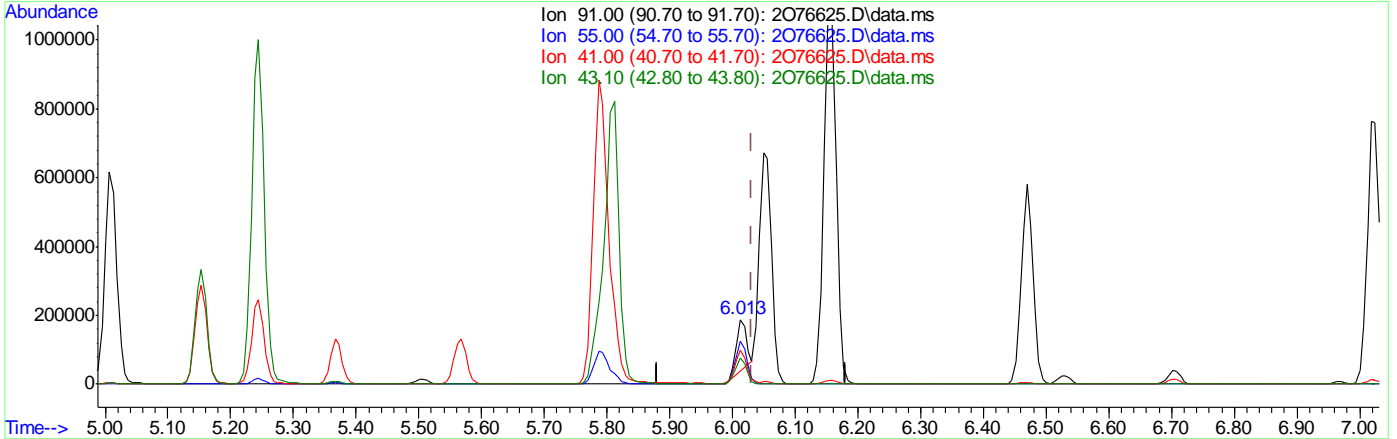
7.6.4.5

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 60.12ug/L  
 response 167144

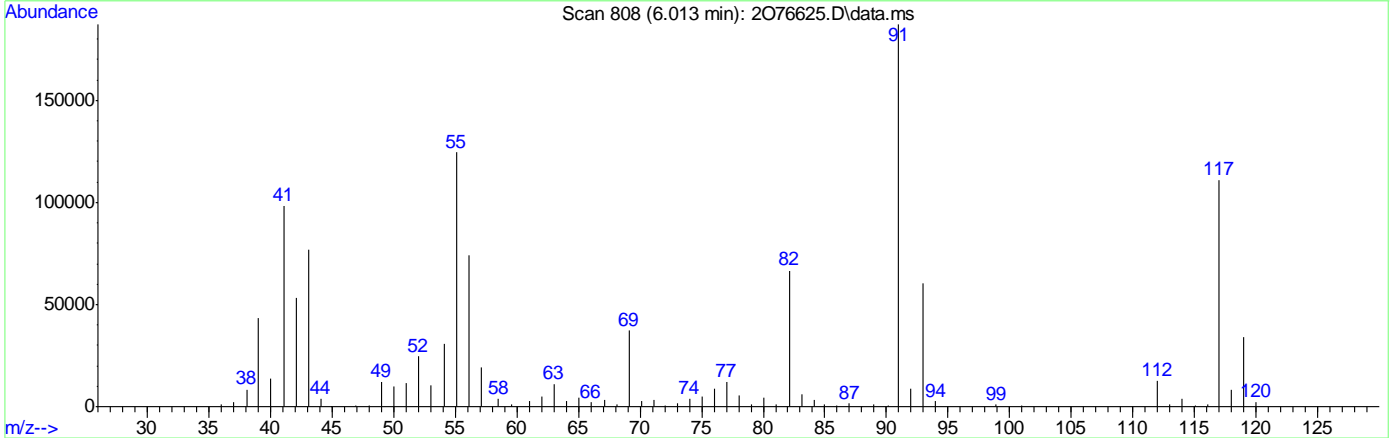
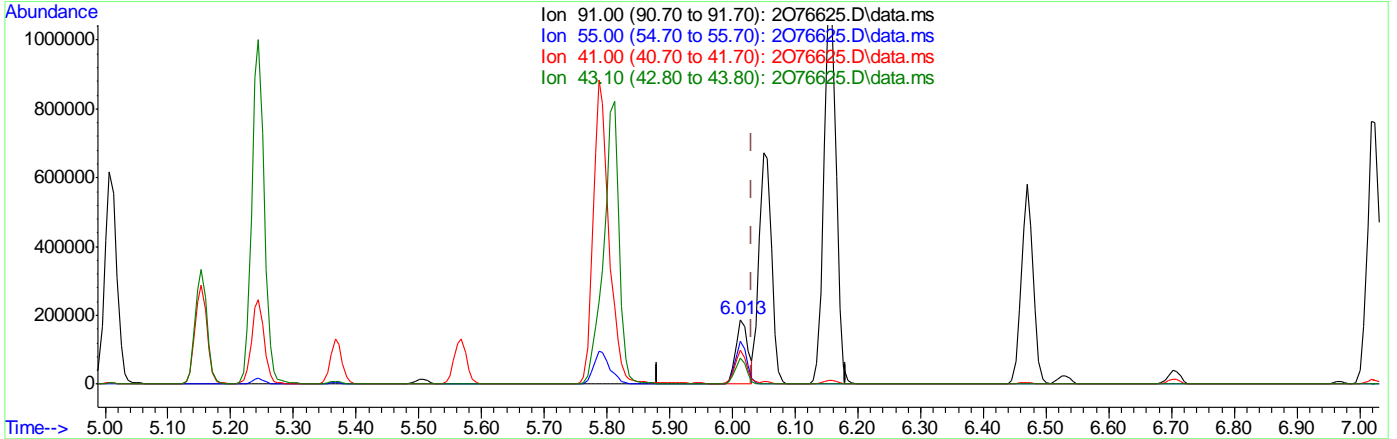
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.09
41.00	53.70	50.96
43.10	42.30	40.21

7.6.4.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 91.99ug/L m  
 response 255764

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.54
41.00	53.70	52.36
43.10	42.30	40.96

7.6.4.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	428165	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	307214	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	160102	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	116102	48.92	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	97.84%	
50) 1,2-Dichloroethane-d4	3.849	65	131582	52.16	ug/L	-0.02	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	104.32%	
63) Toluene-d8	4.976	98	416094	49.67	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	99.34%	
86) 4-Bromofluorobenzene	6.921	174	117568	48.12	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	96.24%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	1700	0.97	ug/L		97
3) Chloromethane	1.373	50	2069	1.10	ug/L		97
4) 1,3-butadiene	1.447	39	1573	0.83	ug/L		86
5) Vinyl Chloride	1.434	62	1915	1.02	ug/L		98
6) Bromomethane	1.672	94	1849	1.29	ug/L		90
7) Chloroethane	1.757	64	1546	1.25	ug/L		86
8) Trichlorofluoromethane	1.855	101	3317	1.00	ug/L		99
9) Ethyl Ether	2.056	59	1702	1.15	ug/L		87
11) 1,2-Dichlorotrifluoro...	2.184	67	2227	1.01	ug/L		91
12) 1,1-Dichloroethene	2.184	61	2916	1.03	ug/L		95
13) Freon 113	2.209	101	1865	0.99	ug/L		89
14) Carbon Disulfide	2.196	76	7186	1.31	ug/L		95
15) Iodomethane	2.270	142	1590	0.54	ug/L		74
16) Acrolein	2.385	56	1611	3.00	ug/L		98
17) Allyl chloride	2.471	41	1454	0.67	ug/L		85
18) Methylene Chloride	2.532	49	4235	1.61	ug/L		96
19) Acetone	2.556	43	6359	5.90	ug/L		99
20) Methyl acetate	2.629	43	14487	5.85	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	3148	1.17	ug/L		91
22) Hexane	2.678	56	1515	1.06	ug/L	#	93
23) Methyl Tert Butyl Ether	2.690	73	5830	1.13	ug/L		86
24) Tert Butyl Alcohol	2.739	59	3128	8.08	ug/L		72
25) Acetonitrile	2.830	41	4273	10.54	ug/L		92
26) Di-isopropyl ether	2.910	45	5801	1.06	ug/L		95
27) Chloroprene	2.971	53	1581	0.61	ug/L		99
28) 1,1-Dichloroethane	2.983	63	3906	1.12	ug/L		96
29) Acrylonitrile	3.007	52	5847	5.61	ug/L		98
30) ETBE	3.117	59	5182	1.04	ug/L		96
31) Vinyl acetate	3.117	43	16712	4.18	ug/L		97
32) cis-1,2-Dichloroethene	3.288	96	2828	1.30	ug/L		94
33) 2,2-Dichloropropane	3.355	77	2480	1.05	ug/L		90
34) Bromochloromethane	3.403	128	1270	1.08	ug/L		92
35) Cyclohexane	3.416	56	2479	0.86	ug/L		87
36) Chloroform	3.440	83	4440	1.17	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Ethyl acetate	3.501	43	13756	4.37	ug/L	97
38) Tetrahydrofuran	3.538	42	1146m	0.95	ug/L	
40) Carbon Tetrachloride	3.531	117	2585m	1.09	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	3173	1.03	ug/L	96
42) 2-Butanone	3.611	43	9107	5.10	ug/L	98
43) 1,1-Dichloropropene	3.635	75	2701	1.02	ug/L	92
44) tert-Butyl formate	3.690	59	2305	3.49	ug/L #	80
45) Propionitrile	3.781	54	3736	7.05	ug/L	89
46) Methacrylonitrile	3.794	41	12708	7.08	ug/L	96
47) Benzene	3.775	78	8983	1.14	ug/L	91
48) TAME	3.830	73	4674	1.00	ug/L	92
49) Isobutyl alcohol	3.879	43	1455m	9.61	ug/L	
51) 1,2-Dichloroethane	3.891	62	4105	1.47	ug/L	97
52) Tert Amyl Alcohol	3.940	59	2208	7.24	ug/L #	73
53) Trichloroethene	4.117	95	2693	1.19	ug/L	92
54) Methylcyclohexane	4.117	83	2864	0.97	ug/L #	80
55) Dibromomethane	4.373	93	1995	1.40	ug/L	83
56) 1,2-Dichloropropane	4.428	63	2100	1.14	ug/L	85
57) Bromodichloromethane	4.458	83	2799	1.11	ug/L	85
58) Methyl methacrylate	4.543	41	1176	0.57	ug/L	90
59) 1,4-Dioxane	4.580	88	1015	26.70	ug/L	91
60) 2-Chloroethyl vinyl ether	4.806	63	6568	4.11	ug/L	93
61) cis-1,3-Dichloropropene	4.854	75	2660	0.95	ug/L	97
64) Toluene	5.007	91	9766	1.16	ug/L	86
65) 2-Nitropropane	5.153	41	2241	4.74	ug/L	86
66) 4-Methyl-2-pentanone	5.245	43	13337	4.43	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	2896	1.07	ug/L	87
68) Tetrachloroethene	5.263	166	2351	0.99	ug/L	87
69) Ethyl methacrylate	5.367	69	1023	0.43	ug/L #	80
70) 1,1,2-Trichloroethane	5.379	83	1901	1.12	ug/L	93
71) Dibromochloromethane	5.507	129	1730	0.91	ug/L	83
72) 1,3-Dichloropropane	5.562	76	3964	1.27	ug/L	95
73) 1,2-Dibromoethane	5.671	107	2842	1.34	ug/L	78
74) 3,3-dimethyl-1-butanol	5.781	57	11841	30.52	ug/L	92
75) 2-hexanone	5.812	43	12444	4.16	ug/L	92
76) 1-Chlorohexane	6.013	91	3099m	1.17	ug/L	
77) Ethylbenzene	6.049	91	10384	1.14	ug/L	94
78) Chlorobenzene	6.037	112	6915	1.22	ug/L	87
79) 1,1,1,2-Tetrachloroethane	6.080	131	1672	0.94	ug/L	94
80) m,p-Xylene	6.153	91	15842	2.24	ug/L	95
81) o-Xylene	6.470	91	7854	1.10	ug/L	94
82) Styrene	6.507	104	5136	0.92	ug/L	97
83) Bromoform	6.531	173	1072	0.91	ug/L	76
84) Isopropylbenzene	6.702	105	8417	0.98	ug/L	92
88) n-Propylbenzene	7.019	91	11289	1.14	ug/L	93
89) Bromobenzene	7.000	156	2690	1.22	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	3728	1.23	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	7530	1.07	ug/L	97
92) 2-Chlorotoluene	7.141	91	7586	1.13	ug/L	95
94) 1,2,3-Trichloropropane	7.177	110	1238m	1.24	ug/L	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 4-Chlorotoluene	7.275	91	7838	1.27	ug/L	97
97) tert-Butylbenzene	7.421	91	4206	1.11	ug/L	95
99) 1,2,4-Trimethylbenzene	7.476	105	7425	1.07	ug/L	92
100) Pentachloroethane	7.439	167	393m	0.44	ug/L	
101) sec-Butylbenzene	7.561	105	8780	1.05	ug/L	93
102) 4-Isopropyltoluene	7.671	119	6975	0.95	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	5336	1.23	ug/L	99
104) 1,2,3-Trimethylbenzene	7.811	105	8355	1.15	ug/L	97
105) 1,4-Dichlorobenzene	7.793	146	6071m	1.38	ug/L	
106) n-Butylbenzene	7.982	92	3935	1.09	ug/L	96
107) Benzyl Chloride	7.970	126	559m	0.76	ug/L	
108) 1,2-Dichlorobenzene	8.104	146	4976	1.21	ug/L	89
109) 1,2-Dibromo-3-Chloropr...	8.677	75	505m	0.85	ug/L	
110) Hexachlorobutadiene	9.134	225	1664	1.91	ug/L	92
111) 1,2,4-Trichlorobenzene	9.152	180	3526	1.41	ug/L	86
112) Naphthalene	9.372	128	9536	1.08	ug/L	98
113) 1,2,3-Trichlorobenzene	9.500	180	3072	1.30	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed





# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76627.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 13:55      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Tetrahydrofuran	109-99-9		3.54	Missed peak
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline
1,2,3-Trichloropropane	96-18-4		7.18	Missed peak
Pentachloroethane	76-01-7		7.44	Missed peak
1,4-Dichlorobenzene	106-46-7		7.79	Missed peak
Benzyl Chloride	100-44-7		7.97	Missed peak
1,2-Dibromo-3-chloropropane	96-12-8		8.68	Missed peak

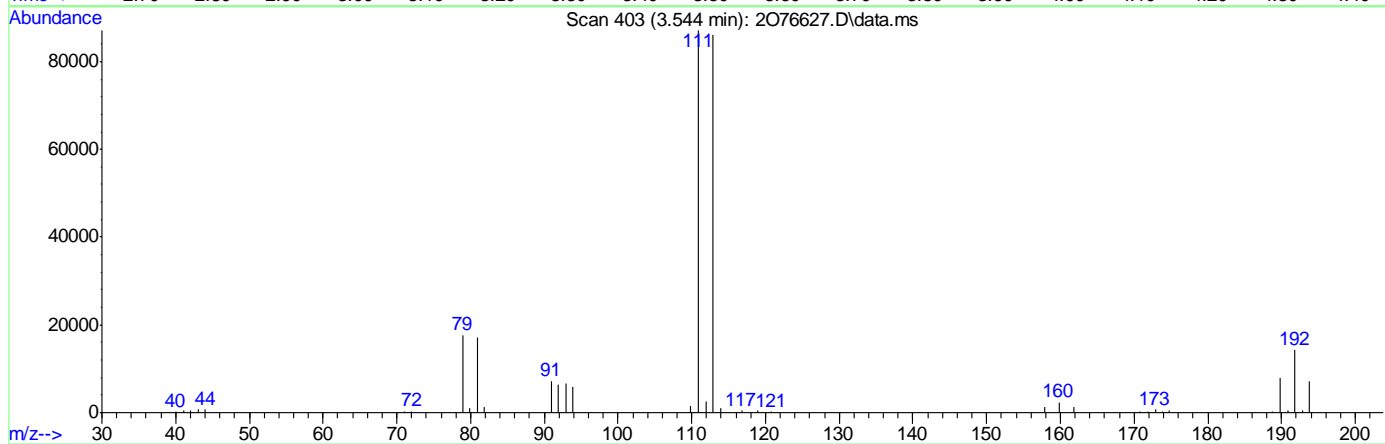
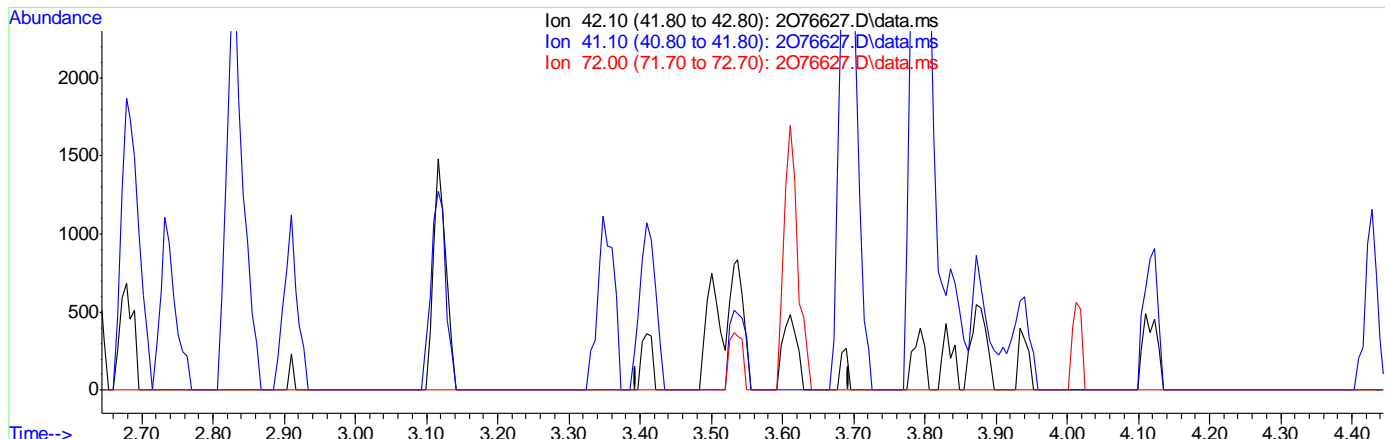
7.6.5.1  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(38) Tetrahydrofuran  
 3.544min (-3.544) 0.00ug/L  
 response 0

Ion	Exp%	Act%
42.10	100	0.00
41.10	55.90	0.00#
72.00	47.60	0.00#
0.00	0.00	0.00

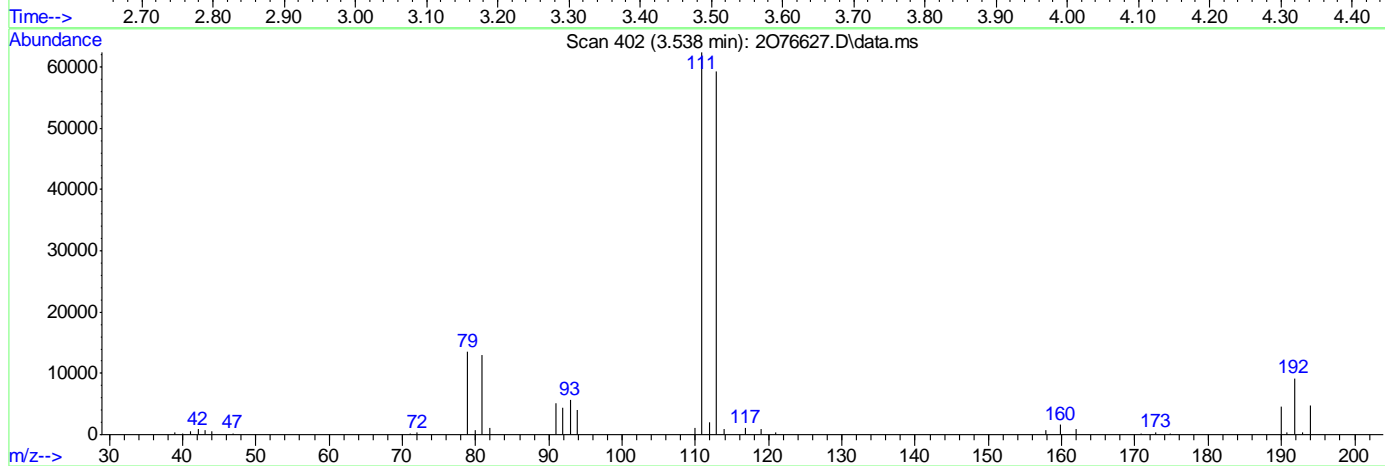
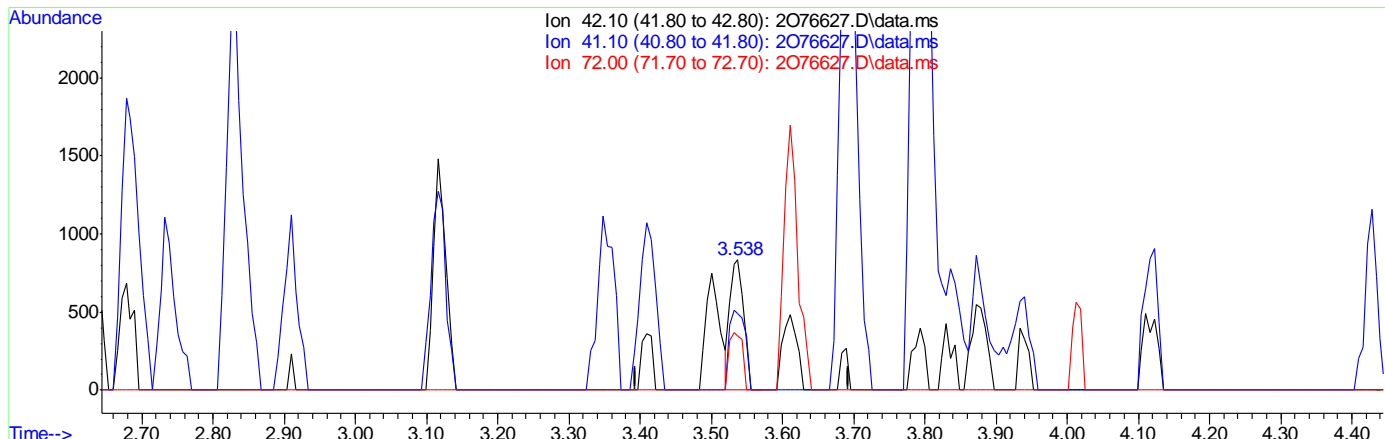
7.6.5.2  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(38) Tetrahydrofuran  
 3.538min (-0.006) 0.95ug/L m  
 response 1146

Ion	Exp%	Act%
42.10	100	100
41.10	55.90	58.99
72.00	47.60	41.73
0.00	0.00	0.00

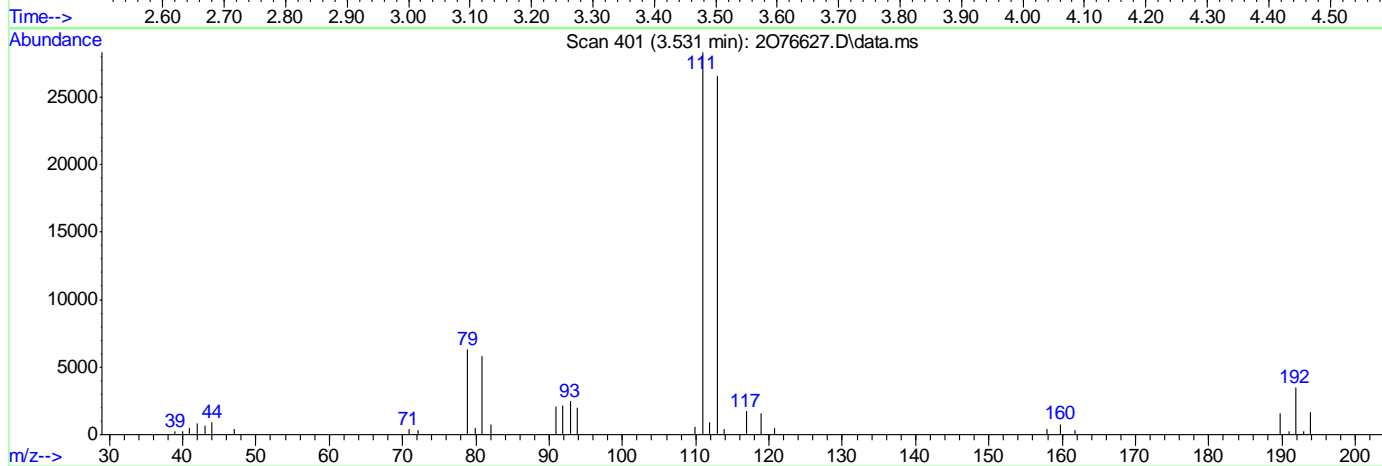
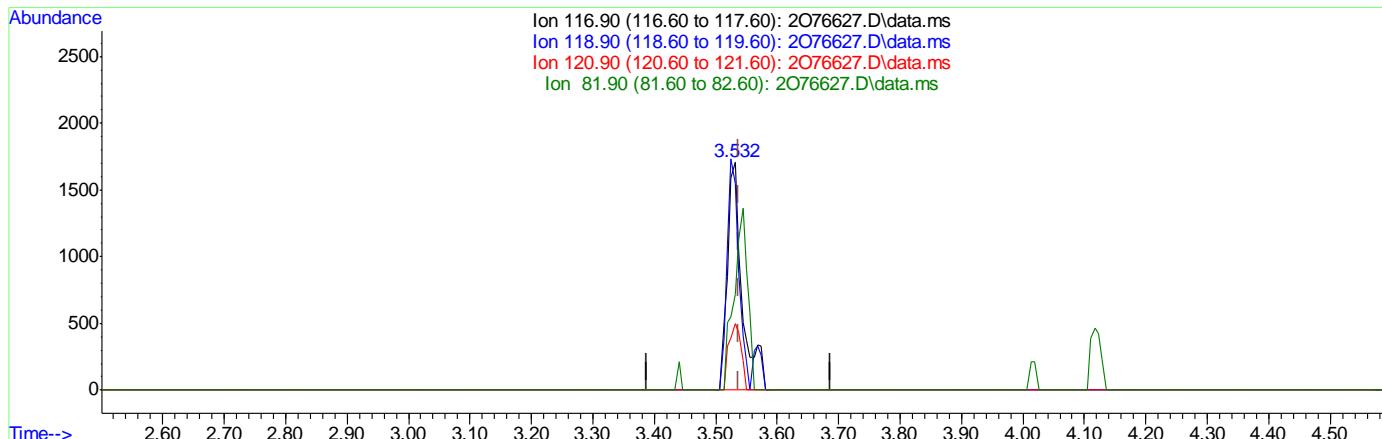
7.6.5.3  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.006) 1.19ug/L

response 2830

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	90.46
120.90	31.00	29.26
81.90	24.80	42.01

7.6.5.4

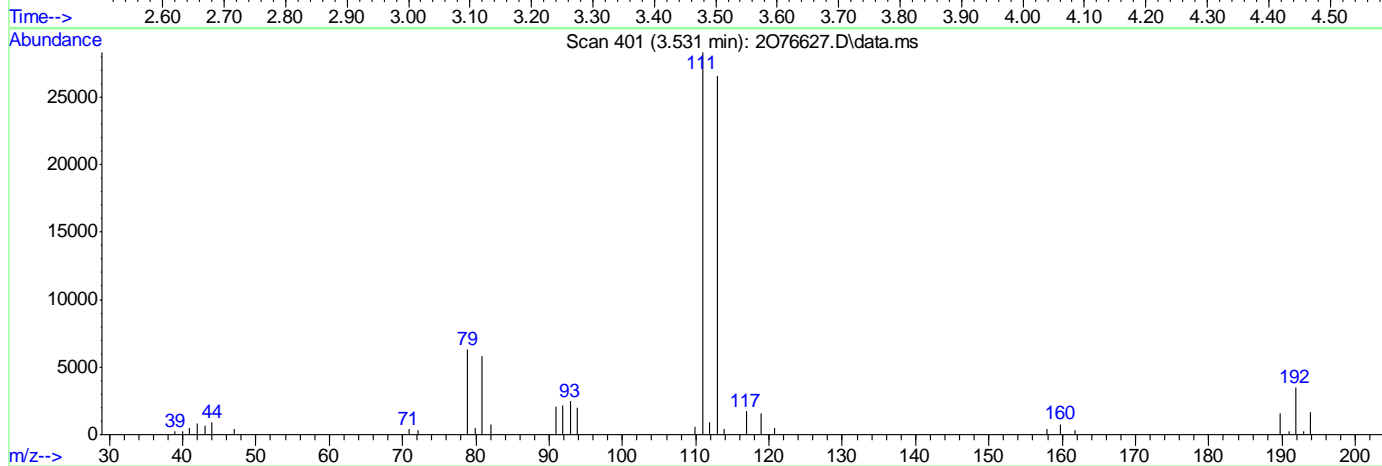
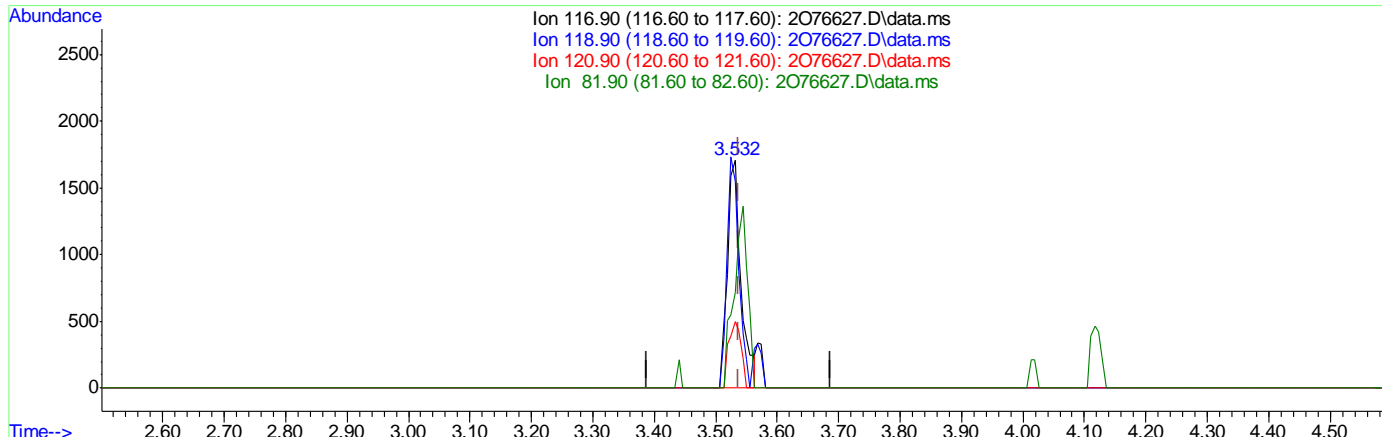
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.006) 1.09ug/L m

response 2585

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	90.46
120.90	31.00	29.26
81.90	24.80	42.01

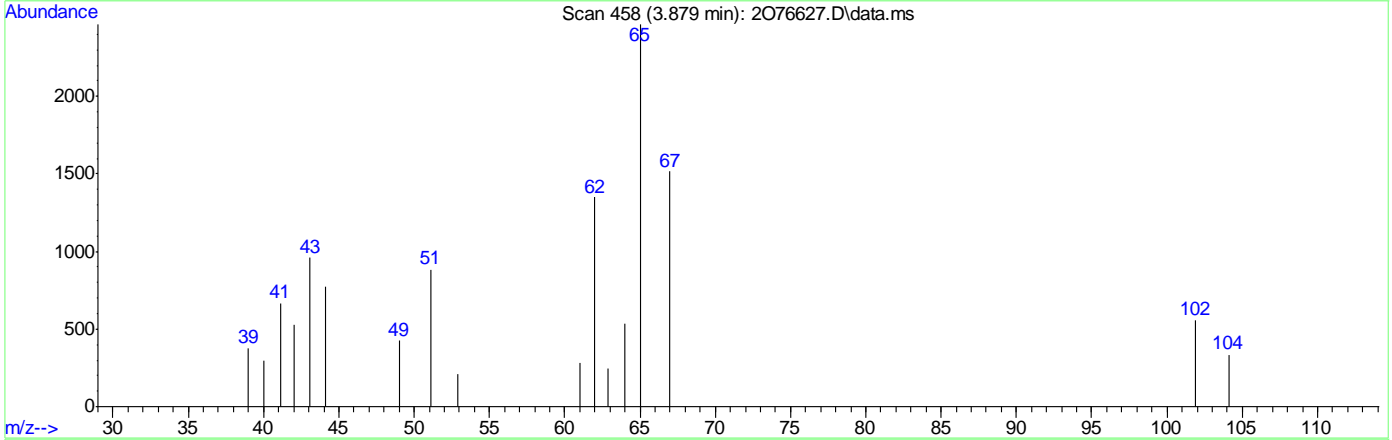
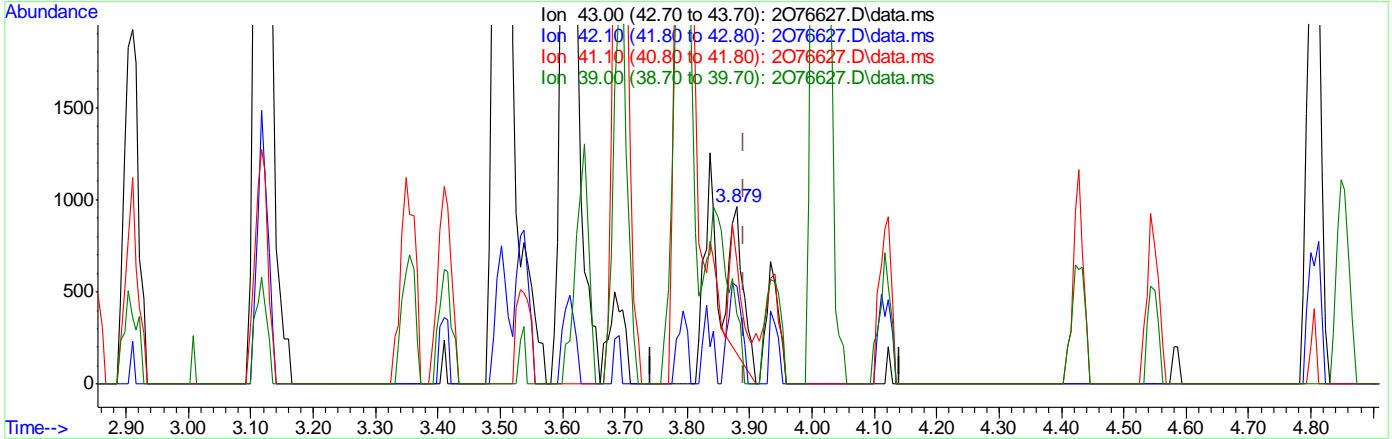
7.6.5.5  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 7.60ug/L  
 response 1150

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.10
41.10	73.50	40.52
39.00	30.20	39.48

7.6.5.6

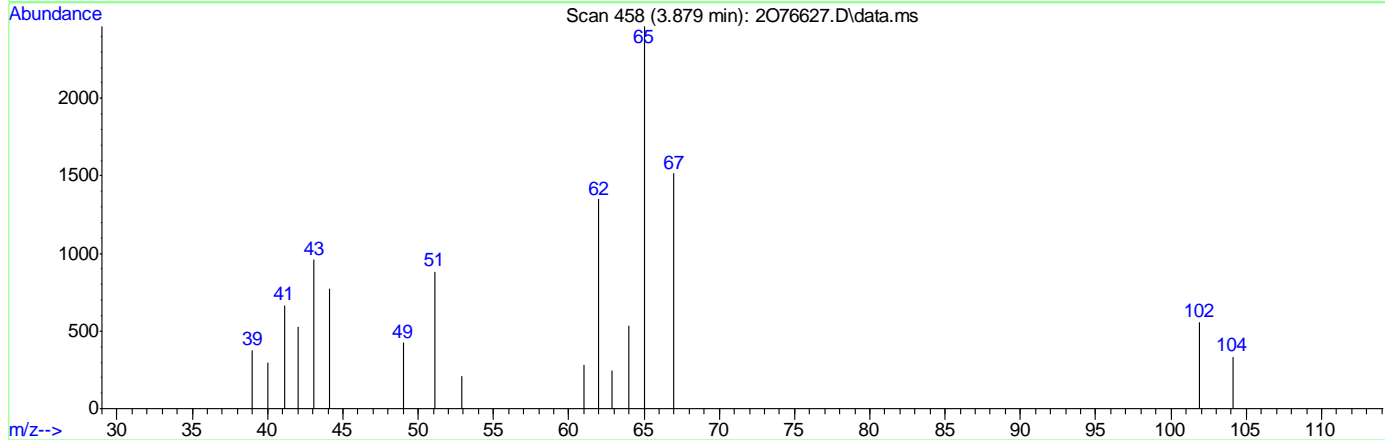
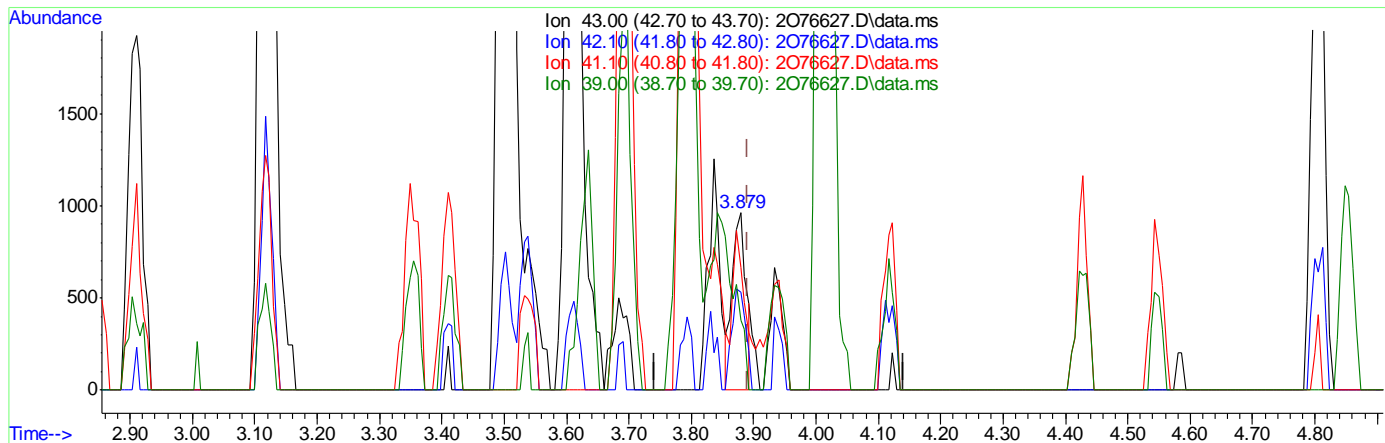
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.879min (-0.012) 9.61ug/L m  
 response 1455

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.10
41.10	73.50	69.48
39.00	30.20	39.48

7.6.5.7  
7

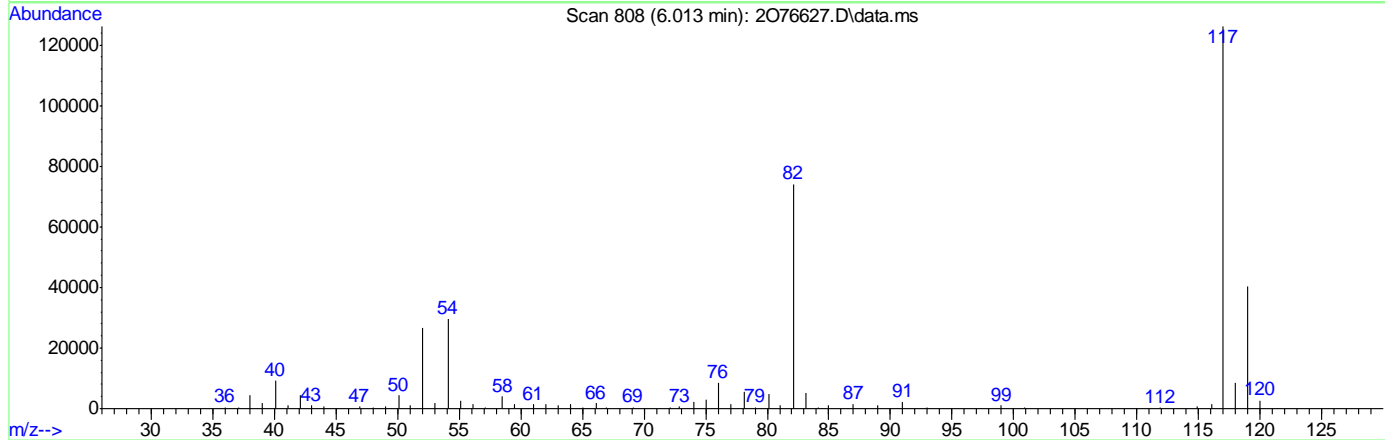
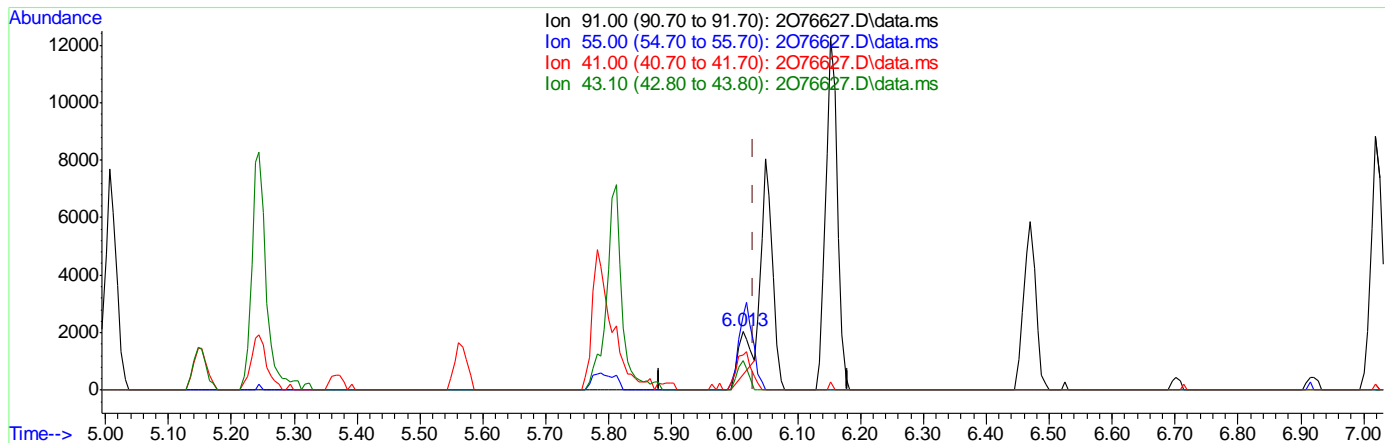


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 0.75ug/L  
 response 1986

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	115.79#
41.00	53.70	47.12
43.10	42.30	49.32

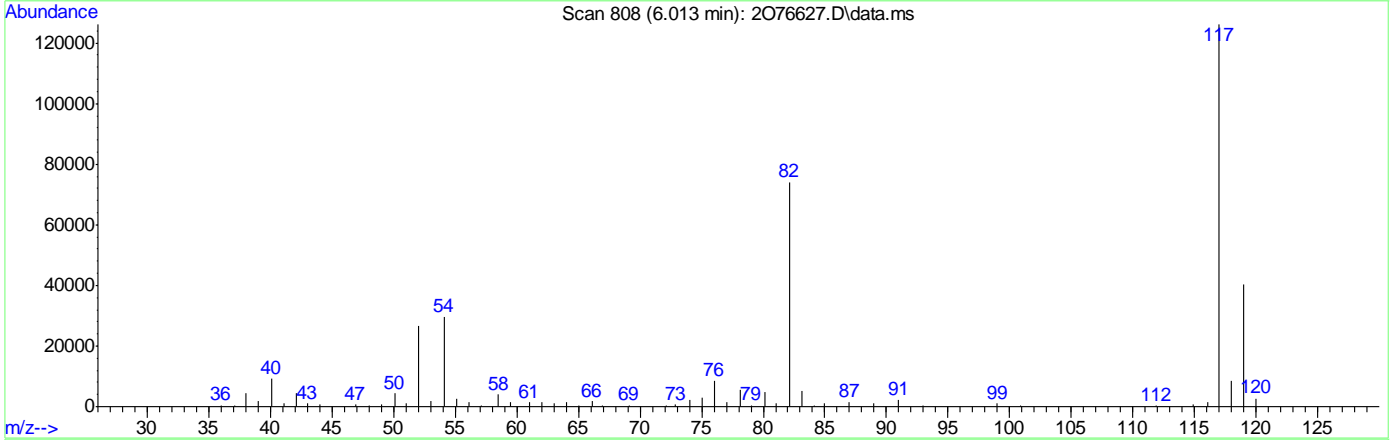
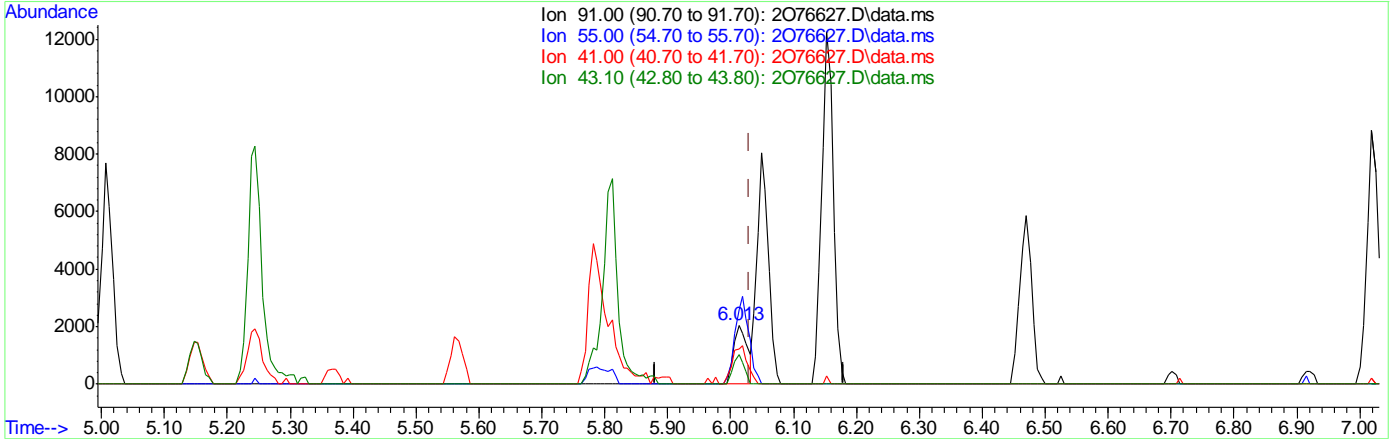
7.6.5.8  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 1.17ug/L m  
 response 3099

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	125.93#
41.00	53.70	59.99
43.10	42.30	49.32

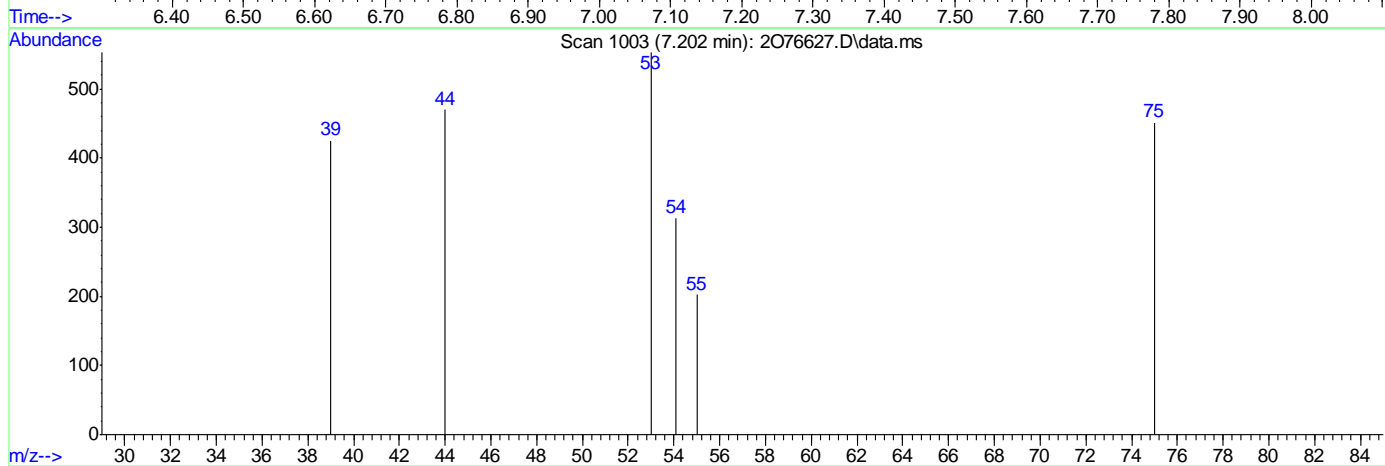
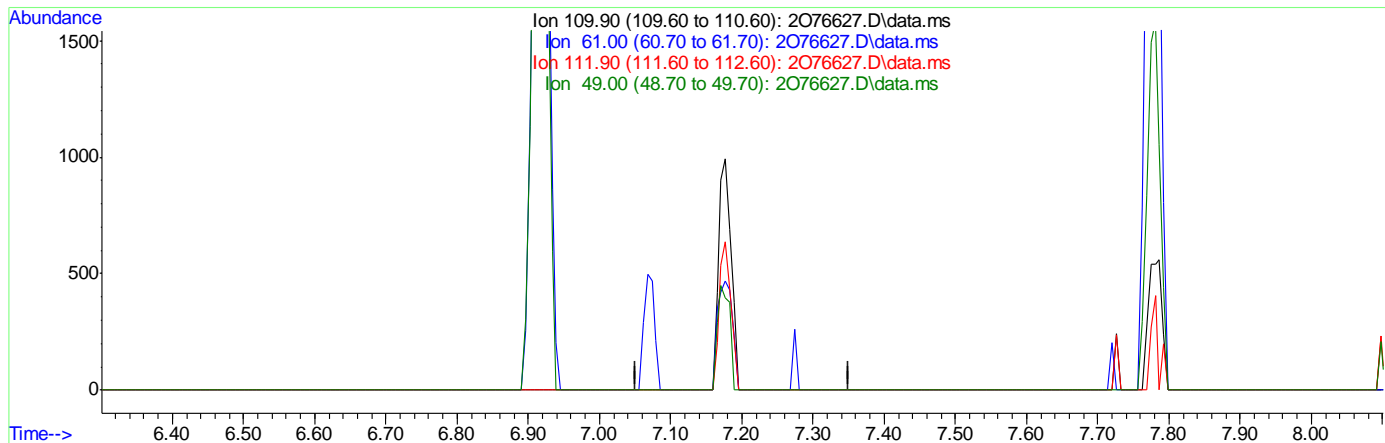
7.65.9  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(94) 1,2,3-Trichloropropane ( )

7.201min (-7.201) 0.00ug/L

response 0

Ion	Exp%	Act%
109.90	100	0.00
61.00	63.10	0.00#
111.90	64.70	0.00#
49.00	47.70	0.00#

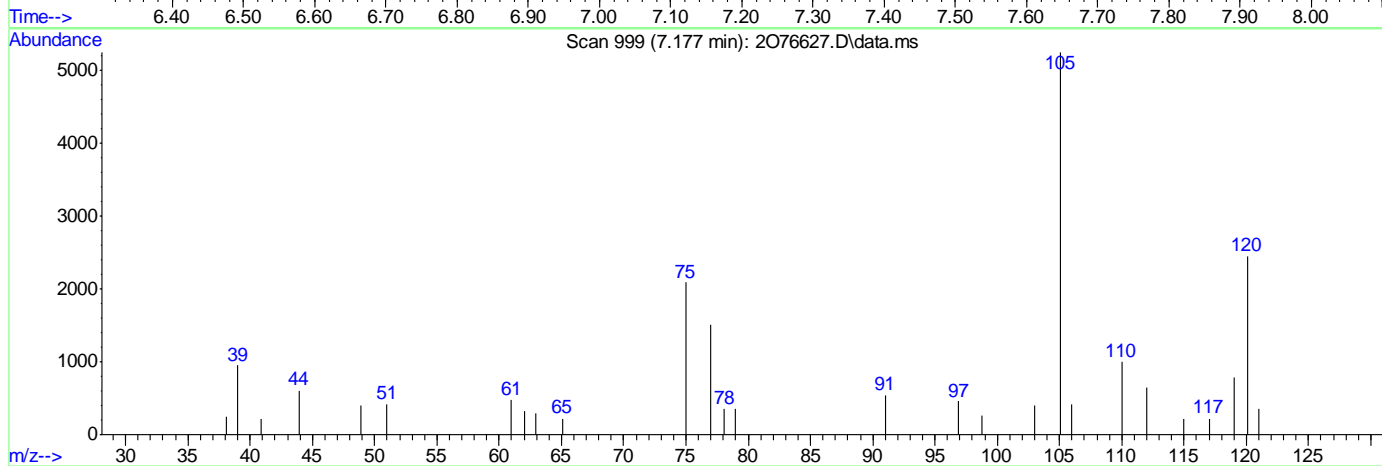
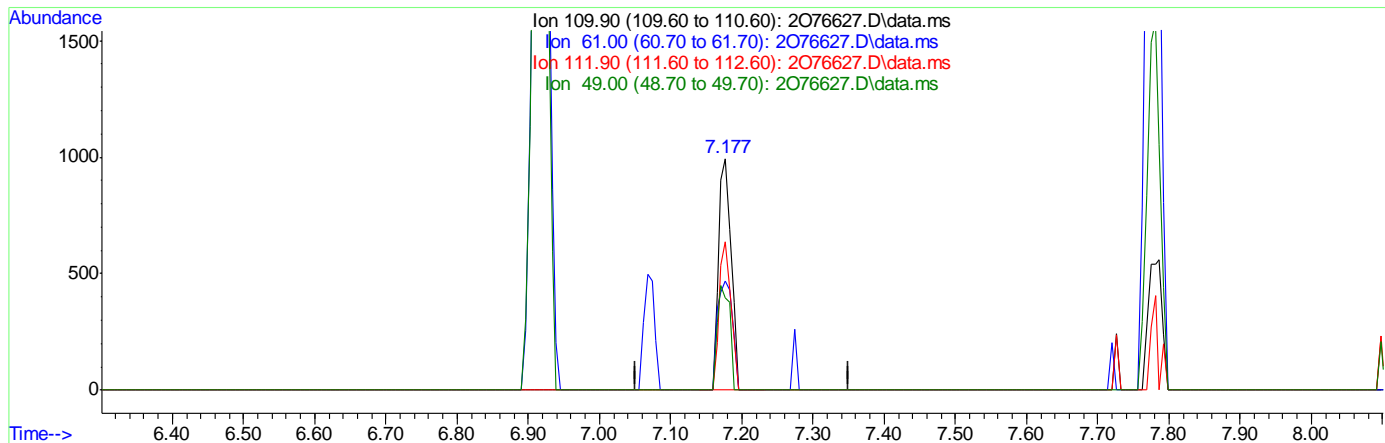
7.65.10  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(94) 1,2,3-Trichloropropane ( )

7.177min (-0.024) 1.24ug/L m

response 1238

Ion	Exp%	Act%
109.90	100	100
61.00	63.10	47.28
111.90	64.70	64.29
49.00	47.70	39.84

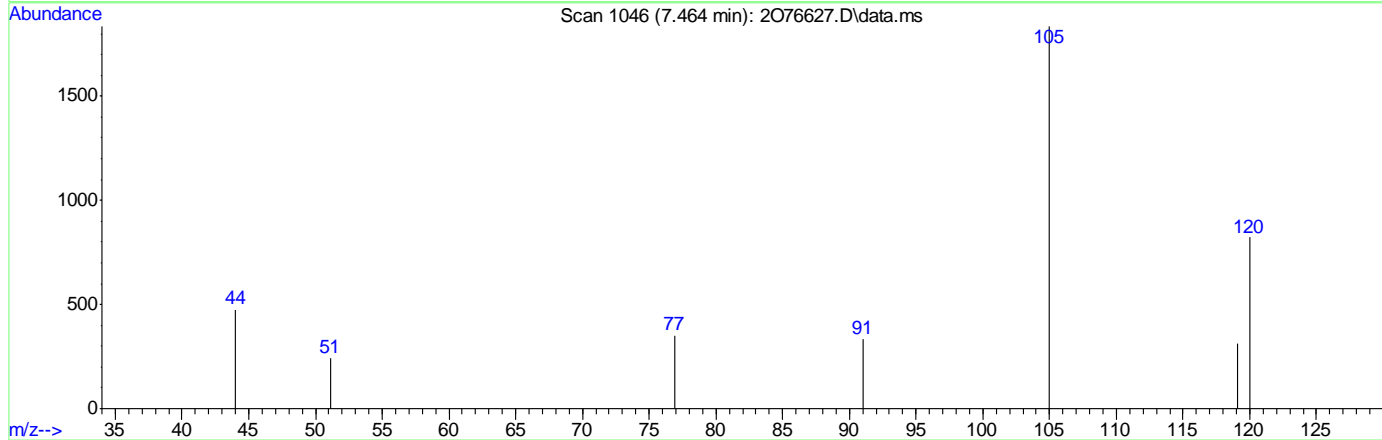
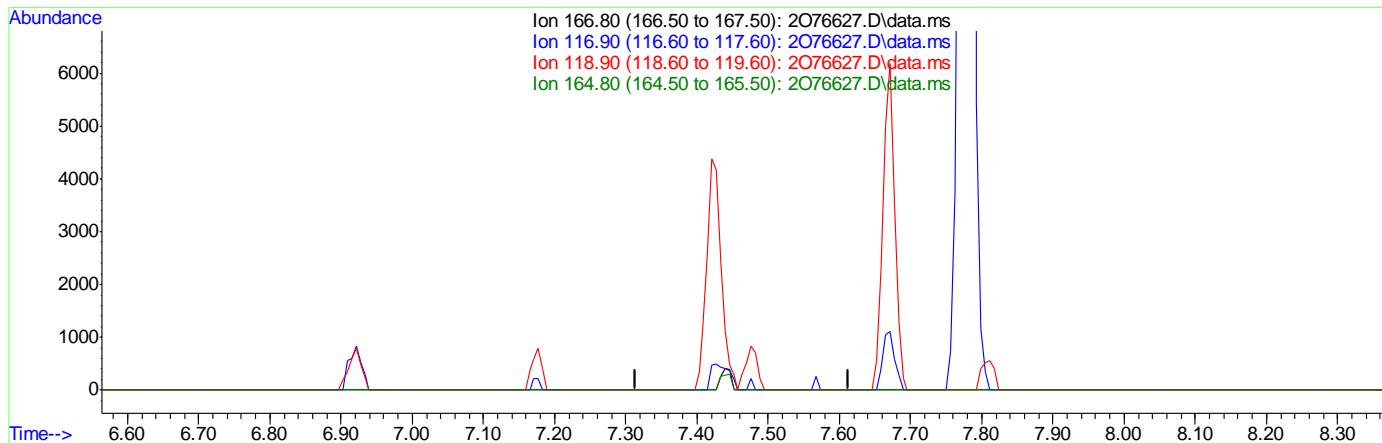
7.6.5.11  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(100) Pentachloroethane ( )

7.464min (-7.464) 0.00ug/L

response 0

Ion	Exp%	Act%
166.80	100	0.00
116.90	99.80	0.00#
118.90	210.50	0.00#
164.80	79.80	0.00#

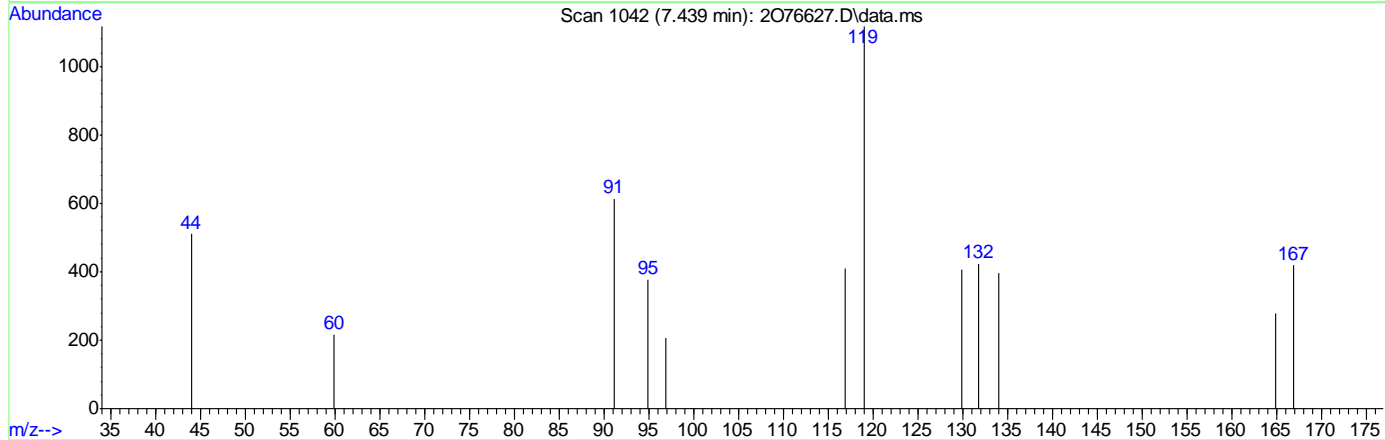
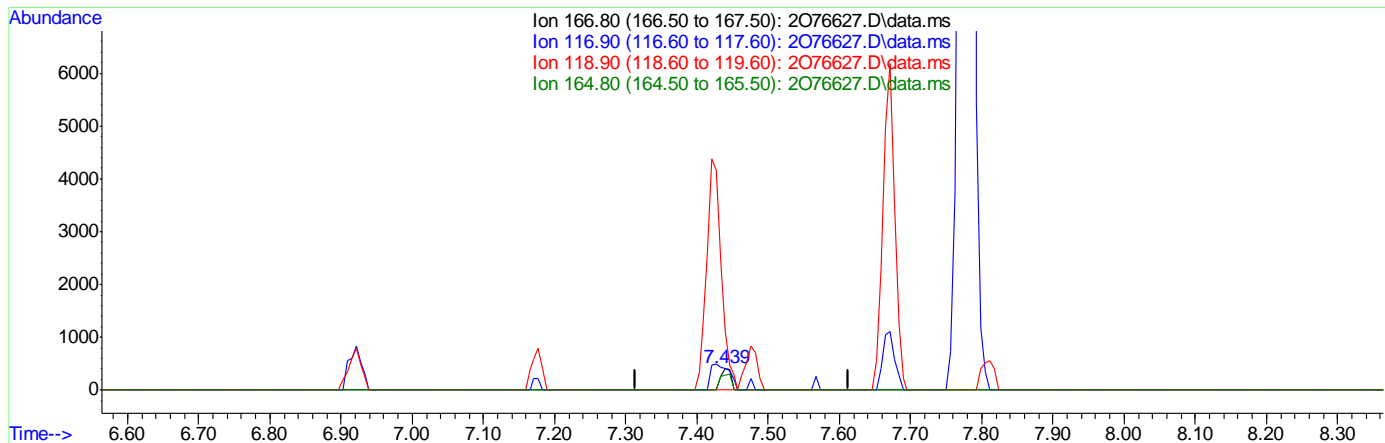
7.65.12  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(100) Pentachloroethane ( )

7.439min (-0.025) 0.44ug/L m

response 393

Ion	Exp%	Act%
166.80	100	100
116.90	99.80	97.39
118.90	210.50	265.32#
164.80	79.80	66.51

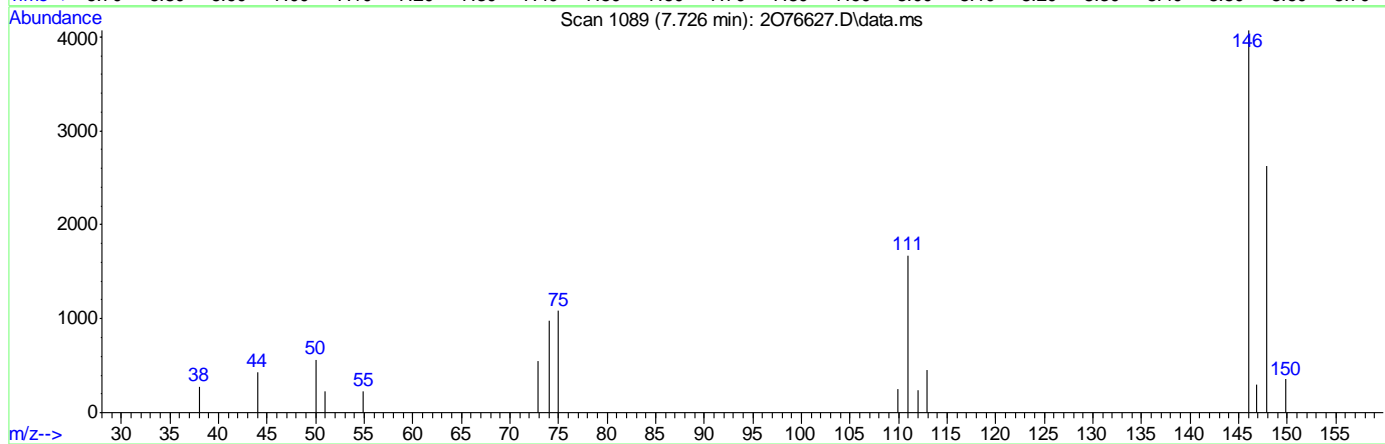
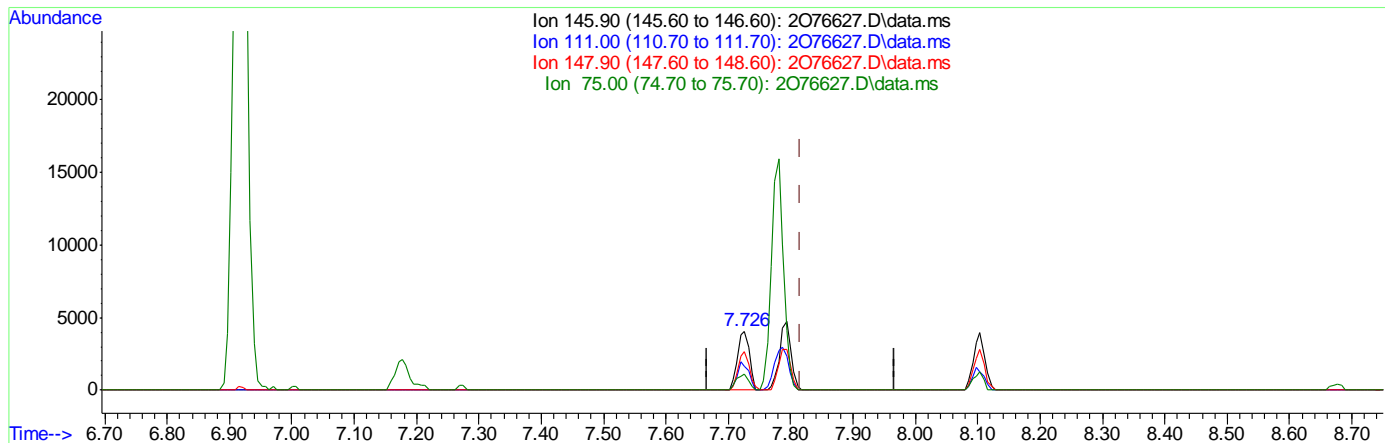
7.65.13  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(105) 1,4-Dichlorobenzene  
 7.726min (-0.091) 1.21ug/L  
 response 5336

Ion	Exp%	Act%
145.90	100	100
111.00	38.60	41.12
147.90	64.50	64.39
75.00	30.40	26.64

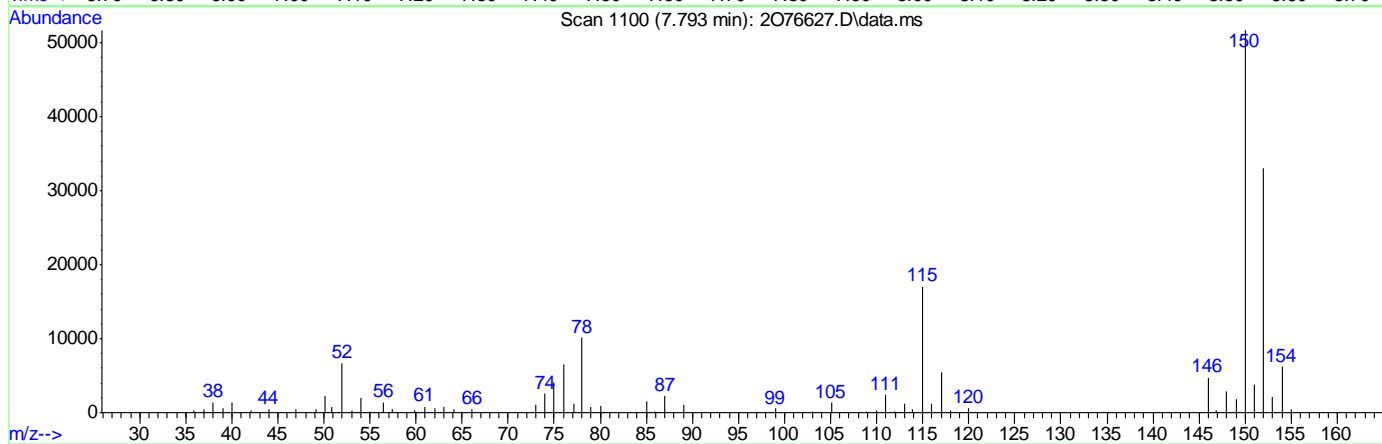
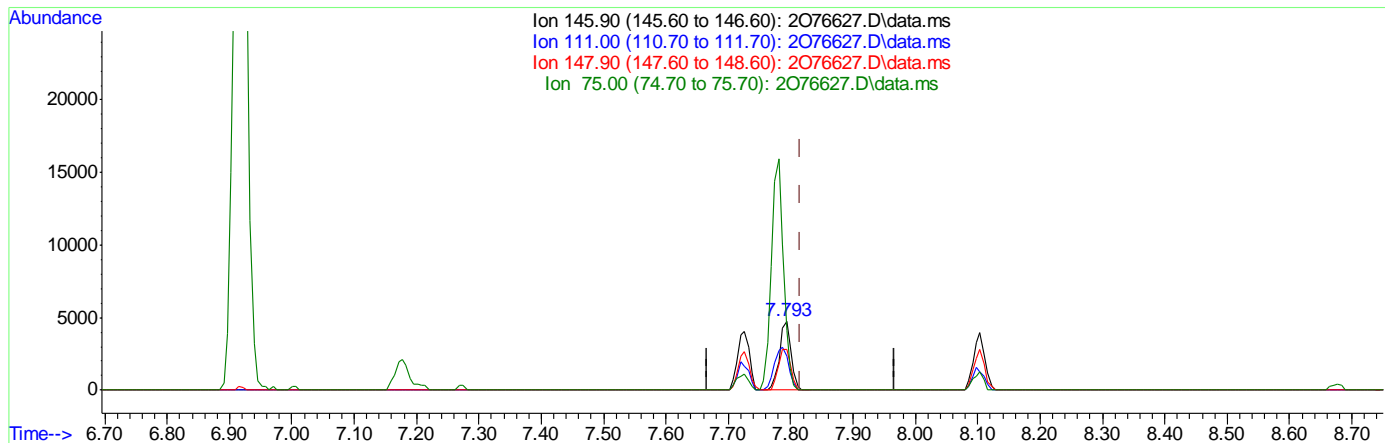
7.65.14  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(105) 1,4-Dichlorobenzene  
 7.793min (-0.024) 1.38ug/L m  
 response 6071

Ion	Exp%	Act%
145.90	100	100
111.00	38.60	49.56
147.90	64.50	59.62
75.00	30.40	87.12#

7.6.5.15  
7

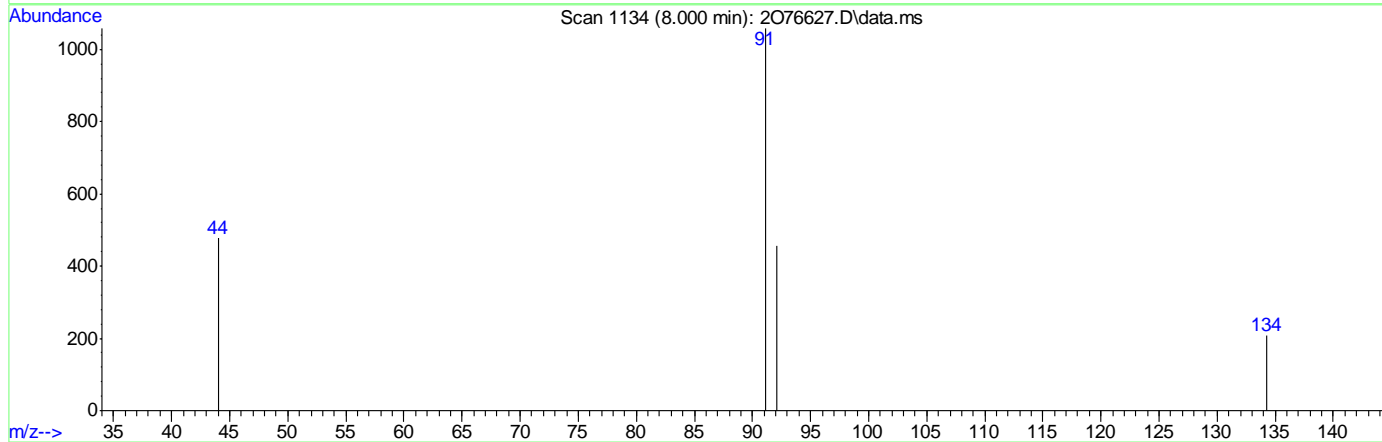
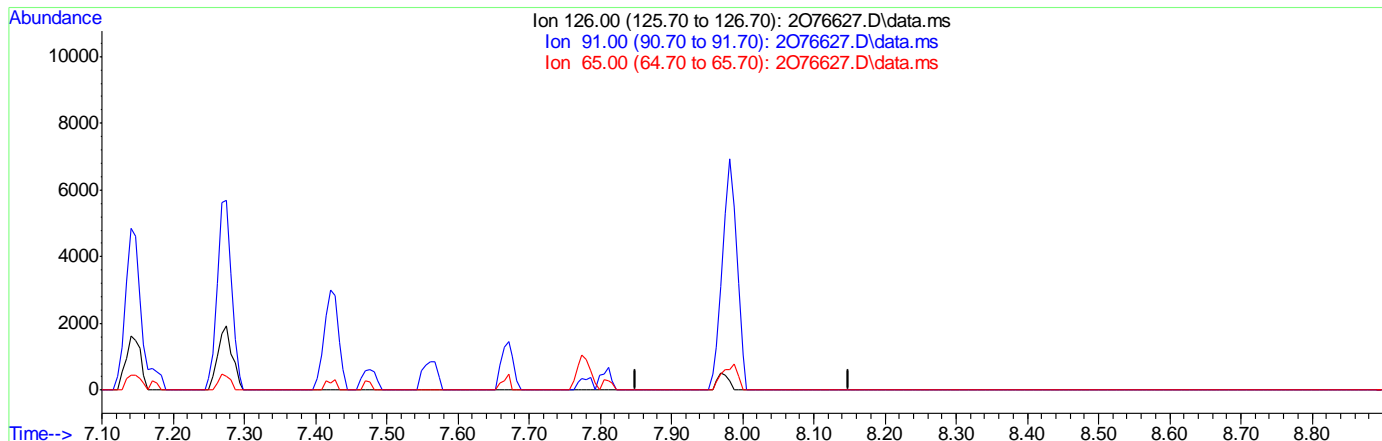


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(107) Benzyl Chloride

8.000min (-8.000) 0.00ug/L

response 0

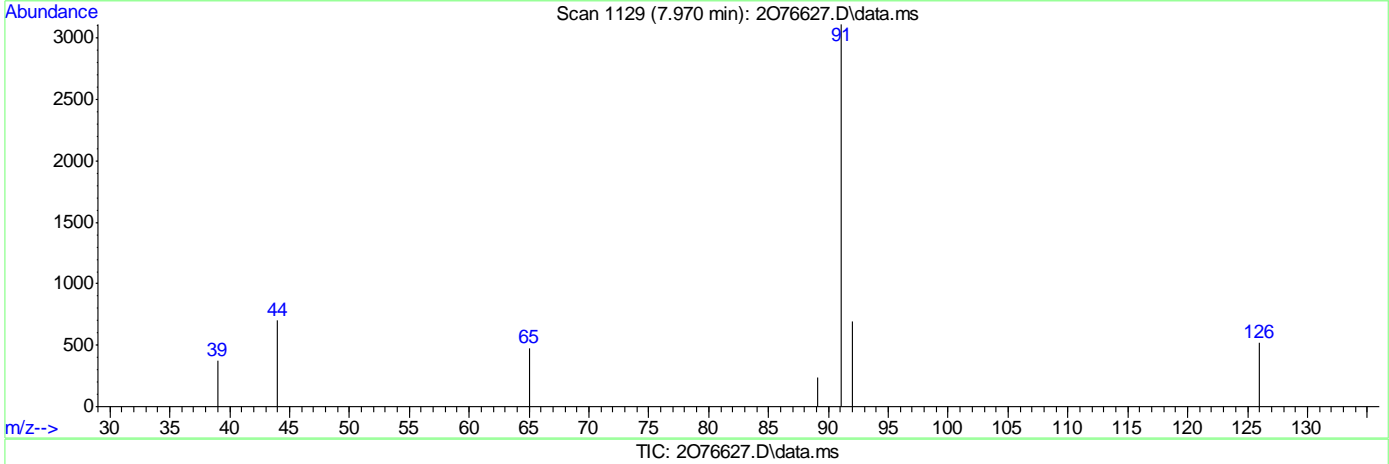
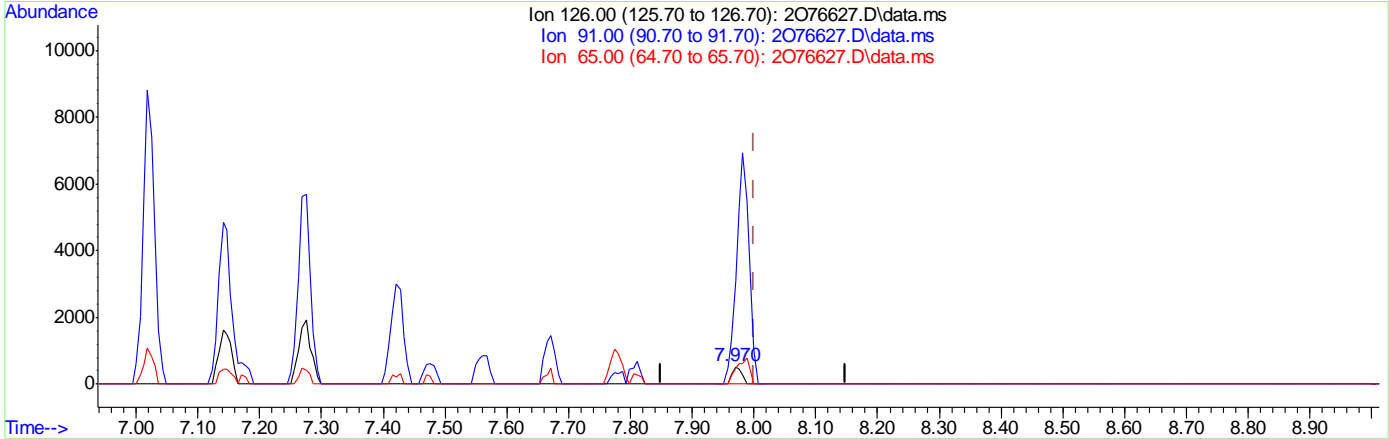
Ion	Exp%	Act%
126.00	100	0.00
91.00	690.00	0.00#
65.00	76.80	0.00#
0.00	0.00	0.00

7.6.5.16  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(107) Benzyl Chloride  
 7.970min (-0.030) 0.76ug/L m  
 response 559

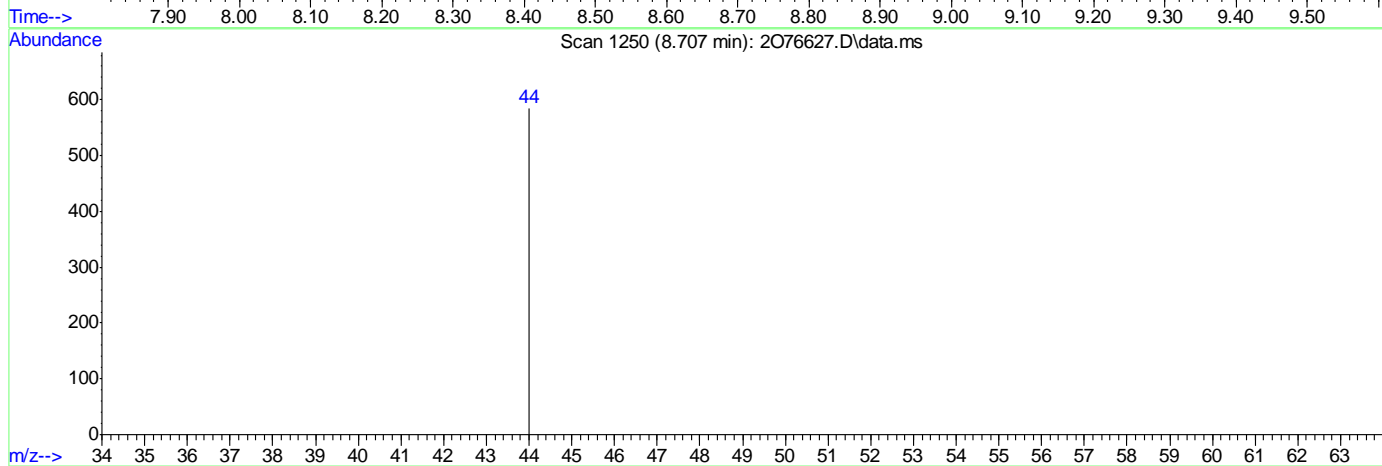
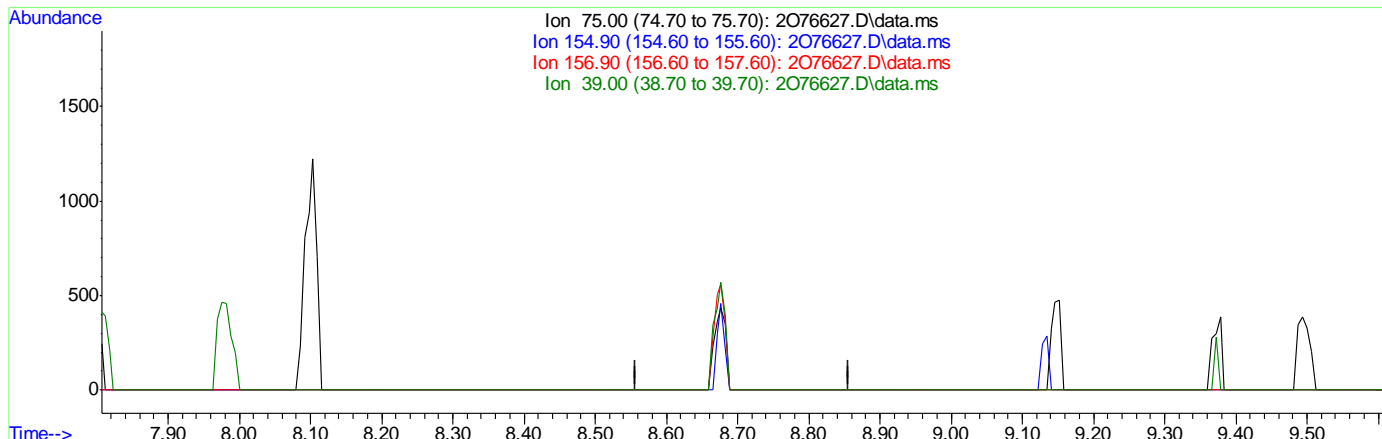
Ion	Exp%	Act%
126.00	100	100
91.00	690.00	602.13#
65.00	76.80	91.88
0.00	0.00	0.00

7.65.17  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(109) 1,2-Dibromo-3-Chloropropane

8.707min (-8.707) 0.00ug/L

response 0

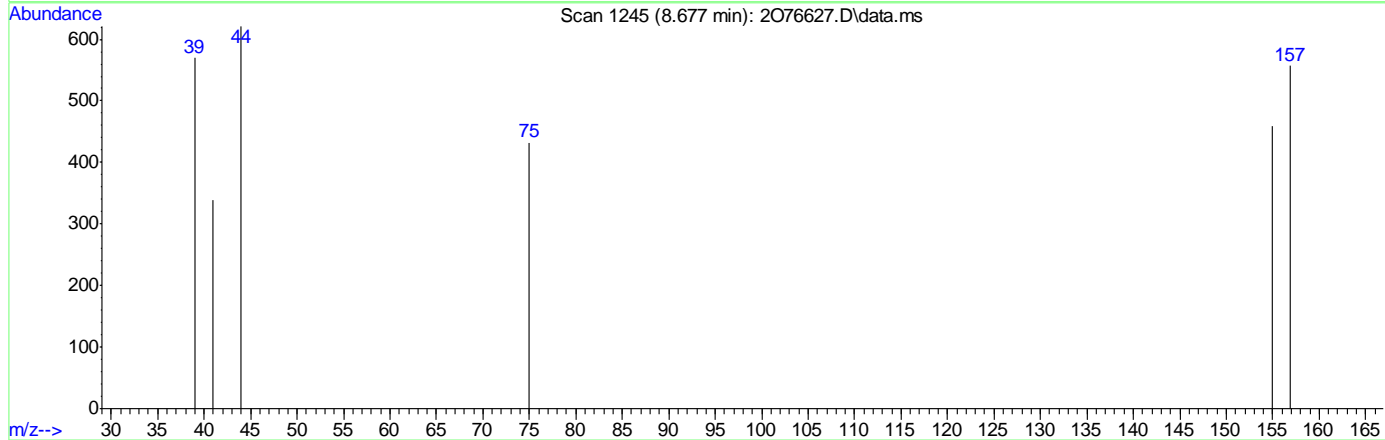
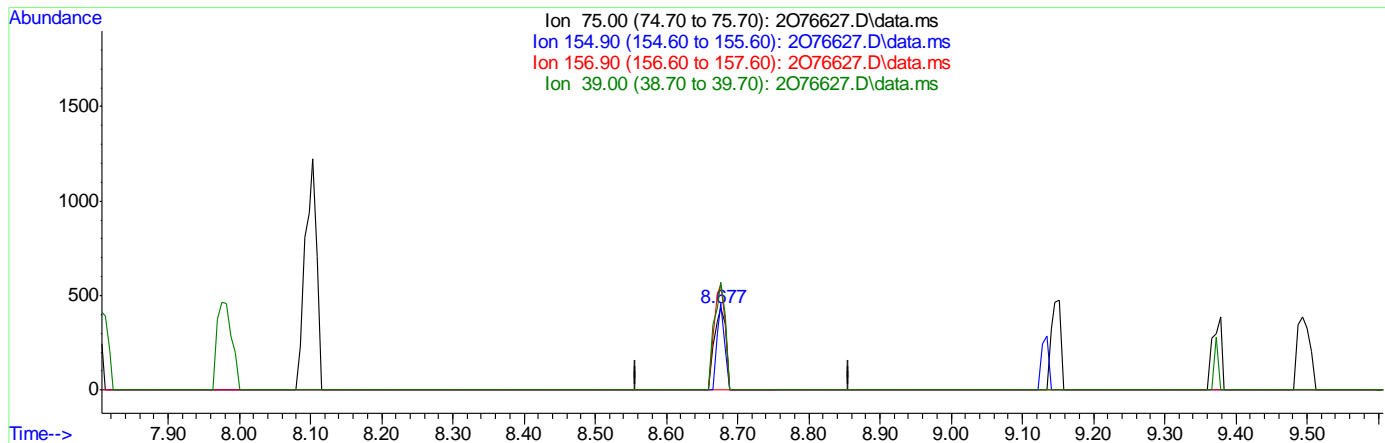
Ion	Exp%	Act%
75.00	100	0.00
154.90	105.60	0.00#
156.90	135.20	0.00#
39.00	68.40	0.00#

7.6.5.18  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(109) 1,2-Dibromo-3-Chloropropane

8.677min (-0.030) 0.85ug/L m

response 505

Ion	Exp%	Act%
75.00	100	100
154.90	105.60	106.25
156.90	135.20	128.94
39.00	68.40	131.94#

7.6.5.19  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	404974	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	293790	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	152816	50.00	ug/L	-0.02
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	109996	49.00	ug/L	-0.01
Spiked Amount	50.000	Range 83 - 118	Recovery =	98.00%		
50) 1,2-Dichloroethane-d4	3.855	65	132234	55.42	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 125	Recovery =	110.84%		
63) Toluene-d8	4.976	98	394450	49.23	ug/L	-0.01
Spiked Amount	50.000	Range 85 - 112	Recovery =	98.46%		
86) 4-Bromofluorobenzene	6.921	174	111883	47.98	ug/L	-0.02
Spiked Amount	50.000	Range 83 - 118	Recovery =	95.96%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	7833	4.75	ug/L	99
3) Chloromethane	1.373	50	7470	4.19	ug/L	91
4) 1,3-butadiene	1.447	39	8856	4.95	ug/L	99
5) Vinyl Chloride	1.434	62	7803	4.41	ug/L	94
6) Bromomethane	1.666	94	5879	4.33	ug/L	100
7) Chloroethane	1.751	64	5968	4.76	ug/L	98
8) Trichlorofluoromethane	1.849	101	15769	5.01	ug/L	98
9) Ethyl Ether	2.056	59	6040	4.33	ug/L	97
10) Ethanol	2.160	45	3321	90.69	ug/L	94
11) 1,2-Dichlorotrifluoro...	2.178	67	8809	4.24	ug/L	97
12) 1,1-Dichloroethene	2.178	61	10848	4.07	ug/L	97
13) Freon 113	2.209	101	7935	4.47	ug/L	91
14) Carbon Disulfide	2.196	76	19764	3.81	ug/L	99
15) Iodomethane	2.270	142	5249	1.89	ug/L	96
16) Acrolein	2.385	56	13631	26.85	ug/L	98
17) Allyl chloride	2.471	41	8953	4.33	ug/L	92
18) Methylene Chloride	2.532	49	11616	4.67	ug/L	99
19) Acetone	2.556	43	23604	23.17	ug/L	100
20) Methyl acetate	2.629	43	49410	21.09	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	11325	4.44	ug/L	97
22) Hexane	2.678	56	6143	4.56	ug/L	94
23) Methyl Tert Butyl Ether	2.690	73	22102	4.52	ug/L	91
24) Tert Butyl Alcohol	2.739	59	12733	34.58	ug/L	89
25) Acetonitrile	2.830	41	19659	51.25	ug/L	98
26) Di-isopropyl ether	2.910	45	21277	4.10	ug/L	96
27) Chloroprene	2.971	53	11340	4.65	ug/L	94
28) 1,1-Dichloroethane	2.983	63	14544	4.39	ug/L	98
29) Acrylonitrile	3.007	52	22009	22.31	ug/L	100
30) ETBE	3.117	59	19708	4.19	ug/L	98
31) Vinyl acetate	3.117	43	82271	21.73	ug/L	98
32) cis-1,2-Dichloroethene	3.288	96	9466	4.60	ug/L	97
33) 2,2-Dichloropropane	3.355	77	8959	4.03	ug/L	98
34) Bromochloromethane	3.404	128	4890	4.41	ug/L	84
35) Cyclohexane	3.416	56	11174	4.08	ug/L	94

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	16498	4.60	ug/L	96
37) Ethyl acetate	3.501	43	64391	21.65	ug/L	99
38) Tetrahydrofuran	3.538	42	4436	3.88	ug/L	94
40) Carbon Tetrachloride	3.532	117	9351m	4.16	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	12462	4.28	ug/L	93
42) 2-Butanone	3.611	43	35957	21.28	ug/L	96
43) 1,1-Dichloropropene	3.635	75	10732	4.27	ug/L	97
44) tert-Butyl formate	3.690	59	12320	19.49	ug/L #	77
45) Propionitrile	3.781	54	23175	46.22	ug/L	92
46) Methacrylonitrile	3.794	41	78381	46.18	ug/L	98
47) Benzene	3.775	78	32310	4.35	ug/L	98
48) TAME	3.836	73	18478	4.19	ug/L	92
49) Isobutyl alcohol	3.873	43	11227m	77.64	ug/L	
51) 1,2-Dichloroethane	3.891	62	13495	5.10	ug/L	92
52) Tert Amyl Alcohol	3.940	59	8507	29.33	ug/L #	80
53) Trichloroethene	4.117	95	9455	4.42	ug/L	92
54) Methylcyclohexane	4.117	83	11432	4.08	ug/L	93
55) Dibromomethane	4.367	93	6316	4.69	ug/L	98
56) 1,2-Dichloropropane	4.428	63	7491	4.30	ug/L	94
57) Bromodichloromethane	4.464	83	9966	4.18	ug/L	93
58) Methyl methacrylate	4.550	41	7997	4.10	ug/L	99
59) 1,4-Dioxane	4.586	88	2887	79.98	ug/L	96
60) 2-Chloroethyl vinyl ether	4.806	63	35209	23.27	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	10809	4.06	ug/L	97
64) Toluene	5.007	91	35293	4.38	ug/L	100
65) 2-Nitropropane	5.153	41	8493	18.53	ug/L	89
66) 4-Methyl-2-pentanone	5.245	43	59486	20.68	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	10498	4.06	ug/L	85
68) Tetrachloroethene	5.263	166	9103	3.99	ug/L	91
69) Ethyl methacrylate	5.367	69	10009	4.39	ug/L	93
70) 1,1,2-Trichloroethane	5.379	83	7435	4.58	ug/L	95
71) Dibromochloromethane	5.501	129	7348	4.03	ug/L	95
72) 1,3-Dichloropropane	5.568	76	14290	4.80	ug/L	98
73) 1,2-Dibromoethane	5.671	107	8935	4.39	ug/L	97
74) 3,3-dimethyl-1-butanol	5.781	57	72595	194.30	ug/L	94
75) 2-hexanone	5.812	43	60258	21.08	ug/L	95
76) 1-Chlorohexane	6.013	91	10472m	4.13	ug/L	
77) Ethylbenzene	6.049	91	37797	4.35	ug/L	95
78) Chlorobenzene	6.037	112	24419	4.49	ug/L	95
79) 1,1,1,2-Tetrachloroethane	6.080	131	7128	4.18	ug/L	96
80) m,p-Xylene	6.153	91	59021	8.73	ug/L	94
81) o-Xylene	6.470	91	28758	4.21	ug/L	98
82) Styrene	6.507	104	21432	4.00	ug/L	96
83) Bromoform	6.531	173	3863	3.40	ug/L	94
84) Isopropylbenzene	6.702	105	33556	4.08	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	2472	3.57	ug/L #	70
88) n-Propylbenzene	7.019	91	39938	4.22	ug/L	95
89) Bromobenzene	7.006	156	9088	4.32	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	12854	4.46	ug/L	96
91) 1,3,5-Trimethylbenzene	7.177	105	28027	4.19	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	29666	4.64	ug/L	93
93) trans-1,4-Dichloro-2-B...	7.208	53	2065	3.54	ug/L #	70
94) 1,2,3-Trichloropropane	7.177	110	4283	4.51	ug/L	92
95) Cyclohexanone	7.208	55	2144	16.29	ug/L	93
96) 4-Chlorotoluene	7.275	91	26547	4.52	ug/L	99
97) tert-Butylbenzene	7.421	91	15692	4.34	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	27462	4.16	ug/L	97
100) Pentachloroethane	7.439	167	3906	4.56	ug/L #	71
101) sec-Butylbenzene	7.561	105	32879	4.11	ug/L	98
102) 4-Isopropyltoluene	7.671	119	26924	3.85	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	18090	4.35	ug/L	96
104) 1,2,3-Trimethylbenzene	7.811	105	30267	4.38	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	19119	4.54	ug/L	89
106) n-Butylbenzene	7.988	92	13411	3.87	ug/L	99
107) Benzyl Chloride	7.976	126	2087	2.92	ug/L #	10
108) 1,2-Dichlorobenzene	8.104	146	18119	4.62	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	2348	4.11	ug/L #	71
110) Hexachlorobutadiene	9.134	225	3550	4.25	ug/L	82
111) 1,2,4-Trichlorobenzene	9.152	180	9849	4.14	ug/L	96
112) Naphthalene	9.372	128	31987	3.80	ug/L	96
113) 1,2,3-Trichlorobenzene	9.500	180	9876	4.37	ug/L	94

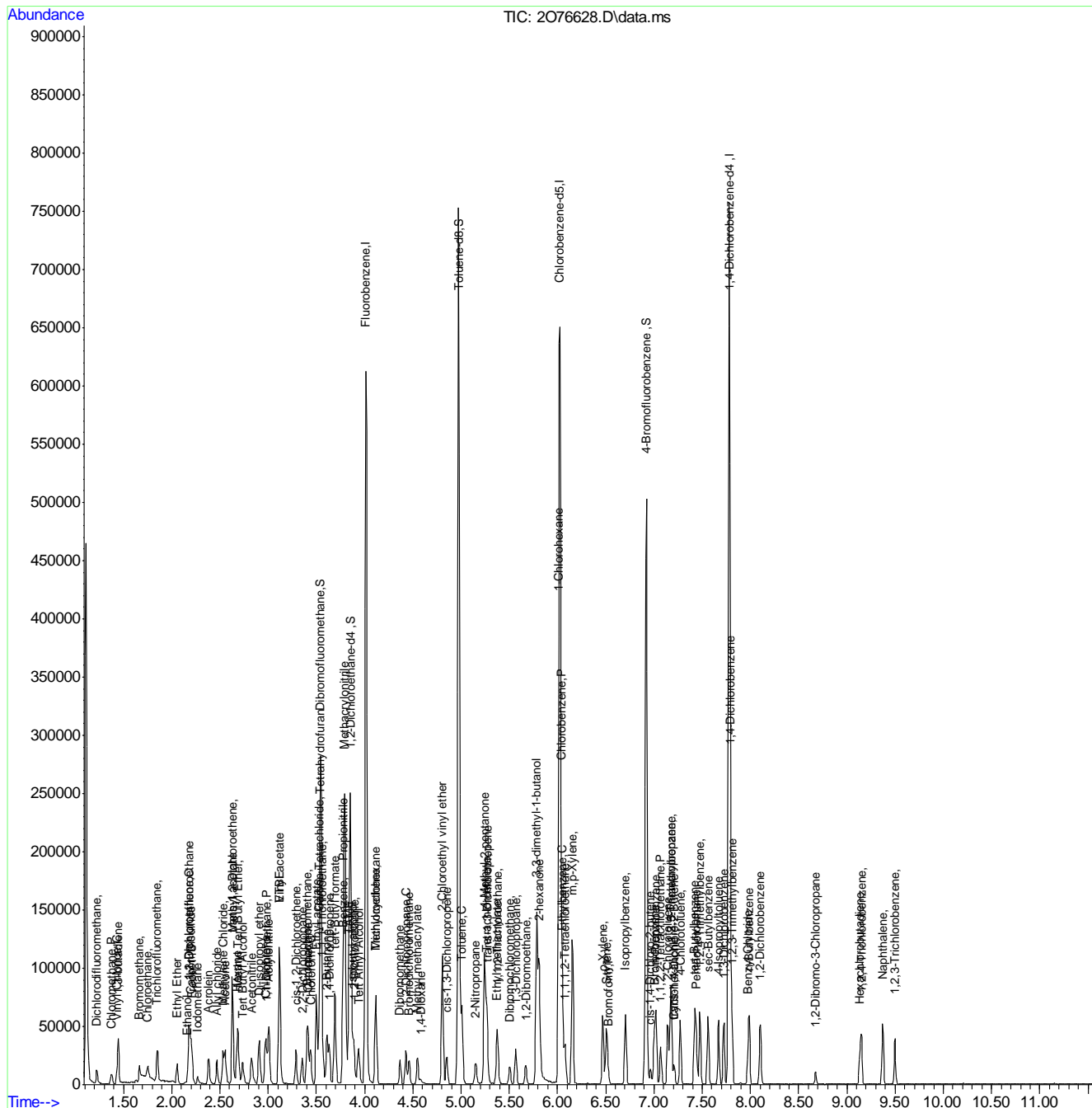
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
Data File : 2076628.D  
Acq On : 7 Jun 2023 2:20 pm  
Operator : joannel  
Sample : IC2981-2  
Misc : MS54147,V202981,,,,,  
ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:52:29 2023  
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Tue Apr 11 14:22:12 2023  
Response via : Initial Calibration



997



# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76628.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 14:20      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

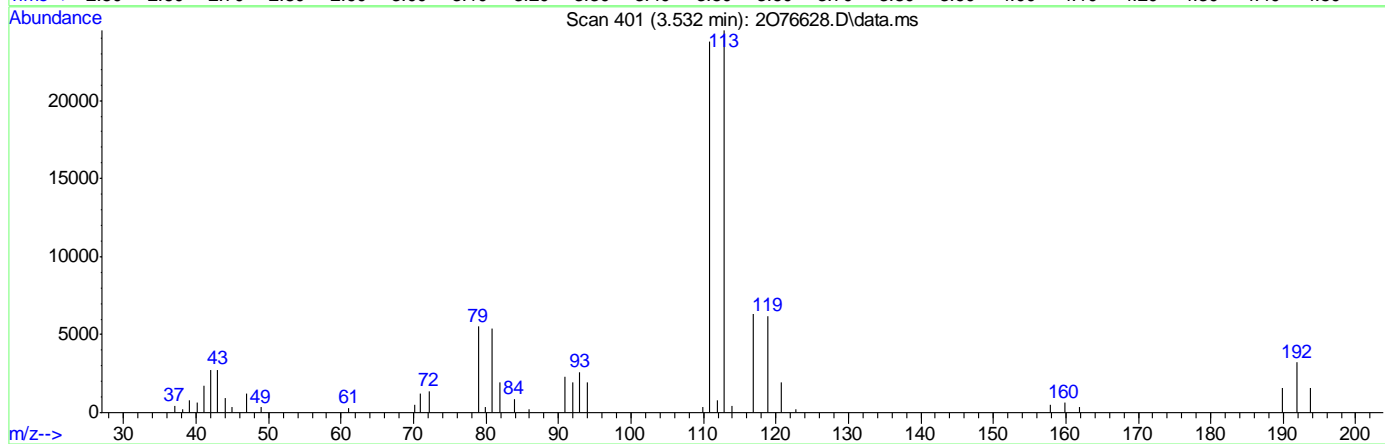
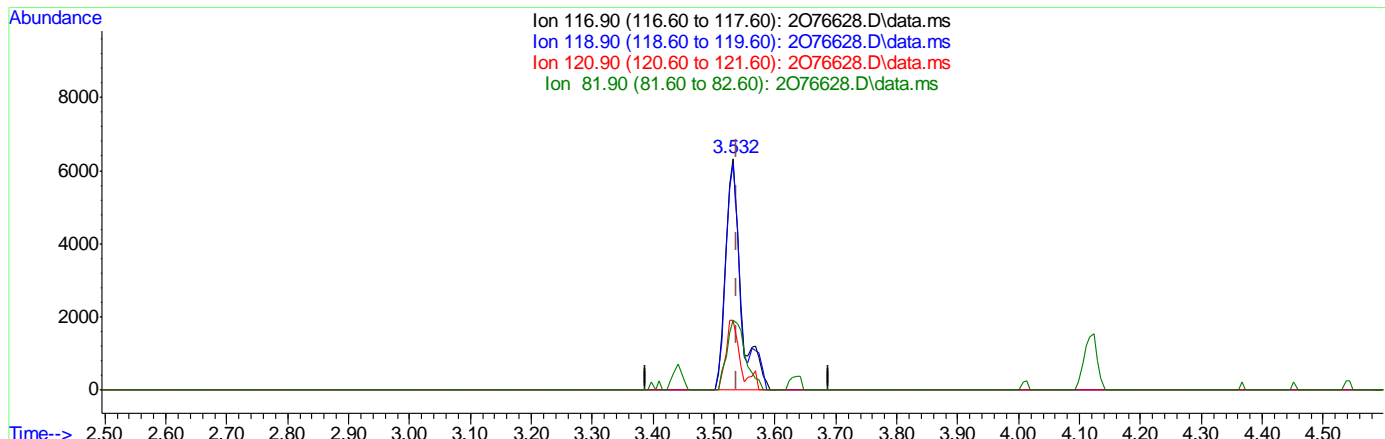
7.6.6.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 4.95ug/L

response 11113

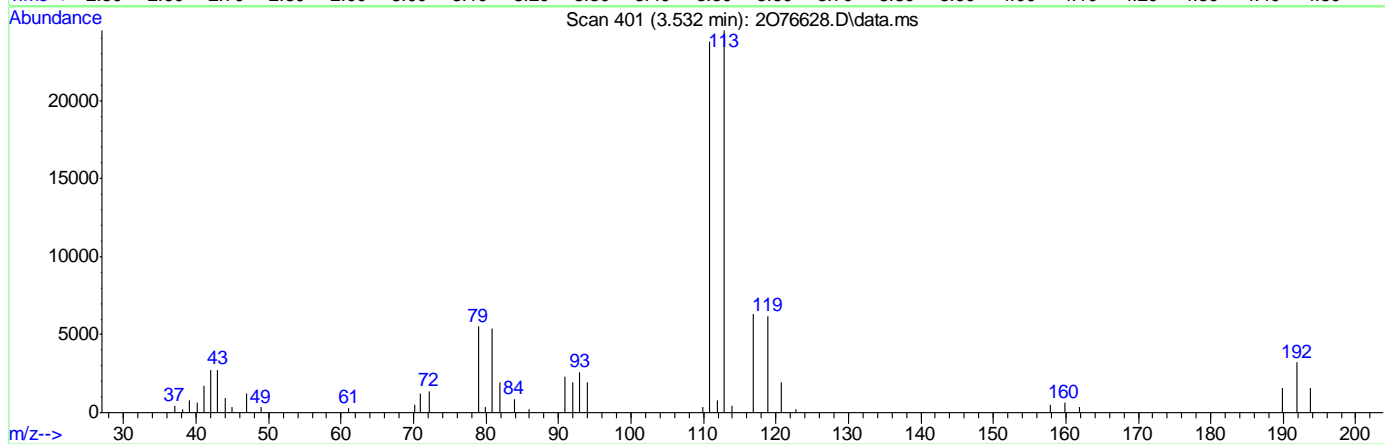
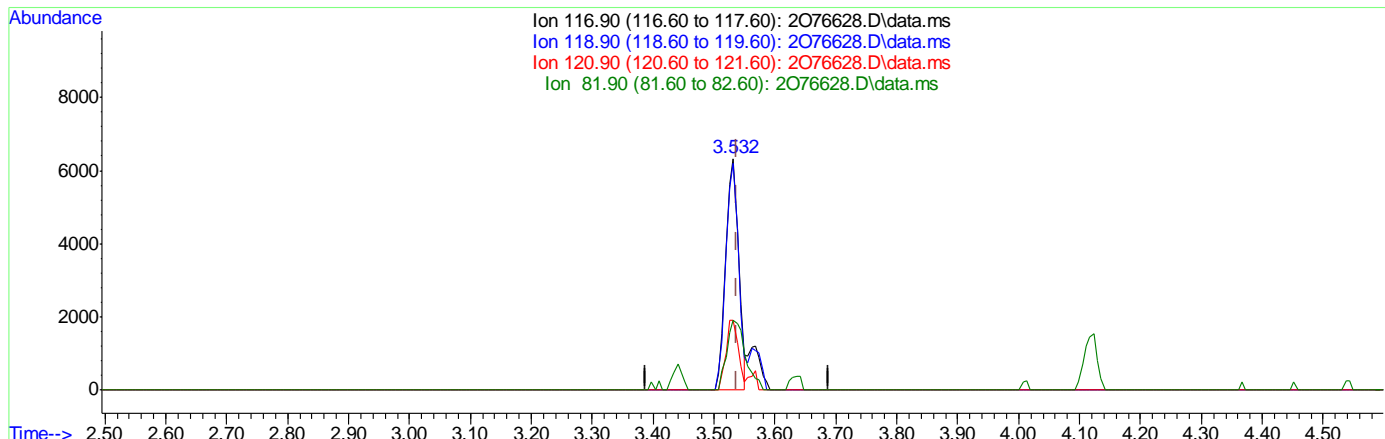
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.85
120.90	31.00	30.31
81.90	24.80	30.21

7.6.6.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 4.16ug/L m

response 9351

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.85
120.90	31.00	30.31
81.90	24.80	30.21

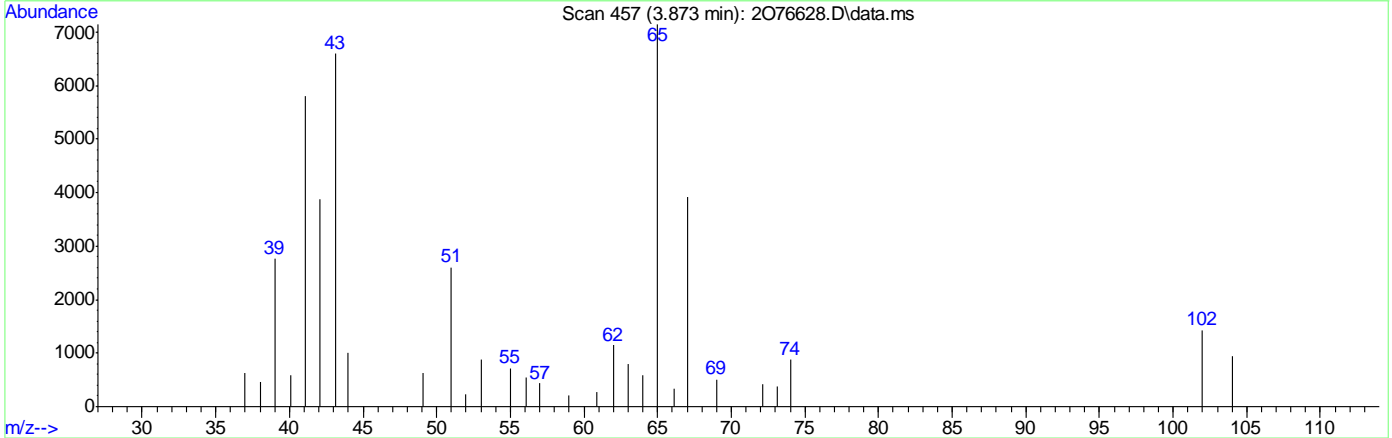
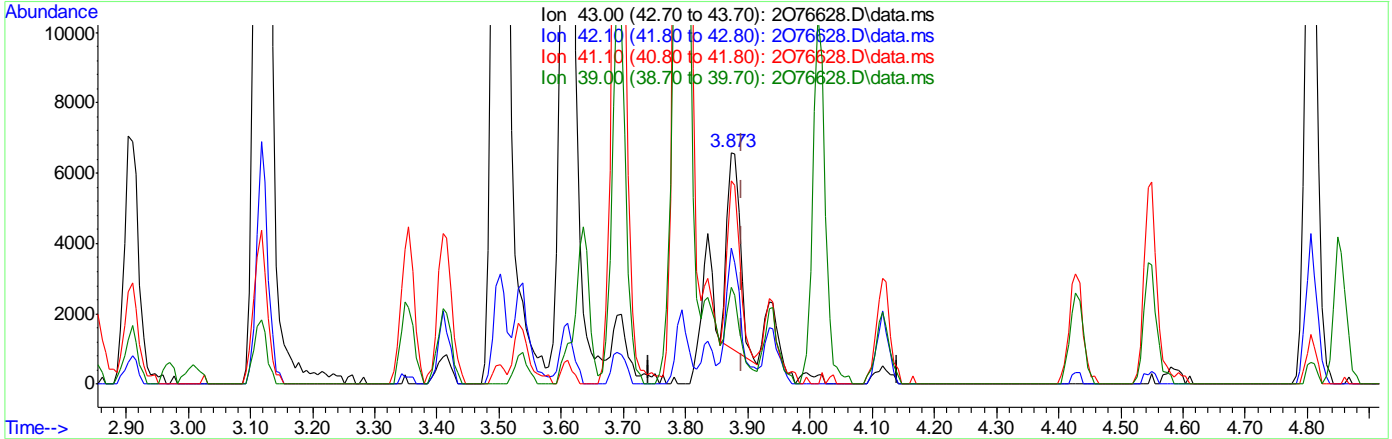
7.6.6.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 56.50ug/L  
 response 8147

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	57.01
41.10	73.50	81.97
39.00	30.20	39.92

7.6.6.4

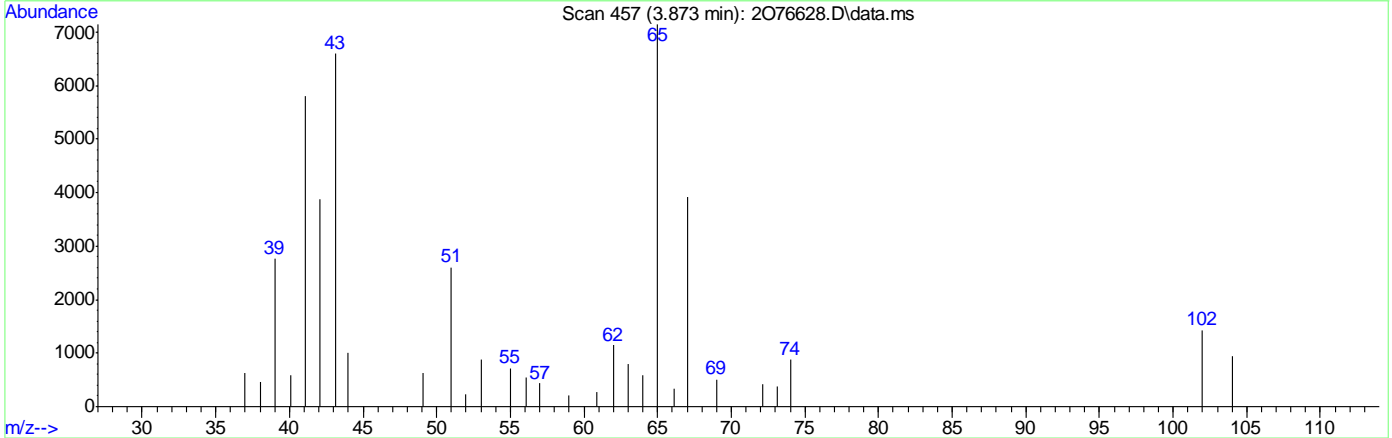
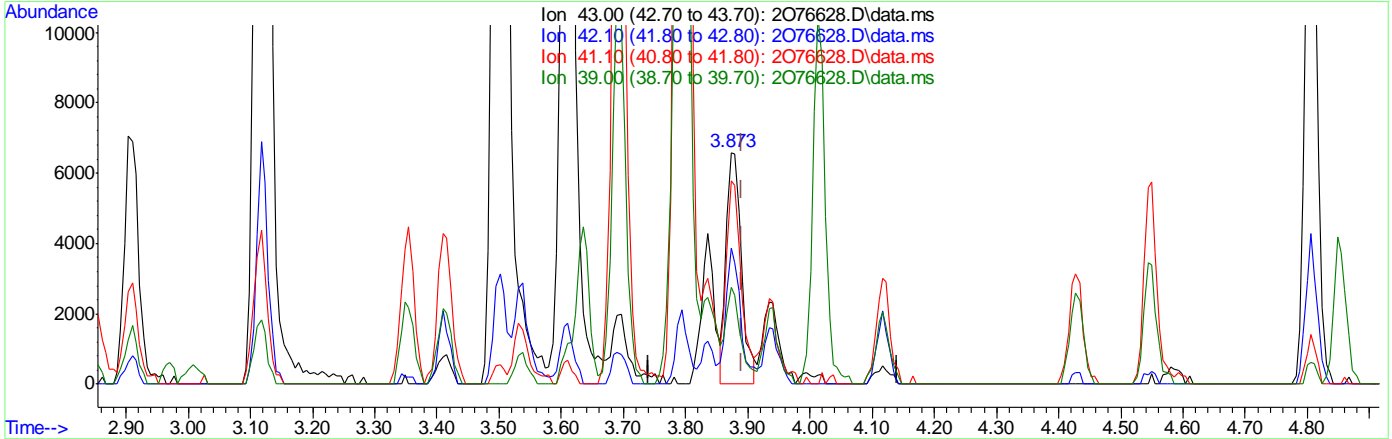
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 77.64ug/L m  
 response 11227

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.68
41.10	73.50	87.95
39.00	30.20	41.83

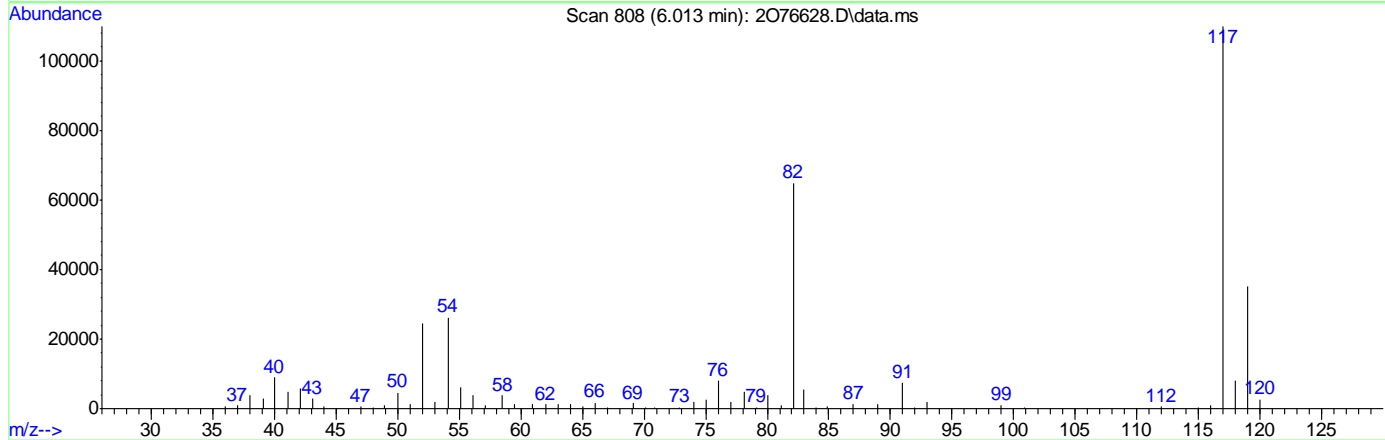
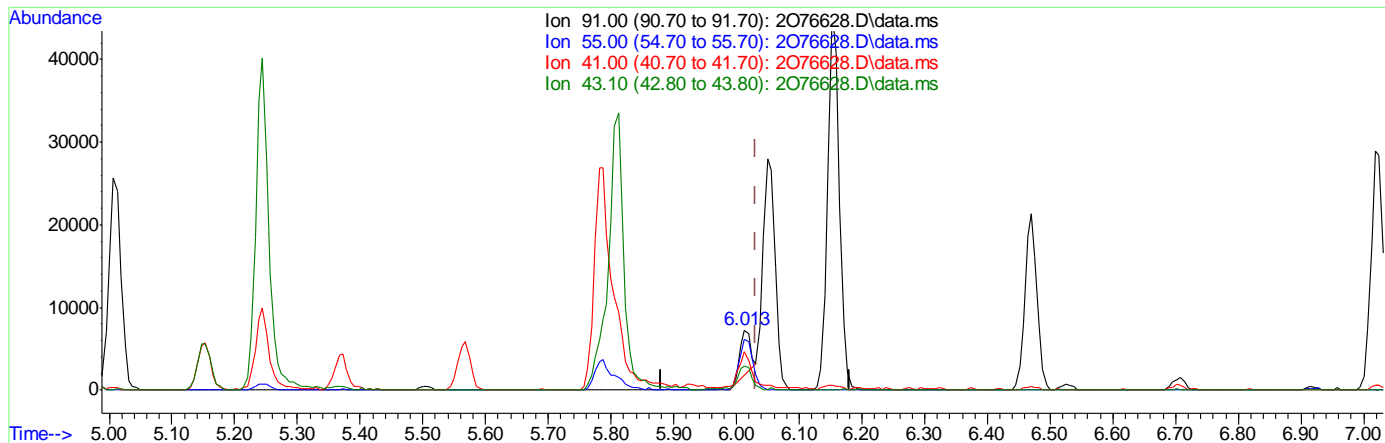
7.6.6.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.018) 2.53ug/L

response 6422

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	84.71
41.00	53.70	58.66
43.10	42.30	35.75

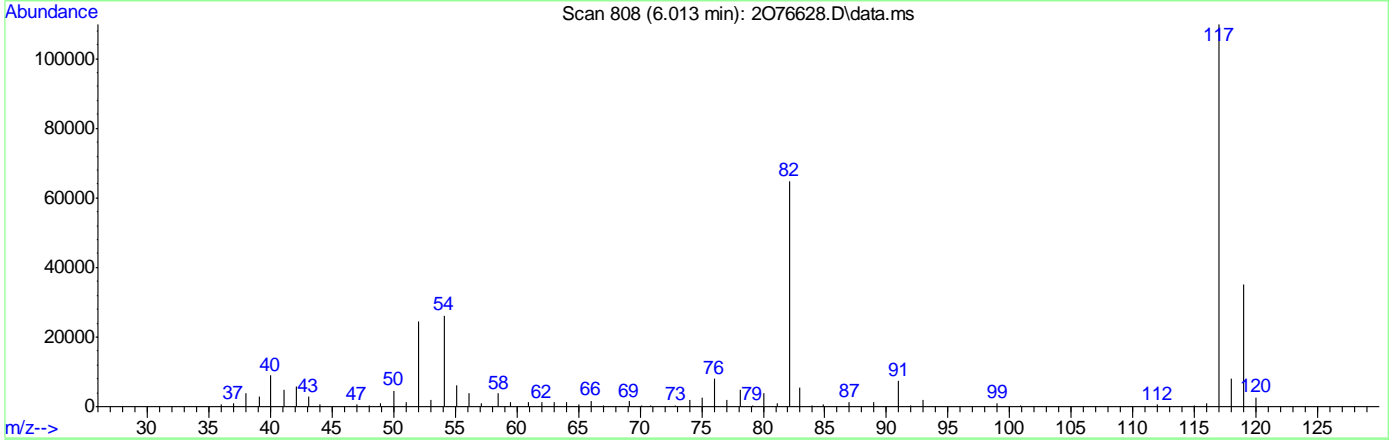
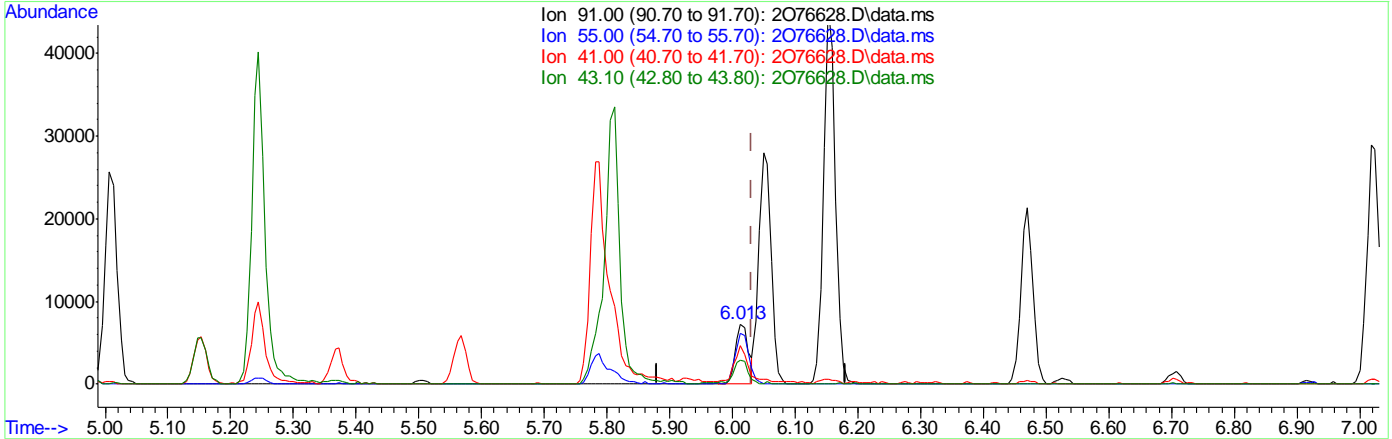
7.6.6.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 4.13ug/L m  
 response 10472

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	84.71
41.00	53.70	64.64
43.10	42.30	38.82

7.6.6.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	419369	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	299387	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	147990	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	112256	48.29	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	96.58%	
50) 1,2-Dichloroethane-d4	3.855	65	124045	50.21	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	100.42%	
63) Toluene-d8	4.976	98	410567	50.29	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	100.58%	
86) 4-Bromofluorobenzene	6.921	174	110051	48.73	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	97.46%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	14159	8.29	ug/L		96
3) Chloromethane	1.373	50	14281	7.73	ug/L		99
4) 1,3-butadiene	1.447	39	21966	11.86	ug/L		95
5) Vinyl Chloride	1.434	62	14841	8.09	ug/L		98
6) Bromomethane	1.666	94	12790	9.10	ug/L		96
7) Chloroethane	1.751	64	11531	9.22	ug/L		99
8) Trichlorofluoromethane	1.855	101	28857	8.86	ug/L		98
9) Ethyl Ether	2.056	59	14179	9.81	ug/L		97
10) Ethanol	2.148	45	7388	195.03	ug/L		92
11) 1,2-Dichlorotrifluoro...	2.178	67	21269	9.89	ug/L		98
12) 1,1-Dichloroethene	2.178	61	25545	9.25	ug/L		98
13) Freon 113	2.209	101	18242	9.92	ug/L		97
14) Carbon Disulfide	2.196	76	46458	8.66	ug/L		100
15) Iodomethane	2.270	142	11838	4.12	ug/L		96
16) Acrolein	2.385	56	21680	41.23	ug/L		100
17) Allyl chloride	2.471	41	23205	10.85	ug/L		93
18) Methylene Chloride	2.532	49	23368	9.09	ug/L		93
19) Acetone	2.556	43	40200	38.11	ug/L		95
20) Methyl acetate	2.629	43	106505	43.91	ug/L		97
21) trans-1,2-Dichloroethene	2.629	61	24876	9.42	ug/L		98
22) Hexane	2.678	56	12980	9.30	ug/L		93
23) Methyl Tert Butyl Ether	2.690	73	48734	9.62	ug/L		84
24) Tert Butyl Alcohol	2.739	59	28264	73.48	ug/L		96
25) Acetonitrile	2.830	41	46242	116.41	ug/L		98
26) Di-isopropyl ether	2.910	45	49704	9.25	ug/L		97
27) Chloroprene	2.971	53	30419	12.04	ug/L		97
28) 1,1-Dichloroethane	2.983	63	33210	9.68	ug/L		98
29) Acrylonitrile	3.007	52	41694	40.81	ug/L		98
30) ETBE	3.117	59	45529	9.34	ug/L		98
31) Vinyl acetate	3.117	43	165022	42.09	ug/L		98
32) cis-1,2-Dichloroethene	3.288	96	21594	10.14	ug/L		97
33) 2,2-Dichloropropane	3.355	77	21489	9.33	ug/L		96
34) Bromochloromethane	3.404	128	10910	9.50	ug/L		97
35) Cyclohexane	3.416	56	26719	9.43	ug/L		96



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	37057	9.98	ug/L	95
37) Ethyl acetate	3.501	43	122718	39.84	ug/L	99
38) Tetrahydrofuran	3.538	42	9442	7.97	ug/L	94
40) Carbon Tetrachloride	3.532	117	23413m	10.06	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	28685	9.52	ug/L	92
42) 2-Butanone	3.611	43	58985	33.71	ug/L	99
43) 1,1-Dichloropropene	3.635	75	25268	9.71	ug/L	97
44) tert-Butyl formate	3.696	59	27466	41.29	ug/L	91
45) Propionitrile	3.782	54	54691	105.33	ug/L	98
46) Methacrylonitrile	3.794	41	197008	112.10	ug/L	100
47) Benzene	3.782	78	73822	9.60	ug/L	75
48) TAME	3.836	73	42714	9.36	ug/L	93
49) Isobutyl alcohol	3.873	43	29288m	192.54	ug/L	
51) 1,2-Dichloroethane	3.891	62	29670	10.83	ug/L	99
52) Tert Amyl Alcohol	3.940	59	19883	65.61	ug/L	89
53) Trichloroethene	4.117	95	21676	9.78	ug/L	93
54) Methylcyclohexane	4.117	83	26689	9.20	ug/L	98
55) Dibromomethane	4.367	93	14206	10.19	ug/L	95
56) 1,2-Dichloropropane	4.428	63	18144	10.06	ug/L	98
57) Bromodichloromethane	4.464	83	23459	9.50	ug/L	99
58) Methyl methacrylate	4.550	41	22857	11.33	ug/L	96
59) 1,4-Dioxane	4.586	88	7119	188.95	ug/L	98
60) 2-Chloroethyl vinyl ether	4.806	63	73491	46.91	ug/L	97
61) cis-1,3-Dichloropropene	4.854	75	25420	9.16	ug/L	95
64) Toluene	5.007	91	78741	9.60	ug/L	98
65) 2-Nitropropane	5.153	41	20315	42.48	ug/L	93
66) 4-Methyl-2-pentanone	5.245	43	103323	35.24	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	24400	9.20	ug/L	93
68) Tetrachloroethene	5.263	166	21010	9.04	ug/L	97
69) Ethyl methacrylate	5.373	69	26356	11.25	ug/L	91
70) 1,1,2-Trichloroethane	5.379	83	16938	10.23	ug/L	94
71) Dibromochloromethane	5.507	129	17360	9.25	ug/L	95
72) 1,3-Dichloropropane	5.568	76	30797	10.15	ug/L	95
73) 1,2-Dibromoethane	5.671	107	20754	10.02	ug/L	96
74) 3,3-dimethyl-1-butanol	5.787	57	152612	397.35	ug/L	98
75) 2-hexanone	5.812	43	110591	37.97	ug/L	95
76) 1-Chlorohexane	6.013	91	24148m	9.35	ug/L	
77) Ethylbenzene	6.055	91	87245	9.86	ug/L	99
78) Chlorobenzene	6.037	112	54505	9.83	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	17412	10.03	ug/L	98
80) m,p-Xylene	6.153	91	137392	19.95	ug/L	97
81) o-Xylene	6.470	91	67805	9.75	ug/L	96
82) Styrene	6.507	104	51434	9.41	ug/L	96
83) Bromoform	6.525	173	9671	8.23	ug/L	97
84) Isopropylbenzene	6.702	105	78509	9.36	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	6848	10.22	ug/L #	71
88) n-Propylbenzene	7.019	91	93508	10.19	ug/L	97
89) Bromobenzene	7.000	156	20705	10.17	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.067	83	29986	10.73	ug/L	98
91) 1,3,5-Trimethylbenzene	7.177	105	67336	10.40	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	66021	10.67	ug/L	97
93) trans-1,4-Dichloro-2-B...	7.208	53	5426	9.48	ug/L #	67
94) 1,2,3-Trichloropropane	7.177	110	9480	10.31	ug/L	95
95) Cyclohexanone	7.208	55	4201	32.95	ug/L	94
96) 4-Chlorotoluene	7.275	91	62474	10.97	ug/L	98
97) tert-Butylbenzene	7.427	91	35635	10.18	ug/L	98
99) 1,2,4-Trimethylbenzene	7.476	105	67842	10.60	ug/L	97
100) Pentachloroethane	7.439	167	10863	12.80	ug/L #	60
101) sec-Butylbenzene	7.561	105	76471	9.86	ug/L	98
102) 4-Isopropyltoluene	7.671	119	65044	9.61	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	41222	10.25	ug/L	98
104) 1,2,3-Trimethylbenzene	7.811	105	71503	10.68	ug/L	98
105) 1,4-Dichlorobenzene	7.793	146	42137	10.34	ug/L	93
106) n-Butylbenzene	7.988	92	32655	9.70	ug/L	90
107) Benzyl Chloride	7.976	126	5378	7.59	ug/L #	11
108) 1,2-Dichlorobenzene	8.104	146	39720	10.46	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	5193	9.27	ug/L	82
110) Hexachlorobutadiene	9.134	225	7668	9.44	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	22216	9.64	ug/L	99
112) Naphthalene	9.372	128	76182	9.34	ug/L	97
113) 1,2,3-Trichlorobenzene	9.500	180	21519	9.83	ug/L	96

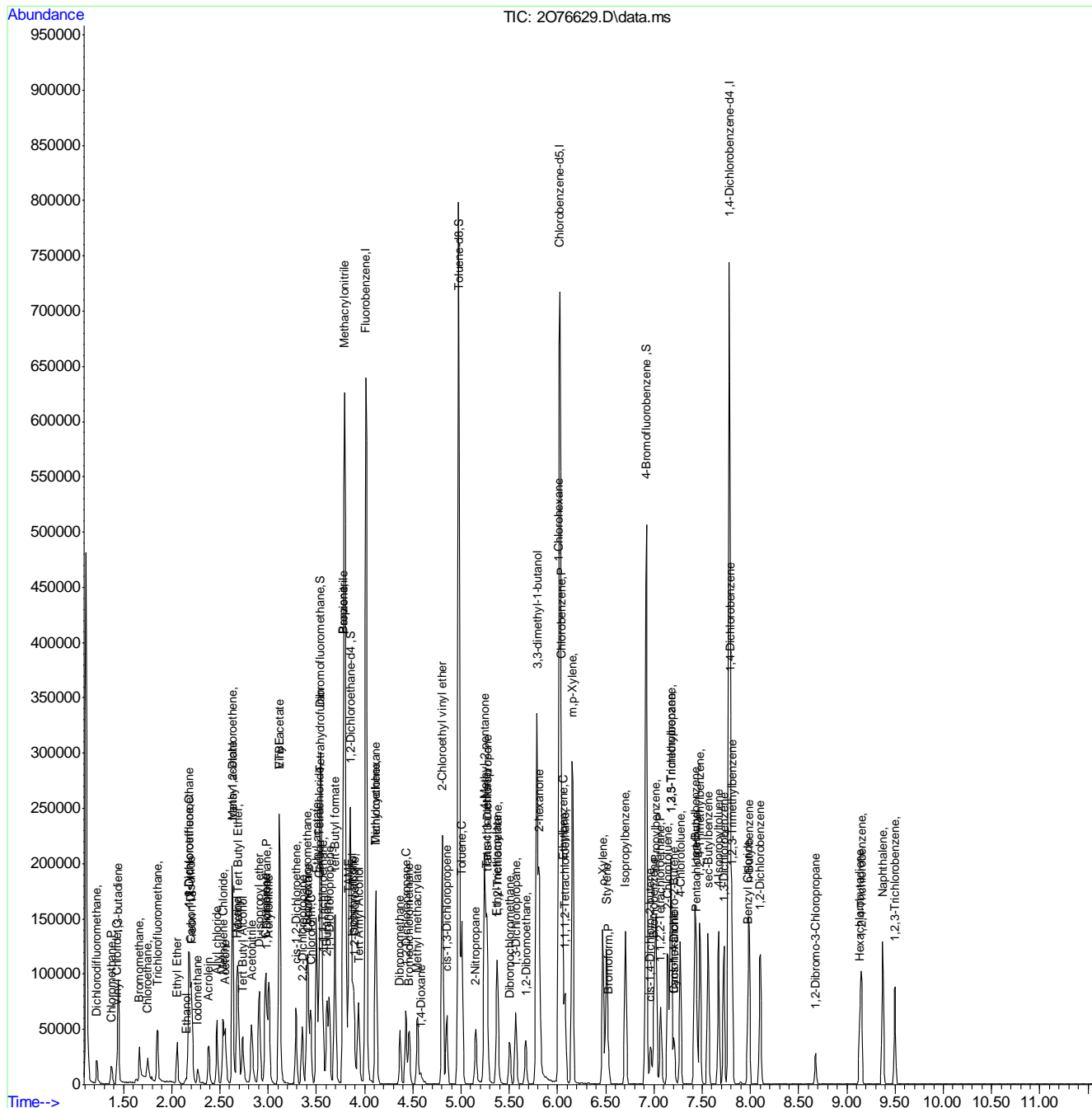
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\
Data File : 2076629.D
Acq On : 7 Jun 2023 2:46 pm
Operator : joannel
Sample : IC2981-3
Misc : MS54147,V202981,,,,,
ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:10:12 2023
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Tue Apr 11 14:22:12 2023
Response via : Initial Calibration



7.6.7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76629.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 14:46      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

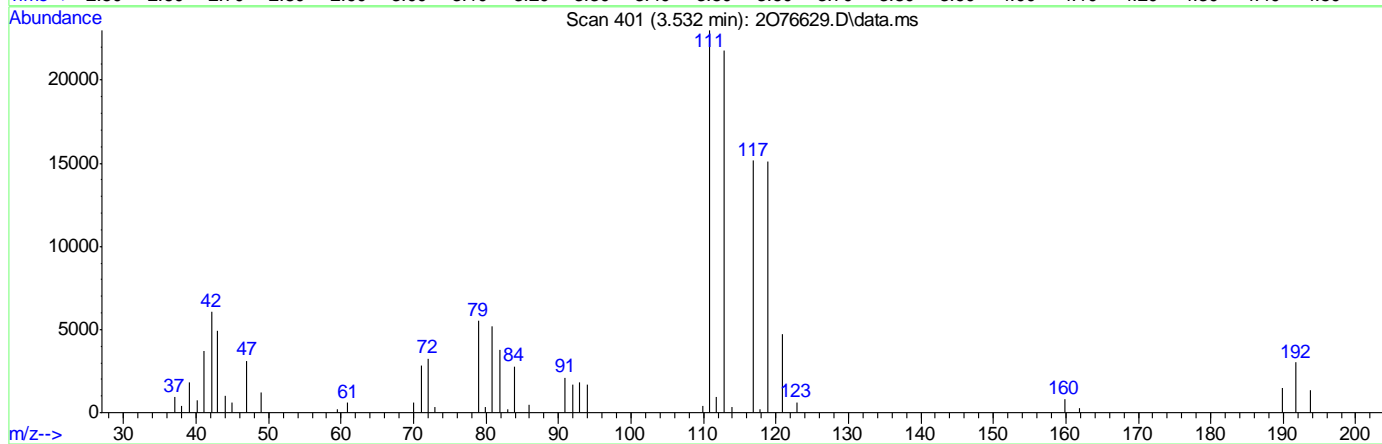
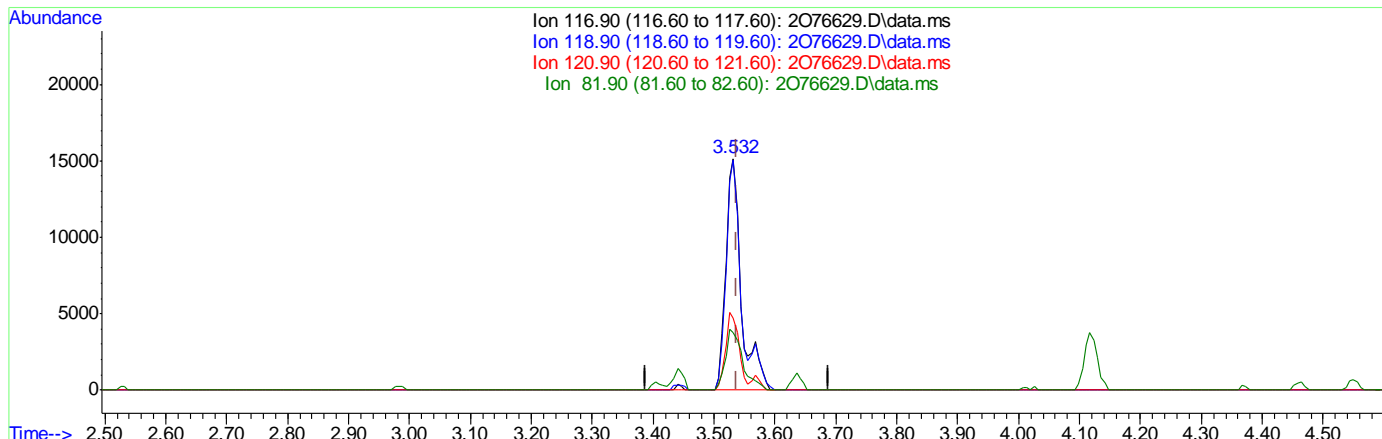
7.6.7.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 11.53ug/L

response 26818

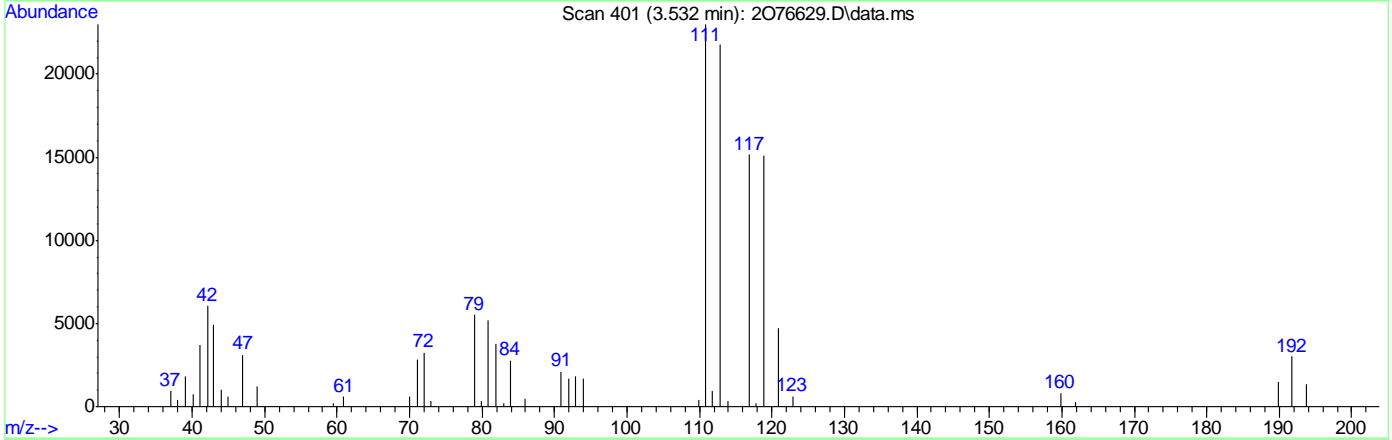
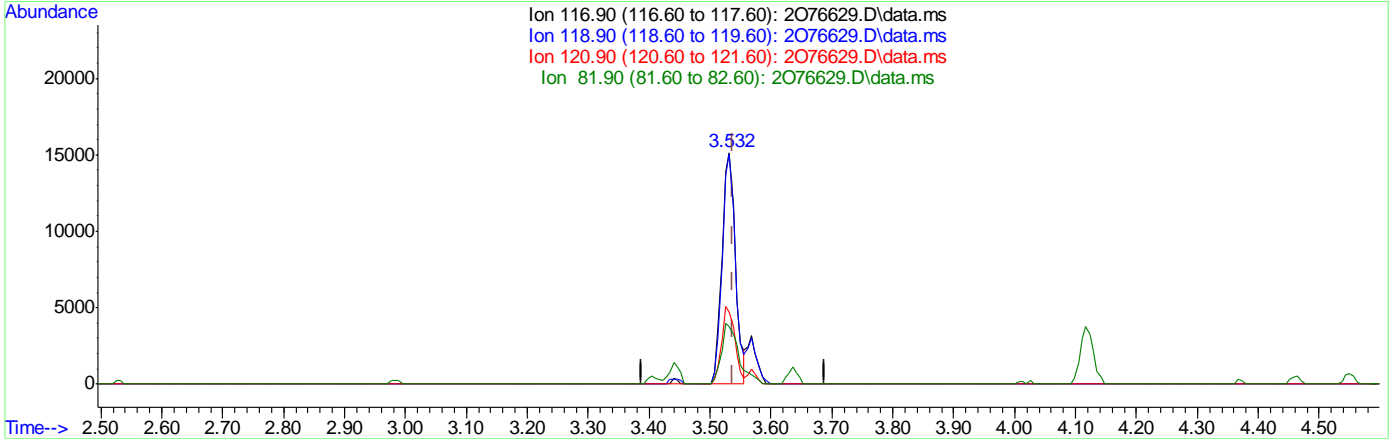
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.52
120.90	31.00	30.95
81.90	24.80	25.02

7.6.7.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (-0.006) 10.06ug/L m  
 response 23413

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.52
120.90	31.00	30.95
81.90	24.80	25.02

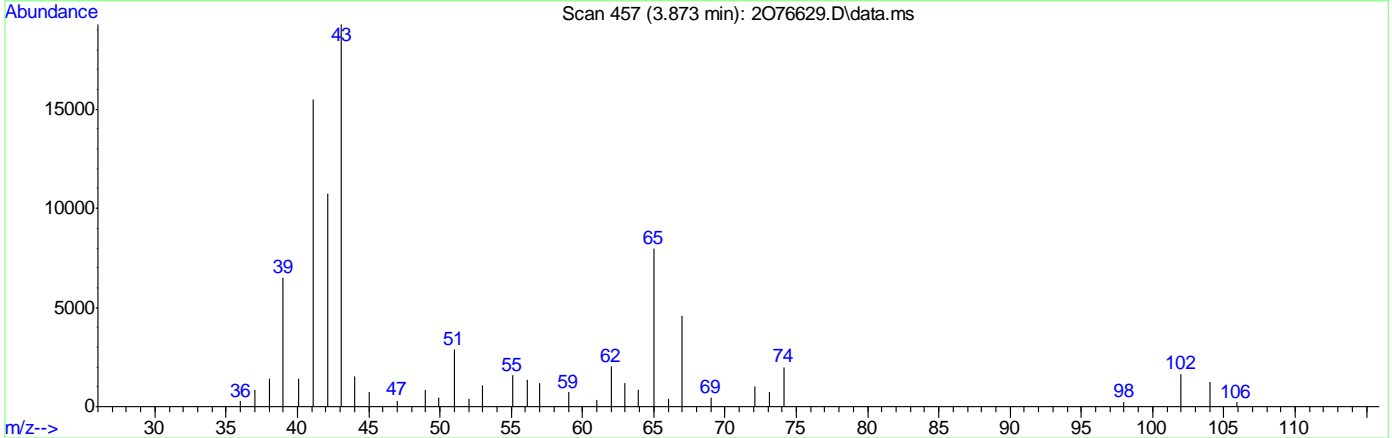
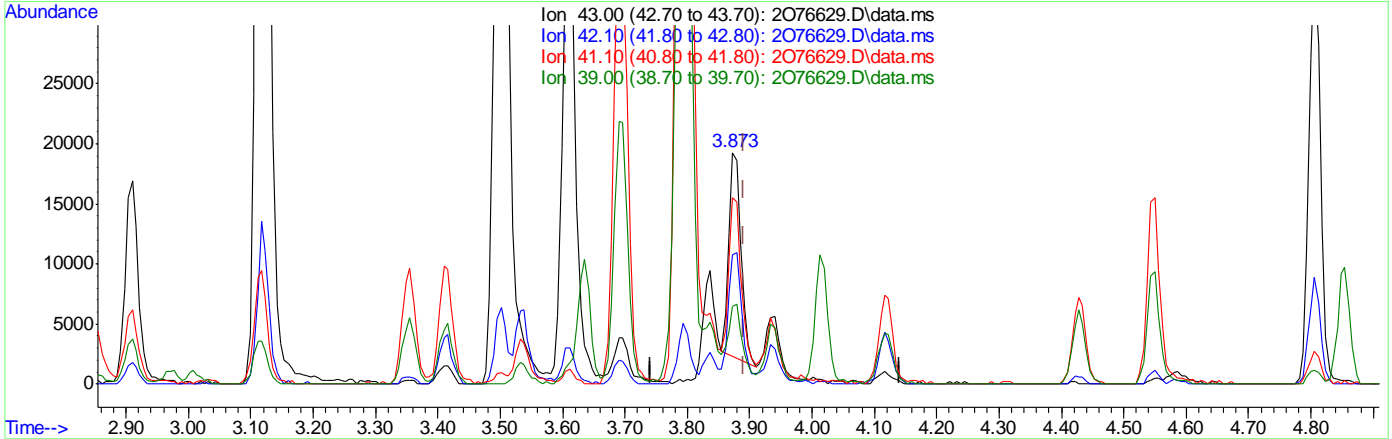
7.6.7.3

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 151.46ug/L  
 response 22911

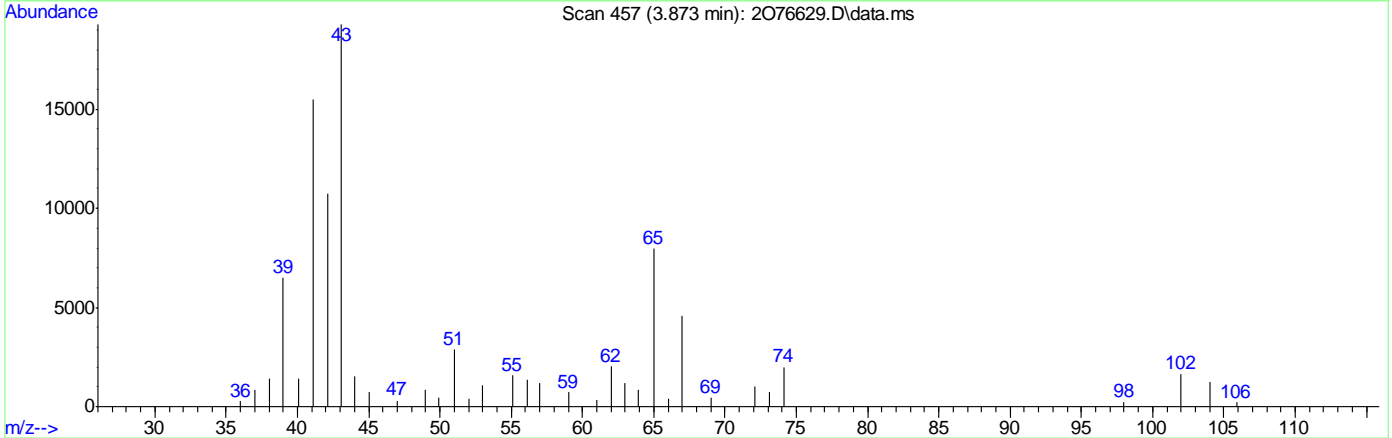
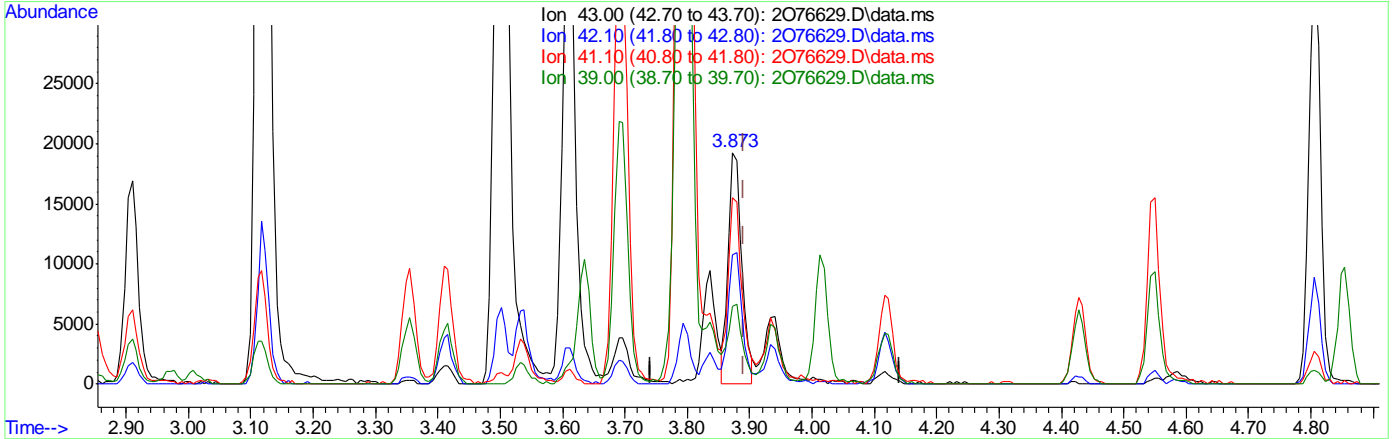
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.61
41.10	73.50	77.53
39.00	30.20	32.15

7.6.7.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 192.54ug/L m  
 response 29288

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.79
41.10	73.50	80.30
39.00	30.20	33.64

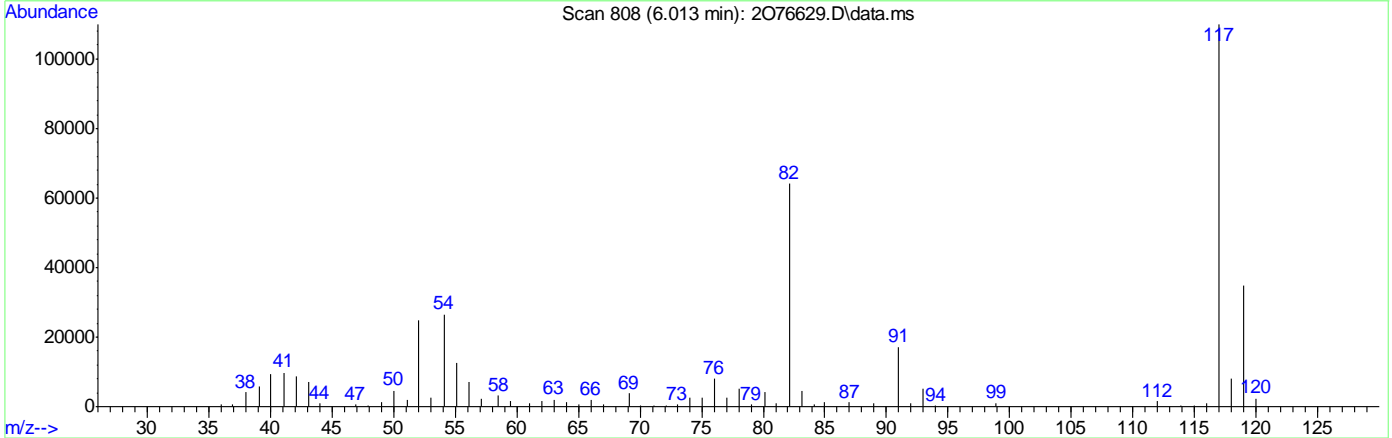
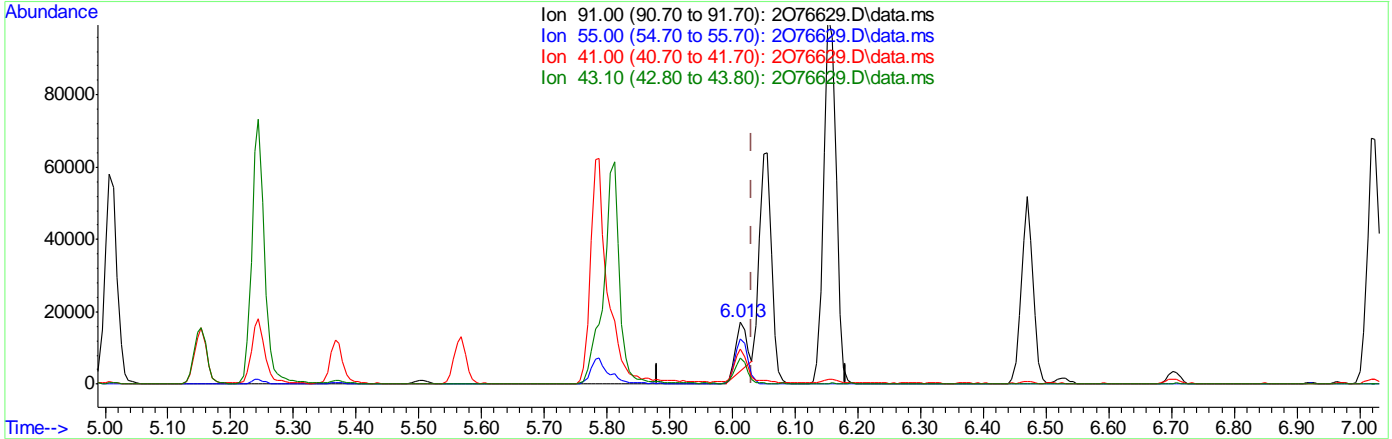
7.6.7.5  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 6.23ug/L  
 response 16093

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	70.62
41.00	53.70	52.35
43.10	42.30	40.47

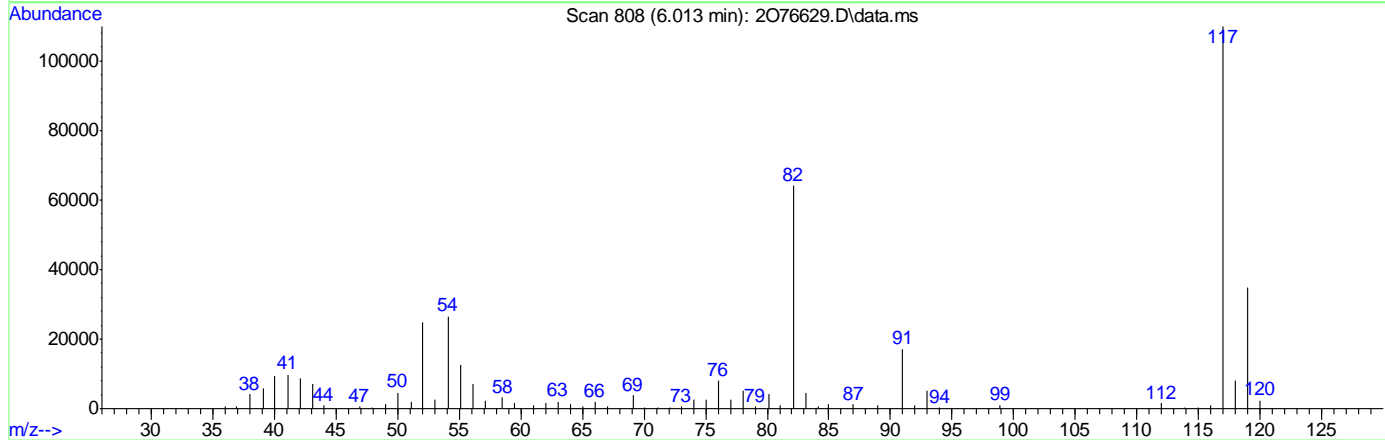
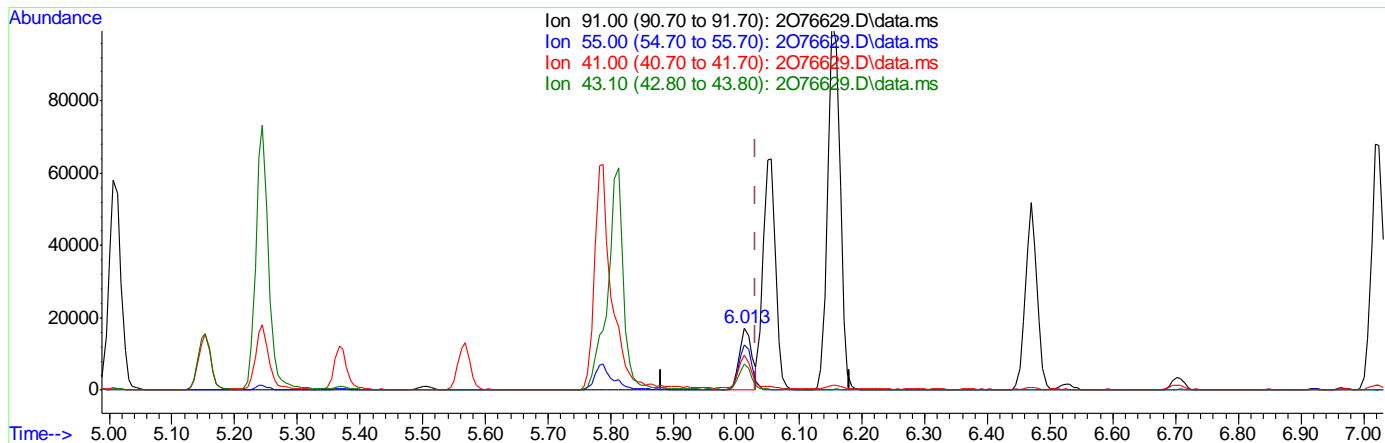
7.6.7.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 9.35ug/L m  
 response 24148

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	72.69
41.00	53.70	56.97
43.10	42.30	42.13

7.6.7.7  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076631.D  
 Acq On : 7 Jun 2023 3:37 pm  
 Operator : joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:25:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	414377	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.025	117	305712	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	159068	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	112991	50.14	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.28%	
50) 1,2-Dichloroethane-d4	3.849	65	136161	50.90	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	101.80%	
63) Toluene-d8	4.976	98	409736	50.27	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	100.54%	
86) 4-Bromofluorobenzene	6.921	174	115966	49.89	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.78%	
Target Compounds						
10) Ethanol	2.160	45	24410	756.97	ug/L	100
17) Allyl chloride	2.471	41	88294	47.59	ug/L	98

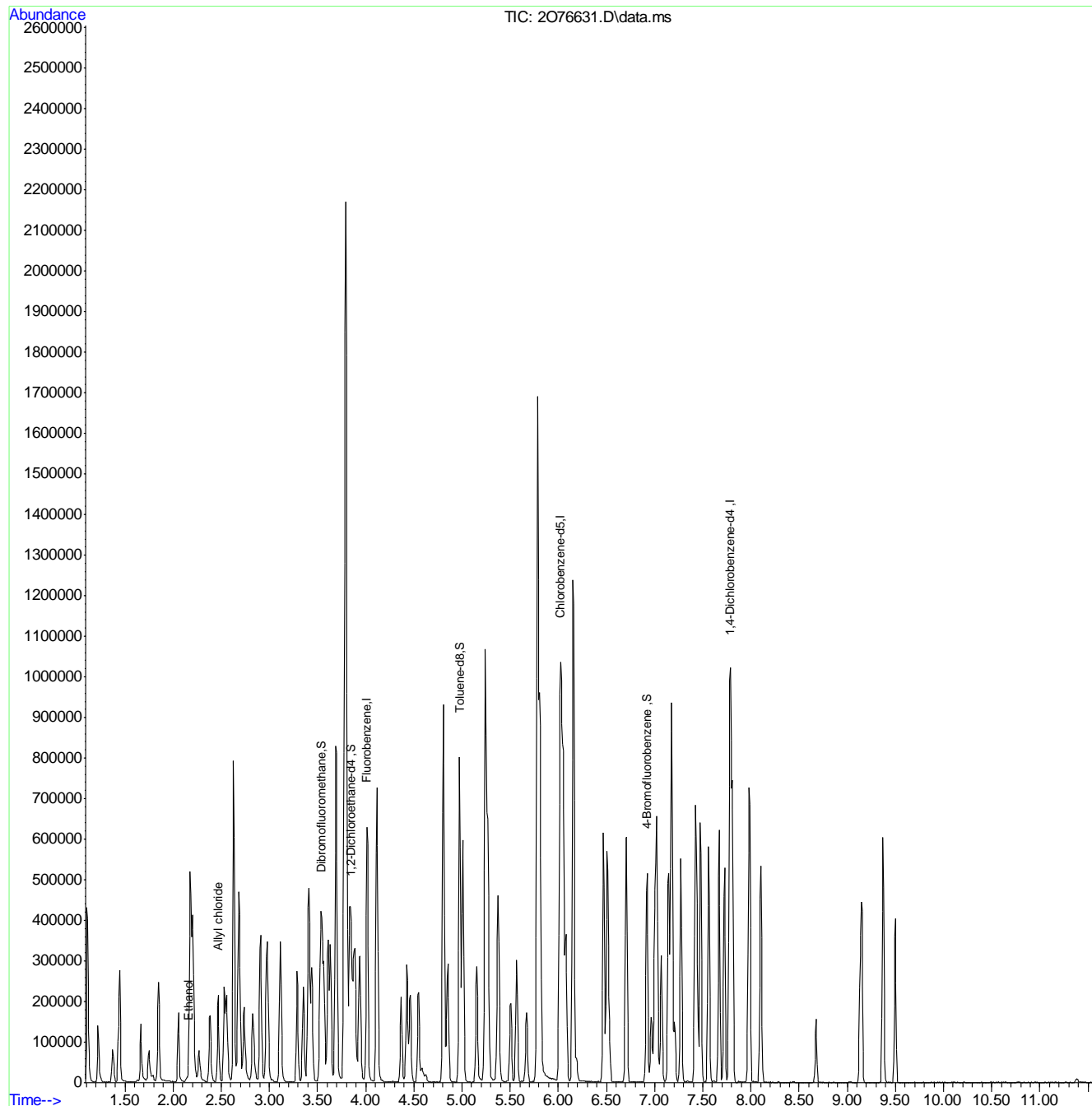
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.8  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076631.D  
 Acq On : 7 Jun 2023 3:37 pm  
 Operator : joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:25:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



7  
8  
9  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Fluorobenzene	4.013	96	434499	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.025	117	314063	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	164053	50.00	ug/L	0.00
<b>System Monitoring Compounds</b>						
39) Dibromofluoromethane	3.544	113	117403	49.69	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	99.38%		
50) 1,2-Dichloroethane-d4	3.855	65	139463	49.72	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery =	99.44%		
63) Toluene-d8	4.976	98	422814	50.49	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery =	100.98%		
86) 4-Bromofluorobenzene	6.921	174	120391	50.22	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	100.44%		
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	1.221	85	51906	32.36	ug/L	99
3) Chloromethane	1.373	50	43187	26.41	ug/L	100
4) 1,3-butadiene	1.447	39	41003	21.92	ug/L	95
5) Vinyl Chloride	1.434	62	44975	26.66	ug/L	96
6) Bromomethane	1.666	94	36676	27.91	ug/L	96
7) Chloroethane	1.751	64	29437	25.00	ug/L	99
8) Trichlorofluoromethane	1.849	101	81676	25.66	ug/L	100
9) Ethyl Ether	2.056	59	38463	25.66	ug/L	98
11) 1,2-Dichlorotrifluoro...	2.178	67	54683	25.73	ug/L	97
12) 1,1-Dichloroethene	2.178	61	63160	23.66	ug/L	97
13) Freon 113	2.209	101	47591	25.37	ug/L	97
14) Carbon Disulfide	2.196	76	118183	23.81	ug/L	96
15) Iodomethane	2.270	142	43251	26.12	ug/L	97
16) Acrolein	2.385	56	65058	134.32	ug/L	99
18) Methylene Chloride	2.532	49	59696	24.75	ug/L	99
19) Acetone	2.556	43	107290	107.03	ug/L	99
20) Methyl acetate	2.629	43	259378	109.58	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	64538	23.93	ug/L	98
22) Hexane	2.678	56	33073	24.11	ug/L	89
23) Methyl Tert Butyl Ether	2.690	73	135498	24.98	ug/L	96
24) Tert Butyl Alcohol	2.739	59	87323	259.99	ug/L	97
25) Acetonitrile	2.830	41	109096	279.25	ug/L	97
26) Di-isopropyl ether	2.910	45	131496	24.63	ug/L	99
27) Chloroprene	2.971	53	62282	23.54	ug/L	99
28) 1,1-Dichloroethane	2.983	63	83520	23.83	ug/L	99
29) Acrylonitrile	3.007	52	112368	116.10	ug/L	98
30) ETBE	3.117	59	129966	25.60	ug/L	98
31) Vinyl acetate	3.117	43	502881	132.19	ug/L	99
32) cis-1,2-Dichloroethene	3.288	96	52859	23.01	ug/L	99
33) 2,2-Dichloropropane	3.355	77	61403	26.21	ug/L	99
34) Bromochloromethane	3.404	128	27768	24.84	ug/L	99
35) Cyclohexane	3.410	56	64486	24.11	ug/L	95
36) Chloroform	3.440	83	97415	24.60	ug/L	98
37) Ethyl acetate	3.501	43	342089	120.13	ug/L	99

7.6.9  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Tetrahydrofuran	3.532	42	25353	24.85	ug/L	96
40) Carbon Tetrachloride	3.532	117	61822m	24.23	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	76053	24.34	ug/L	97
42) 2-Butanone	3.611	43	174158	112.37	ug/L	99
43) 1,1-Dichloropropene	3.635	75	64684	24.69	ug/L	99
44) tert-Butyl formate	3.696	59	107277	156.33	ug/L	97
45) Propionitrile	3.781	54	136267	283.86	ug/L	96
46) Methacrylonitrile	3.794	41	468555	280.69	ug/L	99
47) Benzene	3.775	78	197107	24.93	ug/L	91
48) TAME	3.836	73	121922	25.32	ug/L	97
49) Isobutyl alcohol	3.873	43	83094m	579.85	ug/L	
51) 1,2-Dichloroethane	3.891	62	77228	23.74	ug/L	99
52) Tert Amyl Alcohol	3.934	59	65294	254.65	ug/L	96
53) Trichloroethene	4.117	95	55159	24.05	ug/L	99
54) Methylcyclohexane	4.117	83	66202	23.51	ug/L	98
55) Dibromomethane	4.367	93	37951	24.29	ug/L	98
56) 1,2-Dichloropropane	4.428	63	49034	25.92	ug/L	98
57) Bromodichloromethane	4.464	83	62970	23.77	ug/L	98
58) Methyl methacrylate	4.544	41	53894	26.72	ug/L	94
59) 1,4-Dioxane	4.586	88	19559	523.96	ug/L	96
60) 2-Chloroethyl vinyl ether	4.806	63	187668	121.32	ug/L	100
61) cis-1,3-Dichloropropene	4.854	75	71611	25.01	ug/L	99
64) Toluene	5.007	91	208862	24.89	ug/L	99
65) 2-Nitropropane	5.153	41	68827	117.09	ug/L	97
66) 4-Methyl-2-pentanone	5.245	43	302502	116.01	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	67505	23.83	ug/L	98
68) Tetrachloroethene	5.263	166	55189	25.31	ug/L	98
69) Ethyl methacrylate	5.367	69	71866	29.50	ug/L	94
70) 1,1,2-Trichloroethane	5.379	83	42838	24.30	ug/L	98
71) Dibromochloromethane	5.507	129	52800	26.63	ug/L	96
72) 1,3-Dichloropropane	5.568	76	87707	26.07	ug/L	99
73) 1,2-Dibromoethane	5.671	107	56995	24.81	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	448429	1246.19	ug/L	99
75) 2-hexanone	5.806	43	318910	121.17	ug/L	98
76) 1-Chlorohexane	6.013	91	60872m	23.69	ug/L	
77) Ethylbenzene	6.049	91	228923	24.97	ug/L	99
78) Chlorobenzene	6.037	112	143264	24.56	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.080	131	48188	25.82	ug/L	99
80) m,p-Xylene	6.153	91	369005	50.94	ug/L	99
81) o-Xylene	6.470	91	181223	24.90	ug/L	98
82) Styrene	6.507	104	144580	26.06	ug/L	98
83) Bromoform	6.531	173	29057	24.14	ug/L	97
84) Isopropylbenzene	6.708	105	212056	25.31	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.964	53	19486	30.40	ug/L	95
88) n-Propylbenzene	7.019	91	250828	24.90	ug/L	99
89) Bromobenzene	7.000	156	57862	25.60	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.067	83	81620	24.97	ug/L	97
91) 1,3,5-Trimethylbenzene	7.177	105	187322	26.01	ug/L	99
92) 2-Chlorotoluene	7.141	91	178452	25.29	ug/L	99
93) trans-1,4-Dichloro-2-B...	7.208	53	14036	23.78	ug/L	87

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) 1,2,3-Trichloropropane	7.177	110	27000	25.78	ug/L	98
95) Cyclohexanone	7.214	55	17531	157.50	ug/L	98
96) 4-Chlorotoluene	7.275	91	166304	24.77	ug/L	98
97) tert-Butylbenzene	7.421	91	97959	25.05	ug/L	97
99) 1,2,4-Trimethylbenzene	7.476	105	185479	25.72	ug/L	99
100) Pentachloroethane	7.439	167	29310	28.47	ug/L	94
101) sec-Butylbenzene	7.561	105	196044	23.74	ug/L	99
102) 4-Isopropyltoluene	7.671	119	177046	25.11	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	106601	23.74	ug/L	99
104) 1,2,3-Trimethylbenzene	7.811	105	186647	24.35	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	112223	25.03	ug/L	98
106) n-Butylbenzene	7.988	92	94229	26.08	ug/L #	79
107) Benzyl Chloride	7.976	126	18518	24.86	ug/L	98
108) 1,2-Dichlorobenzene	8.104	146	102598	23.87	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	16521	25.42	ug/L	98
110) Hexachlorobutadiene	9.134	225	19188	23.74	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	60217	24.53	ug/L	98
112) Naphthalene	9.372	128	224336	25.08	ug/L	100
113) 1,2,3-Trichlorobenzene	9.500	180	58055	23.80	ug/L	98

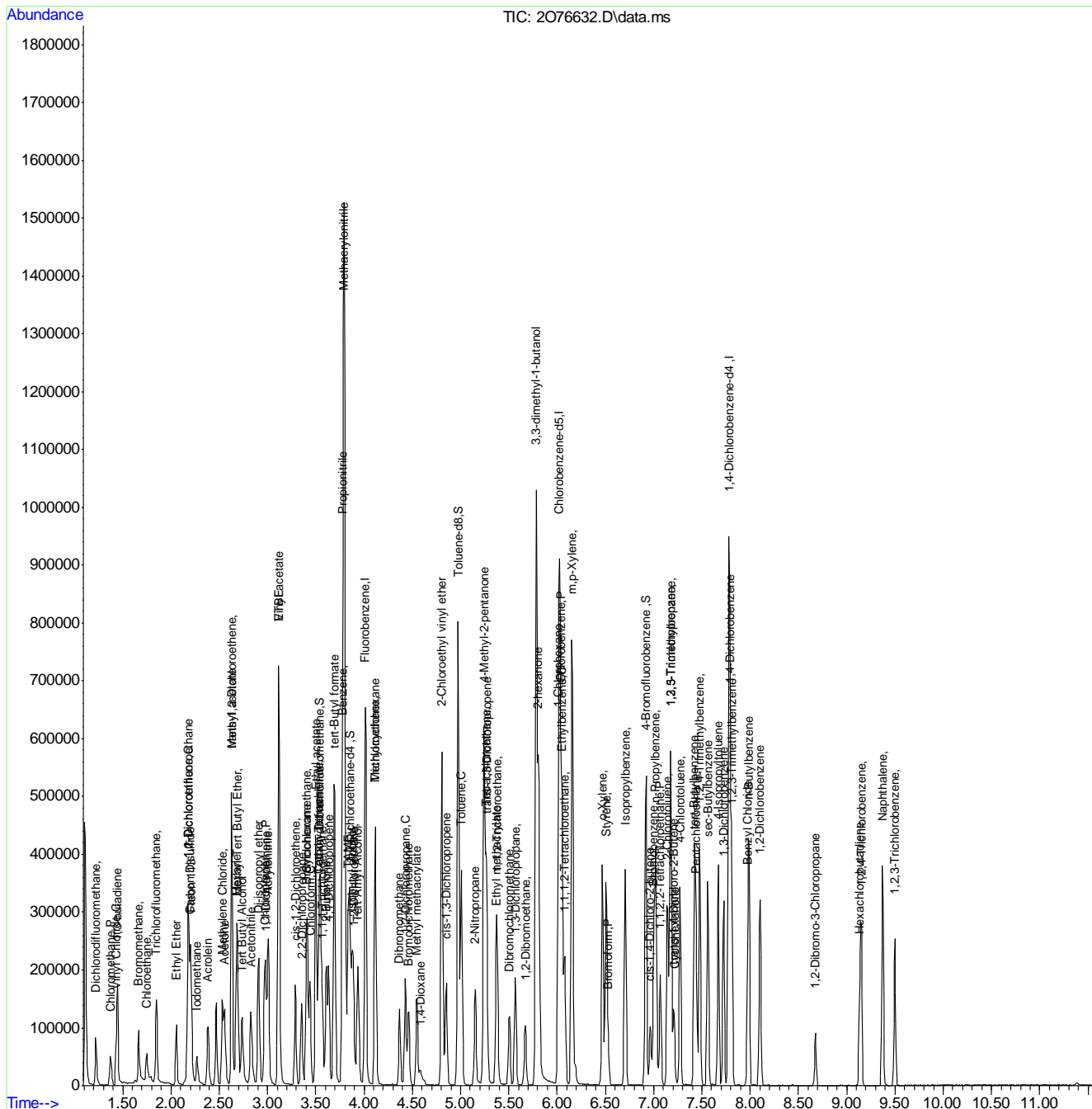
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration





# Manual Integration Approval Summary

**Sample Number:** V2O2981-ICV2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76632.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 16:02      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

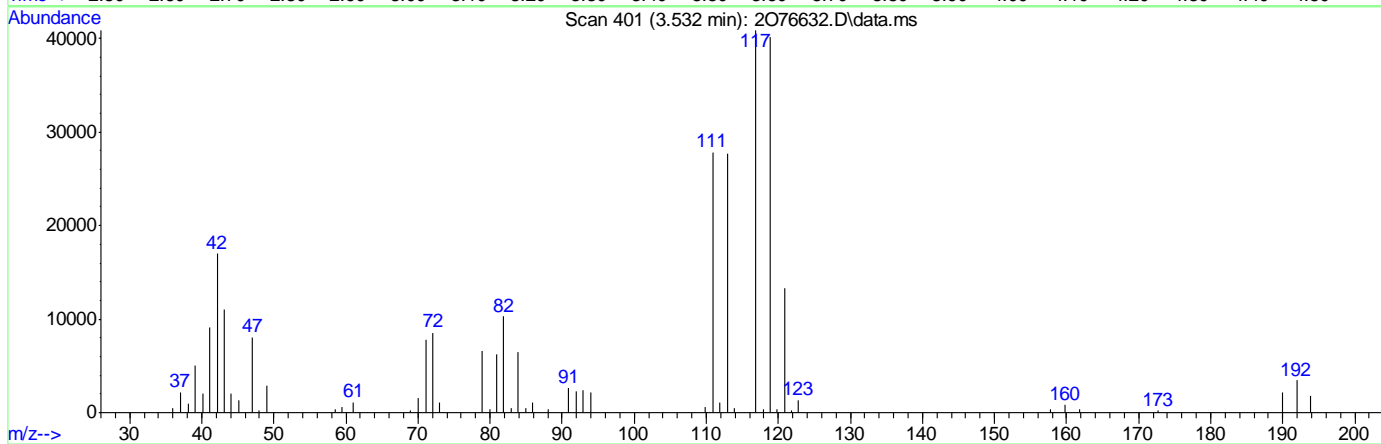
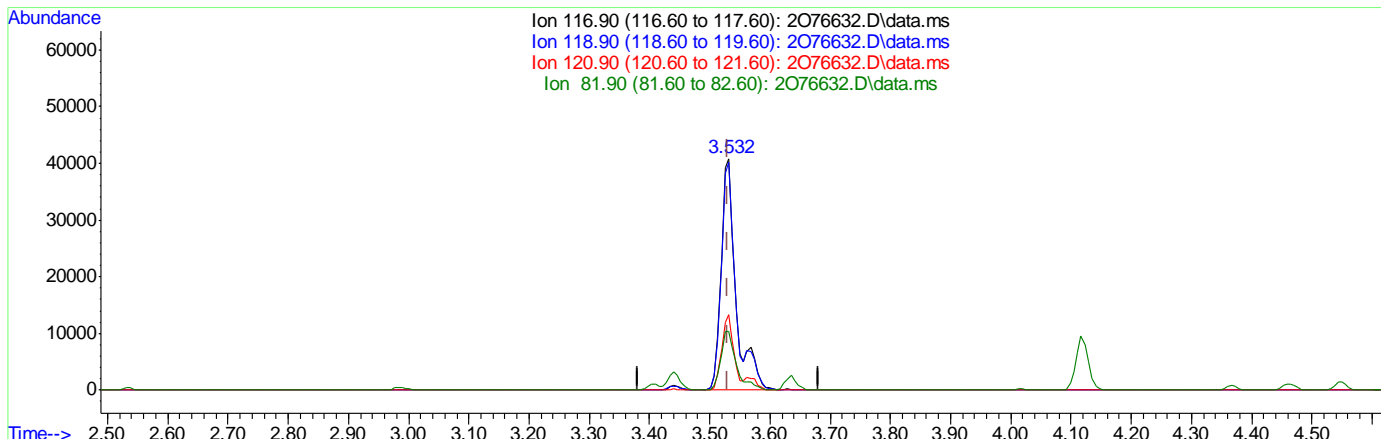
7.6.9.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (+0.001) 27.85ug/L

response 71074

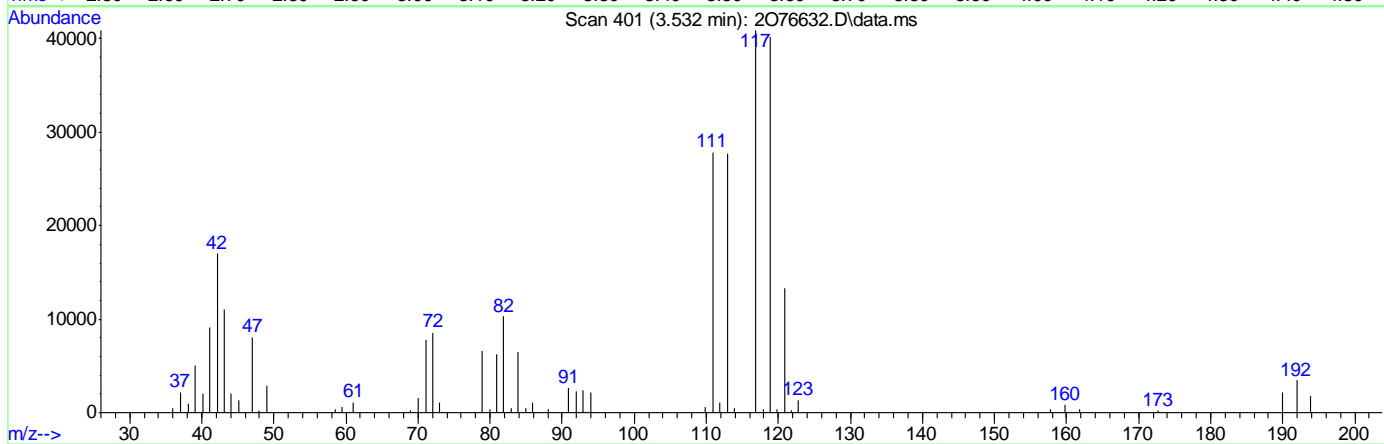
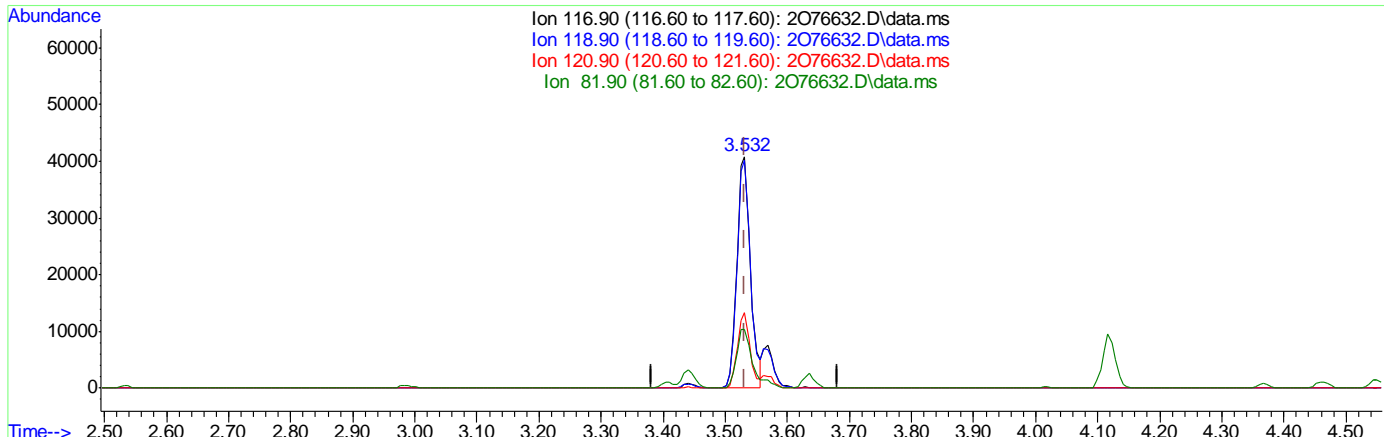
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.18
120.90	31.50	32.63
81.90	24.40	25.16

7.69.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (+0.001) 24.23ug/L m  
 response 61822

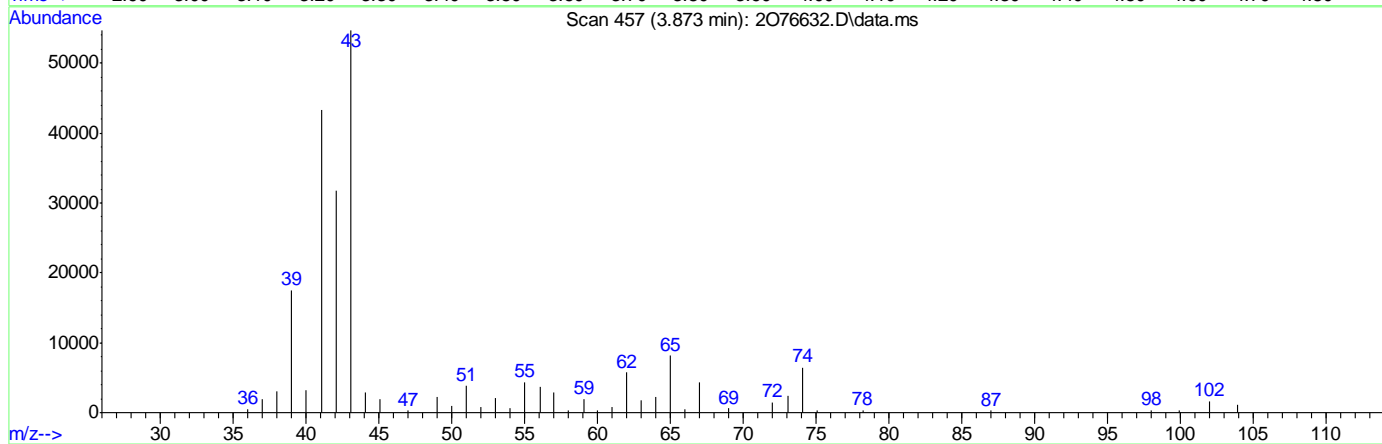
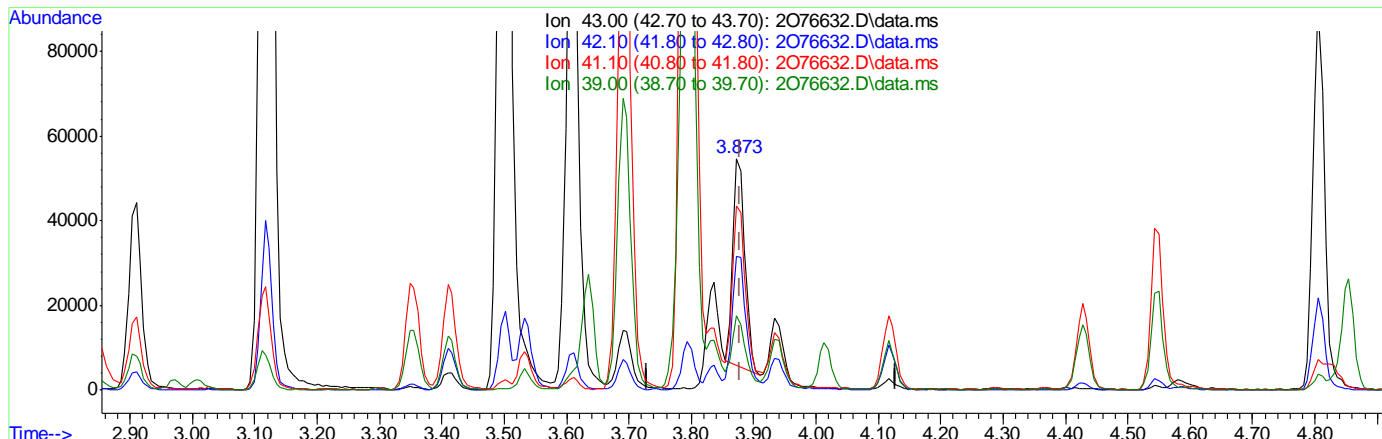
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.18
120.90	31.50	32.63
81.90	24.40	25.16

7.69.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 460.72ug/L  
 response 65408

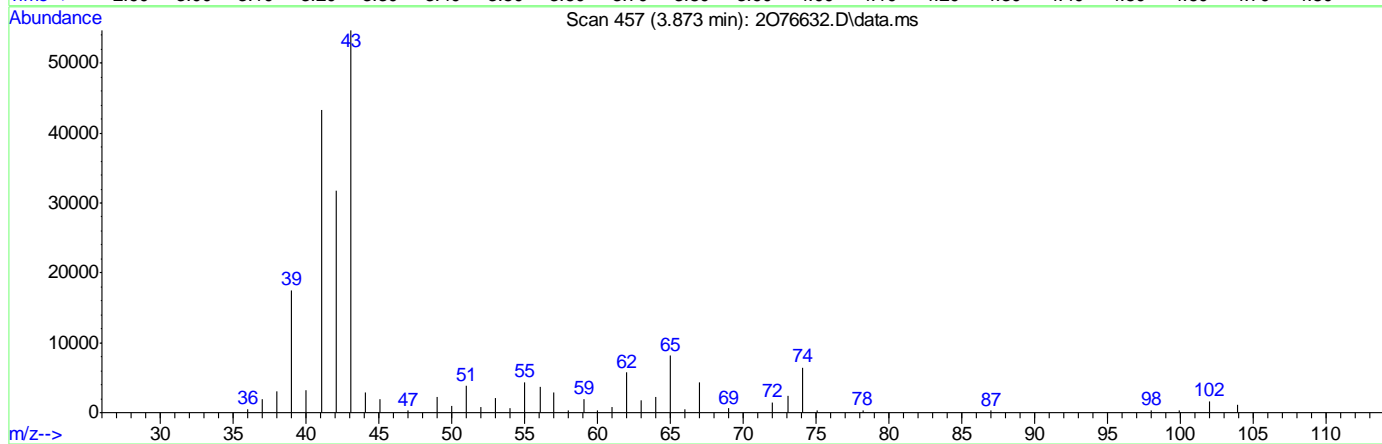
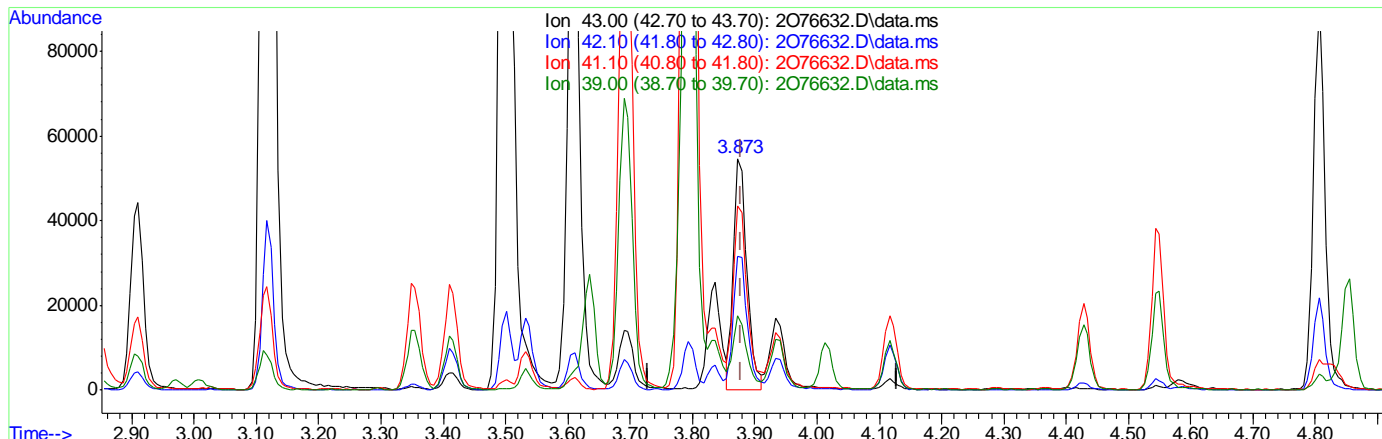
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.41
41.10	77.50	76.57
39.00	31.30	30.33

7.6.9.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 579.85ug/L m  
 response 83094

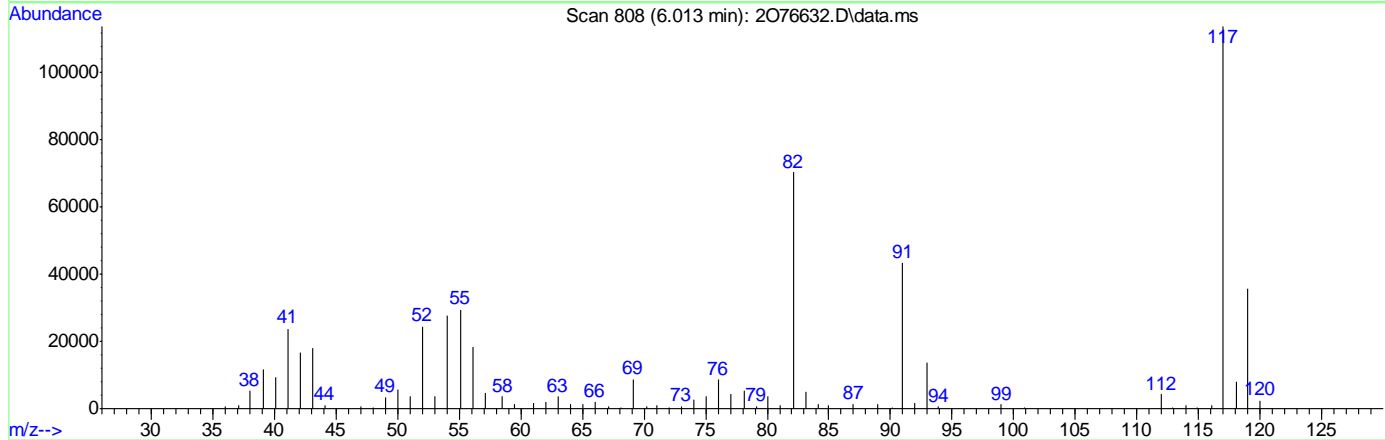
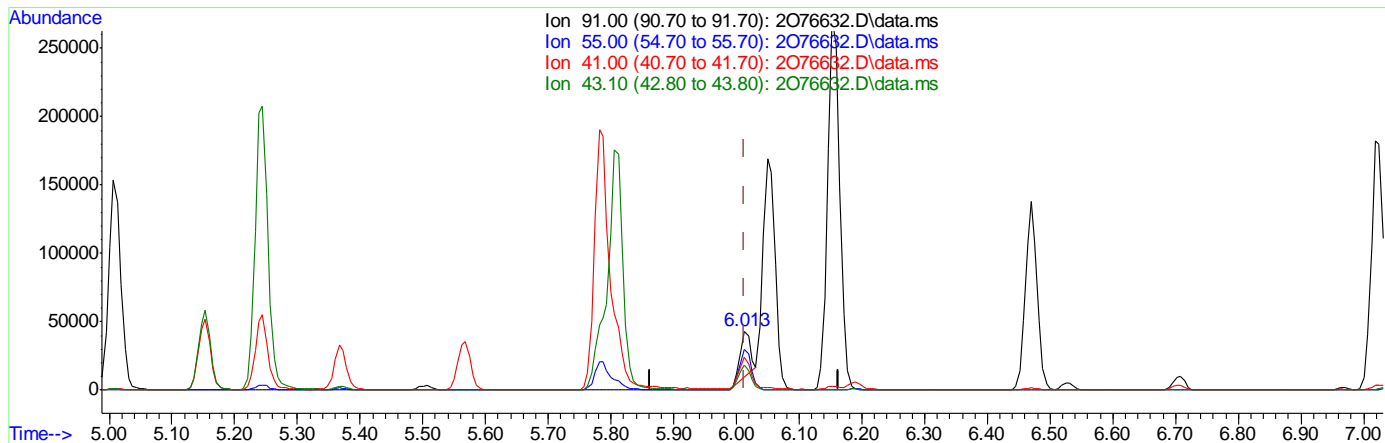
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.98
41.10	77.50	79.32
39.00	31.30	32.06

7.69.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 14.98ug/L  
 response 38485

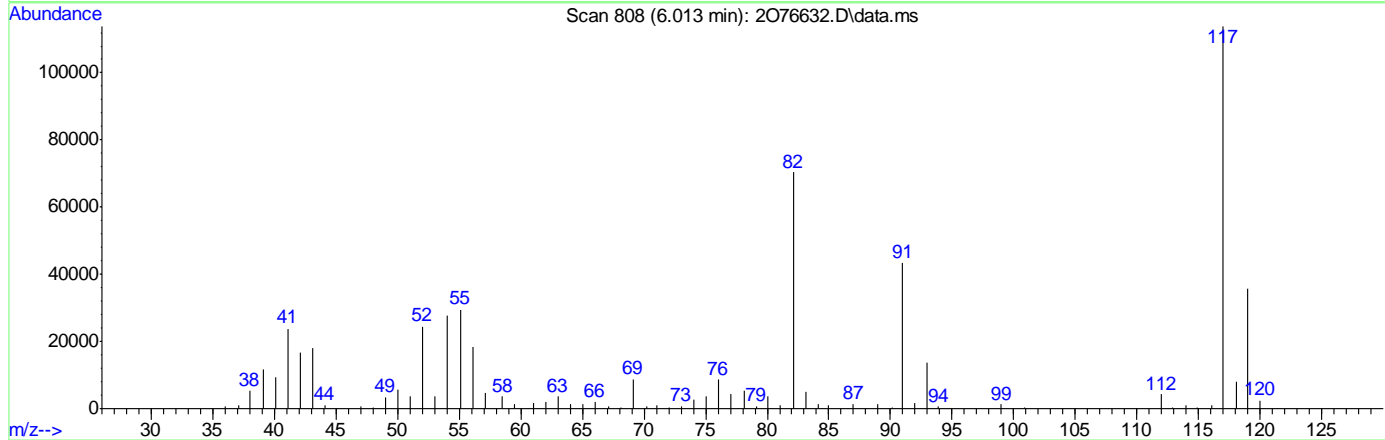
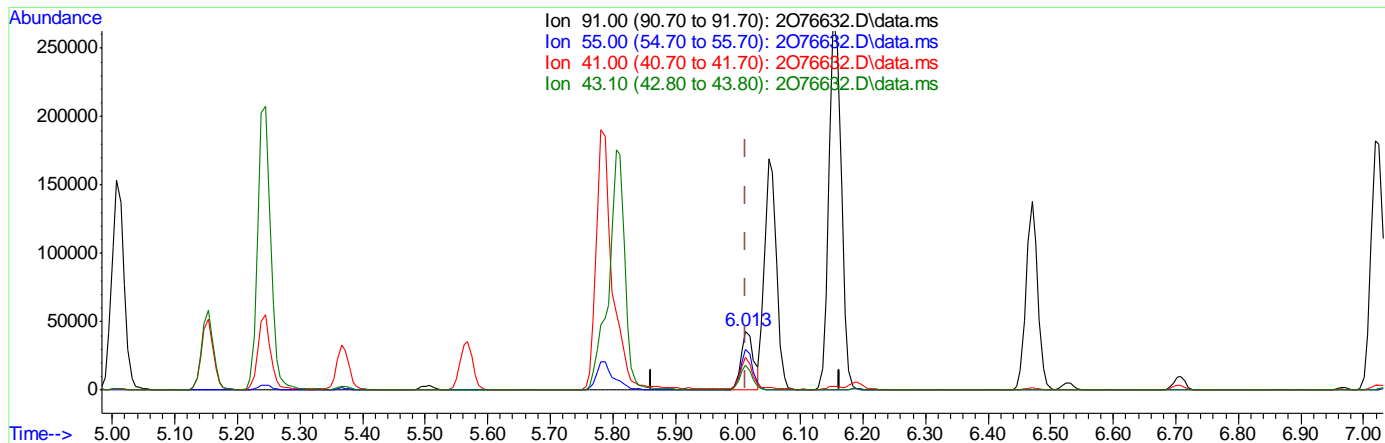
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	67.37
41.00	55.00	52.25
43.10	42.40	40.71

7.696  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.000) 23.69ug/L m

response 60872

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	68.21
41.00	55.00	54.95
43.10	42.40	41.76

7.697  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	359075	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	259734	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.768	152	128361	50.00	ug/L	-0.01
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	100836	51.64	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	103.28%	
50) 1,2-Dichloroethane-d4	3.849	65	120787	52.11	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	104.22%	
63) Toluene-d8	4.970	98	341285	49.28	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.56%	
86) 4-Bromofluorobenzene	6.915	174	90117	48.04	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.08%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	36776	27.75	ug/L	99
3) Chloromethane	1.379	50	34292	25.37	ug/L	99
4) 1,3-butadiene	1.447	39	34214	22.14	ug/L	99
5) Vinyl Chloride	1.434	62	37922	27.20	ug/L	98
6) Bromomethane	1.666	94	23493	21.72	ug/L	97
7) Chloroethane	1.751	64	31306	41.99	ug/L	95
8) Trichlorofluoromethane	1.849	101	79765	30.33	ug/L	98
9) Ethyl Ether	2.056	59	27105	21.88	ug/L	99
10) Ethanol	2.154	45	13286	475.46	ug/L	87
11) 1,2-Dichlorotrifluoro...	2.178	67	44543	25.36	ug/L	99
12) 1,1-Dichloroethene	2.178	61	53241	24.14	ug/L	99
13) Freon 113	2.209	101	39034	25.18	ug/L	96
14) Carbon Disulfide	2.196	76	105032	25.60	ug/L	94
15) Iodomethane	2.270	142	28983	21.45	ug/L	98
16) Acrolein	2.379	56	39190	98.32	ug/L	98
17) Allyl chloride	2.471	41	40241	25.03	ug/L	97
18) Methylene Chloride	2.532	49	48292	24.22	ug/L	99
19) Acetone	2.556	43	120547	145.51	ug/L	99
20) Methyl acetate	2.629	43	236493	120.89	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	51212	22.98	ug/L	98
22) Hexane	2.678	56	26784	23.63	ug/L	93
23) Methyl Tert Butyl Ether	2.690	73	99101	22.11	ug/L	93
24) Tert Butyl Alcohol	2.733	59	63848	230.03	ug/L #	70
25) Acetonitrile	2.824	41	81491	252.40	ug/L	99
26) Di-isopropyl ether	2.904	45	95261	21.59	ug/L	94
27) Chloroprene	2.971	53	44340	20.21	ug/L	99
28) 1,1-Dichloroethane	2.983	63	69067	23.84	ug/L	99
29) Acrylonitrile	3.001	52	88705	110.90	ug/L	98
30) ETBE	3.111	59	97631	23.27	ug/L	97
31) Vinyl acetate	3.117	43	370226	117.76	ug/L	98
32) cis-1,2-Dichloroethene	3.288	96	40904	21.55	ug/L	99
33) 2,2-Dichloropropane	3.349	77	49039	25.33	ug/L	98
34) Bromochloromethane	3.397	128	22966	24.86	ug/L	95
35) Cyclohexane	3.410	56	49295	22.30	ug/L	95



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.434	83	77080	23.55	ug/L	99
37) Ethyl acetate	3.495	43	268742	114.20	ug/L	99
38) Tetrahydrofuran	3.525	42	18979	22.51	ug/L	96
40) Carbon Tetrachloride	3.525	117	54740m	25.96	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	62200	24.09	ug/L	96
42) 2-Butanone	3.605	43	149158	116.46	ug/L	99
43) 1,1-Dichloropropene	3.629	75	51145	23.63	ug/L	99
44) tert-Butyl formate	3.690	59	83075	147.10	ug/L	94
45) Propionitrile	3.775	54	102824	259.19	ug/L	88
46) Methacrylonitrile	3.788	41	358586	259.93	ug/L	99
47) Benzene	3.775	78	158651	24.28	ug/L	98
48) TAME	3.830	73	96643	24.29	ug/L	97
49) Isobutyl alcohol	3.873	43	60071m	510.02	ug/L	
51) 1,2-Dichloroethane	3.885	62	61447	22.85	ug/L	98
52) Tert Amyl Alcohol	3.934	59	51240	242.60	ug/L	97
53) Trichloroethene	4.111	95	44568	23.51	ug/L	96
54) Methylcyclohexane	4.117	83	52643	22.62	ug/L	99
55) Dibromomethane	4.367	93	28949	22.42	ug/L	96
56) 1,2-Dichloropropane	4.422	63	37216	23.81	ug/L	98
57) Bromodichloromethane	4.458	83	55540	25.37	ug/L	98
58) Methyl methacrylate	4.543	41	35637	21.47	ug/L	95
59) 1,4-Dioxane	4.580	88	12569	410.81	ug/L	95
60) 2-Chloroethyl vinyl ether	4.800	63	144487	113.02	ug/L	99
61) cis-1,3-Dichloropropene	4.848	75	58470	24.71	ug/L	97
64) Toluene	5.001	91	162032	23.35	ug/L	98
65) 2-Nitropropane	5.147	41	66770	135.49	ug/L	100
66) 4-Methyl-2-pentanone	5.238	43	264040	122.44	ug/L	99
67) trans-1,3-Dichloropropene	5.263	75	60555	25.85	ug/L	98
68) Tetrachloroethene	5.257	166	41279	22.89	ug/L	97
69) Ethyl methacrylate	5.360	69	43411	21.71	ug/L	94
70) 1,1,2-Trichloroethane	5.373	83	36185	24.82	ug/L	94
71) Dibromochloromethane	5.495	129	41488	25.30	ug/L	97
72) 1,3-Dichloropropane	5.562	76	63095	22.67	ug/L	99
73) 1,2-Dibromoethane	5.665	107	42087	22.15	ug/L	97
74) 3,3-dimethyl-1-butanol	5.775	57	355330	1196.78	ug/L	99
75) 2-hexanone	5.799	43	271695	124.83	ug/L	96
76) 1-Chlorohexane	6.007	91	44844m	21.10	ug/L	
77) Ethylbenzene	6.043	91	174289	22.99	ug/L	98
78) Chlorobenzene	6.031	112	112227	23.26	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.074	131	40110	25.98	ug/L	98
80) m,p-Xylene	6.147	91	272347	45.46	ug/L	99
81) o-Xylene	6.464	91	124713	20.72	ug/L	99
82) Styrene	6.500	104	101499	22.12	ug/L	98
83) Bromoform	6.525	173	25356	25.38	ug/L	96
84) Isopropylbenzene	6.696	105	143703	20.74	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.958	53	10902	21.74	ug/L	95
88) n-Propylbenzene	7.013	91	177075	22.46	ug/L	100
89) Bromobenzene	6.994	156	40121	22.69	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.061	83	61807	24.17	ug/L	98
91) 1,3,5-Trimethylbenzene	7.165	105	125533	22.28	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.134	91	122659	22.21	ug/L	100
93) trans-1,4-Dichloro-2-B...	7.195	53	9888	21.41	ug/L	92
94) 1,2,3-Trichloropropane	7.171	110	19355	23.62	ug/L	97
95) Cyclohexanone	7.202	55	9559	109.76	ug/L	97
96) 4-Chlorotoluene	7.262	91	116172	22.12	ug/L	98
97) tert-Butylbenzene	7.415	91	64581	21.11	ug/L	99
99) 1,2,4-Trimethylbenzene	7.470	105	124938	22.14	ug/L	99
100) Pentachloroethane	7.433	167	21745	27.05	ug/L #	74
101) sec-Butylbenzene	7.555	105	138844	21.49	ug/L	98
102) 4-Isopropyltoluene	7.665	119	116282	21.08	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	79231	22.55	ug/L	99
104) 1,2,3-Trimethylbenzene	7.799	105	132899	22.16	ug/L	99
105) 1,4-Dichlorobenzene	7.781	146	81447	23.20	ug/L	94
106) n-Butylbenzene	7.976	92	61934	21.91	ug/L	94
107) Benzyl Chloride	7.970	126	17122	28.81	ug/L	99
108) 1,2-Dichlorobenzene	8.092	146	74197	22.06	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.665	75	12160	24.00	ug/L	94
110) Hexachlorobutadiene	9.128	225	14151	22.36	ug/L	93
111) 1,2,4-Trichlorobenzene	9.140	180	38243	19.91	ug/L	95
112) Naphthalene	9.366	128	135341	19.34	ug/L	98
113) 1,2,3-Trichlorobenzene	9.488	180	39338	20.61	ug/L	94

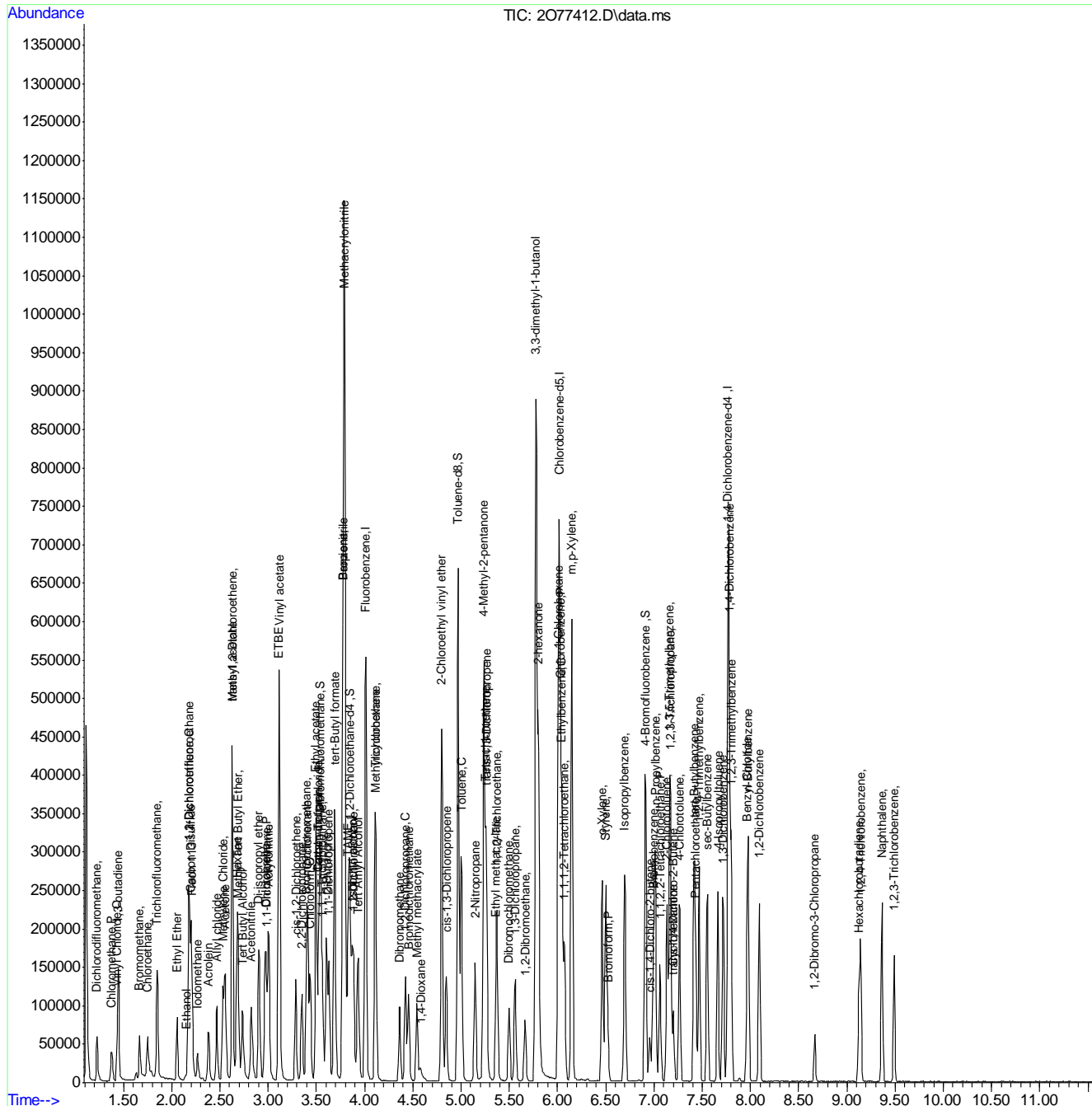
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7  
2023-07-10

# Manual Integration Approval Summary

**Sample Number:** V2O3017-CC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O77412.D      **Analyst approved:** 07/05/23 09:17 Jenifer Willis  
**Injection Time:** 07/05/23 08:36      **Supervisor approved:** 07/06/23 13:22 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

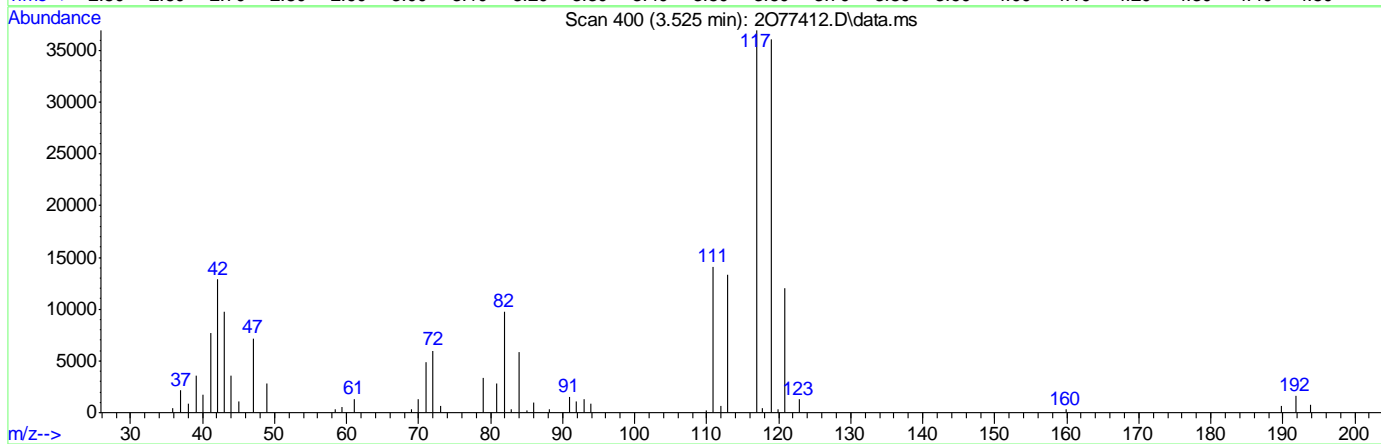
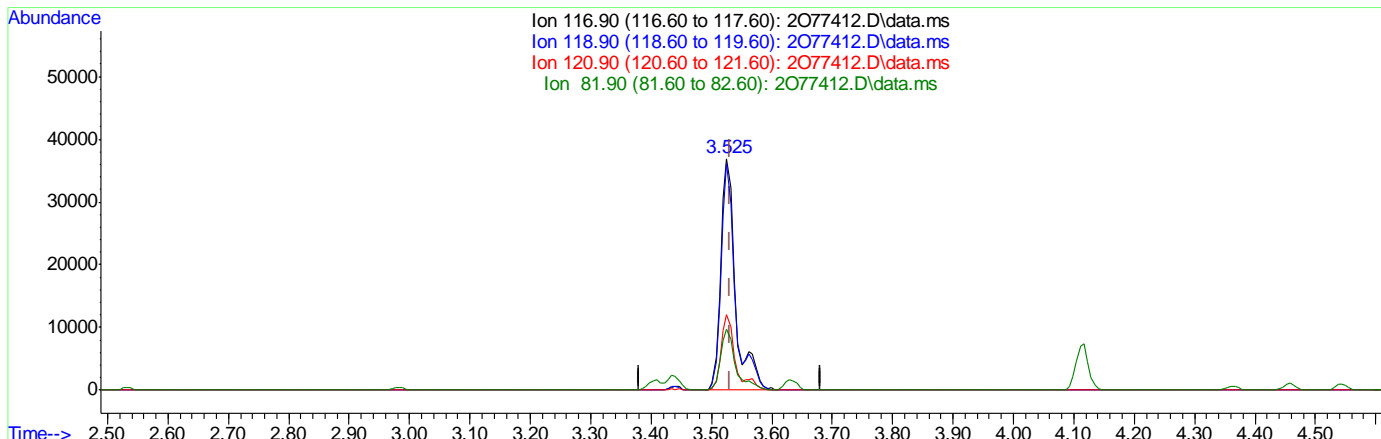
7.6.10.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.88ug/L

response 63002

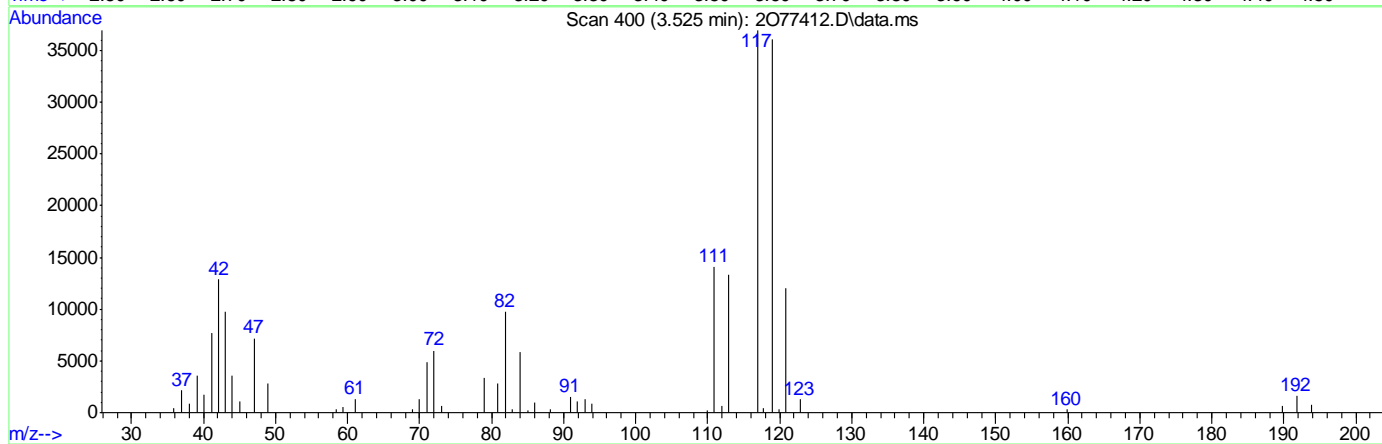
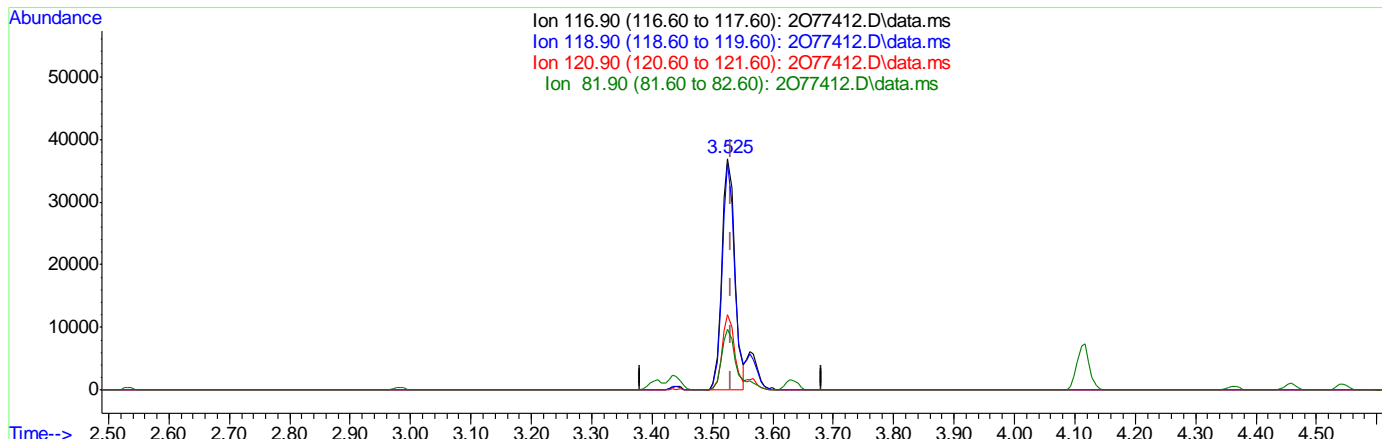
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.68
120.90	31.50	32.42
81.90	24.40	26.33

7.6.10.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )  
 3.525min (-0.006) 25.96ug/L m  
 response 54740

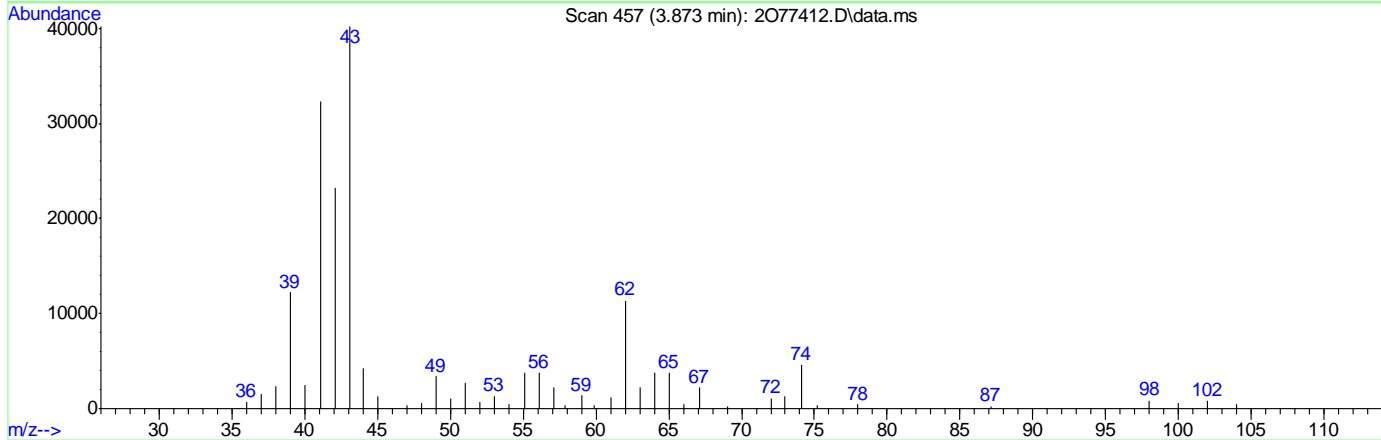
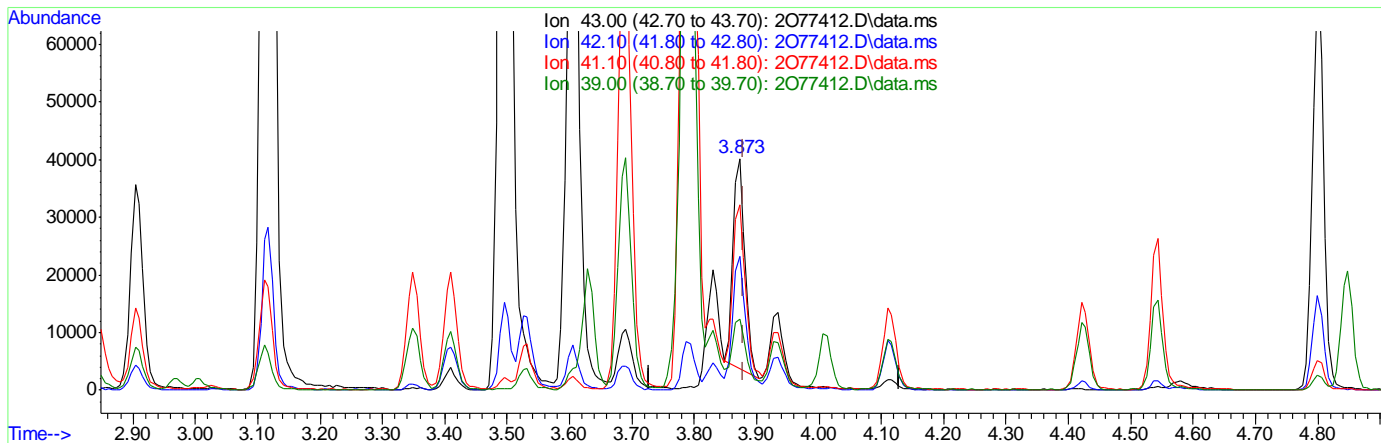
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.68
120.90	31.50	32.42
81.90	24.40	26.33

7.6.10.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 404.80ug/L  
 response 47284

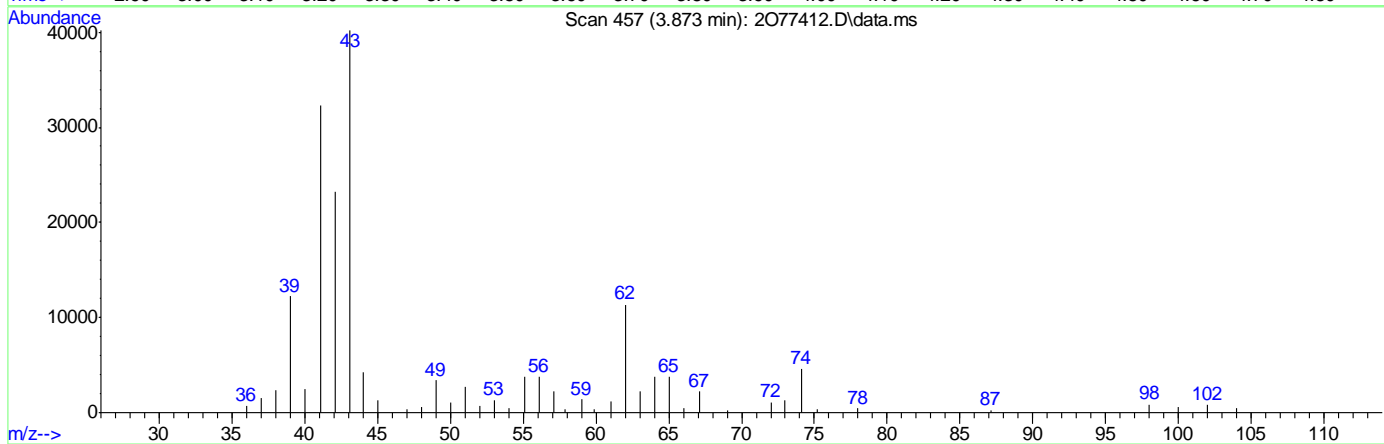
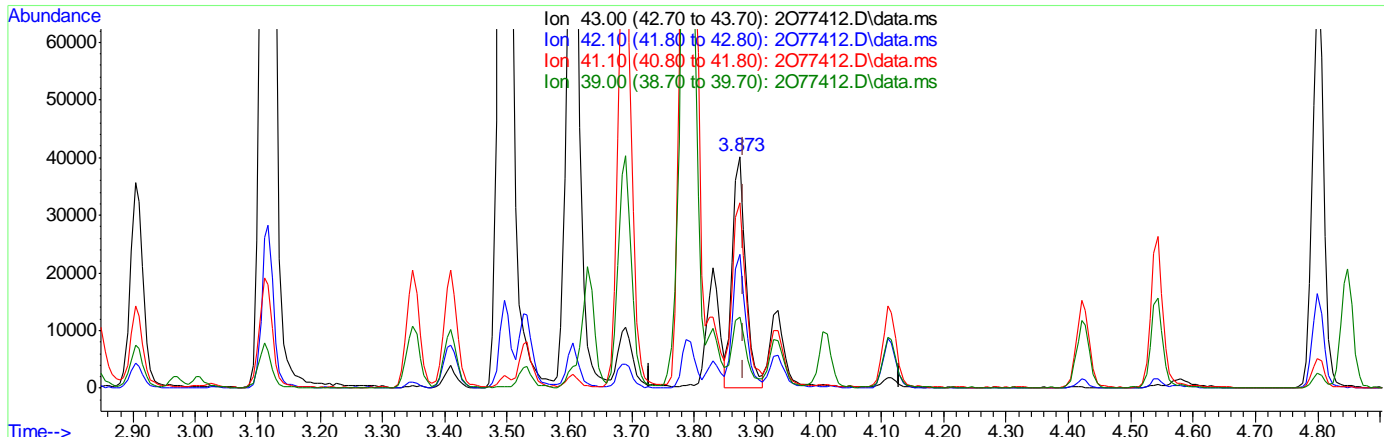
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.19
41.10	77.50	76.44
39.00	31.30	28.04

7.6.10.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 510.02ug/L m  
 response 60071

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.90
41.10	77.50	80.21
39.00	31.30	30.48

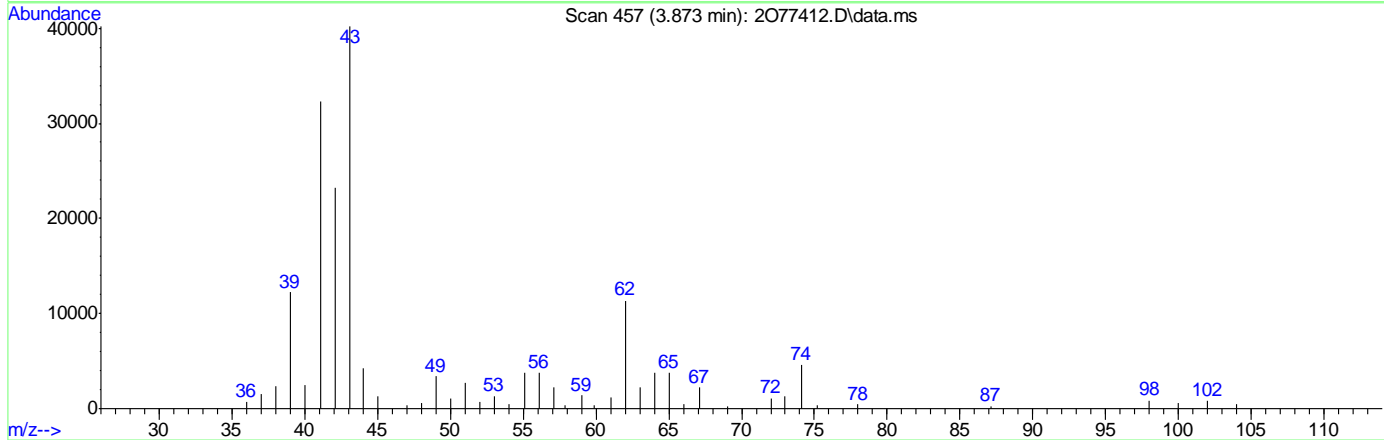
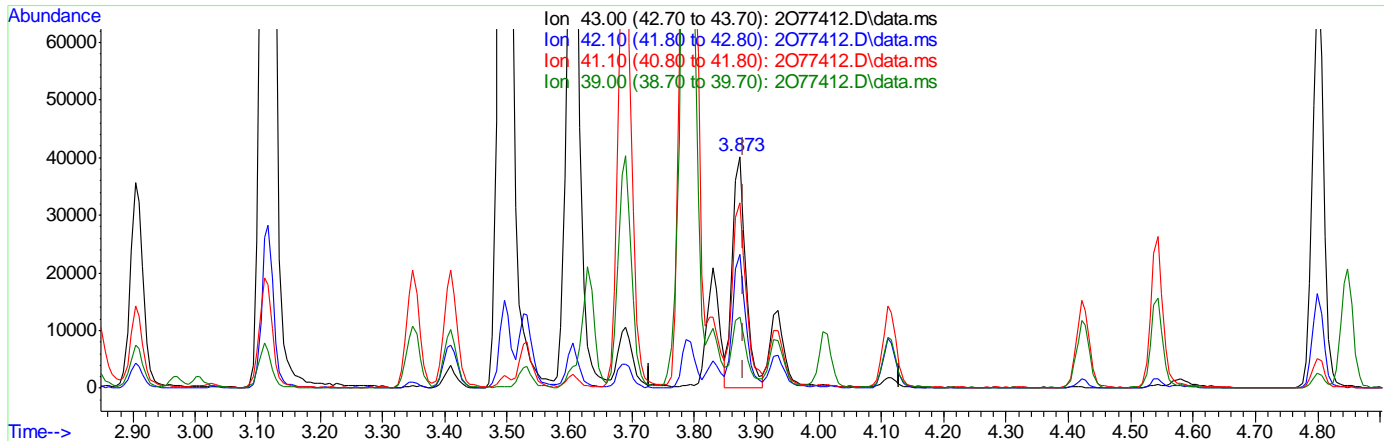
7.6.10.5  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 510.02ug/L m  
 response 60071

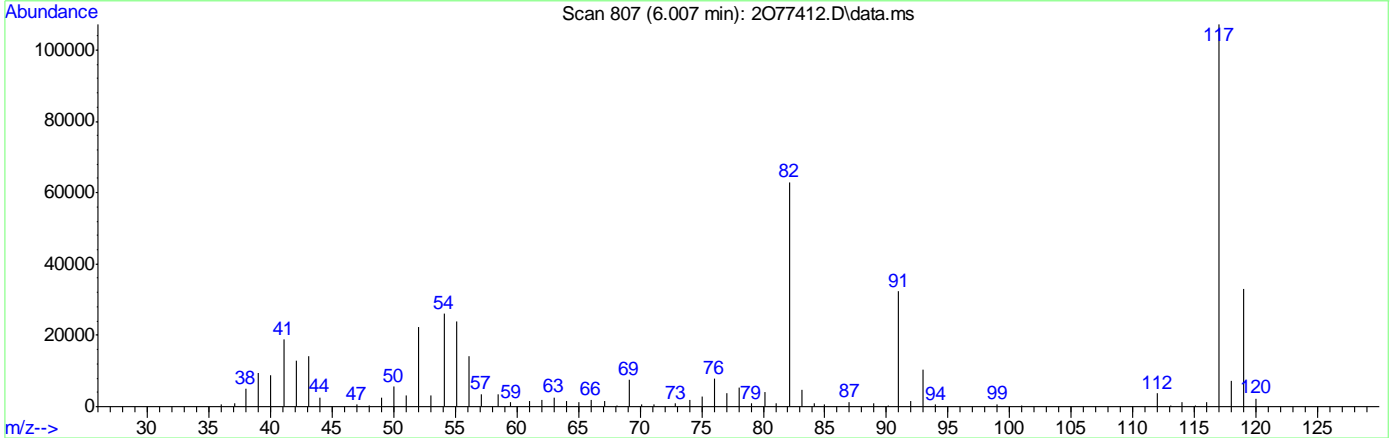
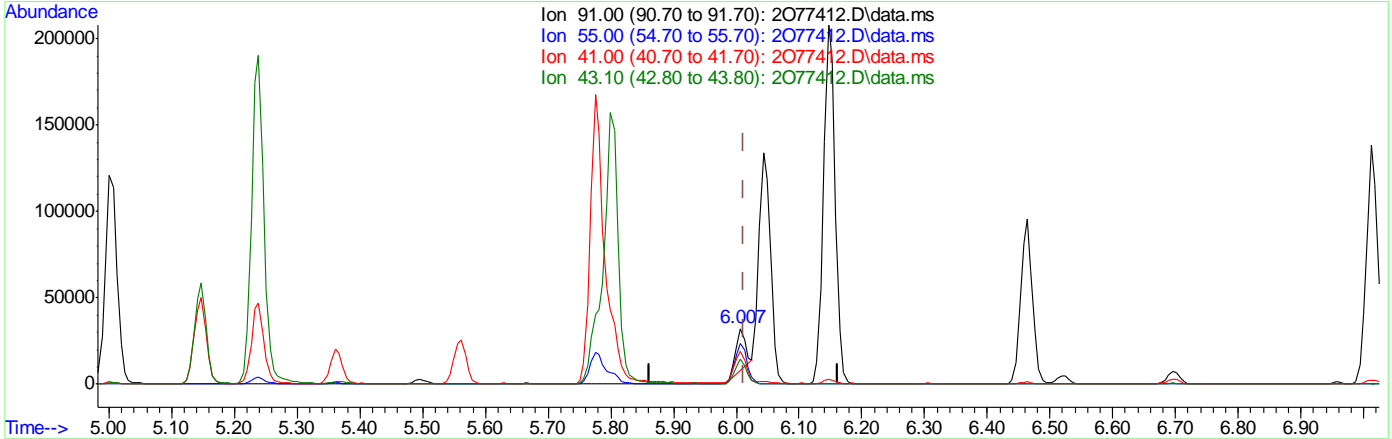
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.90
41.10	77.50	80.21
39.00	31.30	30.48

7.6.10.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 12.48ug/L  
 response 26513

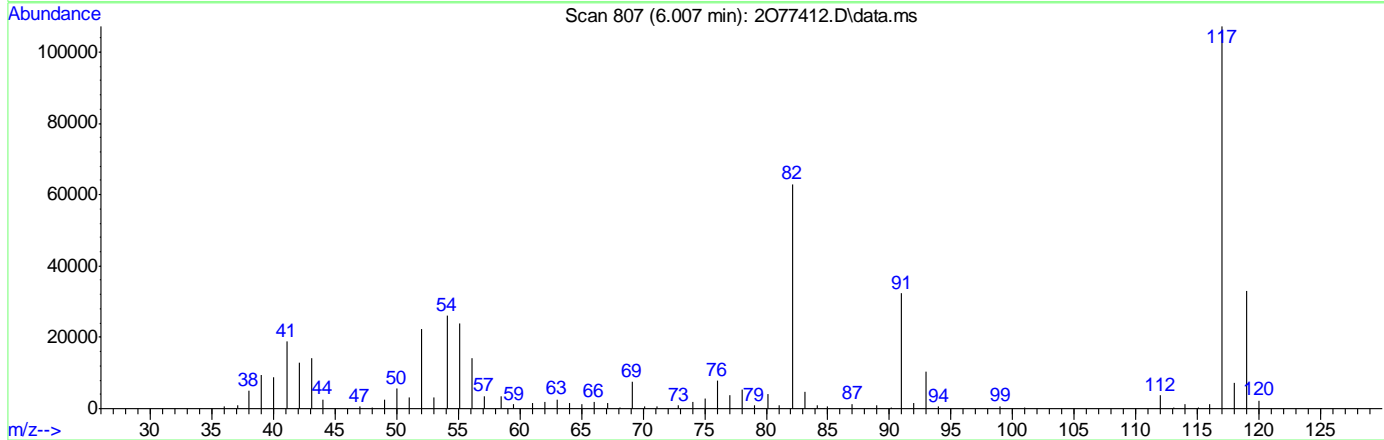
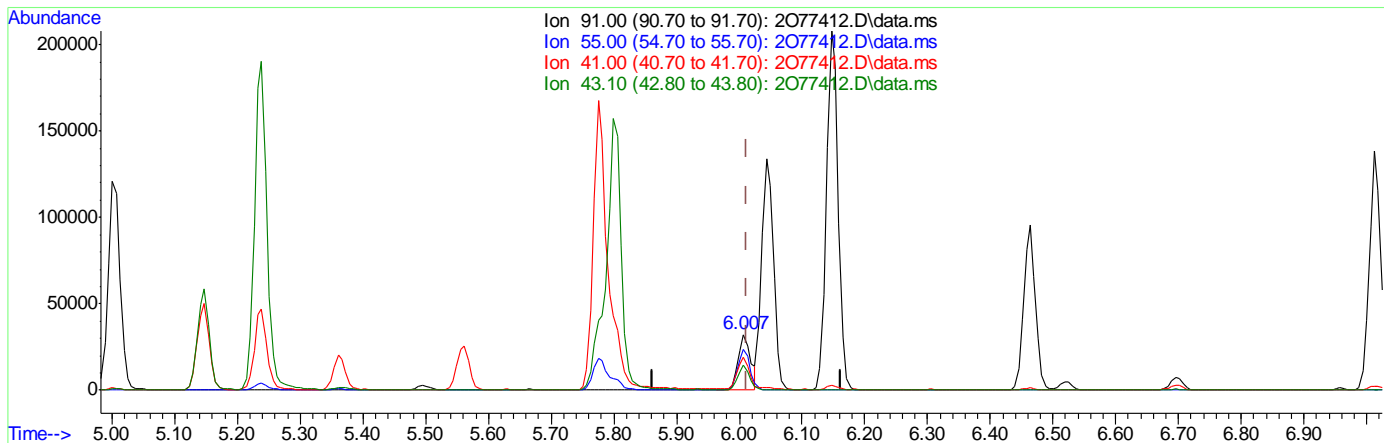
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.01
41.00	55.00	55.98
43.10	42.40	43.37

7.6.10.7  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 21.10ug/L m  
 response 44844

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.72
41.00	55.00	58.38
43.10	42.40	44.10

7.6.10.8  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	346718	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	252321	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.775	152	125188	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	94924	50.34	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.68%		
50) 1,2-Dichloroethane-d4	3.849	65	114361	51.09	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.18%		
63) Toluene-d8	4.970	98	330256	49.09	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.18%		
86) 4-Bromofluorobenzene	6.915	174	88725	48.50	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.00%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	37693	29.45	ug/L		100
3) Chloromethane	1.373	50	37594	28.81	ug/L		97
4) 1,3-butadiene	1.440	39	35317	23.78	ug/L		99
5) Vinyl Chloride	1.428	62	41242	30.63	ug/L		100
6) Bromomethane	1.666	94	25105	24.00	ug/L		98
7) Chloroethane	1.745	64	33047	Below	Cal		97
8) Trichlorofluoromethane	1.849	101	83875	33.03	ug/L		99
9) Ethyl Ether	2.050	59	26203	21.90	ug/L		99
10) Ethanol	2.148	45	12800	474.40	ug/L		89
11) 1,2-Dichlorotrifluoro...	2.178	67	42502	25.06	ug/L		97
12) 1,1-Dichloroethene	2.178	61	49417	23.20	ug/L		98
13) Freon 113	2.203	101	35935	24.01	ug/L		98
14) Carbon Disulfide	2.196	76	95614	24.14	ug/L		97
15) Iodomethane	2.270	142	32956	25.02	ug/L		98
16) Acrolein	2.379	56	39938	103.71	ug/L		99
17) Allyl chloride	2.465	41	38831	25.01	ug/L		96
18) Methylene Chloride	2.532	49	47913	24.89	ug/L		98
19) Acetone	2.550	43	100931	126.17	ug/L		99
20) Methyl acetate	2.629	43	247856	131.22	ug/L		98
21) trans-1,2-Dichloroethene	2.623	61	50615	23.52	ug/L		95
22) Hexane	2.678	56	24681	22.55	ug/L	#	87
23) Methyl Tert Butyl Ether	2.684	73	95935	22.16	ug/L		89
24) Tert Butyl Alcohol	2.733	59	60682	226.42	ug/L	#	76
25) Acetonitrile	2.824	41	73459	235.63	ug/L		98
26) Di-isopropyl ether	2.904	45	94336	22.14	ug/L		97
27) Chloroprene	2.971	53	45756	21.63	ug/L		96
28) 1,1-Dichloroethane	2.977	63	69186	24.73	ug/L		98
29) Acrylonitrile	3.001	52	94014	121.73	ug/L		97
30) ETBE	3.111	59	92863	22.92	ug/L		99
31) Vinyl acetate	3.117	43	325053	107.08	ug/L		99
32) cis-1,2-Dichloroethene	3.288	96	40392	22.04	ug/L		97
33) 2,2-Dichloropropane	3.349	77	43641	23.35	ug/L		98
34) Bromochloromethane	3.397	128	21197	23.76	ug/L		91
35) Cyclohexane	3.410	56	49385	23.14	ug/L		95
36) Chloroform	3.434	83	74401	23.54	ug/L		98
37) Ethyl acetate	3.495	43	265464	116.83	ug/L		100
38) Tetrahydrofuran	3.525	42	18274	22.44	ug/L		95
40) Carbon Tetrachloride	3.525	117	51906m	25.49	ug/L		
41) 1,1,1-Trichloroethane	3.562	97	61113	24.51	ug/L		95
42) 2-Butanone	3.605	43	153690	124.28	ug/L		99
43) 1,1-Dichloropropene	3.629	75	50951	24.38	ug/L		97
44) tert-Butyl formate	3.690	59	81748	149.74	ug/L		94

7.6.11  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	3.775	54	99919	260.84	ug/L	89
46) Methacrylonitrile	3.788	41	357408	268.31	ug/L	99
47) Benzene	3.775	78	154160	24.44	ug/L	98
48) TAME	3.830	73	90247	23.49	ug/L	95
49) Isobutyl alcohol	3.873	43	56507m	497.35	ug/L	
51) 1,2-Dichloroethane	3.885	62	59237	22.82	ug/L	97
52) Tert Amyl Alcohol	3.934	59	45570	224.54	ug/L	98
53) Trichloroethene	4.111	95	43255	23.63	ug/L	96
54) Methylcyclohexane	4.117	83	51391	22.87	ug/L	99
55) Dibromomethane	4.367	93	28595	22.94	ug/L	97
56) 1,2-Dichloropropane	4.422	63	36813	24.39	ug/L	96
57) Bromodichloromethane	4.458	83	51461	24.34	ug/L	98
58) Methyl methacrylate	4.544	41	38063	23.71	ug/L	95
59) 1,4-Dioxane	4.580	88	12850	434.22	ug/L	97
60) 2-Chloroethyl vinyl ether	4.800	63	147595	119.57	ug/L	98
61) cis-1,3-Dichloropropene	4.848	75	55045	24.09	ug/L	98
64) Toluene	5.007	91	164058	24.34	ug/L	100
65) 2-Nitropropane	5.147	41	59333	124.91	ug/L	97
66) 4-Methyl-2-pentanone	5.239	43	287940	137.45	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	57756	25.38	ug/L	96
68) Tetrachloroethene	5.263	166	43771	24.99	ug/L	98
69) Ethyl methacrylate	5.367	69	44072	22.66	ug/L	88
70) 1,1,2-Trichloroethane	5.373	83	34528	24.38	ug/L	95
71) Dibromochloromethane	5.501	129	38103	23.92	ug/L	98
72) 1,3-Dichloropropane	5.562	76	61058	22.59	ug/L	95
73) 1,2-Dibromoethane	5.665	107	40349	21.86	ug/L	100
74) 3,3-dimethyl-1-butanol	5.781	57	374517	1292.66	ug/L	98
75) 2-hexanone	5.805	43	291954	138.08	ug/L	94
76) 1-Chlorohexane	6.007	91	44408m	21.51	ug/L	
77) Ethylbenzene	6.049	91	173087	23.50	ug/L	98
78) Chlorobenzene	6.031	112	110005	23.47	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.074	131	37785	25.20	ug/L	96
80) m,p-Xylene	6.153	91	274549	47.18	ug/L	98
81) o-Xylene	6.464	91	126289	21.60	ug/L	99
82) Styrene	6.500	104	100053	22.45	ug/L	98
83) Bromoform	6.525	173	22707	23.52	ug/L	96
84) Isopropylbenzene	6.702	105	146641	21.78	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.958	53	9416	19.25	ug/L	94
88) n-Propylbenzene	7.019	91	181476	23.60	ug/L	100
89) Bromobenzene	6.994	156	39327	22.80	ug/L	93
90) 1,1,2,2-Tetrachloroethane	7.061	83	60497	24.26	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	128685	23.42	ug/L	99
92) 2-Chlorotoluene	7.141	91	125905	23.38	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.202	53	8594	19.08	ug/L	89
94) 1,2,3-Trichloropropane	7.171	110	19033	23.82	ug/L	97
95) Cyclohexanone	7.208	55	10181	119.86	ug/L	92
96) 4-Chlorotoluene	7.269	91	117976	23.03	ug/L	98
97) tert-Butylbenzene	7.421	91	66788	22.38	ug/L	97
99) 1,2,4-Trimethylbenzene	7.470	105	125579	22.82	ug/L	99
100) Pentachloroethane	7.433	167	19978	25.53	ug/L	92
101) sec-Butylbenzene	7.555	105	143032	22.70	ug/L	98
102) 4-Isopropyltoluene	7.665	119	119649	22.24	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	79343	23.16	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	134735	23.04	ug/L	99
105) 1,4-Dichlorobenzene	7.787	146	81444	23.79	ug/L	97
106) n-Butylbenzene	7.982	92	62179	22.55	ug/L #	78
107) Benzyl Chloride	7.970	126	13478	23.84	ug/L #	89
108) 1,2-Dichlorobenzene	8.098	146	73995	22.56	ug/L	98

7.6.11  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2-Dibromo-3-Chloropr...	8.671	75	11038	22.42	ug/L	94
110) Hexachlorobutadiene	9.128	225	14779	23.96	ug/L	97
111) 1,2,4-Trichlorobenzene	9.146	180	39378	21.02	ug/L	97
112) Naphthalene	9.366	128	134671	19.73	ug/L	99
113) 1,2,3-Trichlorobenzene	9.494	180	39132	21.02	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

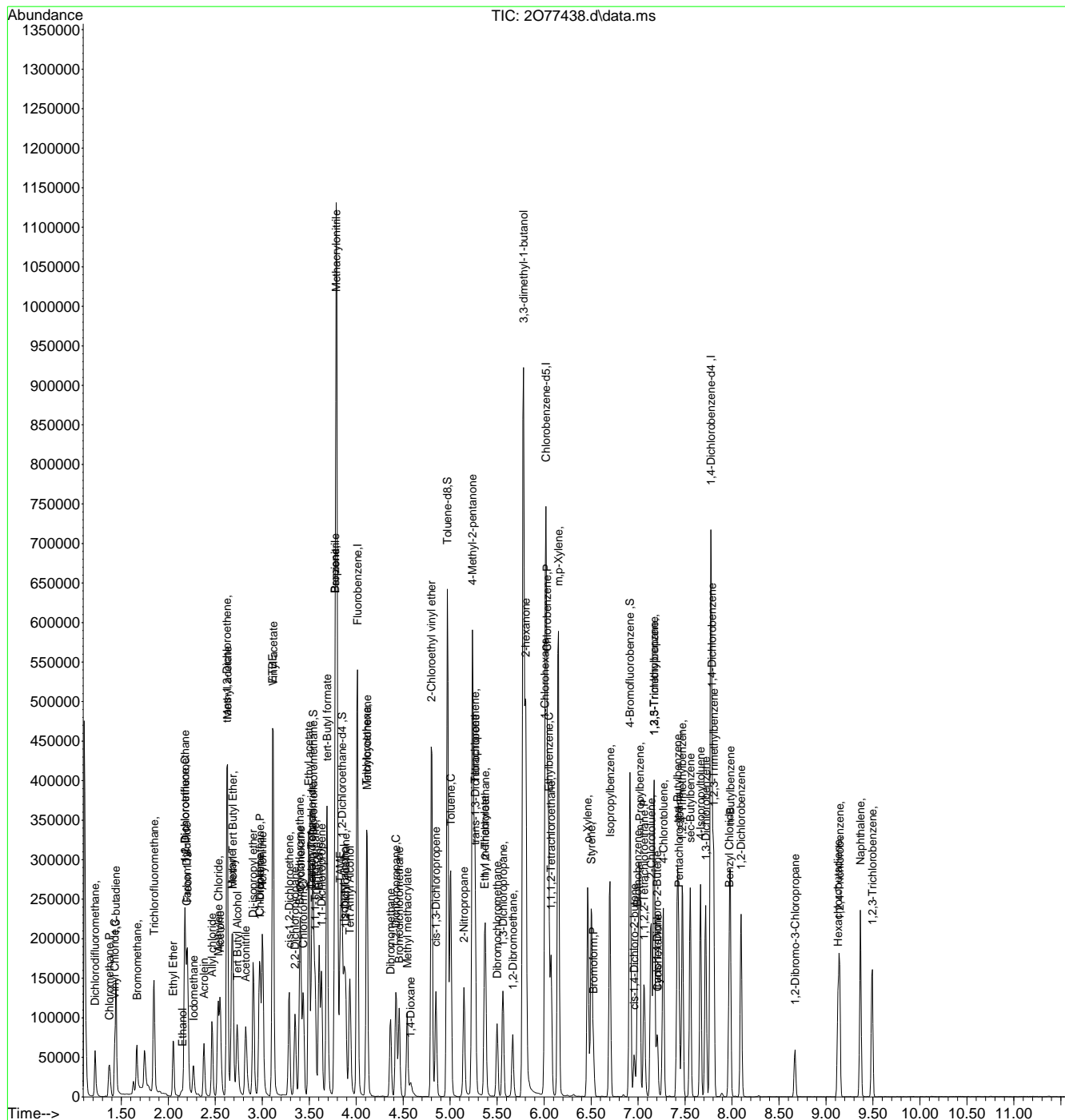
7.6.11  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7.6.11  
7

# Manual Integration Approval Summary

**Sample Number:** V2O3017-ECC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O77438.D      **Analyst approved:** 07/05/23 21:25 Celine Celis  
**Injection Time:** 07/05/23 19:38      **Supervisor approved:** 07/06/23 13:23 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

7.6.11.1

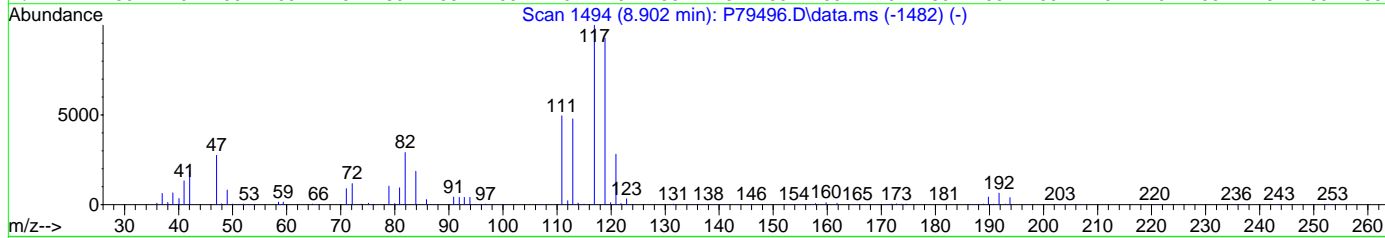
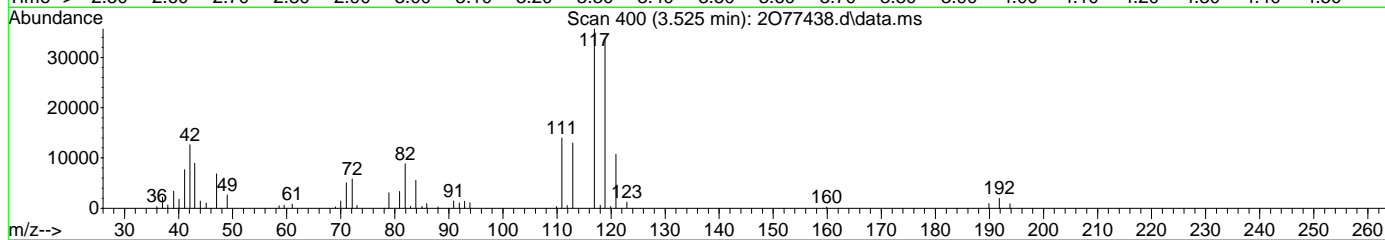
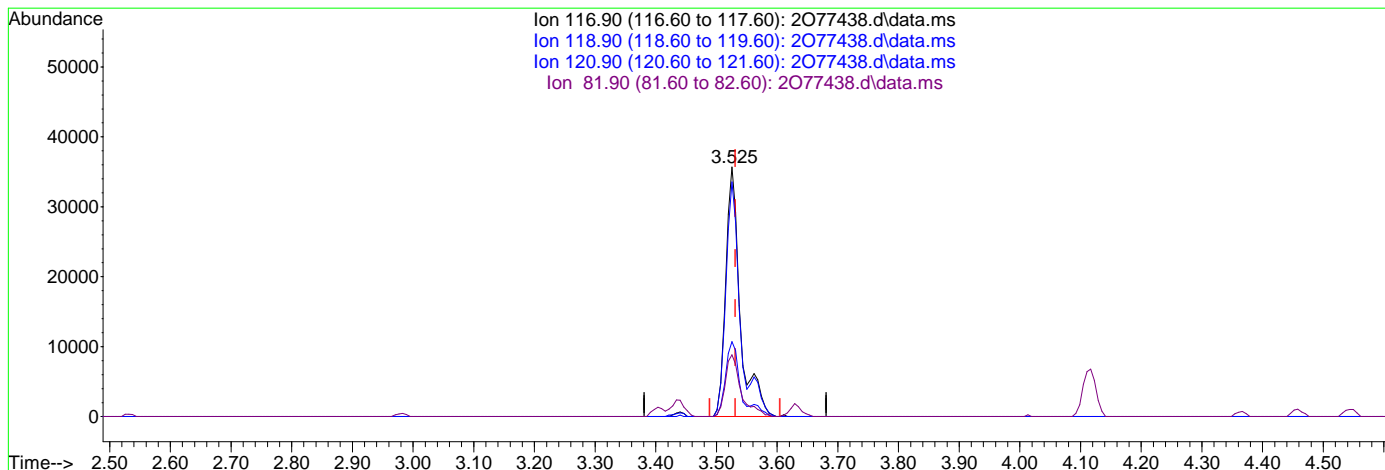
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.40ug/L

response 59873

Ion Exp% Act%

116.90 100 100

118.90 99.30 93.95

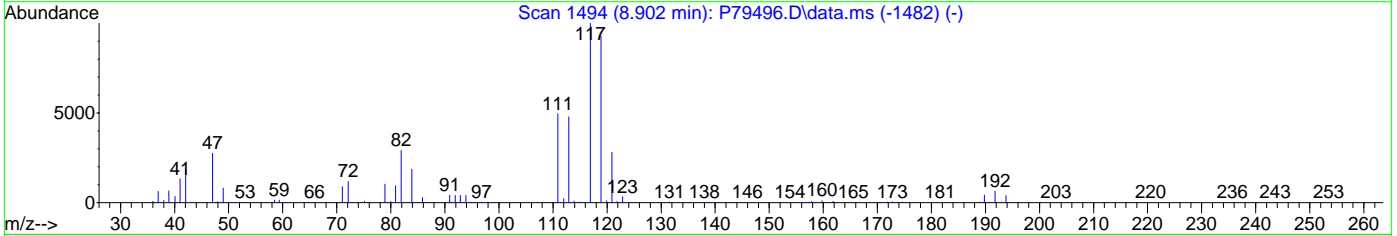
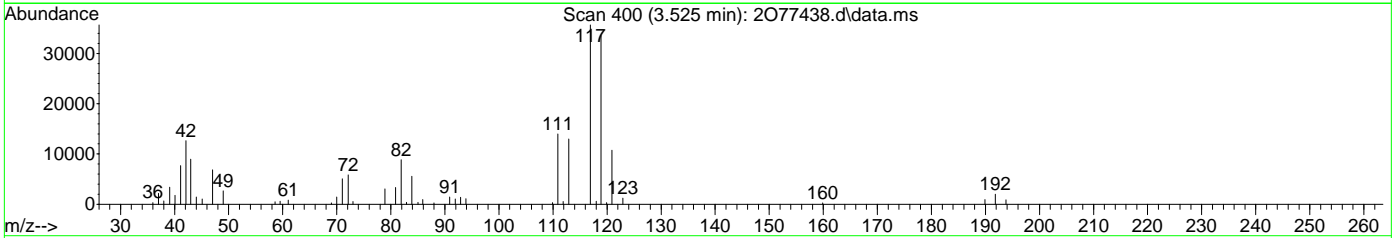
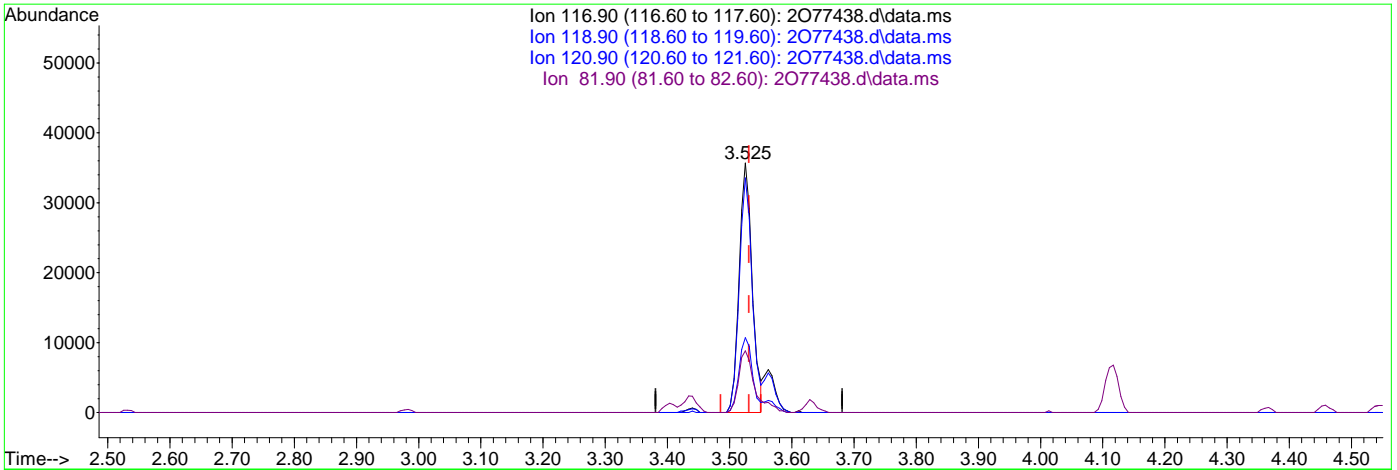
120.90 31.50 30.01

81.90 24.40 24.73

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077438.d\data.ms

(40) Carbon Tetrachloride ( )

3.525min (-0.006) 25.49ug/L m

response 51906

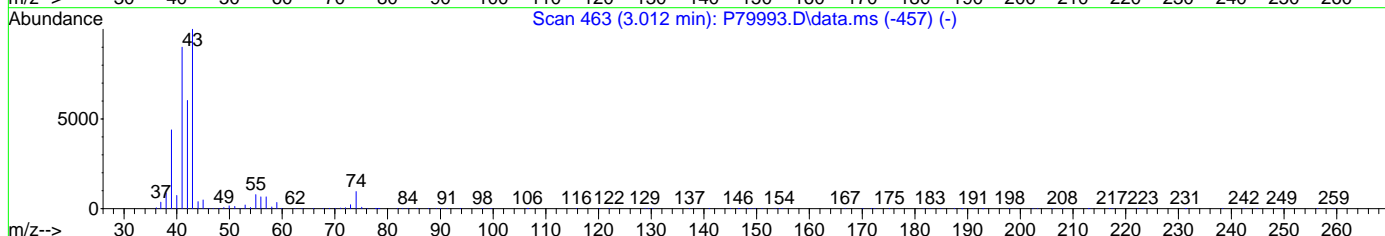
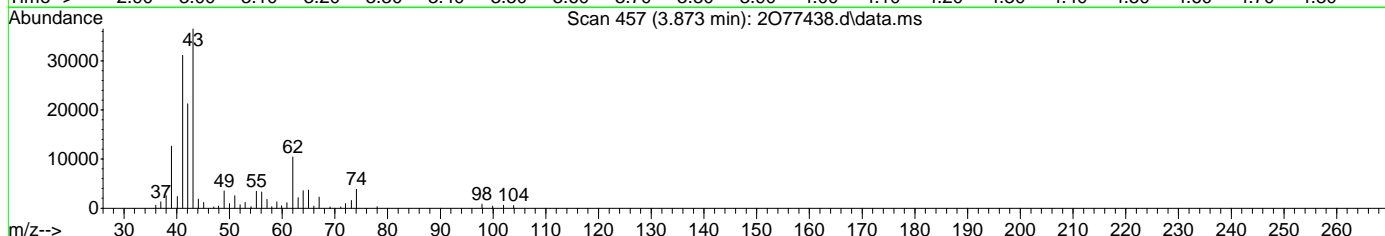
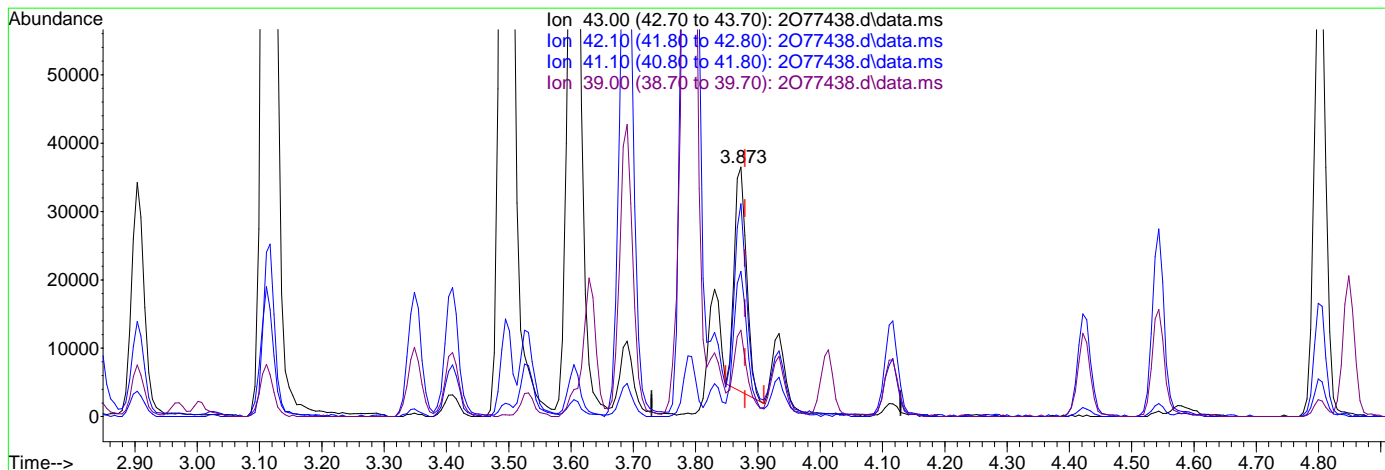
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	93.95
120.90	31.50	30.01
81.90	24.40	24.73

7.6.11.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



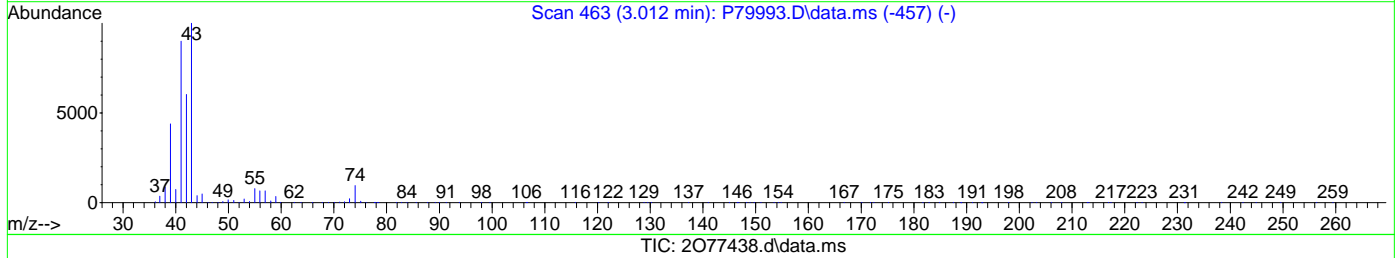
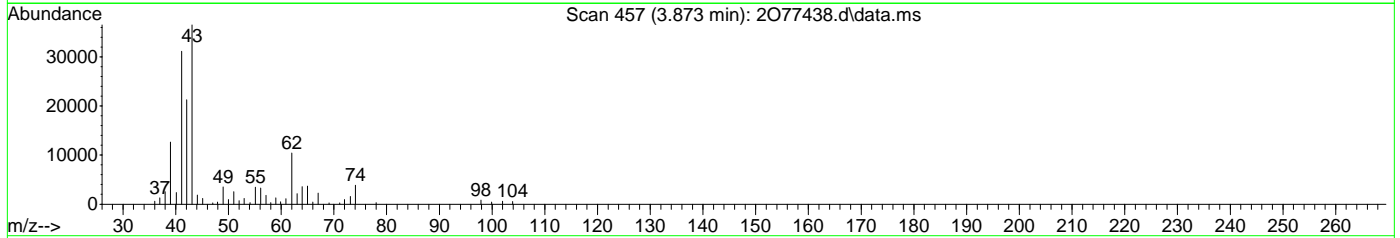
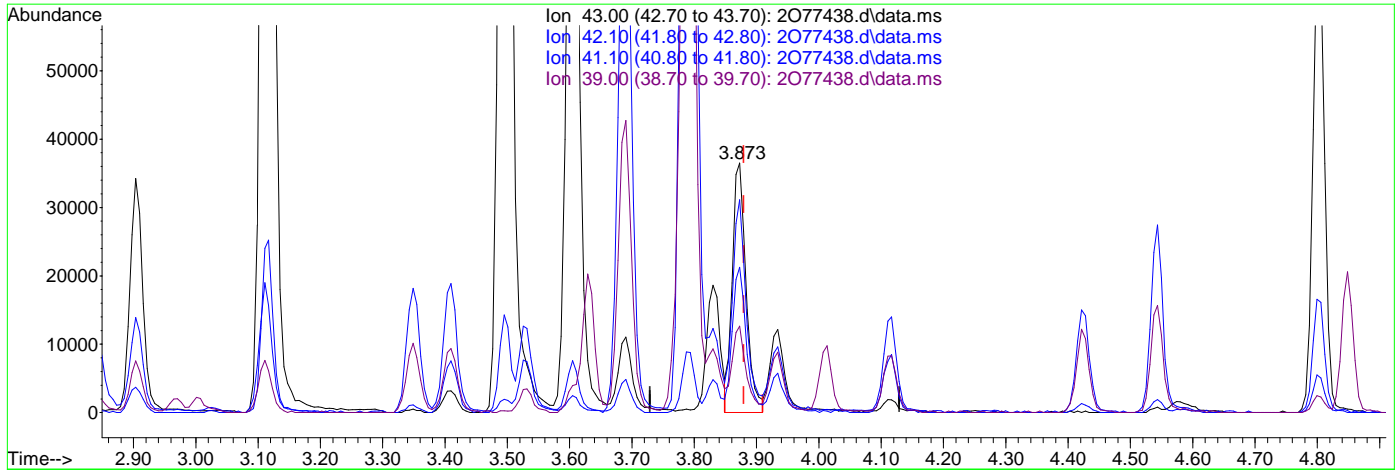
(49) Isobutyl alcohol  
 3.873min (-0.006) 392.31ug/L  
 response 44205

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.19
41.10	77.50	82.94
39.00	31.30	32.61

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.873min (-0.006) 497.35ug/L m  
 response 56507

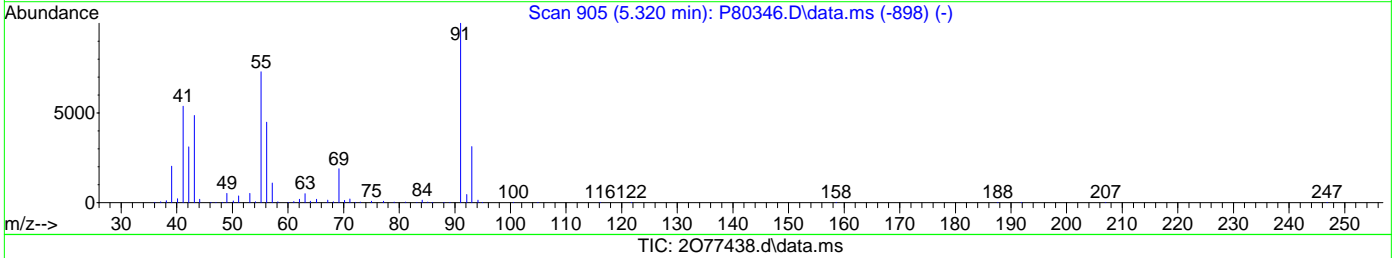
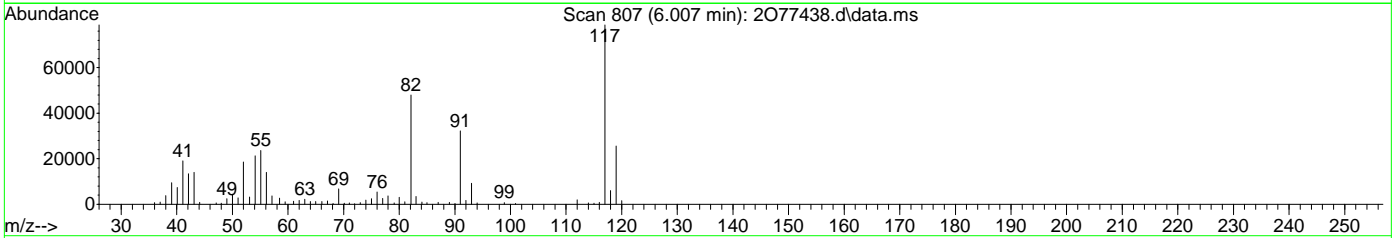
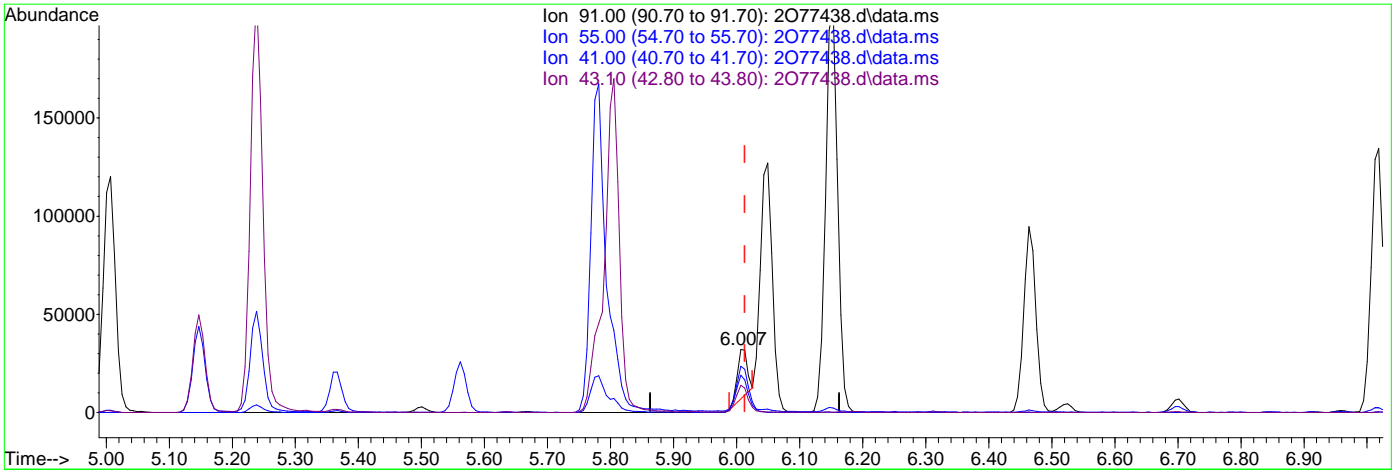
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.20
41.10	77.50	85.24
39.00	31.30	34.57

7.6.11.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane

6.007min (-0.006) 14.05ug/L

response 29016

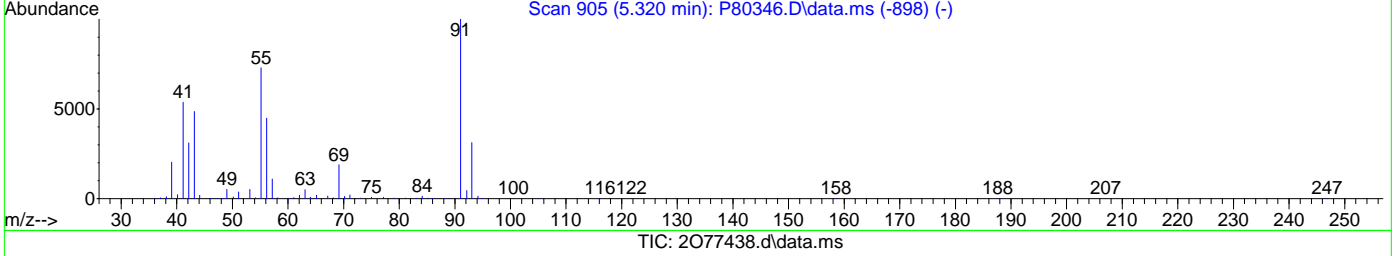
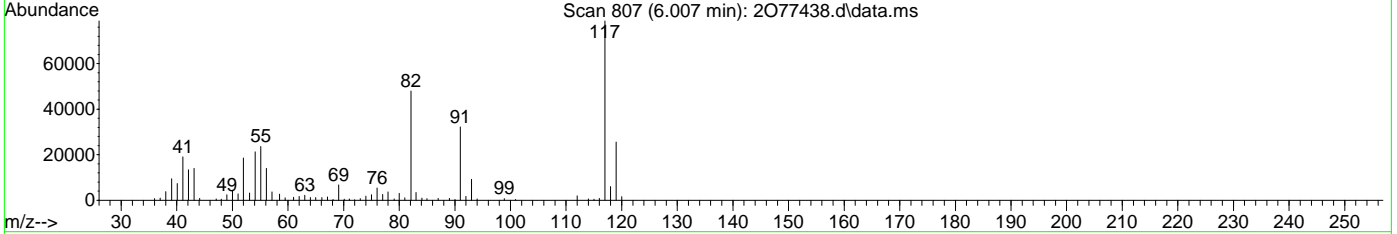
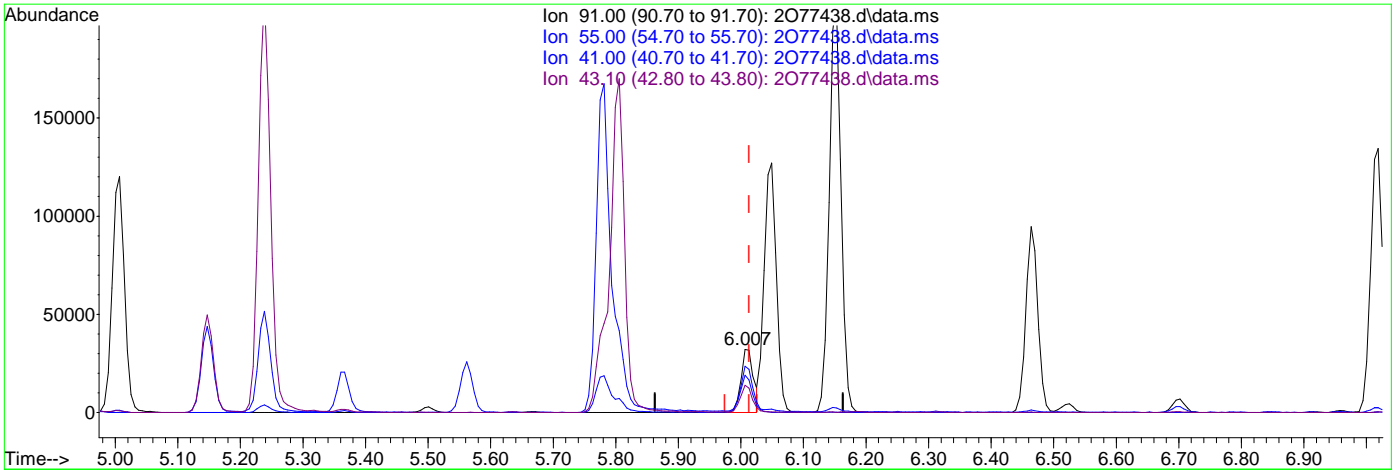
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.09
41.00	55.00	55.63
43.10	42.40	42.18

7.6.11.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane  
 6.007min (-0.006) 21.51ug/L m  
 response 44408

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.50
41.00	55.00	59.02
43.10	42.40	43.38

7.6.11.7  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1182769	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	892319	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	524006	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	328612	48.80	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	97.60%	
49) 1,2-Dichloroethane-d4	7.555	65	306960	50.29	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	100.58%	
63) Toluene-d8	9.439	98	1222137	48.22	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	96.44%	
86) 4-Bromofluorobenzene	12.219	174	433734	49.01	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.02%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	5442	1.73	ug/L		93
3) Chloromethane	2.635	50	7772	1.61	ug/L		91
4) Vinyl Chloride	2.763	62	5352	1.21	ug/L #		42
5) 1,3-Butadiene	2.800	39	5688	1.25	ug/L		85
6) Bromomethane	3.233	94	6666	3.92	ug/L		95
7) Chloroethane	3.391	64	5521	1.89	ug/L		93
8) Trichlorofluoromethane	3.604	101	7518	1.22	ug/L		95
9) Ethyl Ether	4.013	59	3699	0.98	ug/L		94
10) 1,2-Dichlorotrifluoro...	4.245	67	4964	1.01	ug/L		85
11) 1,1-Dichloroethene	4.269	61	6373	0.98	ug/L		92
12) Ethanol	4.184	45	5721	32.84	ug/L		94
13) Freon 113	4.318	101	3859	1.00	ug/L		79
14) Carbon Disulfide	4.330	76	15138	1.14	ug/L		99
15) Iodomethane	4.458	142	2662	0.82	ug/L		90
16) Acrolein	4.684	56	11013	6.68	ug/L		99
17) Allyl chloride	4.854	41	7625	1.31	ug/L		96
18) Methylene Chloride	4.976	49	13096	1.71	ug/L		96
19) Acetone	5.025	43	24855	7.63	ug/L		95
20) Methyl acetate	5.177	43	30948	4.48	ug/L		97
21) trans-1,2-Dichloroethene	5.183	61	6808	1.00	ug/L		94
22) Hexane	5.281	56	3591	1.10	ug/L		91
23) Methyl Tert Butyl Ether	5.293	73	14557	0.98	ug/L		63
24) Tert butyl alcohol	5.379	59	19025	8.86	ug/L		96
25) Acetonitrile	5.568	41	28590	23.81	ug/L		93
26) Di-isopropyl ether	5.732	45	15246	1.00	ug/L		90
27) Chloroprene	5.878	53	6526	1.10	ug/L		90
28) 1,1-Dichloroethane	5.891	63	8483	0.94	ug/L		98
29) Acrylonitrile	5.976	53	14041	4.43	ug/L		94
30) ETBE	6.147	59	14803	0.99	ug/L		90
31) Vinyl acetate	6.189	43	39427m	4.80	ug/L		
32) cis-1,2-Dichloroethene	6.519	96	5193	0.98	ug/L		97
33) 2,2-Dichloropropane	6.622	77	6951	1.01	ug/L		94
34) Bromochloromethane	6.750	128	2871	1.05	ug/L #		82
35) Cyclohexane	6.750	56	7322	1.03	ug/L		97
36) Chloroform	6.799	83	9792	1.04	ug/L		94
37) Ethyl acetate	6.915	43	30834	3.92	ug/L		99
38) Tetrahydrofuran	6.982	42	4003	1.01	ug/L		83
40) Carbon Tetrachloride	6.982	117	6470m	0.94	ug/L		
41) 1,1,1-Trichloroethane	7.031	97	7655	0.98	ug/L		91
42) 2-Butanone	7.159	43	19868m	4.44	ug/L		
43) 1,1-Dichloropropene	7.183	75	5478	0.89	ug/L		94
44) tert-Butyl Formate	7.256	59	17629	4.53	ug/L		89

7.6.12  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.439	54	14969	10.18	ug/L #	16
46) Methacrylonitrile	7.457	41	48988	11.36	ug/L	93
47) Benzene	7.445	78	18678	0.99	ug/L	88
48) TAME	7.531	73	14856	1.03	ug/L	96
50) Isobutyl alcohol	7.604	42	9073	22.09	ug/L	90
51) 1,2-Dichloroethane	7.652	62	7067	1.08	ug/L	86
52) Tert Amyl Alcohol	7.707	59	14687	8.25	ug/L	92
53) Trichloroethene	8.061	95	6218	1.20	ug/L #	78
54) Methylcyclohexane	8.055	83	6362	0.98	ug/L	95
55) Dibromomethane	8.500	93	3501	1.03	ug/L #	63
56) 1,2-Dichloropropane	8.585	63	4878	1.00	ug/L	93
57) Bromodichloromethane	8.640	83	6240	0.90	ug/L	85
58) Methyl methacrylate	8.823	41	1262	0.26	ug/L #	65
59) 1,4-Dioxane	8.860	88	2137	14.12	ug/L	77
60) 2-Chloroethyl vinyl ether	9.207	63	8760	3.38	ug/L	80
61) cis-1,3-Dichloropropene	9.280	75	6754	0.89	ug/L	86
64) Toluene	9.506	91	20555	0.97	ug/L	97
65) 2-Nitropropane	9.707	41	8460	3.60	ug/L	84
66) 4-Methyl-2-pentanone	9.841	43	42494	5.02	ug/L	98
67) trans-1,3-Dichloropropene	9.951	75	3720	0.54	ug/L	81
68) Tetrachloroethene	9.914	166	6086	0.96	ug/L	92
69) Ethyl methacrylate	10.079	69	3454	0.59	ug/L #	28
70) 1,1,2-Trichloroethane	10.079	83	4227	0.98	ug/L	94
71) Dibromochloromethane	10.268	129	5544	0.90	ug/L	89
72) 1,3-Dichloropropane	10.359	76	6447	0.86	ug/L	95
73) 1,2-Dibromoethane	10.554	107	5181	0.93	ug/L	86
74) 3,3-dimethyl-1-butanol	10.615	57	55872	32.70	ug/L	96
75) 2-hexanone	10.682	43	26377	4.05	ug/L	88
76) 1-Chlorohexane	10.975	91	6171	1.04	ug/L	91
77) Ethylbenzene	11.042	91	23310	1.05	ug/L	90
78) Chlorobenzene	11.024	112	13208	0.94	ug/L	98
79) 1,1,1,2-Tetrachloroethane	11.079	131	5447	0.99	ug/L #	15
80) m,p-Xylene	11.182	91	30687	1.80	ug/L	93
81) o-Xylene	11.621	91	17884	0.98	ug/L	96
82) Styrene	11.731	104	8879	0.71	ug/L	82
83) Bromoform	11.725	173	4336	0.82	ug/L	84
84) Isopropylbenzene	11.920	105	20851	0.98	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.298	53	1588	1.00	ug/L #	33
88) n-Propylbenzene	12.347	91	23298	0.99	ug/L	89
89) Bromobenzene	12.353	156	5937	0.96	ug/L #	81
90) 1,1,2,2-Tetrachloroethane	12.395	83	8662	1.01	ug/L	95
91) 1,3,5-Trimethylbenzene	12.523	105	16216	0.95	ug/L	99
92) 2-Chlorotoluene	12.536	91	15888	0.99	ug/L	97
93) trans-1,4-Dichloro-2-B...	12.609	53	1127	0.60	ug/L #	33
94) 1,2,3-Trichloropropane	12.554	110	2400	0.93	ug/L	90
95) Cyclohexanone	12.621	55	3155	5.92	ug/L	94
96) 4-Chlorotoluene	12.712	91	14017	0.94	ug/L	93
97) tert-Butylbenzene	12.859	91	8894	0.98	ug/L	89
98) 1,2,4-Trimethylbenzene	12.938	105	16247	0.97	ug/L	93
99) Pentachloroethane	12.895	167	3551	1.02	ug/L #	75
100) sec-Butylbenzene	13.048	105	20668	1.05	ug/L	98
101) 4-Isopropyltoluene	13.176	119	15691	0.92	ug/L	95
102) 1,3-Dichlorobenzene	13.322	146	9751	0.91	ug/L	93
103) 1,2,3-Trimethylbenzene	13.389	105	18145	1.03	ug/L	90
104) 1,4-Dichlorobenzene	13.389	146	12189	1.06	ug/L	97
105) n-Butylbenzene	13.645	92	7013	0.82	ug/L #	71
106) Benzyl Chloride	13.657	126	2168	0.73	ug/L #	89
107) 1,2-Dichlorobenzene	13.840	146	9910	0.95	ug/L	98



Quantitation Report (QT Reviewed)

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 Data File : I757261.D  
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 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.596	75	1993	0.88	ug/L	90
109) Hexachlorobutadiene	15.151	225	3519	0.97	ug/L	94
110) 1,2,4-Trichlorobenzene	15.212	180	7144	0.92	ug/L	85
111) Naphthalene	15.480	128	21732	0.89	ug/L	98
112) 1,2,3-Trichlorobenzene	15.645	180	7600	0.97	ug/L	86

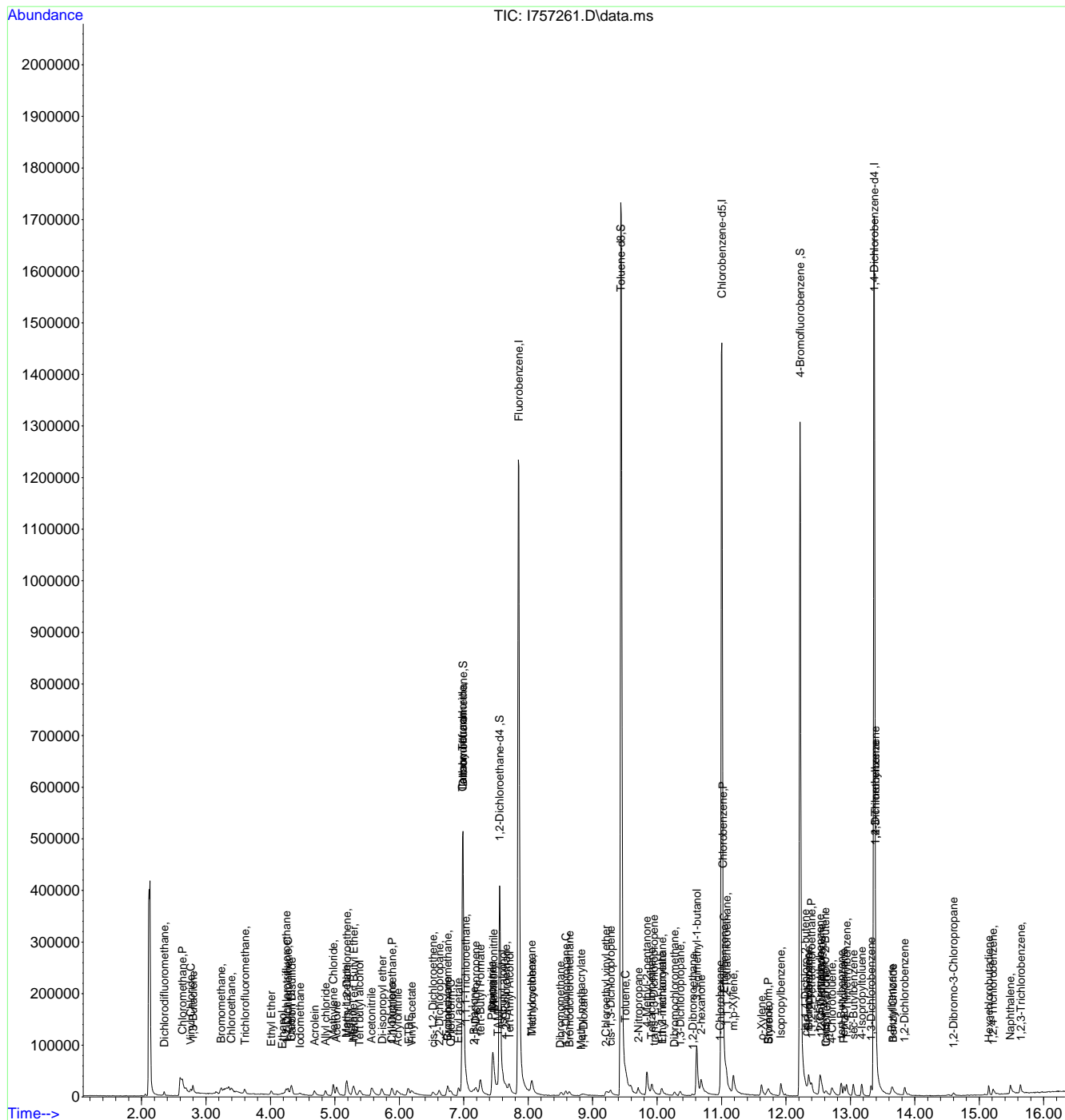
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.12  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



7.6.12  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948      **Method:** SW846 8260D  
**Lab FileID:** I757261.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 10:43      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Vinyl Acetate	108-05-4		6.19	Missed peak
Carbon Tetrachloride	56-23-5		6.98	Missed peak
2-Butanone (MEK)	78-93-3		7.16	Missed peak

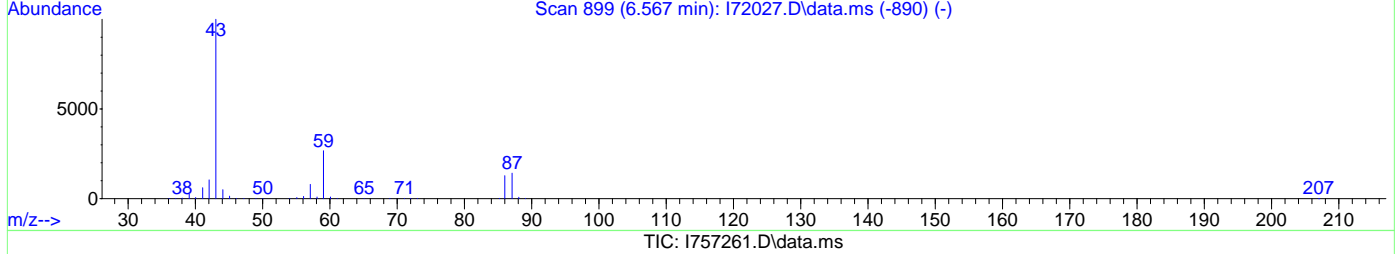
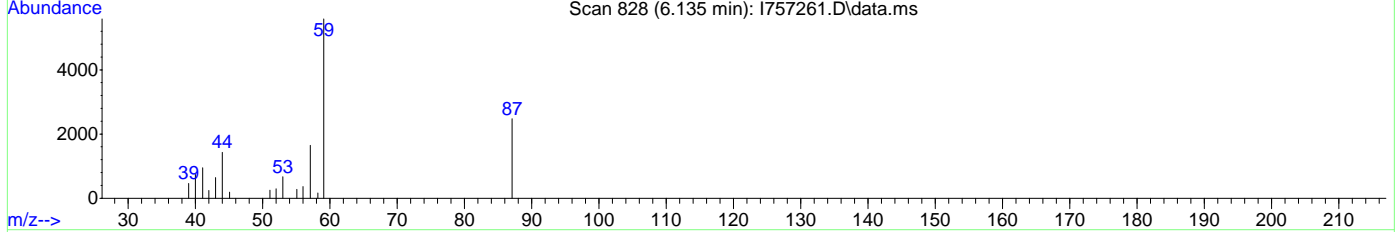
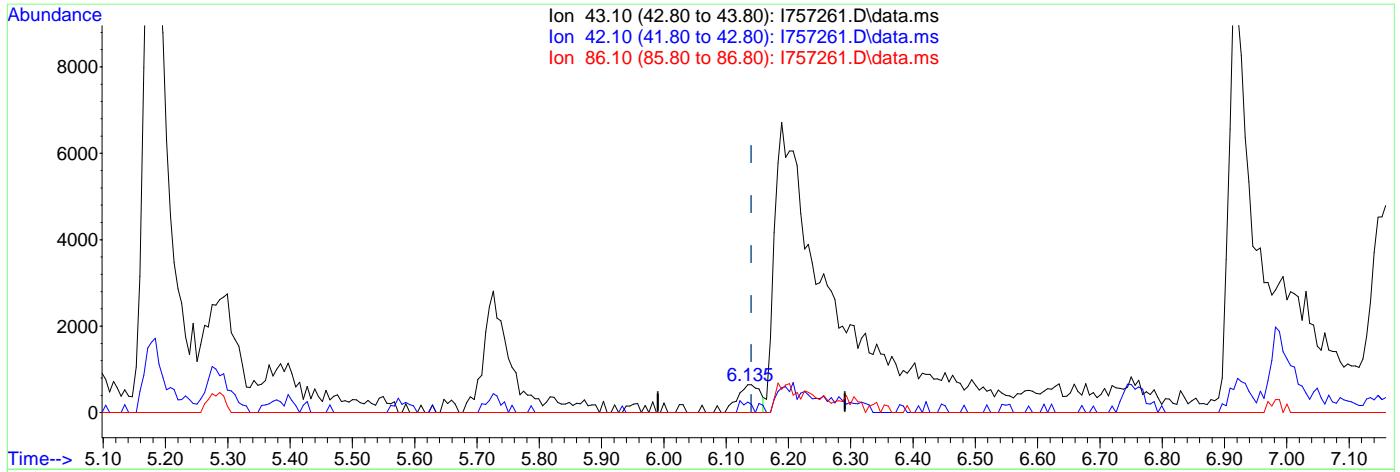
7.6.12.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(31) Vinyl acetate

6.135min (-0.006) 0.20ug/L

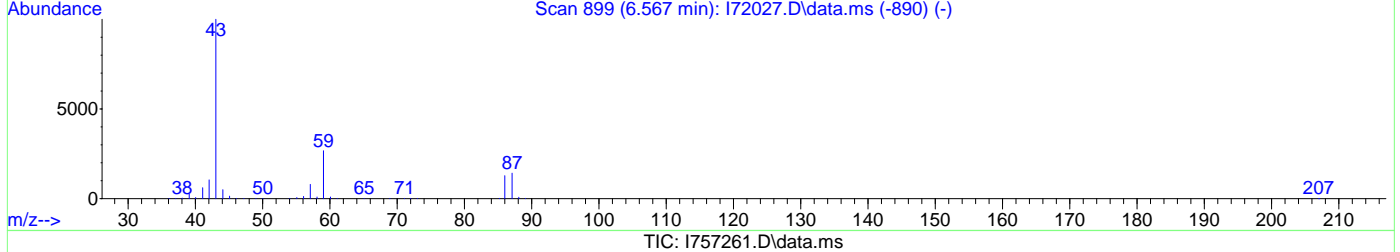
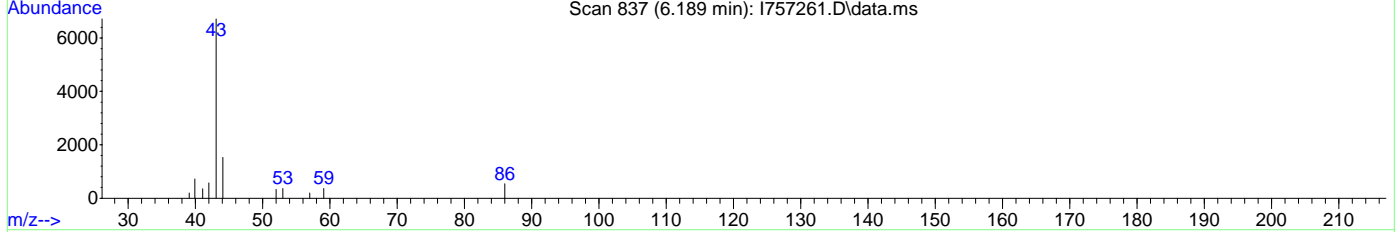
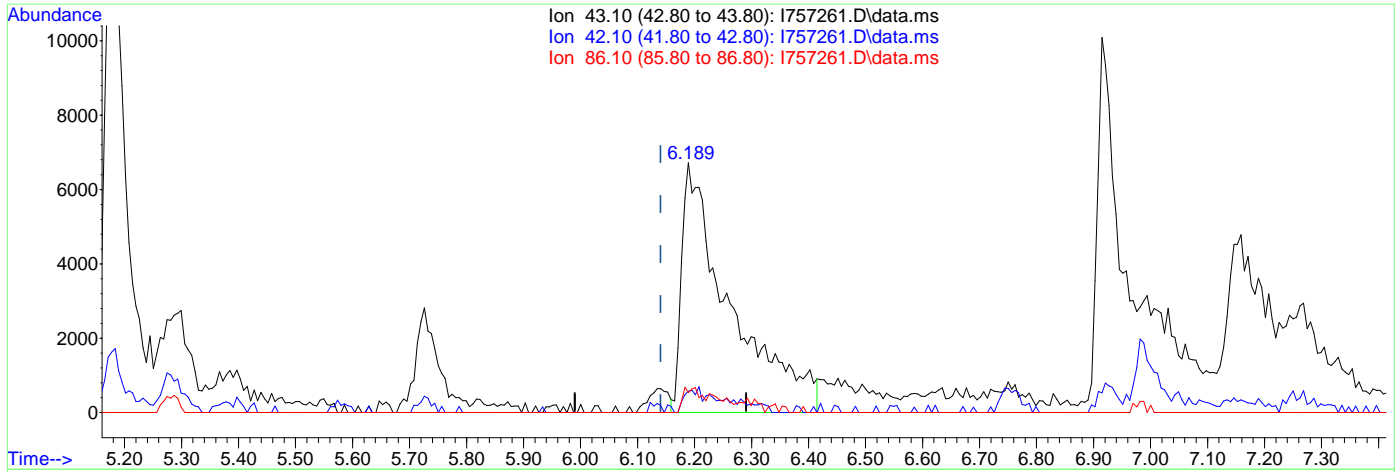
response 1610

Ion	Exp%	Act%
43.10	100	100
42.10	8.60	37.31
86.10	9.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(31) Vinyl acetate  
 6.189min (+0.049) 4.80ug/L m  
 response 39427

Ion	Exp%	Act%
43.10	100	100
42.10	8.60	8.56
86.10	9.80	8.02
0.00	0.00	0.00

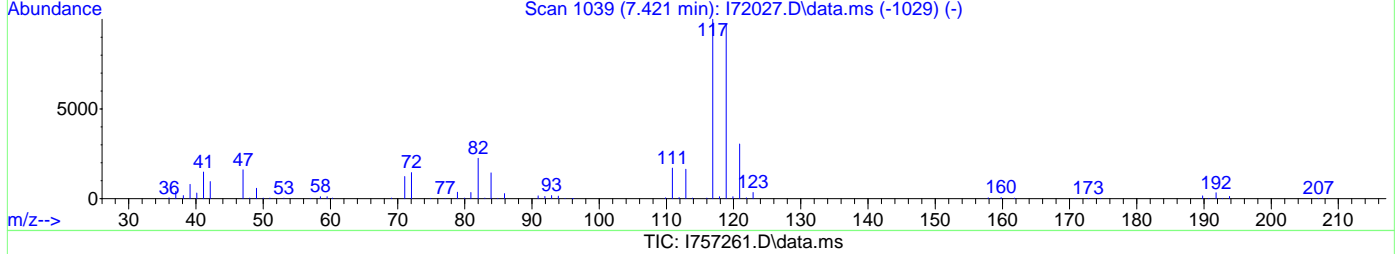
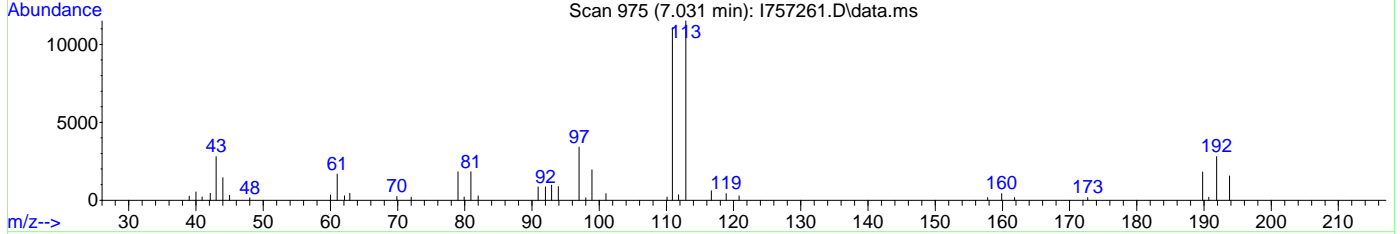
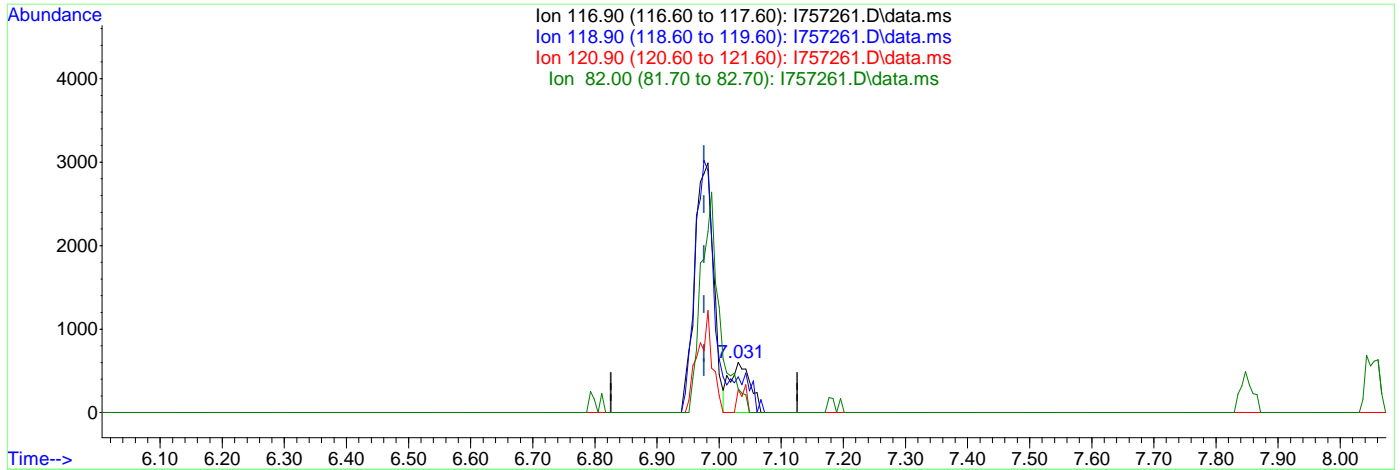
7.6.12.3

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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

7.031min (+0.055) 0.20ug/L

response 1371

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	71.14
120.90	32.80	45.61
82.00	23.90	46.77

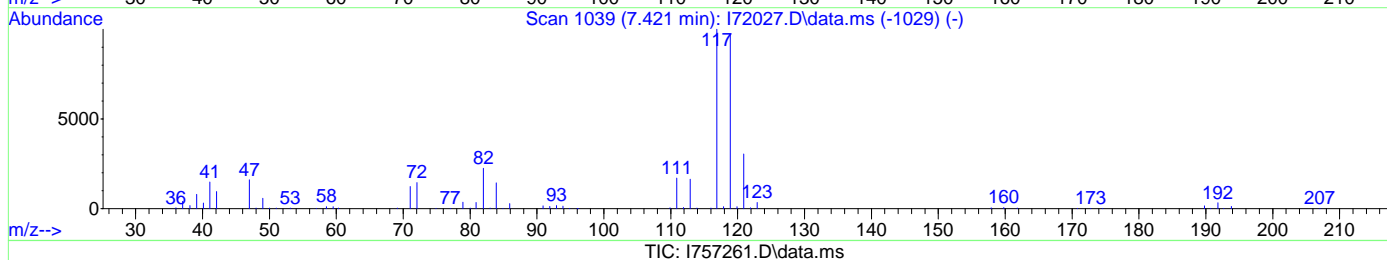
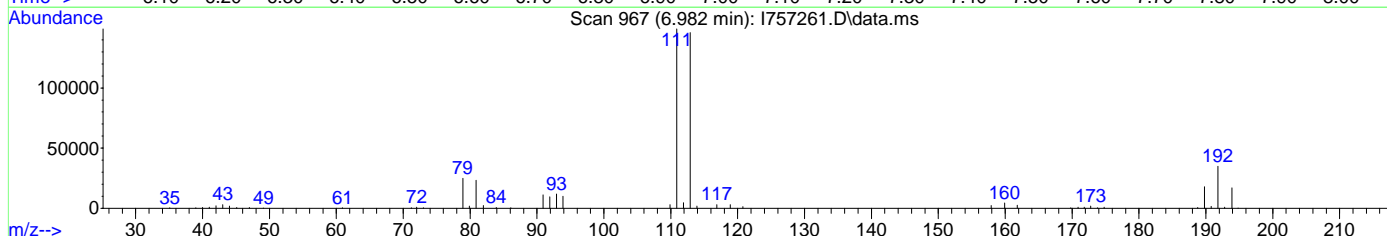
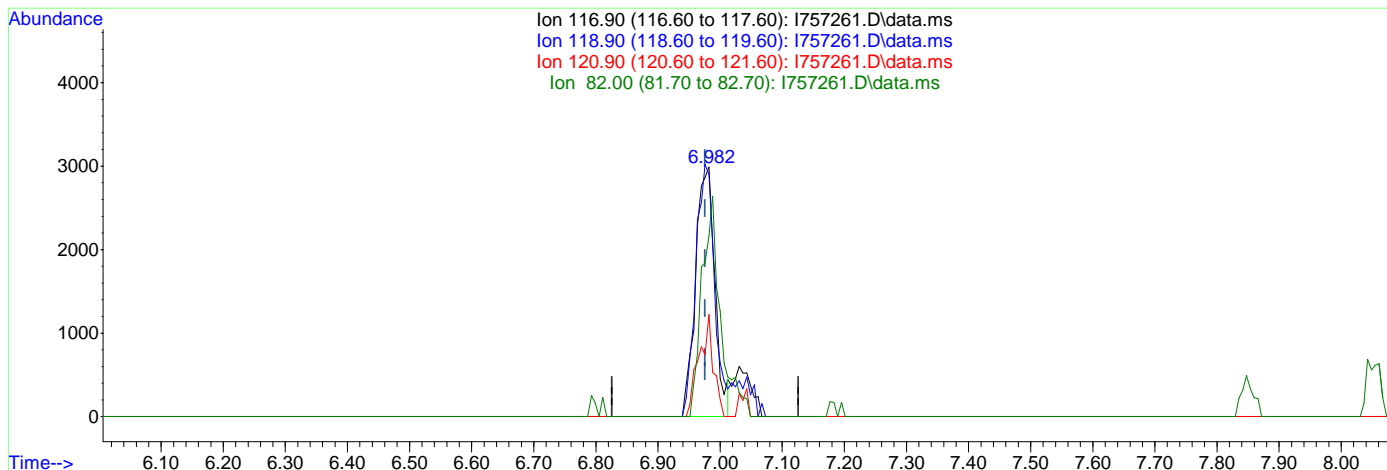
7.6.12.4

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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



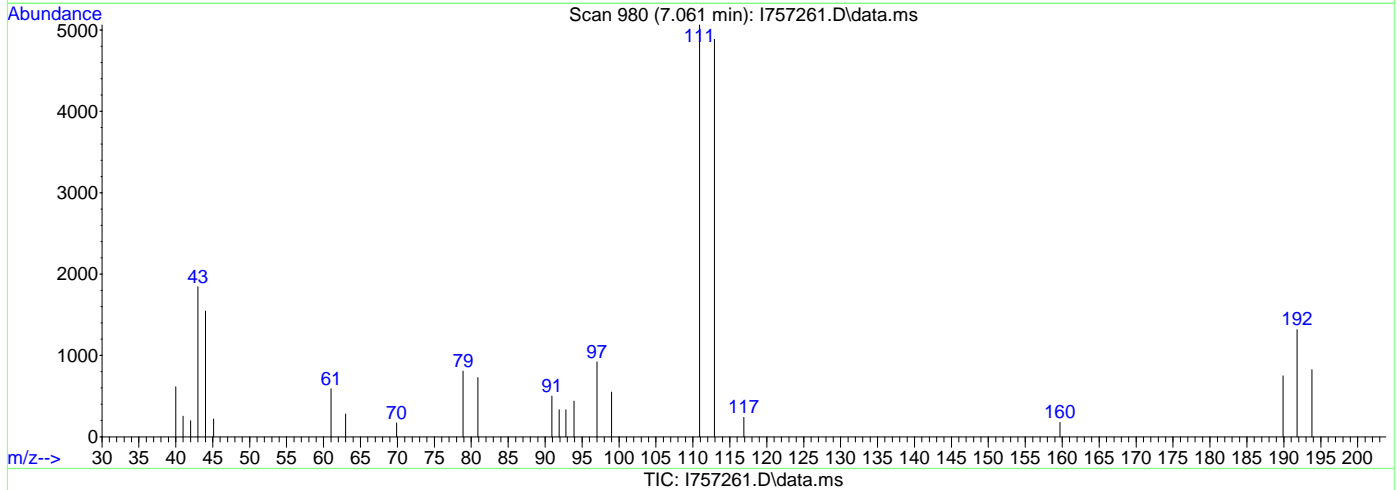
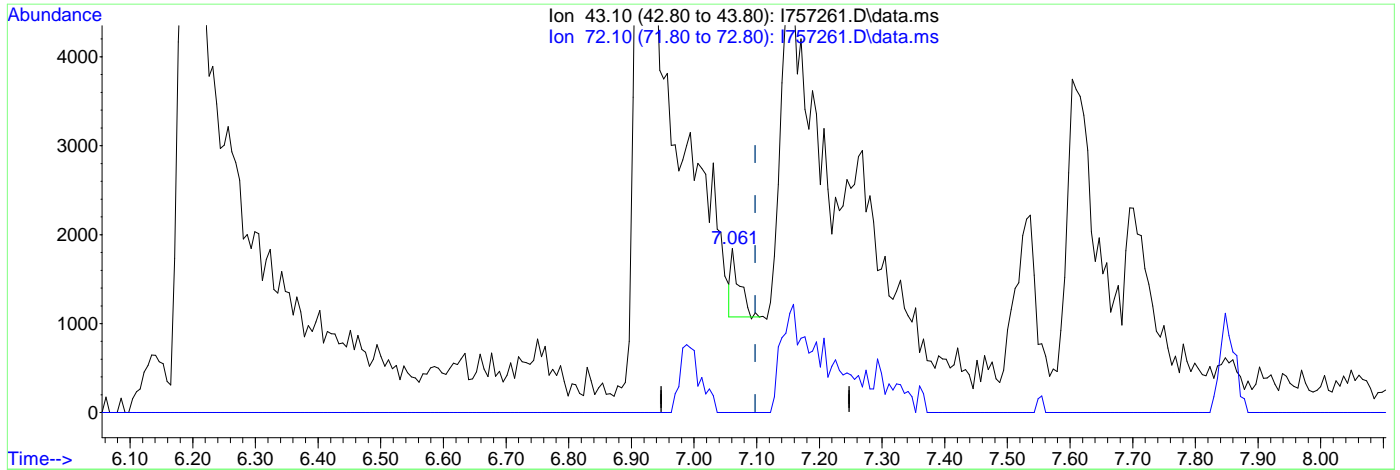
(40) Carbon Tetrachloride ( )  
 6.982min (+0.006) 0.94ug/L m  
 response 6470

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	96.92
120.90	32.80	40.89
82.00	23.90	72.42#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:20:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(42) 2-Butanone  
 7.061min (-0.037) 0.16ug/L  
 response 709

Ion	Exp%	Act%
43.10	100	100
72.10	25.20	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7.6.12.6

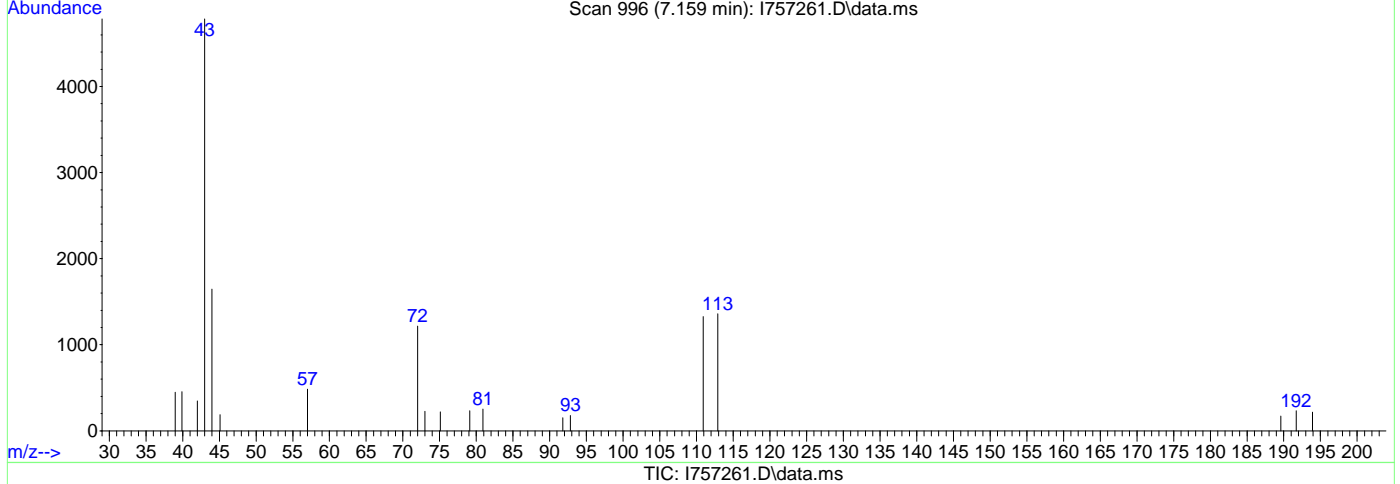
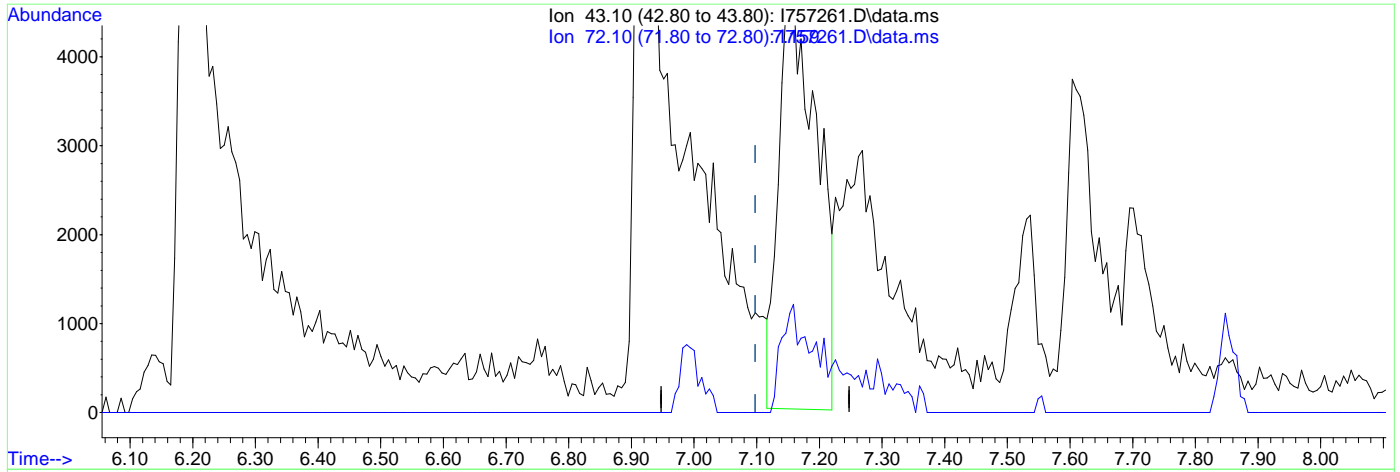
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:20:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(42) 2-Butanone

7.159min (+0.061) 4.44ug/L m

response 19868

Ion	Exp%	Act%
43.10	100	100
72.10	25.20	25.43
0.00	0.00	0.00
0.00	0.00	0.00

7.6.12.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1165649	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	889602	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	505367	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	325283	49.02	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.04%		
49) 1,2-Dichloroethane-d4	7.561	65	298097	49.55	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	99.10%		
63) Toluene-d8	9.445	98	1209637	47.87	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	95.74%		
86) 4-Bromofluorobenzene	12.219	174	424991	49.79	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.58%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	27386	8.82	ug/L		99
3) Chloromethane	2.635	50	32237	6.79	ug/L		98
4) Vinyl Chloride	2.763	62	29478	6.74	ug/L		92
5) 1,3-Butadiene	2.794	39	30328	6.79	ug/L		97
6) Bromomethane	3.227	94	12706	7.58	ug/L		92
7) Chloroethane	3.397	64	18474	6.43	ug/L		93
8) Trichlorofluoromethane	3.599	101	38170	6.30	ug/L		97
9) Ethyl Ether	4.013	59	17548	4.71	ug/L		94
10) 1,2-Dichlorotrifluoro...	4.239	67	25007	5.19	ug/L		91
11) 1,1-Dichloroethene	4.269	61	32815	5.12	ug/L		99
12) Ethanol	4.190	45	21259	123.82	ug/L		100
13) Freon 113	4.318	101	20080	5.27	ug/L		96
14) Carbon Disulfide	4.330	76	67756	5.19	ug/L		97
15) Iodomethane	4.452	142	9749	3.03	ug/L		90
16) Acrolein	4.684	56	34013	20.92	ug/L		95
17) Allyl chloride	4.848	41	40712	7.09	ug/L		93
18) Methylene Chloride	4.976	49	37948	5.01	ug/L		95
19) Acetone	5.025	43	64352	20.03	ug/L		96
20) Methyl acetate	5.171	43	145110	21.31	ug/L		99
21) trans-1,2-Dichloroethene	5.184	61	35419	5.26	ug/L		93
22) Hexane	5.275	56	16338	5.08	ug/L		94
23) Methyl Tert Butyl Ether	5.293	73	67195	4.60	ug/L		79
24) Tert butyl alcohol	5.379	59	81165	38.35	ug/L		93
25) Acetonitrile	5.562	41	82345	69.59	ug/L		99
26) Di-isopropyl ether	5.726	45	72889	4.85	ug/L		99
27) Chloroprene	5.872	53	40481	6.91	ug/L		97
28) 1,1-Dichloroethane	5.885	63	47851	5.37	ug/L		99
29) Acrylonitrile	5.940	53	65417	20.92	ug/L		100
30) ETBE	6.135	59	72629	4.94	ug/L		98
31) Vinyl acetate	6.153	43	173852	21.46	ug/L		98
32) cis-1,2-Dichloroethene	6.513	96	27700	5.29	ug/L		95
33) 2,2-Dichloropropane	6.622	77	35630	5.24	ug/L		95
34) Bromochloromethane	6.744	128	13940	5.16	ug/L		92
35) Cyclohexane	6.756	56	36114	5.17	ug/L		95
36) Chloroform	6.793	83	48112	5.20	ug/L		94
37) Ethyl acetate	6.897	43	137371m	17.74	ug/L		
38) Tetrahydrofuran	6.988	42	17138	4.40	ug/L		92
40) Carbon Tetrachloride	6.970	117	32968	4.84	ug/L		93
41) 1,1,1-Trichloroethane	7.037	97	39468	5.12	ug/L		94
42) 2-Butanone	7.116	43	79492	18.01	ug/L		93
43) 1,1-Dichloropropene	7.177	75	31403	5.15	ug/L		95
44) tert-Butyl Formate	7.256	59	84861	22.12	ug/L		88

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	88024	60.74	ug/L	92
46) Methacrylonitrile	7.439	41	276916	65.19	ug/L	98
47) Benzene	7.433	78	96713	5.20	ug/L	99
48) TAME	7.525	73	69750	4.90	ug/L	94
50) Isobutyl alcohol	7.592	42	37775	93.33	ug/L	95
51) 1,2-Dichloroethane	7.640	62	31609	4.89	ug/L	95
52) Tert Amyl Alcohol	7.695	59	62297	35.52	ug/L	93
53) Trichloroethene	8.055	95	24957	4.88	ug/L	93
54) Methylcyclohexane	8.049	83	32907	5.17	ug/L	96
55) Dibromomethane	8.500	93	15603	4.64	ug/L	93
56) 1,2-Dichloropropane	8.573	63	23524	4.91	ug/L	95
57) Bromodichloromethane	8.634	83	32071	4.71	ug/L	98
58) Methyl methacrylate	8.768	41	23862	5.00	ug/L	92
59) 1,4-Dioxane	8.829	88	12289	82.40	ug/L	93
60) 2-Chloroethyl vinyl ether	9.171	63	65292	25.55	ug/L	97
61) cis-1,3-Dichloropropene	9.262	75	35643	4.75	ug/L	96
64) Toluene	9.506	91	103423	4.91	ug/L	99
65) 2-Nitropropane	9.701	41	36331	15.52	ug/L #	90
66) 4-Methyl-2-pentanone	9.829	43	167971	19.90	ug/L	96
67) trans-1,3-Dichloropropene	9.914	75	31240	4.54	ug/L	86
68) Tetrachloroethene	9.914	166	30996	4.89	ug/L	97
69) Ethyl methacrylate	10.024	69	32508	5.60	ug/L	99
70) 1,1,2-Trichloroethane	10.067	83	20499	4.75	ug/L	95
71) Dibromochloromethane	10.262	129	26106	4.27	ug/L	95
72) 1,3-Dichloropropane	10.347	76	33945	4.55	ug/L	96
73) 1,2-Dibromoethane	10.530	107	23931	4.32	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	266330	156.37	ug/L	97
75) 2-hexanone	10.664	43	122777	18.92	ug/L	93
76) 1-Chlorohexane	10.969	91	27619	4.68	ug/L	98
77) Ethylbenzene	11.030	91	110351	4.97	ug/L	100
78) Chlorobenzene	11.024	112	69283	4.96	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	25168	4.61	ug/L	87
80) m,p-Xylene	11.170	91	165014	9.71	ug/L	99
81) o-Xylene	11.609	91	88560	4.86	ug/L	99
82) Styrene	11.670	104	55606	4.43	ug/L	93
83) Bromoform	11.719	173	21204	4.01	ug/L	96
84) Isopropylbenzene	11.914	105	105927	4.97	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.274	53	8862	5.80	ug/L #	83
88) n-Propylbenzene	12.341	91	119399	5.27	ug/L	99
89) Bromobenzene	12.359	156	29784	5.01	ug/L	93
90) 1,1,2,2-Tetrachloroethane	12.389	83	39047	4.73	ug/L	98
91) 1,3,5-Trimethylbenzene	12.518	105	86054	5.23	ug/L	97
92) 2-Chlorotoluene	12.524	91	81376	5.25	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.591	53	7092	3.93	ug/L	86
94) 1,2,3-Trichloropropane	12.548	110	12093	4.86	ug/L	96
95) Cyclohexanone	12.615	55	11436	22.25	ug/L	92
96) 4-Chlorotoluene	12.694	91	70286	4.90	ug/L	98
97) tert-Butylbenzene	12.853	91	45274	5.16	ug/L	96
98) 1,2,4-Trimethylbenzene	12.932	105	83406	5.16	ug/L	97
99) Pentachloroethane	12.902	167	20473	6.08	ug/L	97
100) sec-Butylbenzene	13.042	105	99567	5.23	ug/L	98
101) 4-Isopropyltoluene	13.170	119	85840	5.20	ug/L	98
102) 1,3-Dichlorobenzene	13.310	146	50680	4.92	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	87732	5.18	ug/L	93
104) 1,4-Dichlorobenzene	13.389	146	54988	4.95	ug/L	98
105) n-Butylbenzene	13.627	92	40581	4.95	ug/L	90
106) Benzyl Chloride	13.633	126	11834	4.15	ug/L #	73
107) 1,2-Dichlorobenzene	13.834	146	50054	4.97	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

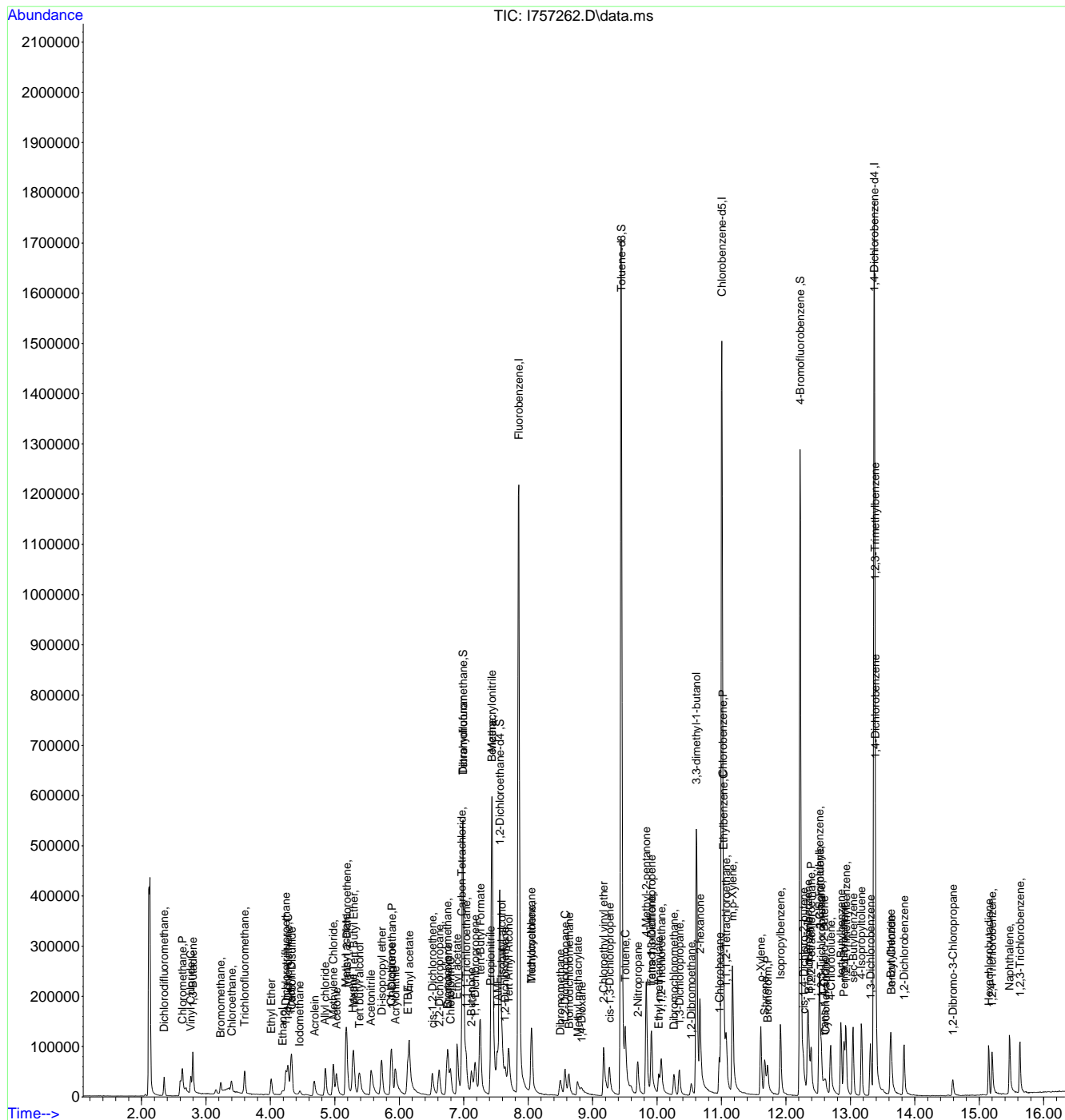
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.590	75	8368	3.85	ug/L	95
109) Hexachlorobutadiene	15.151	225	17626	5.04	ug/L	98
110) 1,2,4-Trichlorobenzene	15.200	180	36439	4.84	ug/L	98
111) Naphthalene	15.468	128	102592	4.38	ug/L	98
112) 1,2,3-Trichlorobenzene	15.633	180	36500	4.84	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
Data File : I757262.D  
Acq On : 15 Jun 2023 11:16 am  
Operator : joannel  
Sample : IC2948-2  
Misc : MS54130,VI2948,,,,,  
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 07:44:06 2023  
Response via : Initial Calibration



7.6.13  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757262.D  
**Injection Time:** 06/15/23 11:16

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.90	Poor instrument integration

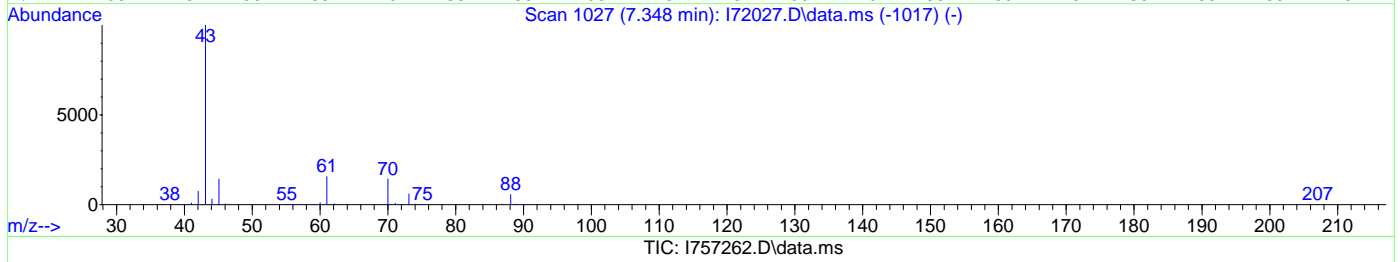
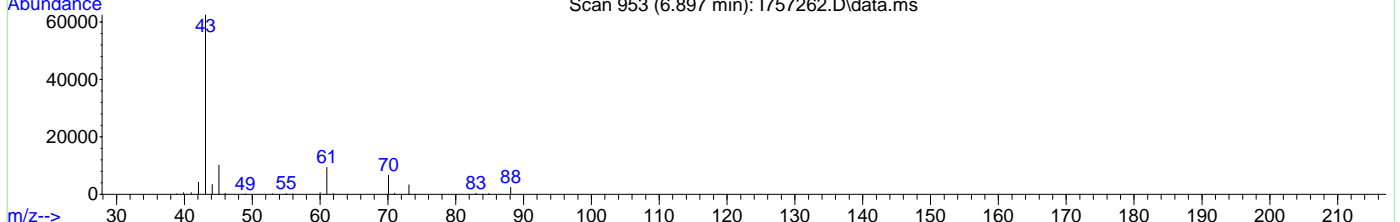
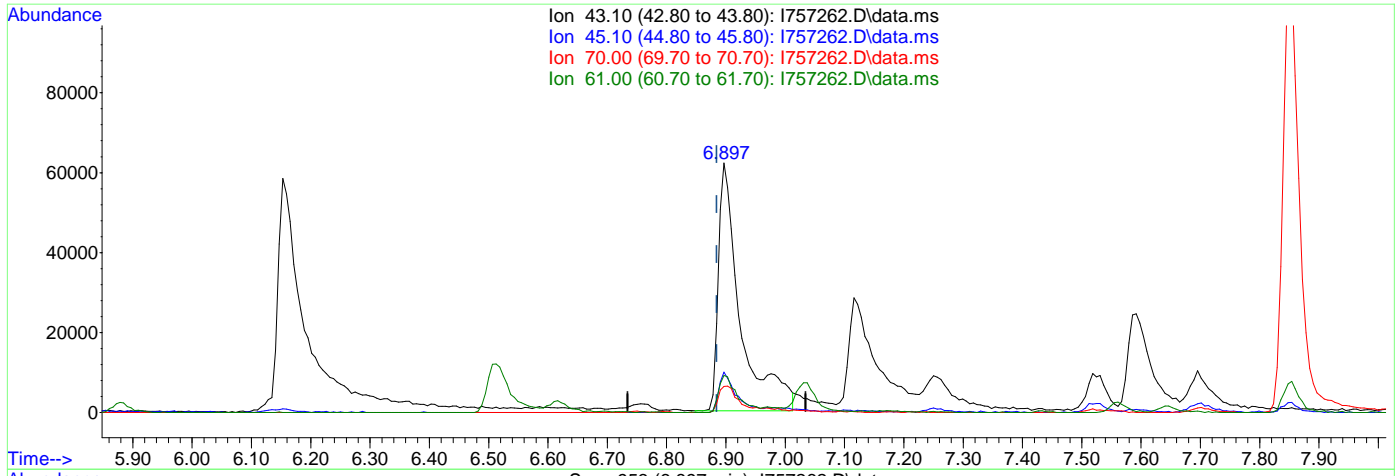
7.6.13.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:17:32 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.897min (+0.012) 20.52ug/L  
 response 158851

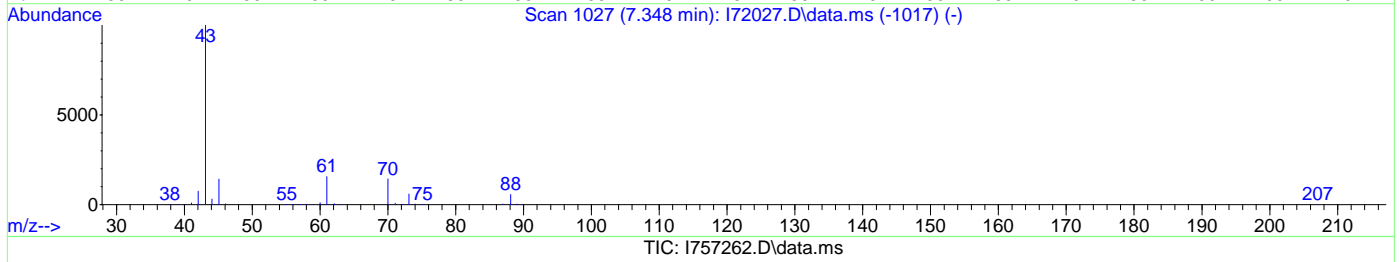
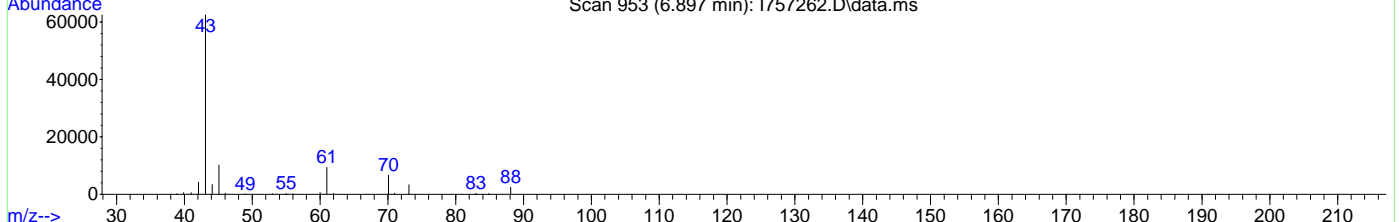
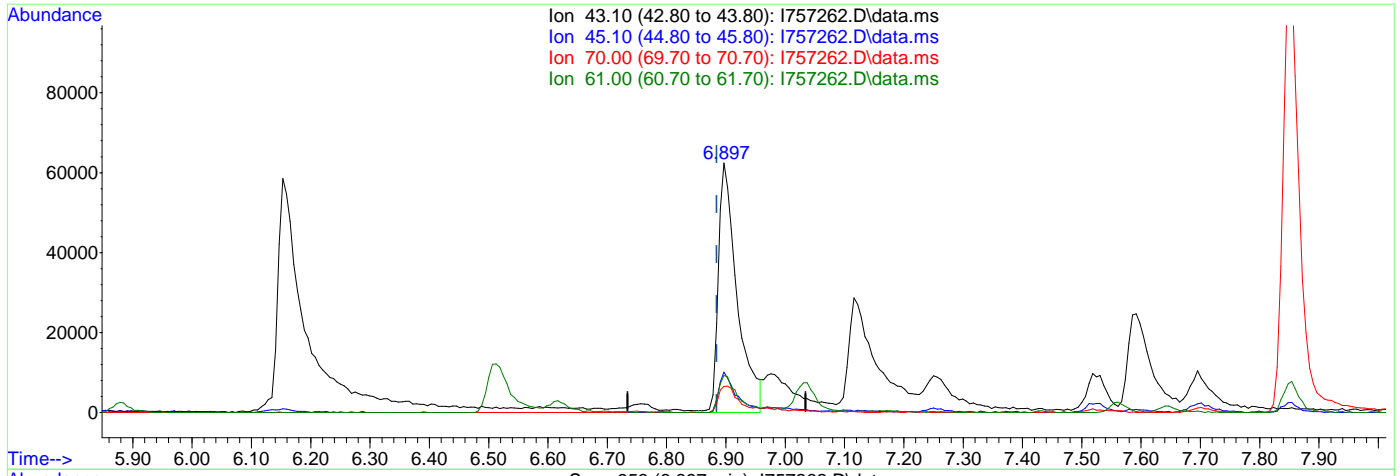
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	16.33
70.00	11.10	10.57
61.00	15.10	14.97

7.6.13.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:17:32 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.897min (+0.012) 17.74ug/L m

response 137371

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	16.20
70.00	11.10	10.49
61.00	15.10	14.86

7.6.13.3

7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1170277	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	851480	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	514226	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	327625	49.17	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.34%	
49) 1,2-Dichloroethane-d4	7.561	65	304694	50.45	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	100.90%	
63) Toluene-d8	9.445	98	1220760	50.48	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	100.96%	
86) 4-Bromofluorobenzene	12.219	174	428509	49.34	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.68%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	50867	16.31	ug/L		99
3) Chloromethane	2.641	50	54614	11.47	ug/L		98
4) Vinyl Chloride	2.769	62	50988	11.62	ug/L		96
5) 1,3-Butadiene	2.800	39	45402	10.12	ug/L		100
6) Bromomethane	3.233	94	17396	10.34	ug/L		92
7) Chloroethane	3.397	64	27335	9.48	ug/L		92
8) Trichlorofluoromethane	3.605	101	70922	11.65	ug/L		98
9) Ethyl Ether	4.019	59	32290	8.64	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	45018	9.30	ug/L		98
11) 1,1-Dichloroethene	4.275	61	57814	8.99	ug/L		98
12) Ethanol	4.202	45	36754	213.22	ug/L		90
13) Freon 113	4.324	101	37005	9.67	ug/L		94
14) Carbon Disulfide	4.336	76	114753	8.75	ug/L		99
15) Iodomethane	4.458	142	18992	5.88	ug/L		99
16) Acrolein	4.678	56	86223	52.83	ug/L		96
17) Allyl chloride	4.860	41	59002	10.23	ug/L		97
18) Methylene Chloride	4.982	49	60337	7.94	ug/L		97
19) Acetone	5.025	43	184931	57.34	ug/L		95
20) Methyl acetate	5.171	43	300019	43.88	ug/L		99
21) trans-1,2-Dichloroethene	5.190	61	59576	8.81	ug/L		97
22) Hexane	5.281	56	28978	8.98	ug/L		86
23) Methyl Tert Butyl Ether	5.299	73	127238	8.69	ug/L		90
24) Tert butyl alcohol	5.391	59	175816	82.74	ug/L		96
25) Acetonitrile	5.568	41	138301	116.42	ug/L		99
26) Di-isopropyl ether	5.726	45	132488	8.79	ug/L		97
27) Chloroprene	5.872	53	61364	10.43	ug/L		94
28) 1,1-Dichloroethane	5.885	63	78260	8.74	ug/L		99
29) Acrylonitrile	5.933	53	161854	51.57	ug/L		97
30) ETBE	6.141	59	125270	8.50	ug/L		99
31) Vinyl acetate	6.147	43	418057	51.39	ug/L		99
32) cis-1,2-Dichloroethene	6.513	96	46021	8.75	ug/L		91
33) 2,2-Dichloropropane	6.622	77	59693	8.74	ug/L		96
34) Bromochloromethane	6.738	128	24652	9.08	ug/L		90
35) Cyclohexane	6.763	56	67766	9.67	ug/L		96
36) Chloroform	6.799	83	81335	8.75	ug/L		99
37) Ethyl acetate	6.897	43	352467m	45.34	ug/L		
38) Tetrahydrofuran	6.988	42	34187	8.74	ug/L		97
40) Carbon Tetrachloride	6.976	117	56831	8.31	ug/L		96
41) 1,1,1-Trichloroethane	7.037	97	68120	8.80	ug/L		97
42) 2-Butanone	7.110	43	268871	60.66	ug/L		99
43) 1,1-Dichloropropene	7.177	75	55032	9.00	ug/L		97
44) tert-Butyl Formate	7.256	59	168473	43.74	ug/L		95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	152952	105.12	ug/L	95
46) Methacrylonitrile	7.439	41	458306	107.46	ug/L	98
47) Benzene	7.433	78	168632	9.03	ug/L	98
48) TAME	7.525	73	121623	8.51	ug/L	99
50) Isobutyl alcohol	7.592	42	75064	184.72	ug/L	98
51) 1,2-Dichloroethane	7.646	62	57615	8.88	ug/L	99
52) Tert Amyl Alcohol	7.701	59	143320	81.40	ug/L	97
53) Trichloroethene	8.055	95	44437	8.66	ug/L	93
54) Methylcyclohexane	8.055	83	61576	9.63	ug/L	94
55) Dibromomethane	8.494	93	28982	8.58	ug/L	91
56) 1,2-Dichloropropane	8.573	63	42298	8.80	ug/L	95
57) Bromodichloromethane	8.628	83	58550	8.56	ug/L	99
58) Methyl methacrylate	8.756	41	43238	9.03	ug/L	97
59) 1,4-Dioxane	8.823	88	27052	180.67	ug/L	90
60) 2-Chloroethyl vinyl ether	9.164	63	135939	52.97	ug/L	99
61) cis-1,3-Dichloropropene	9.256	75	64922	8.62	ug/L	99
64) Toluene	9.506	91	177013	8.78	ug/L	99
65) 2-Nitropropane	9.701	41	76063	33.94	ug/L #	89
66) 4-Methyl-2-pentanone	9.829	43	504936	62.51	ug/L	99
67) trans-1,3-Dichloropropene	9.908	75	56069	8.51	ug/L	90
68) Tetrachloroethene	9.908	166	55047	9.07	ug/L	95
69) Ethyl methacrylate	10.024	69	54525	9.81	ug/L	97
70) 1,1,2-Trichloroethane	10.061	83	36759	8.91	ug/L	95
71) Dibromochloromethane	10.262	129	48493	8.29	ug/L	95
72) 1,3-Dichloropropane	10.341	76	62625	8.77	ug/L	98
73) 1,2-Dibromoethane	10.524	107	46419	8.76	ug/L	97
74) 3,3-dimethyl-1-butanol	10.609	57	680895	417.66	ug/L	99
75) 2-hexanone	10.658	43	398553	64.16	ug/L	98
76) 1-Chlorohexane	10.969	91	50488	8.93	ug/L	99
77) Ethylbenzene	11.030	91	192534	9.06	ug/L	98
78) Chlorobenzene	11.024	112	119704	8.95	ug/L	96
79) 1,1,1,2-Tetrachloroethane	11.073	131	44223	8.46	ug/L	93
80) m,p-Xylene	11.170	91	290829	17.88	ug/L	99
81) o-Xylene	11.609	91	157079	9.01	ug/L	96
82) Styrene	11.664	104	104123	8.68	ug/L	97
83) Bromoform	11.713	173	40786	8.05	ug/L	97
84) Isopropylbenzene	11.914	105	183878	9.02	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.268	53	16022	10.30	ug/L #	84
88) n-Propylbenzene	12.335	91	204965	8.89	ug/L	99
89) Bromobenzene	12.353	156	52703	8.72	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	72475	8.63	ug/L	98
91) 1,3,5-Trimethylbenzene	12.517	105	149136	8.91	ug/L	98
92) 2-Chlorotoluene	12.524	91	143165	9.07	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.578	53	15072	8.20	ug/L #	84
94) 1,2,3-Trichloropropane	12.548	110	22730	8.98	ug/L	95
95) Cyclohexanone	12.609	55	26818	51.28	ug/L	97
96) 4-Chlorotoluene	12.688	91	126546	8.67	ug/L	97
97) tert-Butylbenzene	12.853	91	80686	9.04	ug/L	95
98) 1,2,4-Trimethylbenzene	12.926	105	143502	8.72	ug/L	97
99) Pentachloroethane	12.902	167	30722	8.97	ug/L	97
100) sec-Butylbenzene	13.042	105	175674	9.06	ug/L	97
101) 4-Isopropyltoluene	13.170	119	148157	8.82	ug/L	98
102) 1,3-Dichlorobenzene	13.310	146	89376	8.53	ug/L	97
103) 1,2,3-Trimethylbenzene	13.383	105	150887	8.76	ug/L	98
104) 1,4-Dichlorobenzene	13.389	146	96932	8.58	ug/L	98
105) n-Butylbenzene	13.621	92	72015	8.63	ug/L	91
106) Benzyl Chloride	13.633	126	22829	7.88	ug/L #	73
107) 1,2-Dichlorobenzene	13.828	146	88799	8.66	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

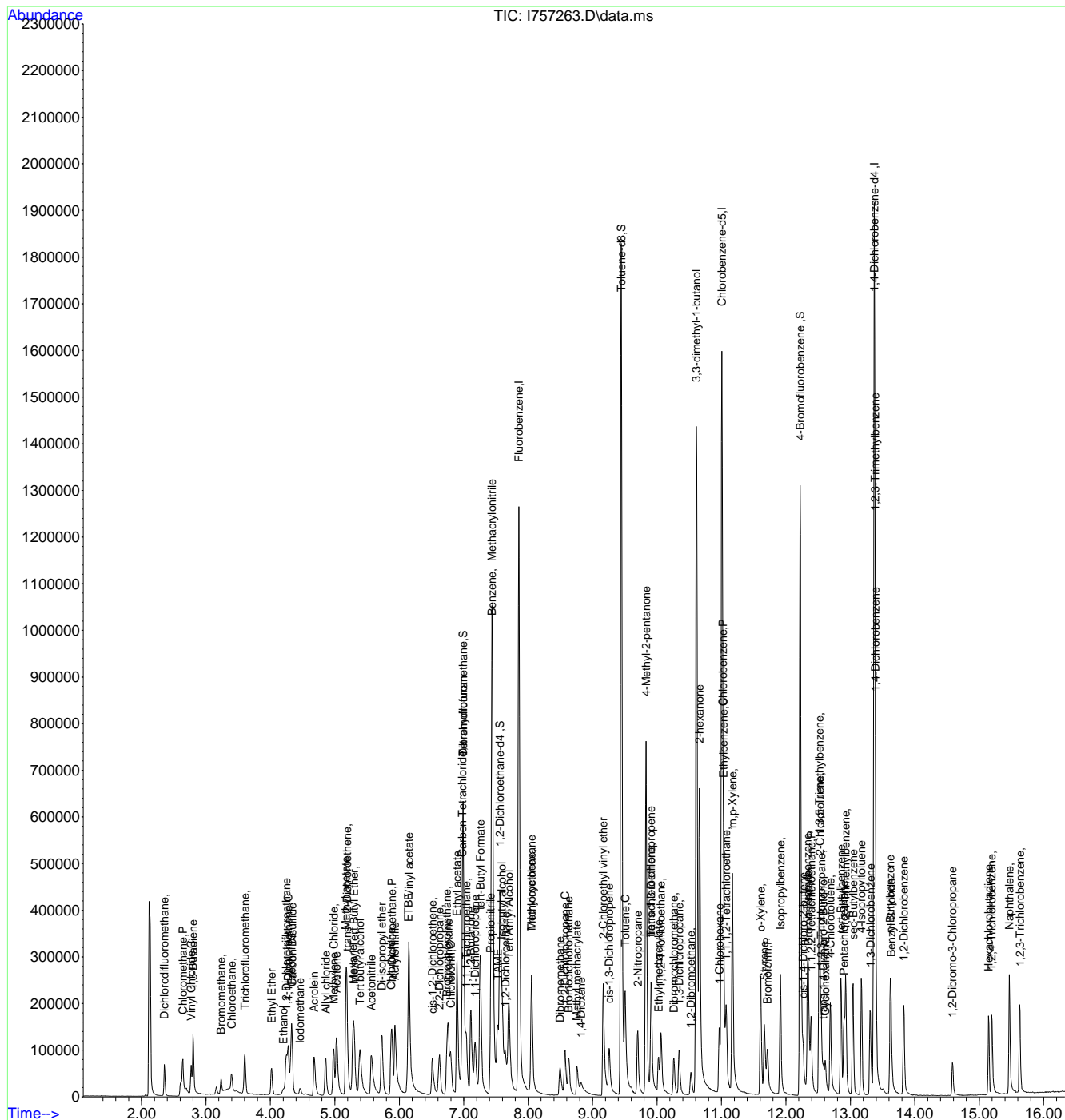
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	17681	7.99	ug/L	97
109) Hexachlorobutadiene	15.145	225	30612	8.61	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	63602	8.31	ug/L	98
111) Naphthalene	15.468	128	199734	8.37	ug/L	100
112) 1,2,3-Trichlorobenzene	15.633	180	62659	8.16	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
Data File : I757263.D  
Acq On : 15 Jun 2023 11:40 am  
Operator : joannel  
Sample : IC2948-3  
Misc : MS54130,VI2948,,,,,  
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 07:44:06 2023  
Response via : Initial Calibration



7.6.14  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948      **Method:** SW846 8260D  
**Lab FileID:** I757263.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 11:40      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

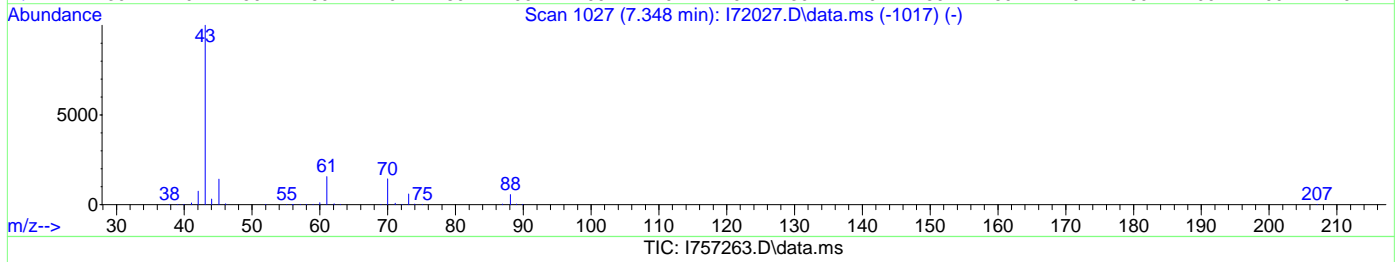
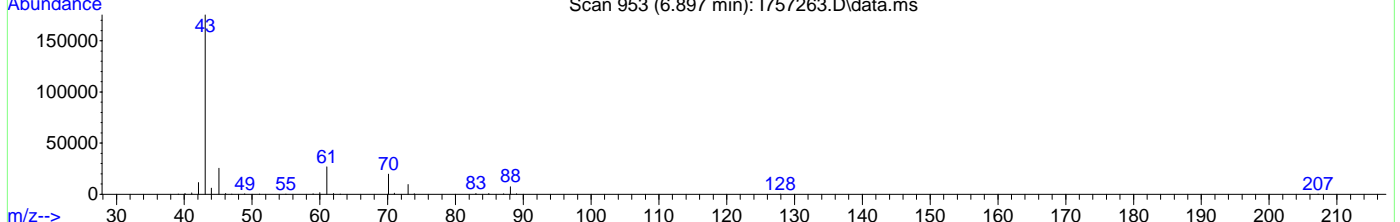
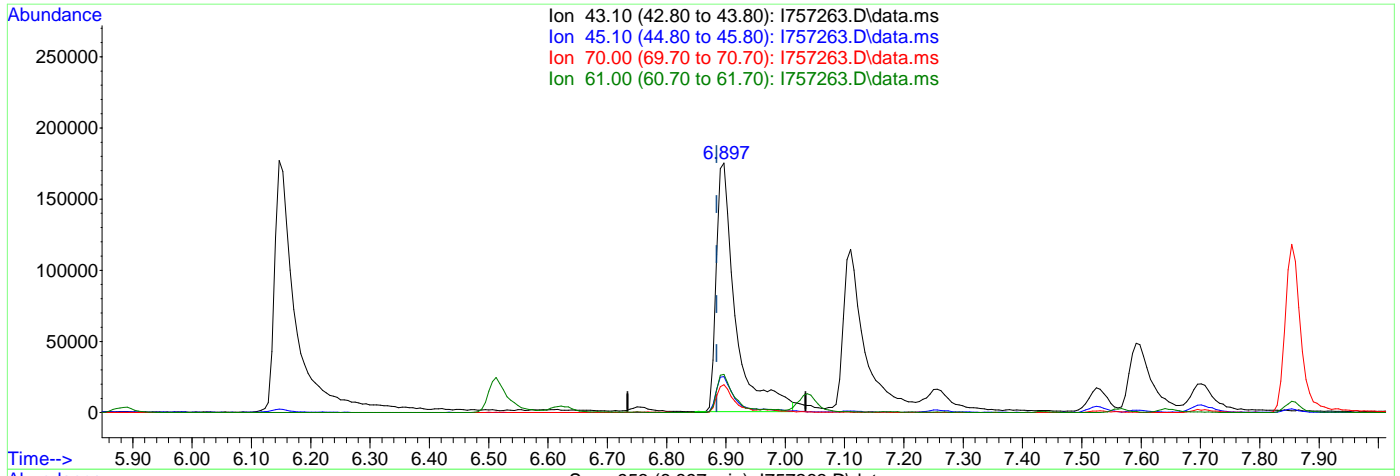
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.90	Poor instrument integration

7.6.14.1  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:17:34 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.897min (+0.012) 50.83ug/L  
 response 395126

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.44
70.00	11.10	11.24
61.00	15.10	15.26

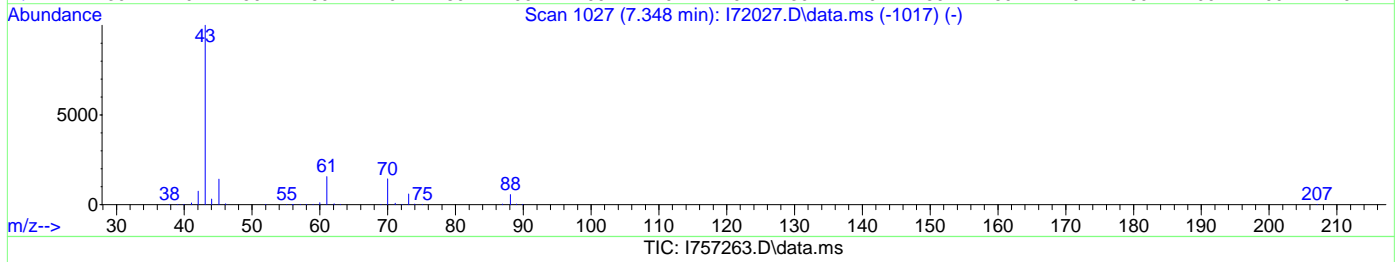
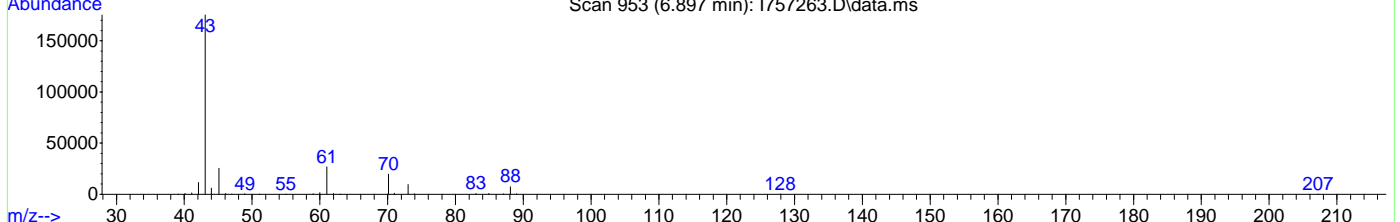
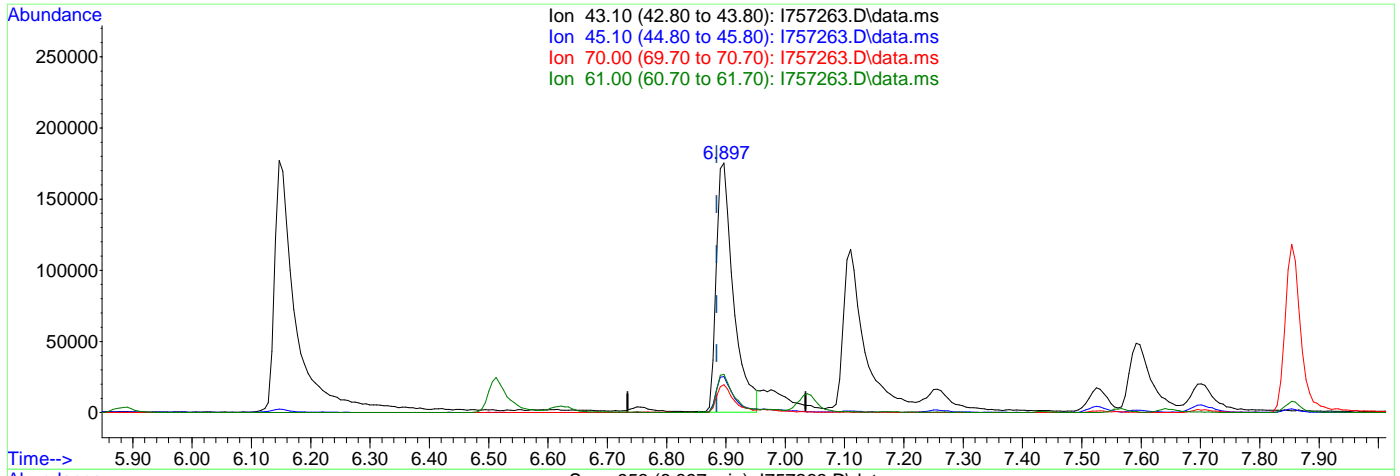
7.6.14.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:17:34 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.897min (+0.012) 45.34ug/L m

response 352467

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.39
70.00	11.10	11.20
61.00	15.10	15.30

7.6.14.3

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1142073	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	841453	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	519559	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	331108	50.92	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.84%	
49) 1,2-Dichloroethane-d4	7.561	65	307520	52.18	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	104.36%	
63) Toluene-d8	9.445	98	1216135	50.88	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	101.76%	
86) 4-Bromofluorobenzene	12.219	174	435484	49.63	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.26%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	123401	40.54	ug/L		98
3) Chloromethane	2.635	50	122259	26.30	ug/L		97
4) Vinyl Chloride	2.763	62	120249	28.08	ug/L		99
5) 1,3-Butadiene	2.794	39	116957	26.71	ug/L		94
6) Bromomethane	3.233	94	39672	24.16	ug/L		96
7) Chloroethane	3.391	64	54467	19.36	ug/L		99
8) Trichlorofluoromethane	3.598	101	165259	27.82	ug/L		99
9) Ethyl Ether	4.013	59	87674	24.04	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	118357	25.05	ug/L		97
11) 1,1-Dichloroethene	4.275	61	157664	25.12	ug/L		100
12) Ethanol	4.208	45	88728	527.45	ug/L		99
13) Freon 113	4.318	101	98252	26.32	ug/L		96
14) Carbon Disulfide	4.330	76	310548	24.26	ug/L		99
15) Iodomethane	4.458	142	75491	23.95	ug/L		95
16) Acrolein	4.671	56	203351	127.67	ug/L		97
17) Allyl chloride	4.854	41	149089	26.48	ug/L		98
18) Methylene Chloride	4.976	49	152960	20.63	ug/L		97
19) Acetone	5.025	43	367279	116.69	ug/L		98
20) Methyl acetate	5.165	43	829278	124.29	ug/L		100
21) trans-1,2-Dichloroethene	5.183	61	159712	24.21	ug/L		97
22) Hexane	5.275	56	83397	26.49	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	343713	24.04	ug/L		82
24) Tert butyl alcohol	5.385	59	487856	235.26	ug/L		99
25) Acetonitrile	5.561	41	320957	276.85	ug/L		97
26) Di-isopropyl ether	5.726	45	358030	24.33	ug/L		99
27) Chloroprene	5.866	53	159981	27.86	ug/L		99
28) 1,1-Dichloroethane	5.885	63	212657	24.35	ug/L		100
29) Acrylonitrile	5.921	53	432255	141.12	ug/L		98
30) ETBE	6.135	59	341706	23.74	ug/L		99
31) Vinyl acetate	6.141	43	1183685	149.11	ug/L		100
32) cis-1,2-Dichloroethene	6.506	96	126101	24.58	ug/L		96
33) 2,2-Dichloropropane	6.622	77	159756	23.98	ug/L		98
34) Bromochloromethane	6.732	128	65120	24.58	ug/L		95
35) Cyclohexane	6.756	56	181525	26.54	ug/L		97
36) Chloroform	6.793	83	216996	23.92	ug/L		95
37) Ethyl acetate	6.884	43	987700m	130.20	ug/L		
38) Tetrahydrofuran	6.976	42	88860	23.29	ug/L		98
40) Carbon Tetrachloride	6.976	117	157358	23.58	ug/L		96
41) 1,1,1-Trichloroethane	7.037	97	183726	24.32	ug/L		98
42) 2-Butanone	7.104	43	566161	130.89	ug/L		99
43) 1,1-Dichloropropene	7.171	75	147933	24.78	ug/L		97
44) tert-Butyl Formate	7.256	59	428195	113.90	ug/L		97



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	401271	282.59	ug/L	99
46) Methacrylonitrile	7.439	41	1114582	267.79	ug/L	99
47) Benzene	7.433	78	439315	24.11	ug/L	96
48) TAME	7.524	73	328029	23.53	ug/L	99
50) Isobutyl alcohol	7.585	42	207501	523.25	ug/L	100
51) 1,2-Dichloroethane	7.634	62	151370	23.90	ug/L	96
52) Tert Amyl Alcohol	7.695	59	405886	236.21	ug/L	99
53) Trichloroethene	8.049	95	119791	23.91	ug/L	99
54) Methylcyclohexane	8.049	83	163775	26.25	ug/L	98
55) Dibromomethane	8.488	93	76487	23.19	ug/L	96
56) 1,2-Dichloropropane	8.567	63	111693	23.80	ug/L	98
57) Bromodichloromethane	8.628	83	155691	23.33	ug/L	95
58) Methyl methacrylate	8.744	41	129240	27.67	ug/L	98
59) 1,4-Dioxane	8.817	88	75260	515.05	ug/L	97
60) 2-Chloroethyl vinyl ether	9.158	63	340084	135.80	ug/L	99
61) cis-1,3-Dichloropropene	9.256	75	177893	24.19	ug/L	100
64) Toluene	9.500	91	471742	23.67	ug/L	99
65) 2-Nitropropane	9.695	41	224988	101.59	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	1021421	127.95	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	163612	25.12	ug/L	92
68) Tetrachloroethene	9.908	166	145008	24.19	ug/L	97
69) Ethyl methacrylate	10.012	69	156321	28.46	ug/L	100
70) 1,1,2-Trichloroethane	10.061	83	96404	23.64	ug/L	94
71) Dibromochloromethane	10.256	129	136522	23.61	ug/L	99
72) 1,3-Dichloropropane	10.341	76	173025	24.53	ug/L	98
73) 1,2-Dibromoethane	10.518	107	127526	24.36	ug/L	96
74) 3,3-dimethyl-1-butanol	10.609	57	1847436m	1146.73	ug/L	
75) 2-hexanone	10.658	43	813108	132.46	ug/L	98
76) 1-Chlorohexane	10.963	91	134403	24.06	ug/L	98
77) Ethylbenzene	11.024	91	508587	24.23	ug/L	99
78) Chlorobenzene	11.024	112	315624	23.89	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	121277	23.49	ug/L	98
80) m,p-Xylene	11.164	91	778912	48.47	ug/L	99
81) o-Xylene	11.603	91	410697	23.84	ug/L	99
82) Styrene	11.658	104	295497	24.91	ug/L	98
83) Bromoform	11.713	173	114341	22.84	ug/L	97
84) Isopropylbenzene	11.914	105	489514	24.29	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.261	53	45480	28.94	ug/L	96
88) n-Propylbenzene	12.335	91	555114	23.84	ug/L	99
89) Bromobenzene	12.347	156	141780	23.21	ug/L	94
90) 1,1,2,2-Tetrachloroethane	12.389	83	194524	22.93	ug/L	99
91) 1,3,5-Trimethylbenzene	12.517	105	398464	23.57	ug/L	97
92) 2-Chlorotoluene	12.517	91	381256	23.91	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.572	53	48134	25.92	ug/L	91
94) 1,2,3-Trichloropropene	12.548	110	61620	24.09	ug/L	98
95) Cyclohexanone	12.609	55	70530	133.49	ug/L	95
96) 4-Chlorotoluene	12.682	91	338272	22.94	ug/L	98
97) tert-Butylbenzene	12.853	91	208752	23.16	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	389813	23.44	ug/L	98
99) Pentachloroethane	12.901	167	86066	24.86	ug/L	97
100) sec-Butylbenzene	13.036	105	457129	23.34	ug/L	100
101) 4-Isopropyltoluene	13.170	119	398818	23.49	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	246261	23.25	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	399815	22.97	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	258090	22.61	ug/L	99
105) n-Butylbenzene	13.615	92	201890	23.95	ug/L	87
106) Benzyl Chloride	13.627	126	68414	23.36	ug/L #	78
107) 1,2-Dichlorobenzene	13.828	146	238098	22.98	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

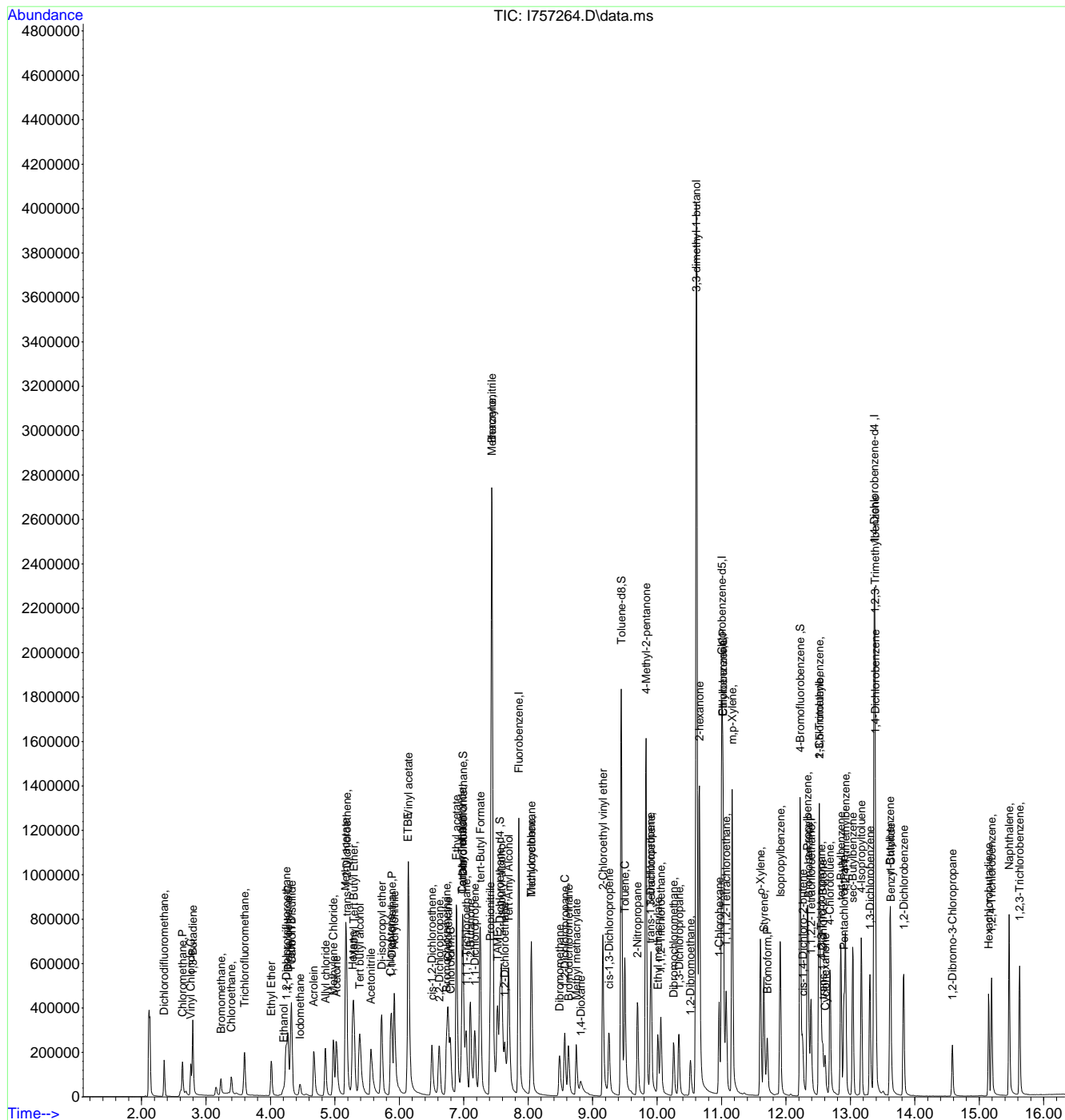
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	49786	22.27	ug/L	88
109) Hexachlorobutadiene	15.145	225	81164	22.60	ug/L	95
110) 1,2,4-Trichlorobenzene	15.194	180	175341	22.66	ug/L	98
111) Naphthalene	15.462	128	565147	23.44	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	174154	22.44	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7.6.15  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757264.D  
**Injection Time:** 06/15/23 12:04

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.61	Overlapping peak

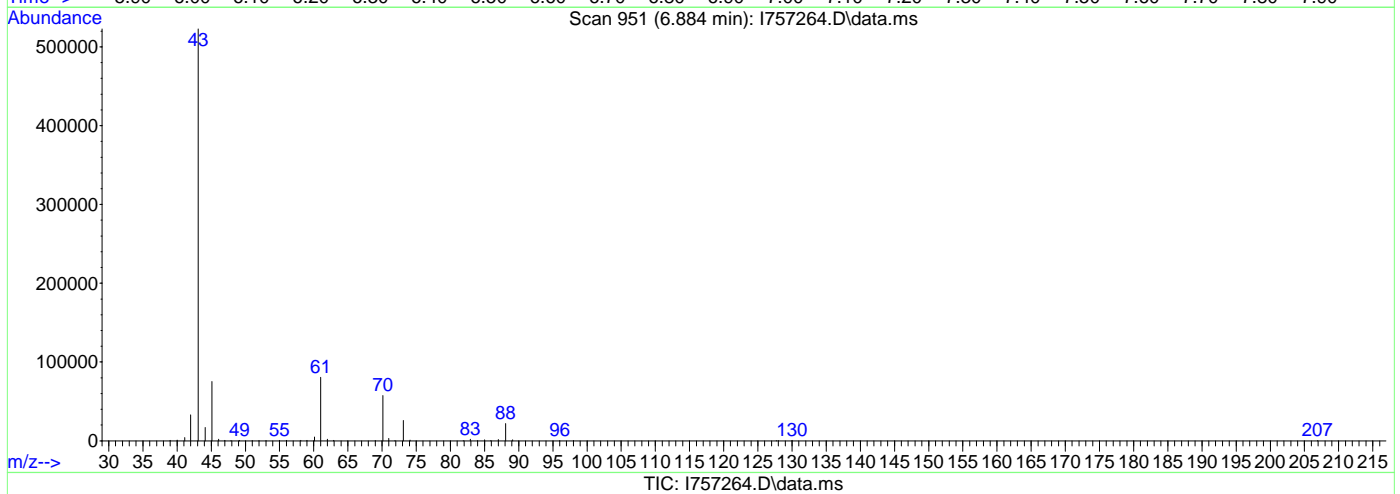
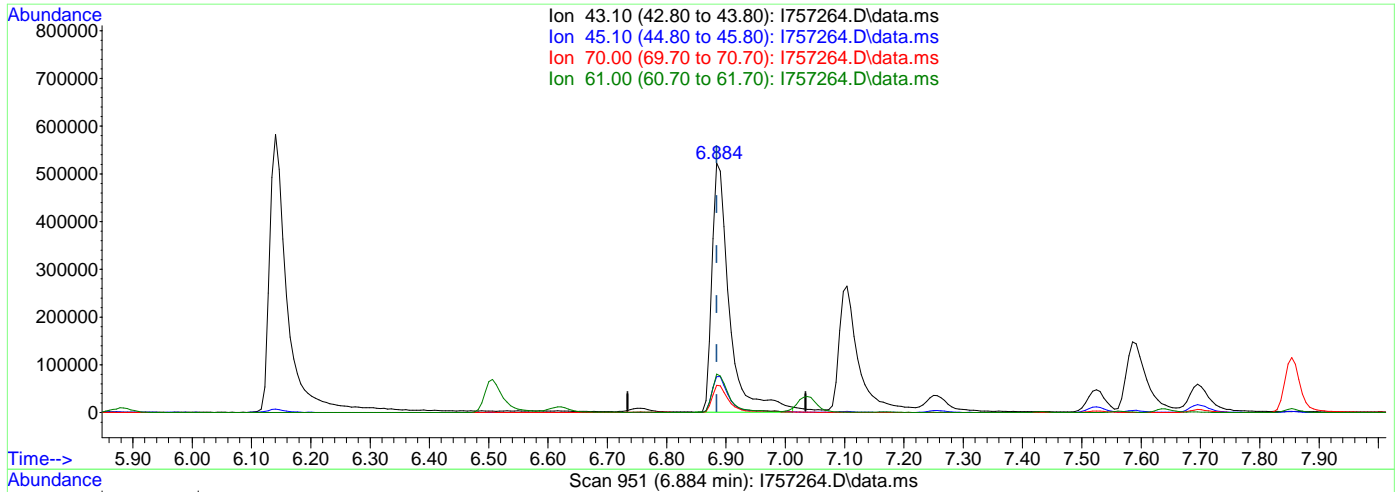
7.6.15.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 140.54ug/L

response 1066129

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.41
70.00	11.10	11.01
61.00	15.10	15.43

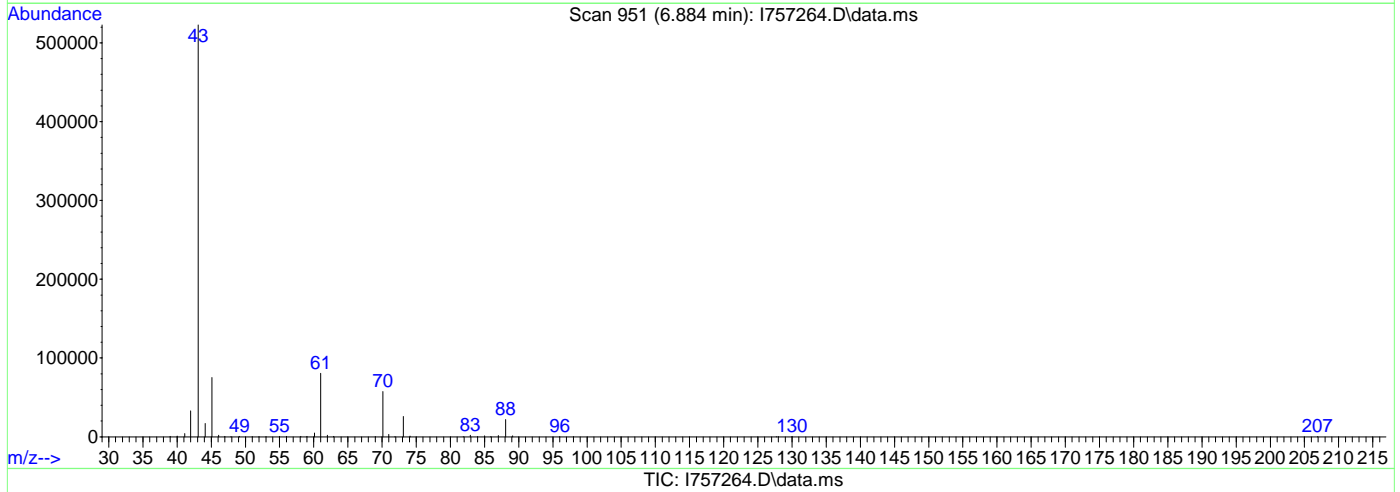
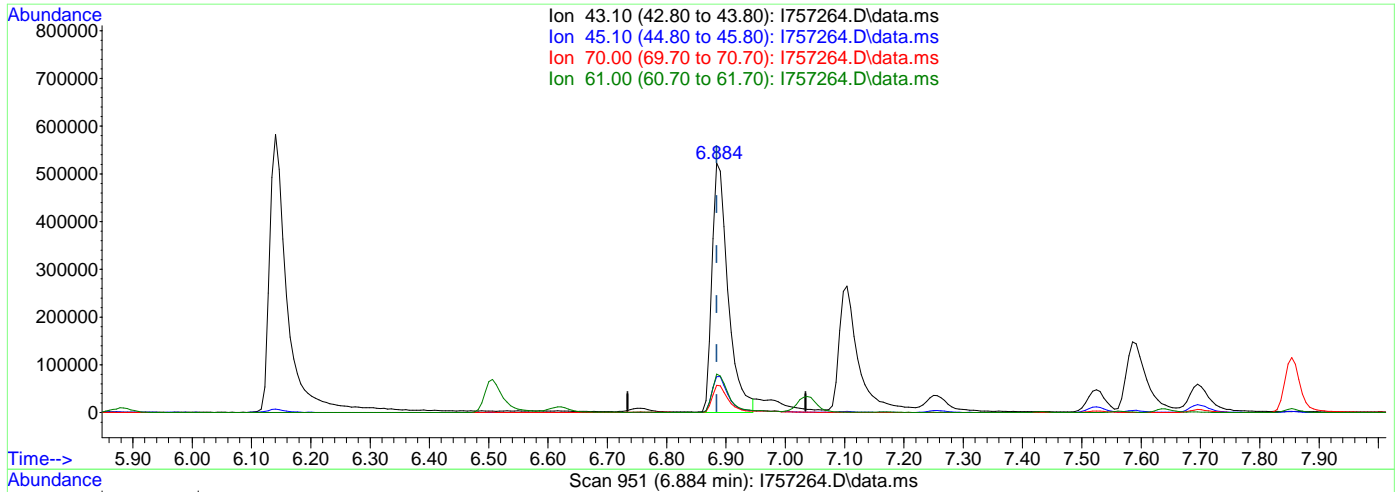
7.6.15.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 130.20ug/L m

response 987700

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.38
70.00	11.10	10.99
61.00	15.10	15.40

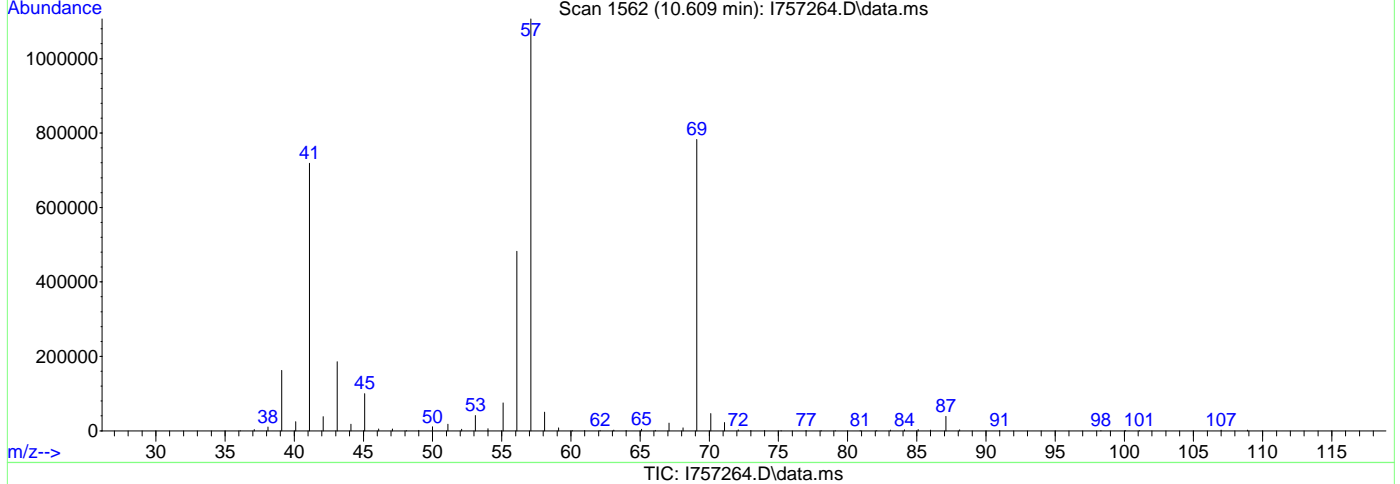
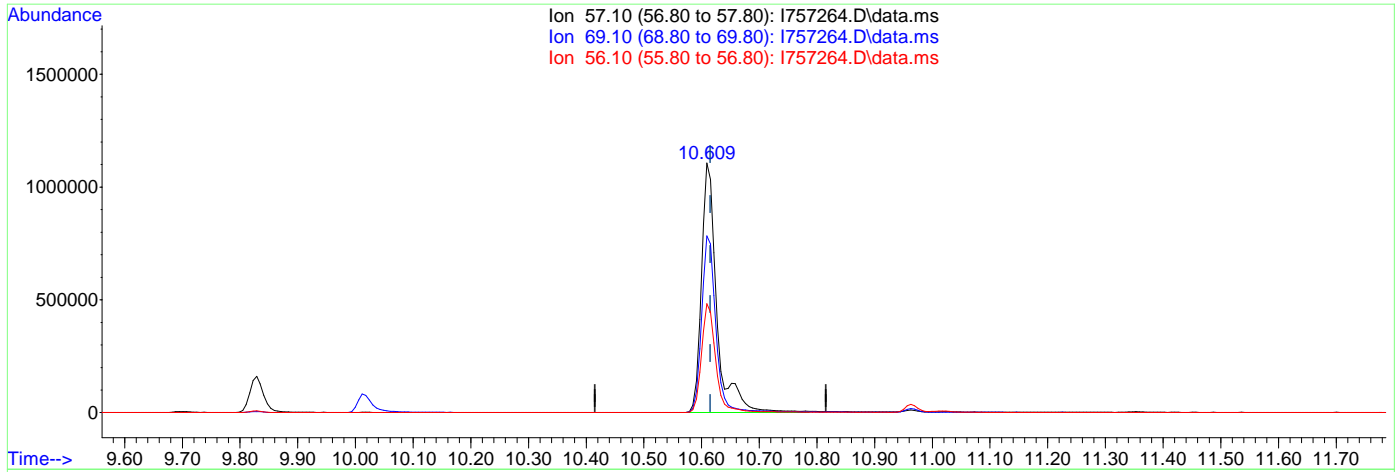
7.6.15.3

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.609min (-0.006) 1292.29ug/L

response 2081939

Ion Exp% Act%

57.10 100 100

69.10 72.40 70.72

56.10 43.50 43.61

0.00 0.00 0.00

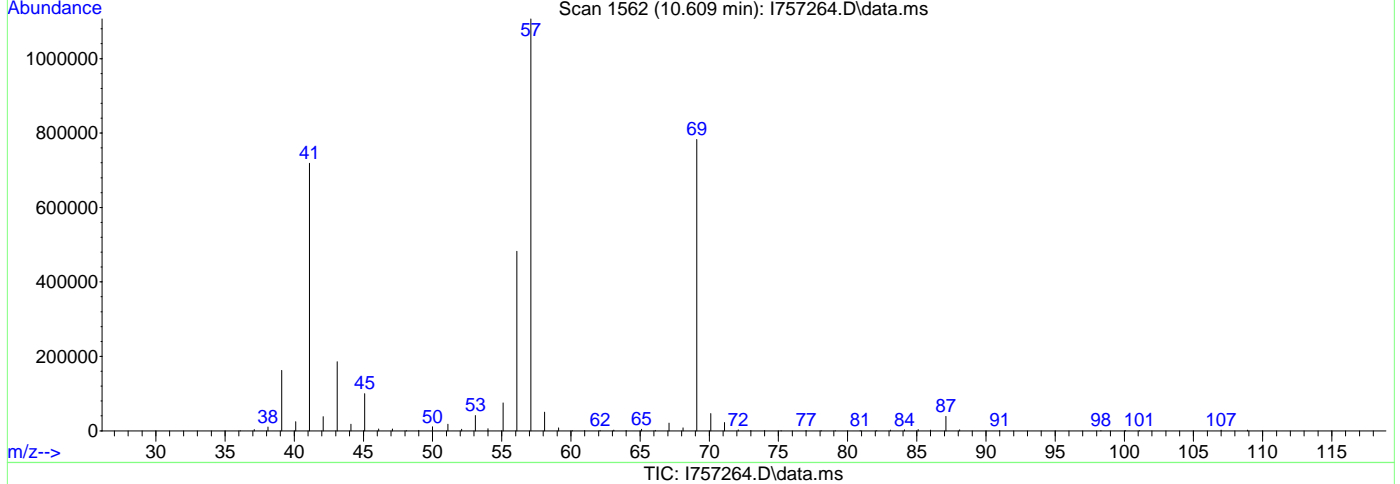
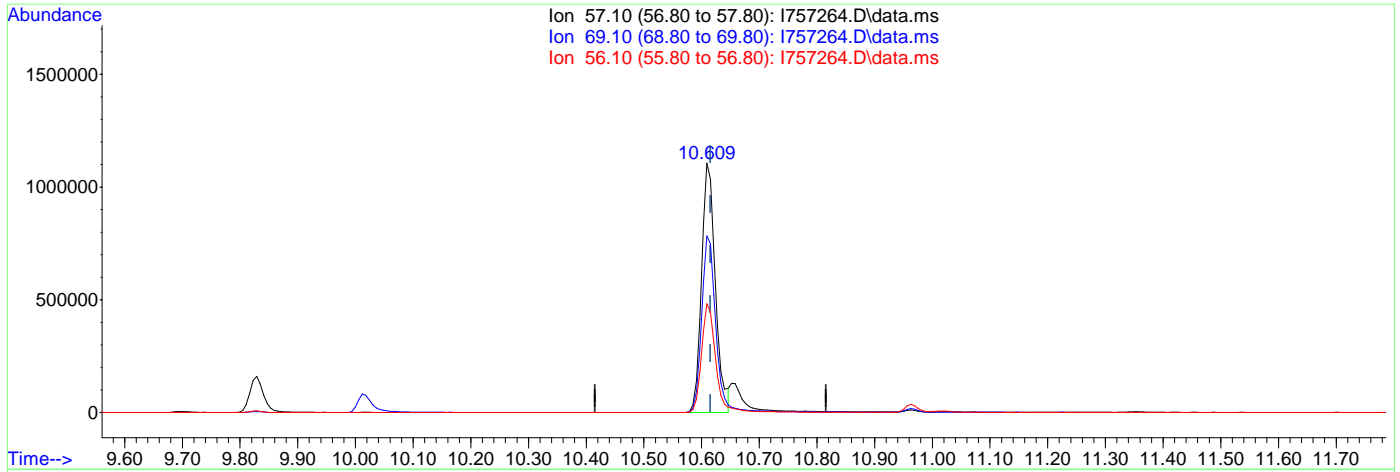
7.6.15.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.609min (-0.006) 1146.73ug/L m

response 1847436

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	70.72
56.10	43.50	43.61
0.00	0.00	0.00

7.6.15.5

7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1166537	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	854326	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	520019	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	334259	50.33	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.66%	
49) 1,2-Dichloroethane-d4	7.561	65	296036	49.17	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	98.34%	
63) Toluene-d8	9.445	98	1244986	51.31	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.62%	
86) 4-Bromofluorobenzene	12.219	174	444507	50.61	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.22%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	182621	58.74	ug/L		96
3) Chloromethane	2.641	50	201944	42.53	ug/L		97
4) Vinyl Chloride	2.769	62	191363	43.75	ug/L		100
5) 1,3-Butadiene	2.800	39	154425	34.52	ug/L		99
6) Bromomethane	3.233	94	68110	40.60	ug/L		97
7) Chloroethane	3.397	64	82605	28.74	ug/L		97
8) Trichlorofluoromethane	3.599	101	258761	42.65	ug/L		99
9) Ethyl Ether	4.019	59	142761	38.33	ug/L		99
10) 1,2-Dichlorotrifluoro...	4.245	67	170607	35.35	ug/L		100
11) 1,1-Dichloroethene	4.275	61	229523	35.80	ug/L		99
12) Ethanol	4.214	45	123696	719.90	ug/L		92
13) Freon 113	4.324	101	136435	35.78	ug/L		97
14) Carbon Disulfide	4.330	76	455867	34.87	ug/L		99
15) Iodomethane	4.464	142	131799	40.93	ug/L		94
16) Acrolein	4.678	56	317529	195.17	ug/L		98
17) Allyl chloride	4.854	41	223193	38.82	ug/L		100
18) Methylene Chloride	4.982	49	243443	32.14	ug/L		97
19) Acetone	5.025	43	592210	184.21	ug/L		99
20) Methyl acetate	5.171	43	1339516	196.56	ug/L		100
21) trans-1,2-Dichloroethene	5.184	61	250466	37.17	ug/L		98
22) Hexane	5.275	56	115096	35.79	ug/L		99
23) Methyl Tert Butyl Ether	5.299	73	556704	38.12	ug/L		99
24) Tert butyl alcohol	5.391	59	773591	365.23	ug/L		99
25) Acetonitrile	5.562	41	464909	392.62	ug/L		99
26) Di-isopropyl ether	5.726	45	579224	38.54	ug/L		99
27) Chloroprene	5.866	53	231638	39.50	ug/L		98
28) 1,1-Dichloroethane	5.885	63	333379	37.37	ug/L		99
29) Acrylonitrile	5.921	53	650048	207.77	ug/L		99
30) ETBE	6.141	59	554989	37.76	ug/L		99
31) Vinyl acetate	6.141	43	1888225	232.87	ug/L		100
32) cis-1,2-Dichloroethene	6.507	96	204398	39.00	ug/L		98
33) 2,2-Dichloropropane	6.616	77	245669	36.10	ug/L		99
34) Bromochloromethane	6.732	128	106603	39.39	ug/L		97
35) Cyclohexane	6.756	56	247299	35.40	ug/L		99
36) Chloroform	6.793	83	344379	37.16	ug/L		99
37) Ethyl acetate	6.884	43	1529158m	197.35	ug/L		
38) Tetrahydrofuran	6.982	42	139307	35.75	ug/L		96
40) Carbon Tetrachloride	6.976	117	230609	33.84	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	278496	36.09	ug/L		98
42) 2-Butanone	7.104	43	952122	215.50	ug/L		98
43) 1,1-Dichloropropene	7.171	75	222199	36.44	ug/L		98
44) tert-Butyl Formate	7.256	59	740909	192.96	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	598918	412.93	ug/L	99
46) Methacrylonitrile	7.439	41	1697753	399.35	ug/L	99
47) Benzene	7.433	78	692390	37.21	ug/L	98
48) TAME	7.525	73	535664	37.62	ug/L	99
50) Isobutyl alcohol	7.592	42	309173	763.28	ug/L	99
51) 1,2-Dichloroethane	7.634	62	242762	37.52	ug/L	98
52) Tert Amyl Alcohol	7.701	59	640815	365.11	ug/L	99
53) Trichloroethene	8.043	95	185862	36.32	ug/L	96
54) Methylcyclohexane	8.049	83	221748	34.79	ug/L	96
55) Dibromomethane	8.482	93	129050	38.31	ug/L	97
56) 1,2-Dichloropropane	8.567	63	183980	38.38	ug/L	97
57) Bromodichloromethane	8.622	83	257539	37.78	ug/L	97
58) Methyl methacrylate	8.744	41	210861	44.19	ug/L	99
59) 1,4-Dioxane	8.817	88	117028	784.10	ug/L	99
60) 2-Chloroethyl vinyl ether	9.158	63	593745	232.12	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	295539	39.35	ug/L	98
64) Toluene	9.500	91	750341	37.08	ug/L	100
65) 2-Nitropropane	9.695	41	379148	168.62	ug/L	95
66) 4-Methyl-2-pentanone	9.829	43	1678825	207.13	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	271105	40.99	ug/L	99
68) Tetrachloroethene	9.908	166	219030	35.98	ug/L	99
69) Ethyl methacrylate	10.012	69	248557	44.57	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	158587	38.29	ug/L	96
71) Dibromochloromethane	10.256	129	225563	38.43	ug/L	99
72) 1,3-Dichloropropane	10.335	76	288197	40.24	ug/L	98
73) 1,2-Dibromoethane	10.512	107	209118	39.35	ug/L	98
74) 3,3-dimethyl-1-butanol	10.615	57	3131387m	1914.41	ug/L	
75) 2-hexanone	10.652	43	1339111	214.87	ug/L	99
76) 1-Chlorohexane	10.963	91	199880	35.24	ug/L	98
77) Ethylbenzene	11.024	91	798640	37.48	ug/L	99
78) Chlorobenzene	11.024	112	502093	37.43	ug/L	100
79) 1,1,1,2-Tetrachloroethane	11.073	131	196579	37.50	ug/L	97
80) m,p-Xylene	11.164	91	1239446	75.96	ug/L	99
81) o-Xylene	11.603	91	657175	37.56	ug/L	100
82) Styrene	11.652	104	486047	40.36	ug/L	98
83) Bromoform	11.707	173	196079	38.58	ug/L	98
84) Isopropylbenzene	11.908	105	761094	37.20	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	75622	48.08	ug/L	97
88) n-Propylbenzene	12.329	91	862714	37.02	ug/L	99
89) Bromobenzene	12.347	156	229940	37.61	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	314457	37.03	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	628043	37.11	ug/L	98
92) 2-Chlorotoluene	12.518	91	594873	37.27	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.572	53	80234	43.16	ug/L	88
94) 1,2,3-Trichloropropane	12.548	110	97844	38.21	ug/L	96
95) Cyclohexanone	12.609	55	103175	195.11	ug/L	95
96) 4-Chlorotoluene	12.682	91	553528	37.50	ug/L	99
97) tert-Butylbenzene	12.853	91	326827	36.23	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	628585	37.77	ug/L	100
99) Pentachloroethane	12.902	167	135998	39.26	ug/L	99
100) sec-Butylbenzene	13.036	105	694898	35.45	ug/L	99
101) 4-Isopropyltoluene	13.170	119	621444	36.57	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	402322	37.95	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	651749	37.41	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	416829	36.49	ug/L	98
105) n-Butylbenzene	13.615	92	314533	37.28	ug/L	98
106) Benzyl Chloride	13.627	126	117131	39.96	ug/L	95
107) 1,2-Dichlorobenzene	13.822	146	390846	37.69	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

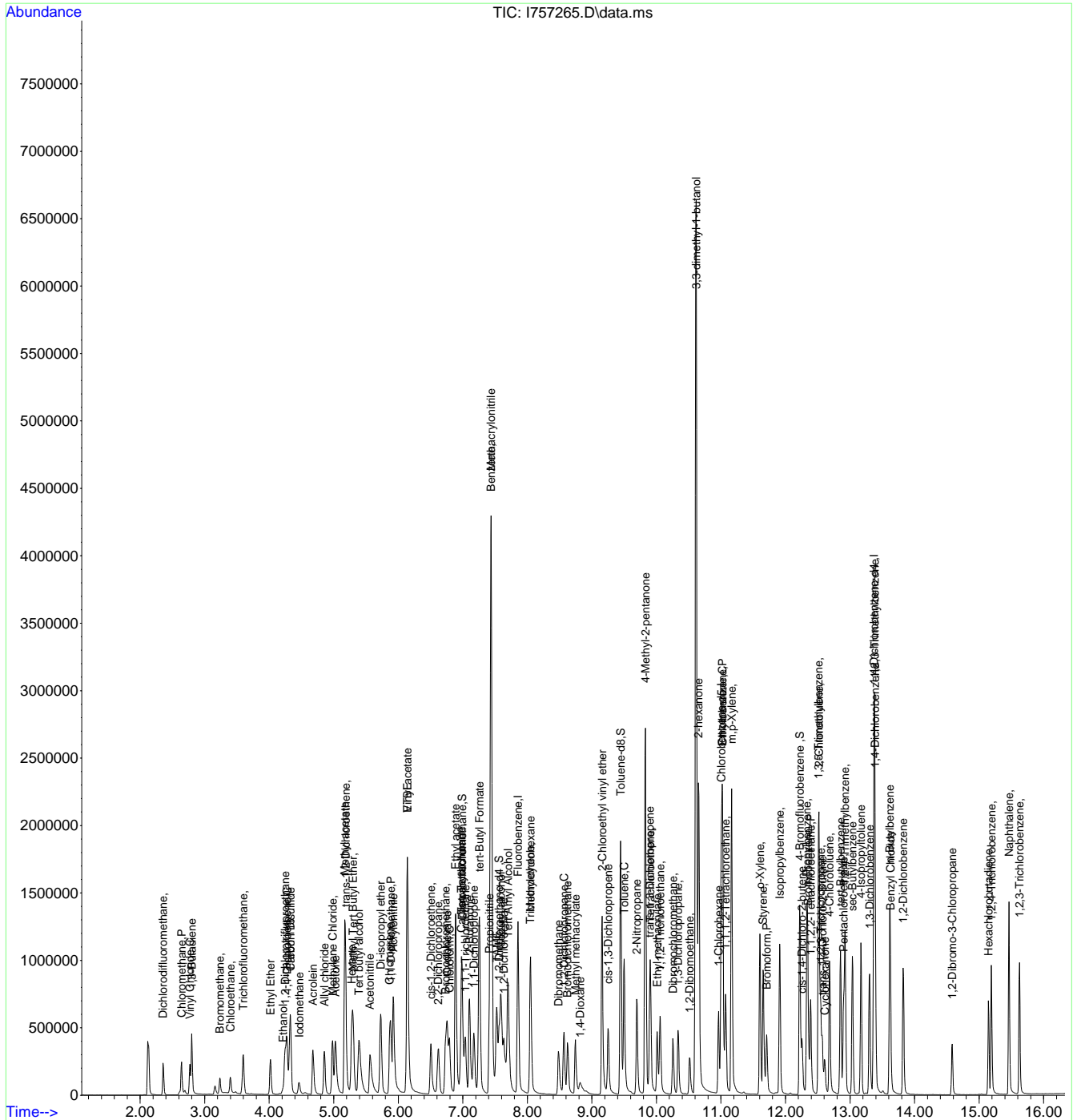
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	82482	36.86	ug/L	85
109) Hexachlorobutadiene	15.145	225	122217	33.99	ug/L	99
110) 1,2,4-Trichlorobenzene	15.188	180	291468	37.64	ug/L	99
111) Naphthalene	15.462	128	943187	39.09	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	288419	37.13	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7  
 16.19

# Manual Integration Approval Summary

**Sample Number:** VI2948-ICC2948      **Method:** SW846 8260D  
**Lab FileID:** I757265.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 12:28      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

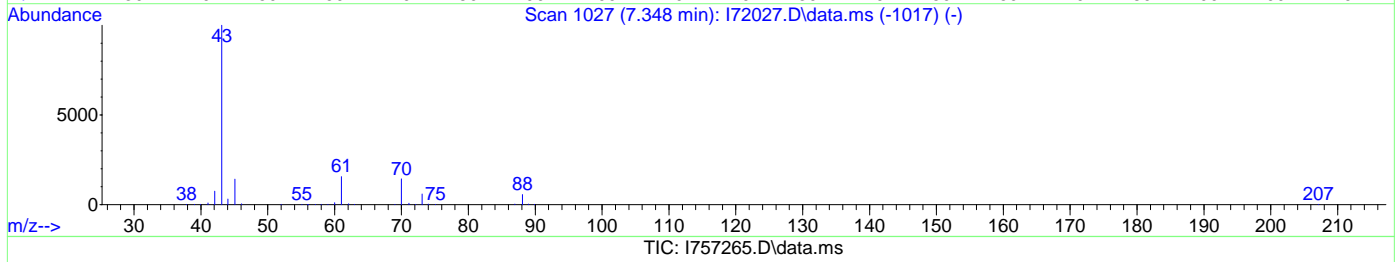
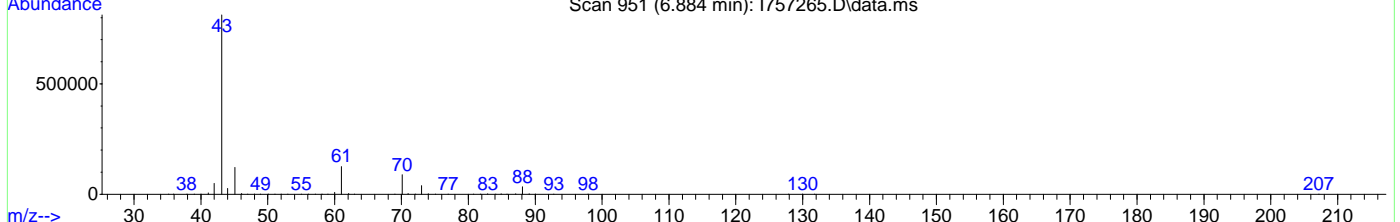
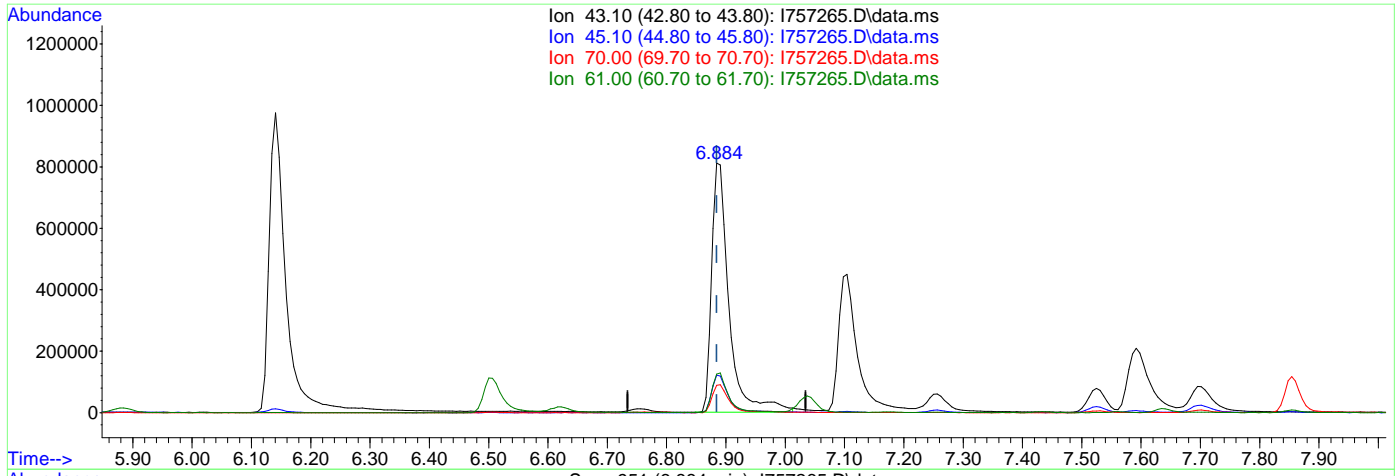
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (0.000) 212.10ug/L

response 1643408

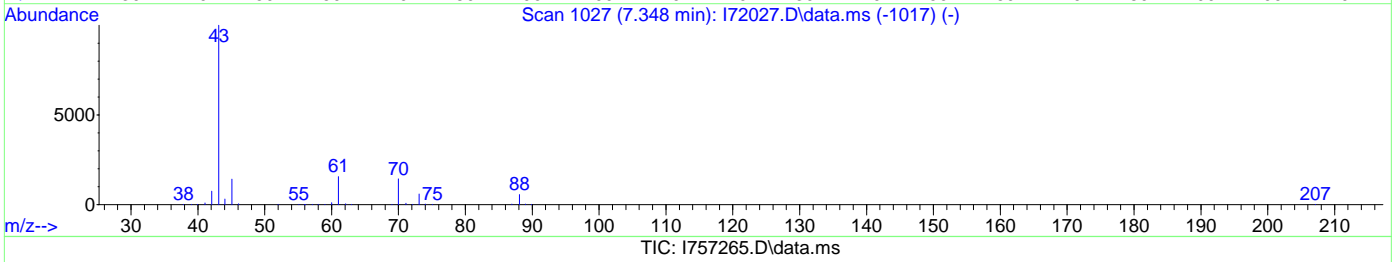
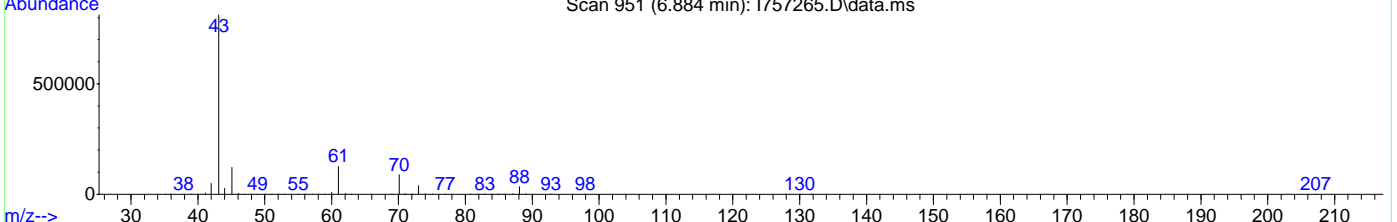
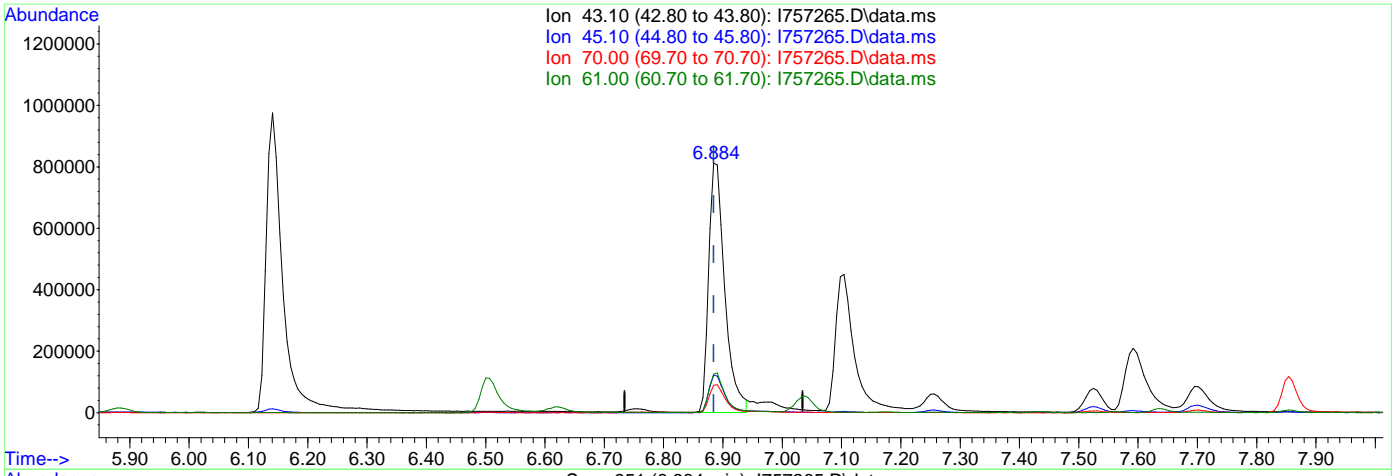
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	15.03
70.00	11.10	10.95
61.00	15.10	15.39

7.6.16.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (0.000) 197.35ug/L m

response 1529158

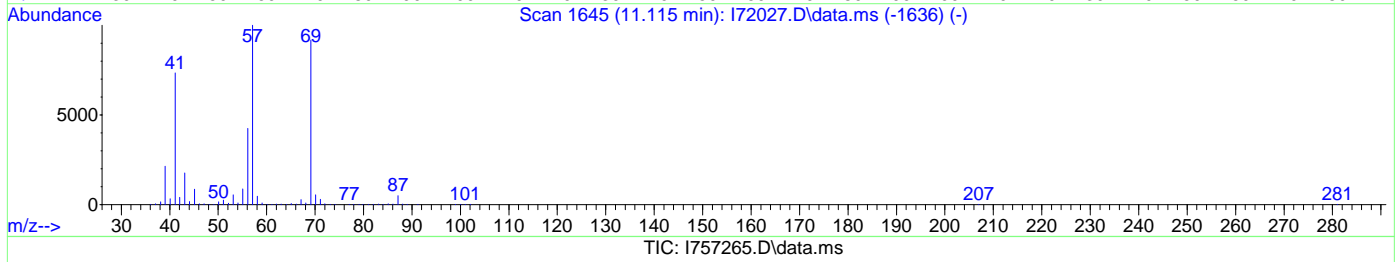
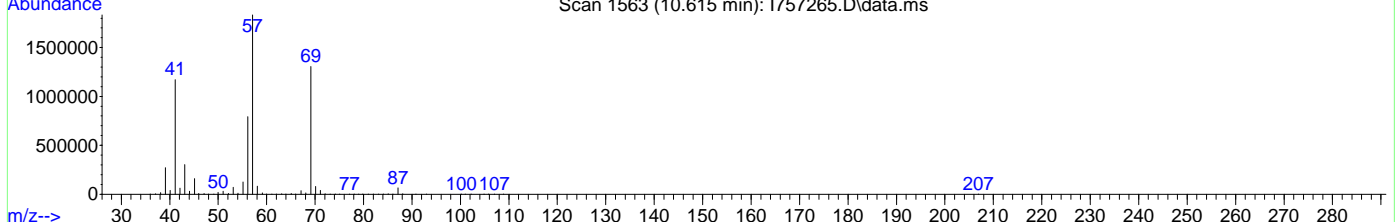
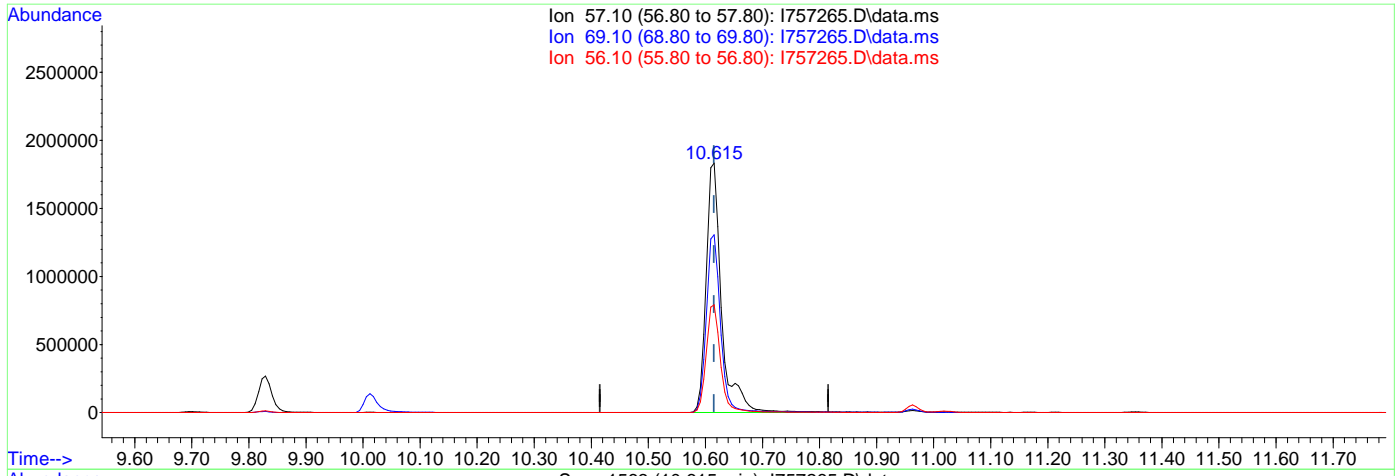
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	15.00
70.00	11.10	10.94
61.00	15.10	15.40

7.6.16.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (0.000) 2122.75ug/L

response 3472164

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.16
56.10	43.50	43.16
0.00	0.00	0.00

7.6.16.4

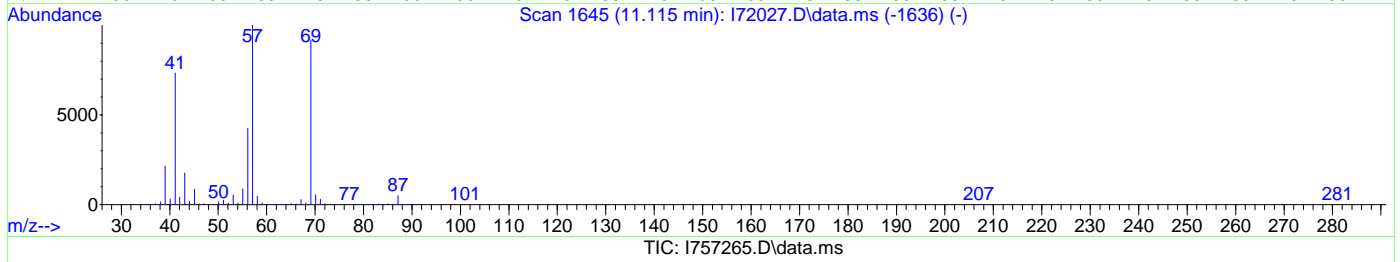
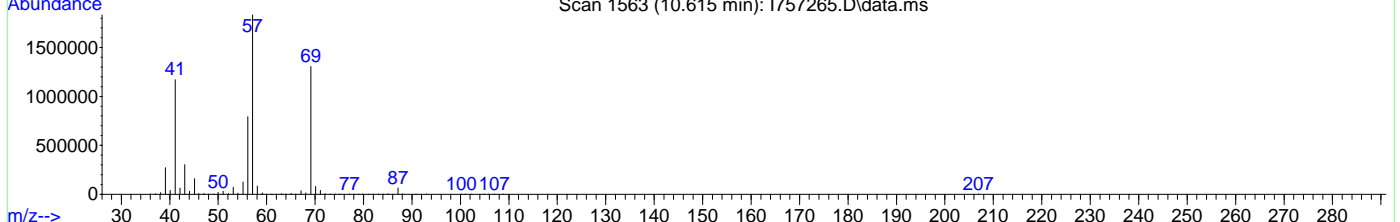
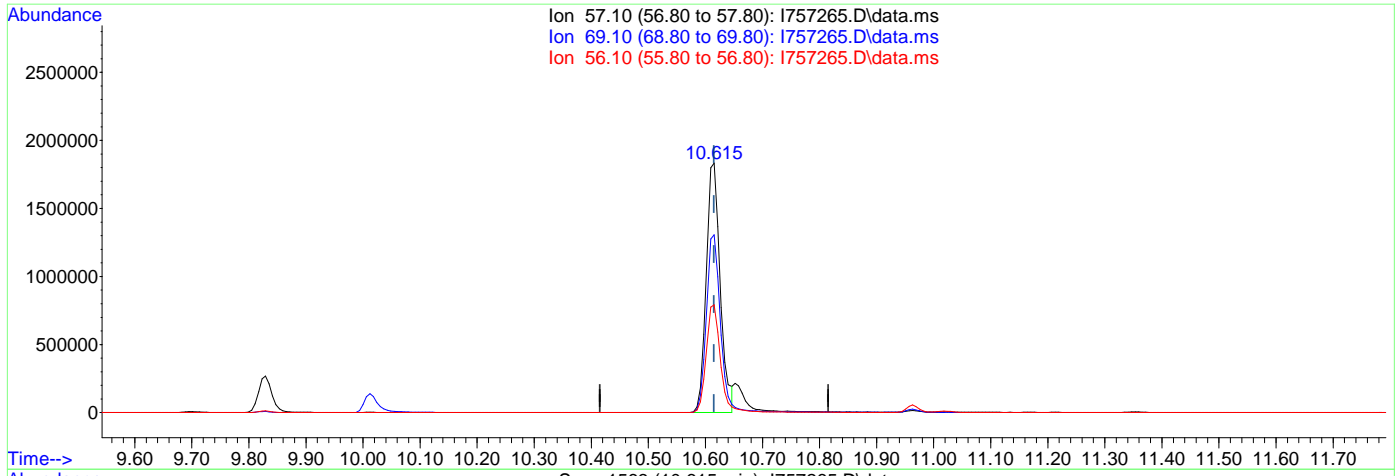
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (0.000) 1914.41ug/L m

response 3131387

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.17
56.10	43.50	43.16
0.00	0.00	0.00

7.6.16.5

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1138029	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	831988	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	503532	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	323610	49.95	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.90%		
49) 1,2-Dichloroethane-d4	7.561	65	282841	48.16	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	96.32%		
63) Toluene-d8	9.445	98	1218241	51.55	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	103.10%		
86) 4-Bromofluorobenzene	12.219	174	431197	50.70	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.40%		
Target Compounds							
2) Dichlorodifluoromethane	2.355	85	344607	113.62	ug/L	98	
3) Chloromethane	2.641	50	361058	77.95	ug/L	96	
4) Vinyl Chloride	2.769	62	353817	82.91	ug/L	100	
5) 1,3-Butadiene	2.794	39	293190	67.19	ug/L	96	
6) Bromomethane	3.233	94	128964	78.80	ug/L	97	
7) Chloroethane	3.397	64	146142	52.12	ug/L	98	
8) Trichlorofluoromethane	3.586	101	474370	80.15	ug/L	99	
9) Ethyl Ether	4.019	59	267331	73.57	ug/L	99	
10) 1,2-Dichlorotrifluoro...	4.245	67	341824	72.61	ug/L	99	
11) 1,1-Dichloroethene	4.269	61	457067	73.08	ug/L	99	
12) Ethanol	4.239	45	242106	1444.33	ug/L	96	
13) Freon 113	4.312	101	283774	76.29	ug/L	96	
14) Carbon Disulfide	4.324	76	914181	71.67	ug/L	99	
15) Iodomethane	4.458	142	224443	71.45	ug/L	95	
16) Acrolein	4.678	56	638813	402.48	ug/L	98	
17) Allyl chloride	4.848	41	423106	75.42	ug/L	99	
18) Methylene Chloride	4.976	49	437203	59.17	ug/L	97	
19) Acetone	5.025	43	1118484	356.63	ug/L	99	
20) Methyl acetate	5.171	43	2574551	387.25	ug/L	99	
21) trans-1,2-Dichloroethene	5.178	61	479133	72.89	ug/L	96	
22) Hexane	5.275	56	229392	73.12	ug/L	94	
23) Methyl Tert Butyl Ether	5.299	73	1032320	72.46	ug/L	94	
24) Tert butyl alcohol	5.409	59	1502043	726.91	ug/L	98	
25) Acetonitrile	5.562	41	850057	735.86	ug/L	99	
26) Di-isopropyl ether	5.726	45	1070915	73.04	ug/L	99	
27) Chloroprene	5.860	53	464523	81.19	ug/L	100	
28) 1,1-Dichloroethane	5.885	63	633303	72.76	ug/L	99	
29) Acrylonitrile	5.921	53	1219243	399.46	ug/L	99	
30) ETBE	6.141	59	1022168	71.28	ug/L	99	
31) Vinyl acetate	6.141	43	3548188	448.56	ug/L	100	
32) cis-1,2-Dichloroethene	6.500	96	385851	75.46	ug/L	99	
33) 2,2-Dichloropropane	6.616	77	476079	71.72	ug/L	99	
34) Bromochloromethane	6.726	128	192102	72.77	ug/L	96	
35) Cyclohexane	6.750	56	501334	73.57	ug/L	99	
36) Chloroform	6.787	83	650004	71.90	ug/L	98	
37) Ethyl acetate	6.885	43	2921852m	386.54	ug/L		
38) Tetrahydrofuran	6.982	42	261201	68.70	ug/L	96	
40) Carbon Tetrachloride	6.970	117	464975	69.93	ug/L	99	
41) 1,1,1-Trichloroethane	7.037	97	542706	72.10	ug/L	99	
42) 2-Butanone	7.098	43	1843738	427.76	ug/L	100	
43) 1,1-Dichloropropene	7.171	75	434784	73.09	ug/L	98	
44) tert-Butyl Formate	7.256	59	1403769	374.74	ug/L	99	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	1154960	816.26	ug/L	83
46) Methacrylonitrile	7.439	41	3182848	767.43	ug/L	99
47) Benzene	7.427	78	1297518	71.47	ug/L	89
48) TAME	7.525	73	981413	70.64	ug/L	98
50) Isobutyl alcohol	7.604	42	631882	1599.05	ug/L	98
51) 1,2-Dichloroethane	7.634	62	450262	71.34	ug/L	99
52) Tert Amyl Alcohol	7.708	59	1260145	735.96	ug/L	99
53) Trichloroethene	8.043	95	360443	72.20	ug/L	99
54) Methylcyclohexane	8.049	83	459897	73.96	ug/L	99
55) Dibromomethane	8.476	93	238778	72.66	ug/L	98
56) 1,2-Dichloropropane	8.561	63	345024	73.78	ug/L	99
57) Bromodichloromethane	8.622	83	485805	73.05	ug/L	96
58) Methyl methacrylate	8.738	41	408012	87.65	ug/L	99
59) 1,4-Dioxane	8.829	88	229753	1577.92	ug/L	98
60) 2-Chloroethyl vinyl ether	9.152	63	1097713	439.90	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	558566	76.23	ug/L	98
64) Toluene	9.500	91	1432135	72.67	ug/L	100
65) 2-Nitropropane	9.695	41	745934	340.64	ug/L	96
66) 4-Methyl-2-pentanone	9.829	43	3107190	393.66	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	507733	78.83	ug/L	96
68) Tetrachloroethene	9.908	166	433434	73.12	ug/L	97
69) Ethyl methacrylate	10.012	69	474305	87.33	ug/L	98
70) 1,1,2-Trichloroethane	10.055	83	290597	72.06	ug/L	96
71) Dibromochloromethane	10.256	129	421938	73.81	ug/L	99
72) 1,3-Dichloropropane	10.335	76	535153	76.73	ug/L	98
73) 1,2-Dibromoethane	10.512	107	392246	75.79	ug/L	99
74) 3,3-dimethyl-1-butanol	10.615	57	6151707m	3861.90	ug/L	
75) 2-hexanone	10.652	43	2524363	415.92	ug/L	99
76) 1-Chlorohexane	10.963	91	402985	72.95	ug/L	99
77) Ethylbenzene	11.024	91	1523886	73.43	ug/L	100
78) Chlorobenzene	11.024	112	934436	71.54	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	368005	72.08	ug/L	99
80) m,p-Xylene	11.164	91	2364447	148.80	ug/L	99
81) o-Xylene	11.603	91	1249153	73.32	ug/L	100
82) Styrene	11.652	104	932212	79.49	ug/L	98
83) Bromoform	11.707	173	368661	74.49	ug/L	97
84) Isopropylbenzene	11.908	105	1460080	73.28	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.255	53	149492	98.16	ug/L	97
88) n-Propylbenzene	12.329	91	1669815	73.99	ug/L	99
89) Bromobenzene	12.347	156	432978	73.14	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.390	83	580080	70.54	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	1201076	73.30	ug/L	100
92) 2-Chlorotoluene	12.518	91	1130642	73.15	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.566	53	159386	88.56	ug/L	91
94) 1,2,3-Trichloropropane	12.542	110	186108	75.06	ug/L	96
95) Cyclohexanone	12.609	55	202566	395.60	ug/L	96
96) 4-Chlorotoluene	12.682	91	1045465	73.14	ug/L	98
97) tert-Butylbenzene	12.853	91	630556	72.19	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	1194761	74.14	ug/L	100
99) Pentachloroethane	12.902	167	260072	77.53	ug/L	98
100) sec-Butylbenzene	13.036	105	1362107	71.76	ug/L	99
101) 4-Isopropyltoluene	13.170	119	1205156	73.25	ug/L	99
102) 1,3-Dichlorobenzene	13.298	146	759677	74.01	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	1231796	73.03	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	780749	70.59	ug/L	99
105) n-Butylbenzene	13.615	92	613352	75.08	ug/L	90
106) Benzyl Chloride	13.621	126	229224	80.76	ug/L #	59
107) 1,2-Dichlorobenzene	13.822	146	738521	73.54	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

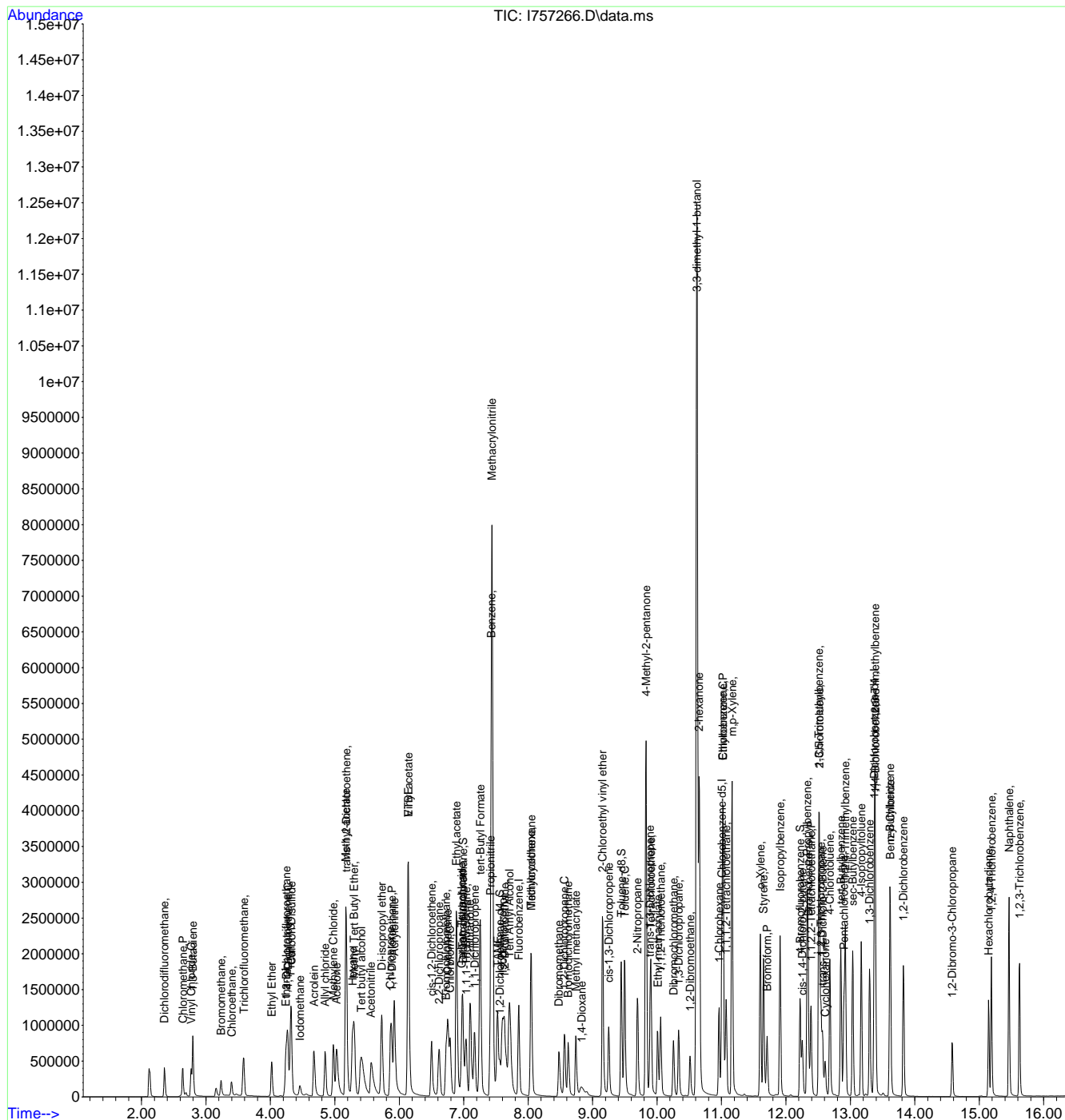
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	161309	74.44	ug/L	98
109) Hexachlorobutadiene	15.145	225	235828	67.74	ug/L	98
110) 1,2,4-Trichlorobenzene	15.188	180	562734	75.05	ug/L	98
111) Naphthalene	15.462	128	1810859	77.51	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	547047	72.74	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
Data File : I757266.D  
Acq On : 15 Jun 2023 12:52 pm  
Operator : joannel  
Sample : IC2948-6  
Misc : MS54130,VI2948,,,,,  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 12:25:15 2023  
Response via : Initial Calibration



7.6.17  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757266.D  
**Injection Time:** 06/15/23 12:52

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

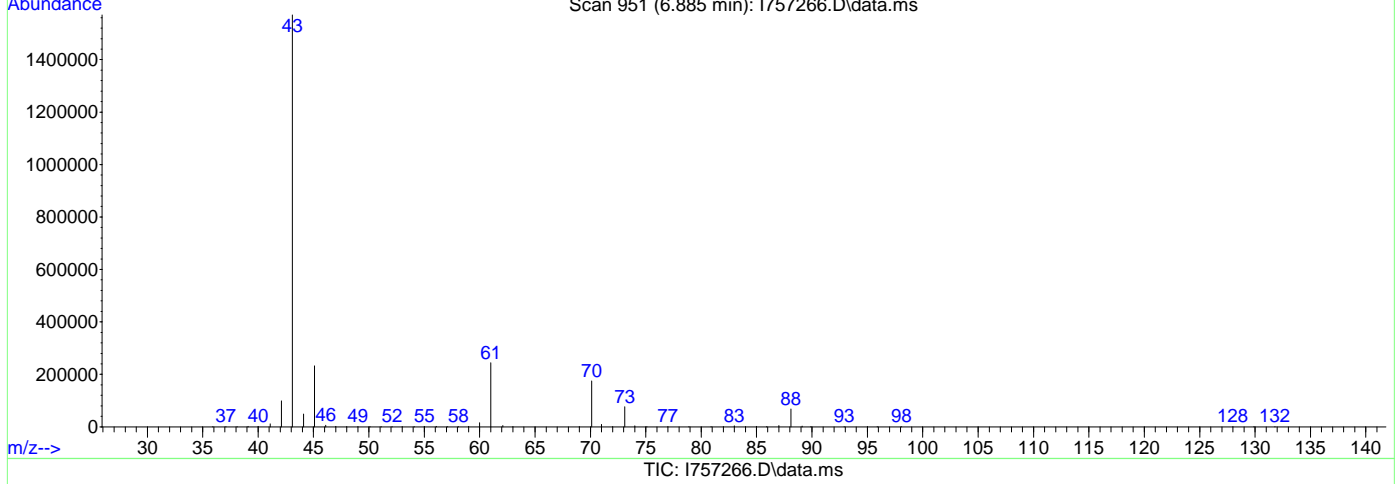
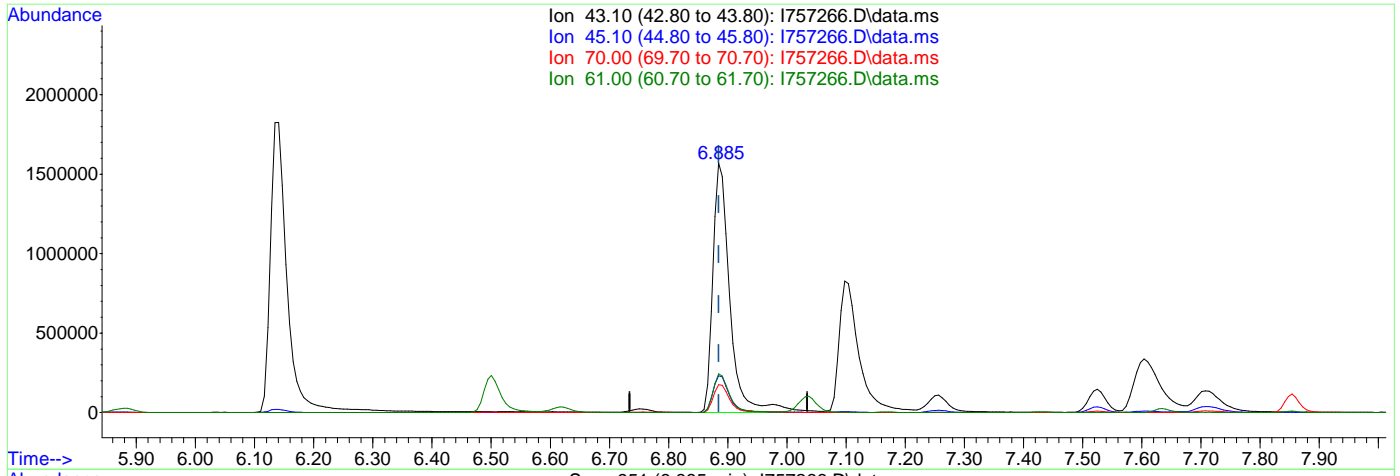
7.6.17.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.000) 411.74ug/L

response 3112331

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.81
70.00	11.10	11.13
61.00	15.10	15.52

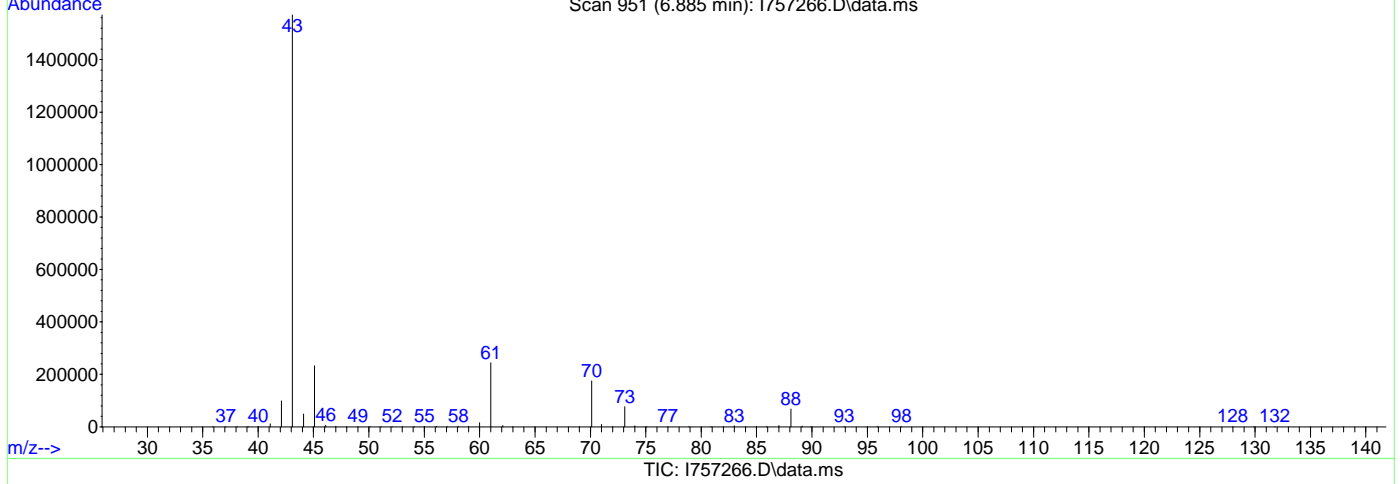
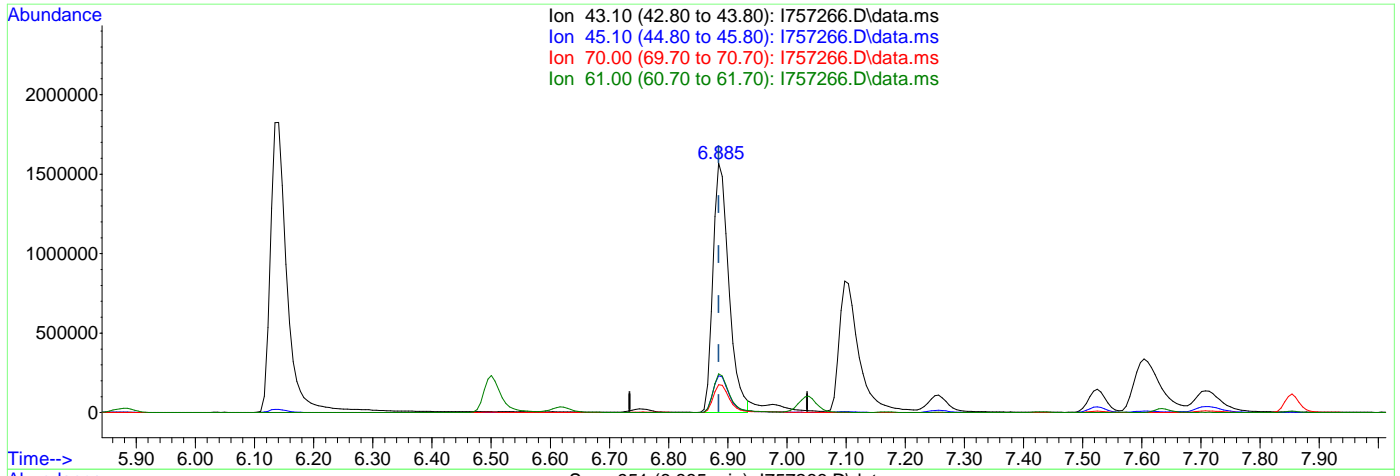
7.6.17.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.000) 386.54ug/L m

response 2921852

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.79
70.00	11.10	11.11
61.00	15.10	15.53

7.6.17.3

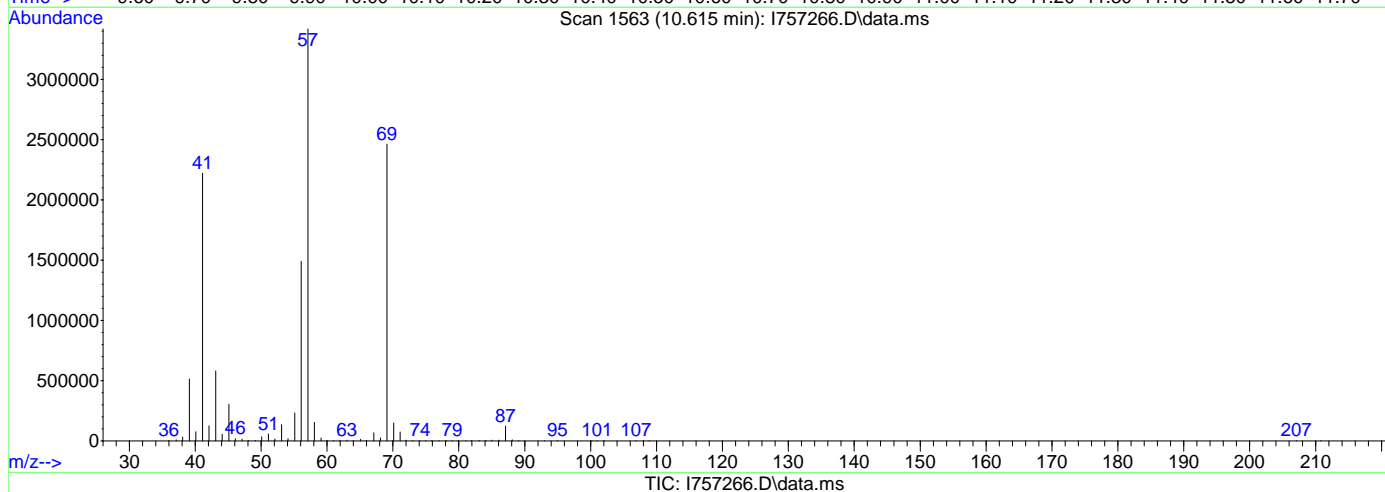
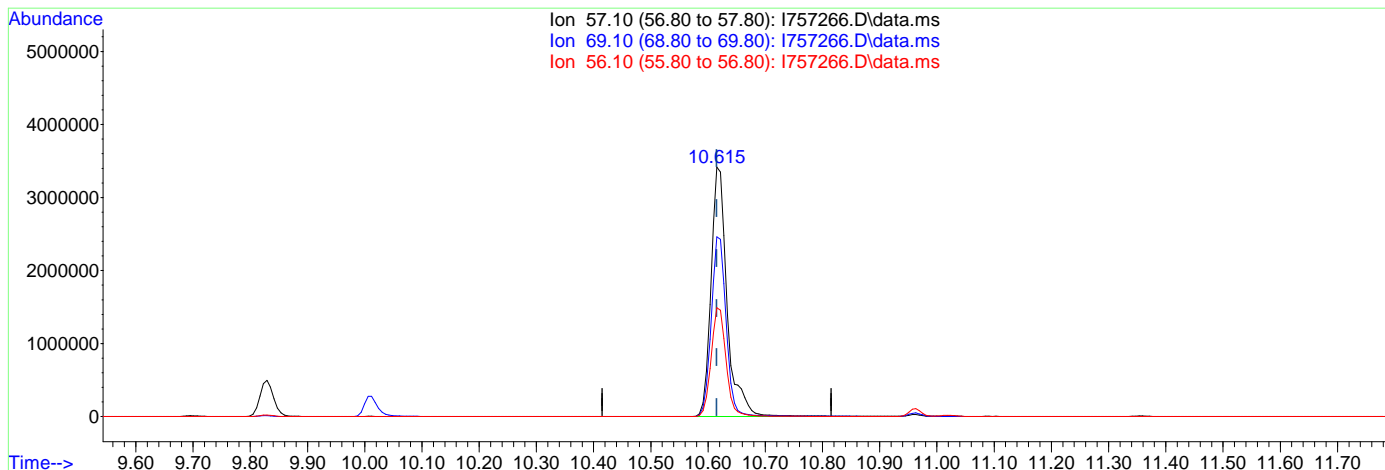
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (+0.000) 4231.25ug/L

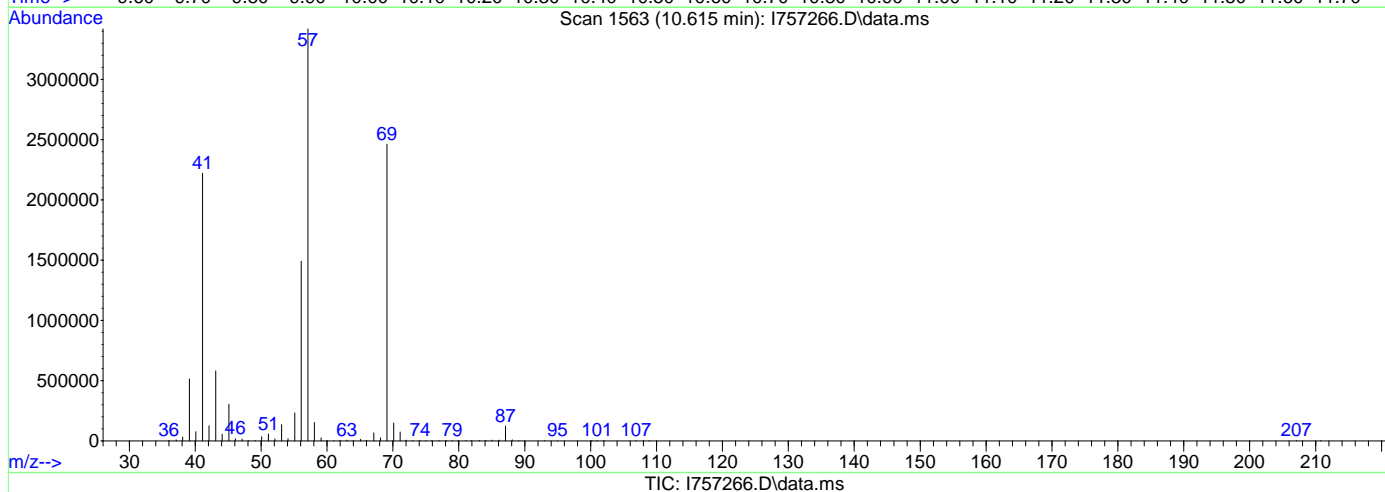
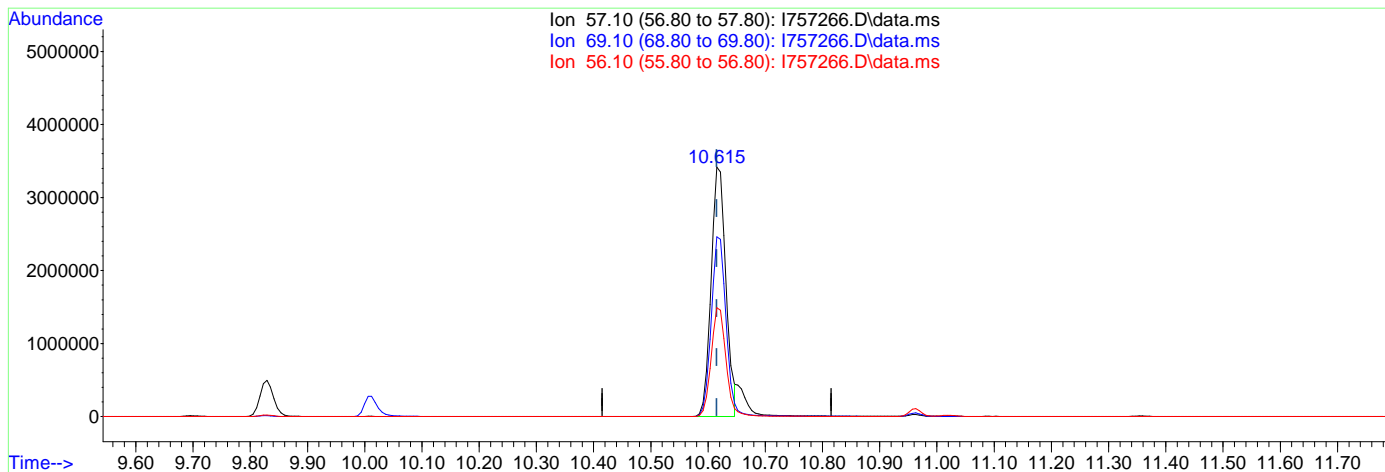
response 6740063

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.99
56.10	43.50	43.60
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (+0.000) 3861.90ug/L m

response 6151707

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.00
56.10	43.50	43.61
0.00	0.00	0.00

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1163059	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	862083	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	537542	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	336095	50.76	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.52%	
49) 1,2-Dichloroethane-d4	7.561	65	301448	50.22	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	100.44%	
63) Toluene-d8	9.445	98	1250824	51.08	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.16%	
86) 4-Bromofluorobenzene	12.219	174	452518	49.84	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.68%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	529244	170.75	ug/L		98
3) Chloromethane	2.635	50	521828	110.23	ug/L		97
4) Vinyl Chloride	2.769	62	529502	121.41	ug/L		97
5) 1,3-Butadiene	2.794	39	429214	96.24	ug/L		97
6) Bromomethane	3.233	94	179016	107.03	ug/L		99
7) Chloroethane	3.397	64	208208	72.66	ug/L		97
8) Trichlorofluoromethane	3.574	101	697463	115.31	ug/L		98
9) Ethyl Ether	4.019	59	379472	102.18	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.239	67	507581	105.49	ug/L		98
11) 1,1-Dichloroethene	4.263	61	679956	106.37	ug/L		99
12) Ethanol	4.263	45	313130	1827.84	ug/L		98
13) Freon 113	4.306	101	442236	116.33	ug/L		99
14) Carbon Disulfide	4.318	76	1357153	104.11	ug/L		99
15) Iodomethane	4.458	142	287045	89.41	ug/L		97
16) Acrolein	4.678	56	899828	554.73	ug/L		99
17) Allyl chloride	4.848	41	596205	103.99	ug/L		98
18) Methylene Chloride	4.976	49	605660	80.21	ug/L		95
19) Acetone	5.031	43	1548512	483.12	ug/L		100
20) Methyl acetate	5.171	43	3562244	524.29	ug/L		99
21) trans-1,2-Dichloroethene	5.177	61	692478	103.08	ug/L		99
22) Hexane	5.269	56	343966	107.27	ug/L		84
23) Methyl Tert Butyl Ether	5.299	73	1461102	100.36	ug/L		88
24) Tert butyl alcohol	5.421	59	2052291	971.82	ug/L		99
25) Acetonitrile	5.568	41	1096962	929.16	ug/L		99
26) Di-isopropyl ether	5.726	45	1506731	100.56	ug/L		100
27) Chloroprene	5.860	53	699682	119.66	ug/L		99
28) 1,1-Dichloroethane	5.879	63	895568	100.68	ug/L		99
29) Acrylonitrile	5.921	53	1704371	546.38	ug/L		100
30) ETBE	6.141	59	1442194	98.41	ug/L		100
31) Vinyl acetate	6.135	43	5016217	620.50	ug/L		100
32) cis-1,2-Dichloroethene	6.500	96	549435	105.15	ug/L		99
33) 2,2-Dichloropropane	6.616	77	692469	102.07	ug/L		98
34) Bromochloromethane	6.726	128	270176	100.14	ug/L		95
35) Cyclohexane	6.750	56	772375	110.91	ug/L		99
36) Chloroform	6.787	83	923907	100.00	ug/L		99
37) Ethyl acetate	6.884	43	4168769m	539.63	ug/L		
38) Tetrahydrofuran	6.982	42	364903	93.91	ug/L		98
40) Carbon Tetrachloride	6.970	117	704052	103.61	ug/L		97
41) 1,1,1-Trichloroethane	7.037	97	798981	103.86	ug/L		99
42) 2-Butanone	7.104	43	2643762	600.17	ug/L		98
43) 1,1-Dichloropropene	7.165	75	640799	105.40	ug/L		98
44) tert-Butyl Formate	7.256	59	1988701	519.47	ug/L		98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	1624190	1123.18	ug/L	78
46) Methacrylonitrile	7.439	41	4480633	1057.09	ug/L	99
47) Benzene	7.427	78	1855895	100.03	ug/L	83
48) TAME	7.525	73	1380755	97.25	ug/L	98
50) Isobutyl alcohol	7.616	42	994842	2463.39	ug/L	99
51) 1,2-Dichloroethane	7.634	62	637209	98.79	ug/L	98
52) Tert Amyl Alcohol	7.720	59	1795079	1025.82	ug/L	98
53) Trichloroethene	8.043	95	526130	103.13	ug/L	99
54) Methylcyclohexane	8.049	83	704034	110.79	ug/L	99
55) Dibromomethane	8.476	93	344287	102.51	ug/L	98
56) 1,2-Dichloropropane	8.561	63	488359	102.19	ug/L	98
57) Bromodichloromethane	8.622	83	694118	102.13	ug/L	96
58) Methyl methacrylate	8.738	41	585103	122.99	ug/L	98
59) 1,4-Dioxane	8.835	88	318290	2138.94	ug/L	97
60) 2-Chloroethyl vinyl ether	9.158	63	1534053	601.53	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	791682	105.72	ug/L	98
64) Toluene	9.494	91	2040123	99.91	ug/L	100
65) 2-Nitropropane	9.695	41	1066697	470.12	ug/L	96
66) 4-Methyl-2-pentanone	9.829	43	4346515	531.45	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	723714	108.44	ug/L	96
68) Tetrachloroethene	9.908	166	632507	102.98	ug/L	97
69) Ethyl methacrylate	10.012	69	672212	119.45	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	405035	96.93	ug/L	95
71) Dibromochloromethane	10.256	129	599260	101.17	ug/L	99
72) 1,3-Dichloropropane	10.335	76	750447	103.85	ug/L	98
73) 1,2-Dibromoethane	10.512	107	557752	104.00	ug/L	99
74) 3,3-dimethyl-1-butanol	10.621	57	8540539m	5174.38	ug/L	
75) 2-hexanone	10.658	43	3631290	577.41	ug/L	98
76) 1-Chlorohexane	10.963	91	601700	105.12	ug/L	97
77) Ethylbenzene	11.024	91	2172652	101.03	ug/L	99
78) Chlorobenzene	11.024	112	1324499	97.86	ug/L	100
79) 1,1,1,2-Tetrachloroethane	11.073	131	521794	98.64	ug/L	98
80) m,p-Xylene	11.164	91	3396714	206.30	ug/L	100
81) o-Xylene	11.603	91	1777938	100.71	ug/L	100
82) Styrene	11.652	104	1329647	109.43	ug/L	98
83) Bromoform	11.707	173	521805	101.76	ug/L	98
84) Isopropylbenzene	11.908	105	2104671	101.94	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.255	53	218859	134.62	ug/L	95
88) n-Propylbenzene	12.328	91	2418127	100.37	ug/L	99
89) Bromobenzene	12.347	156	612493	96.92	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	810755	92.36	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	1714728	98.02	ug/L	98
92) 2-Chlorotoluene	12.517	91	1601779	97.08	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.566	53	230459	119.94	ug/L	88
94) 1,2,3-Trimethylpropane	12.542	110	257532	97.30	ug/L	96
95) Cyclohexanone	12.609	55	285786	522.81	ug/L	96
96) 4-Chlorotoluene	12.682	91	1488036	97.52	ug/L	99
97) tert-Butylbenzene	12.853	91	920114	98.67	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	1691330	98.32	ug/L	99
99) Pentachloroethane	12.902	167	370930	103.58	ug/L	100
100) sec-Butylbenzene	13.036	105	1984570	97.93	ug/L	99
101) 4-Isopropyltoluene	13.170	119	1745979	99.41	ug/L	100
102) 1,3-Dichlorobenzene	13.298	146	1088227	99.31	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	1727276	95.92	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	1096065	92.83	ug/L	99
105) n-Butylbenzene	13.615	92	895028	102.63	ug/L	92
106) Benzyl Chloride	13.621	126	320426	105.75	ug/L #	57
107) 1,2-Dichlorobenzene	13.822	146	1039729	96.98	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

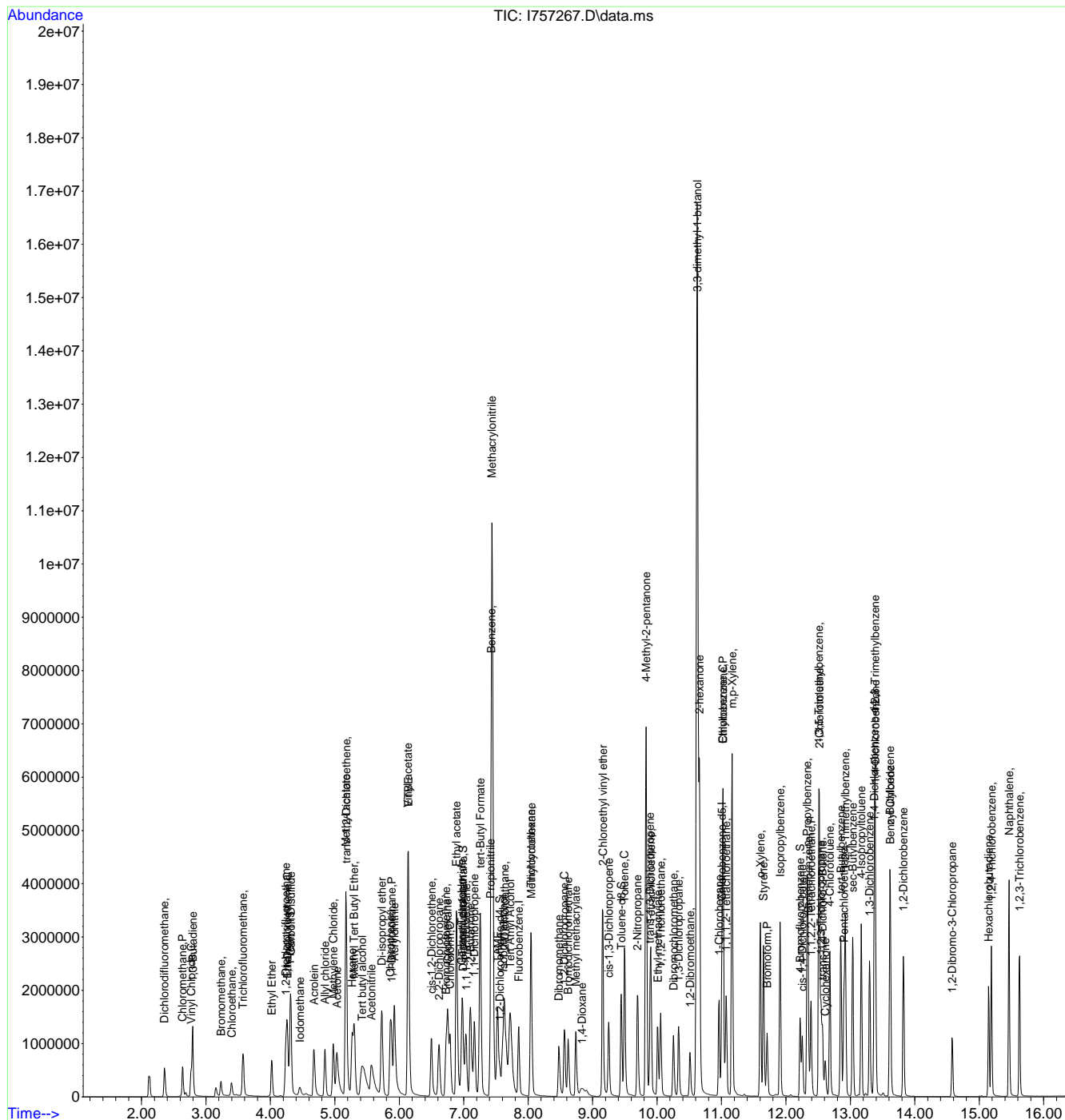
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	230974	99.84	ug/L	98
109) Hexachlorobutadiene	15.145	225	362352	97.50	ug/L	99
110) 1,2,4-Trichlorobenzene	15.188	180	788632	98.53	ug/L	98
111) Naphthalene	15.462	128	2534672	101.63	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	773226	96.31	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
Data File : I757267.D  
Acq On : 15 Jun 2023 1:15 pm  
Operator : joannel  
Sample : IC2948-7  
Misc : MS54130,VI2948,,,,,  
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 12:25:15 2023  
Response via : Initial Calibration



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2.618

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948      **Method:** SW846 8260D  
**Lab FileID:** I757267.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 13:15      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

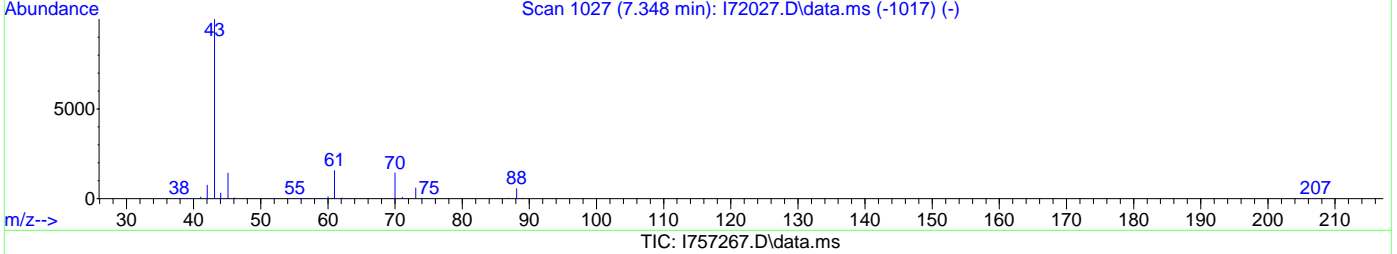
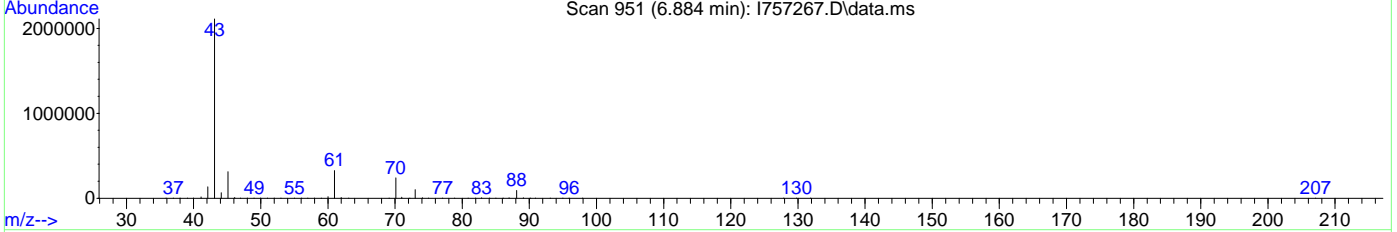
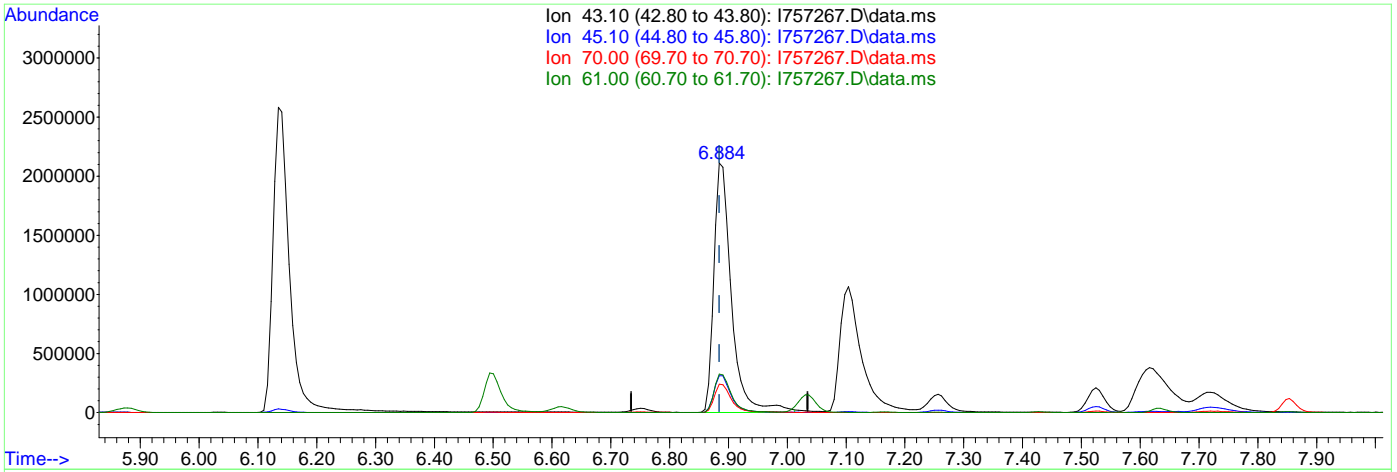
7.6.18.1

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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 567.17ug/L

response 4381496

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.79
70.00	11.10	11.35
61.00	15.10	15.37

7.6.18.2

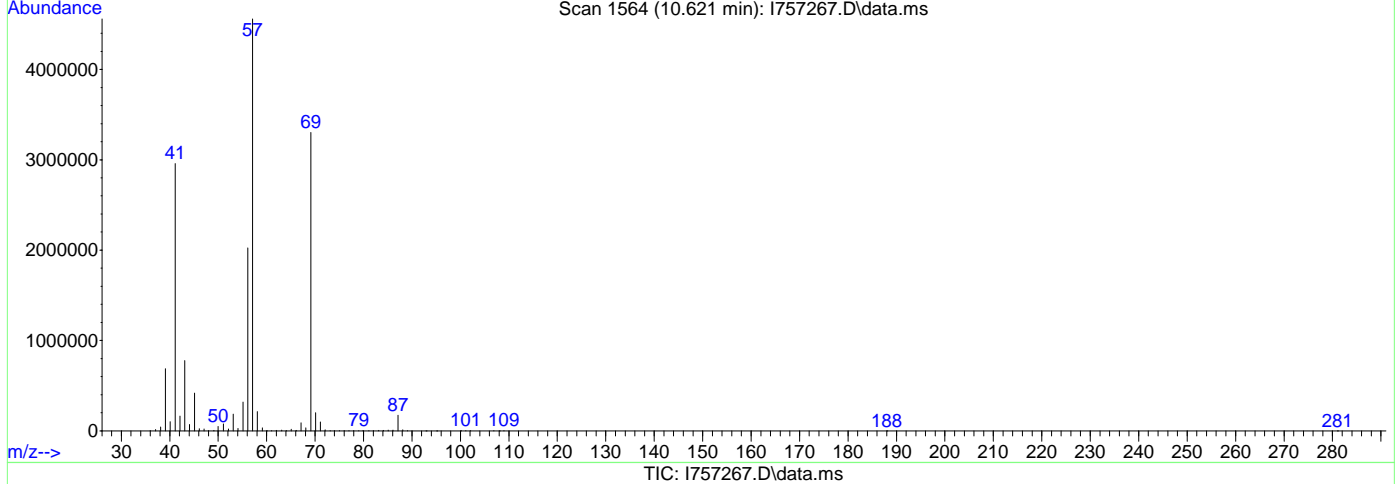
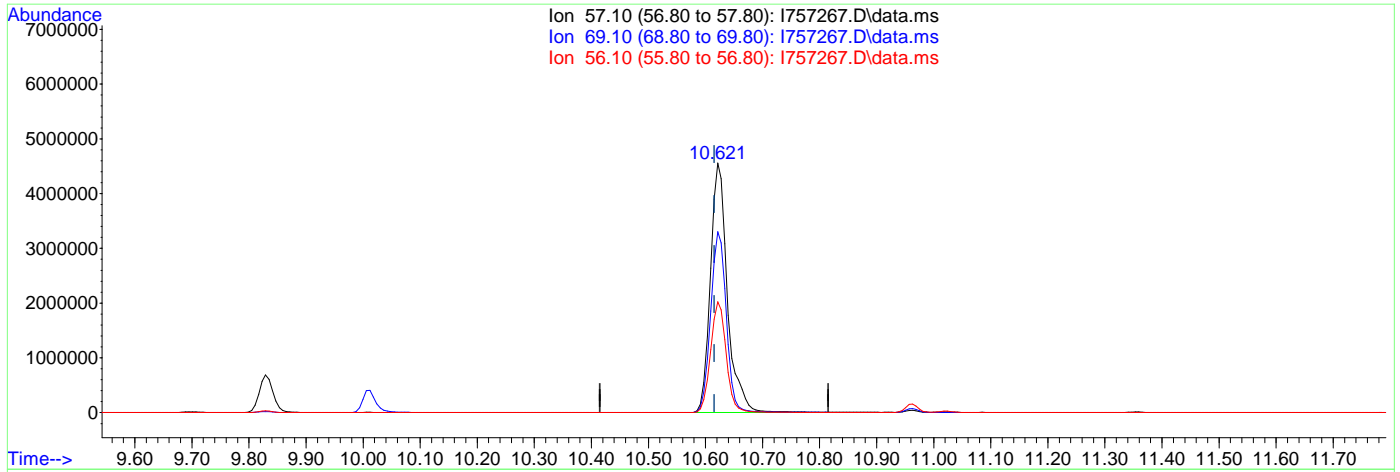
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.621min (+0.006) 5734.20ug/L

response 9464543

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.40
56.10	43.50	44.37
0.00	0.00	0.00

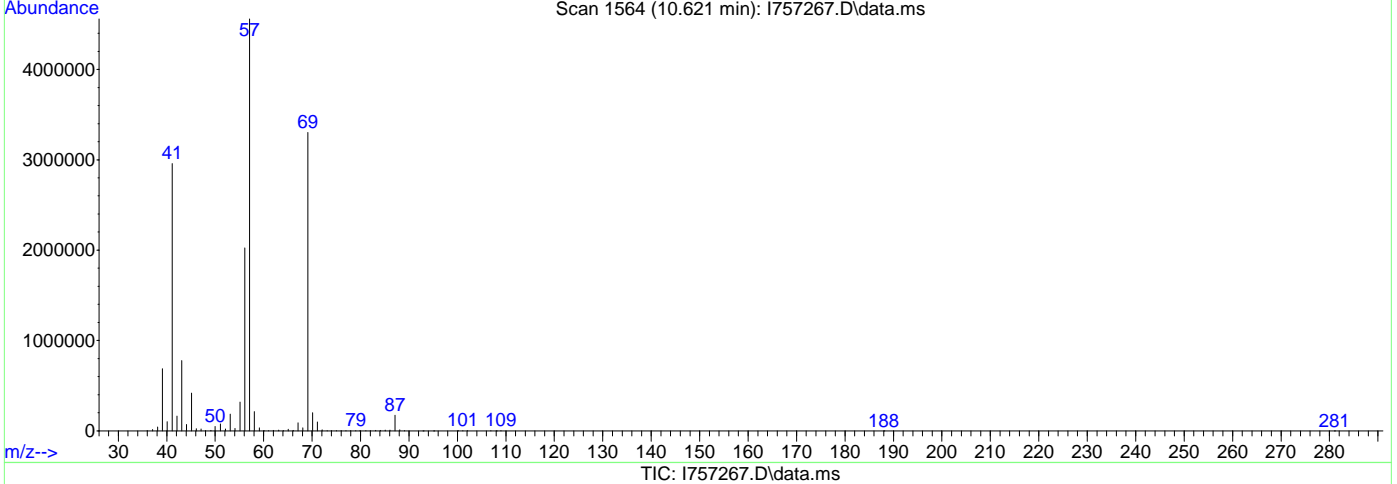
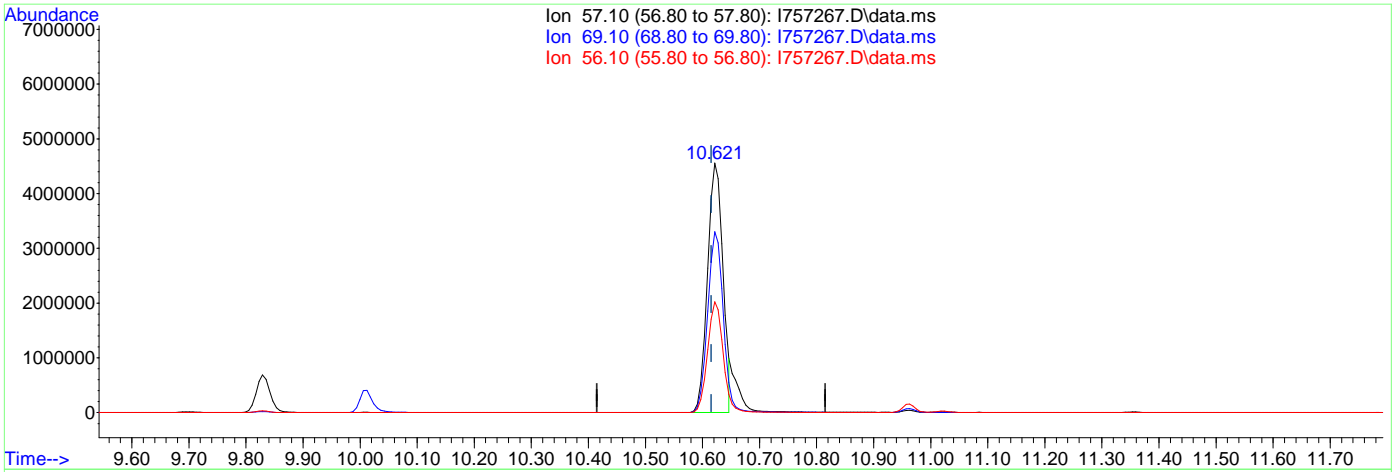
7.6.18.3

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.621min (+0.006) 5174.38ug/L m

response 8540539

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.40
56.10	43.50	44.37
0.00	0.00	0.00

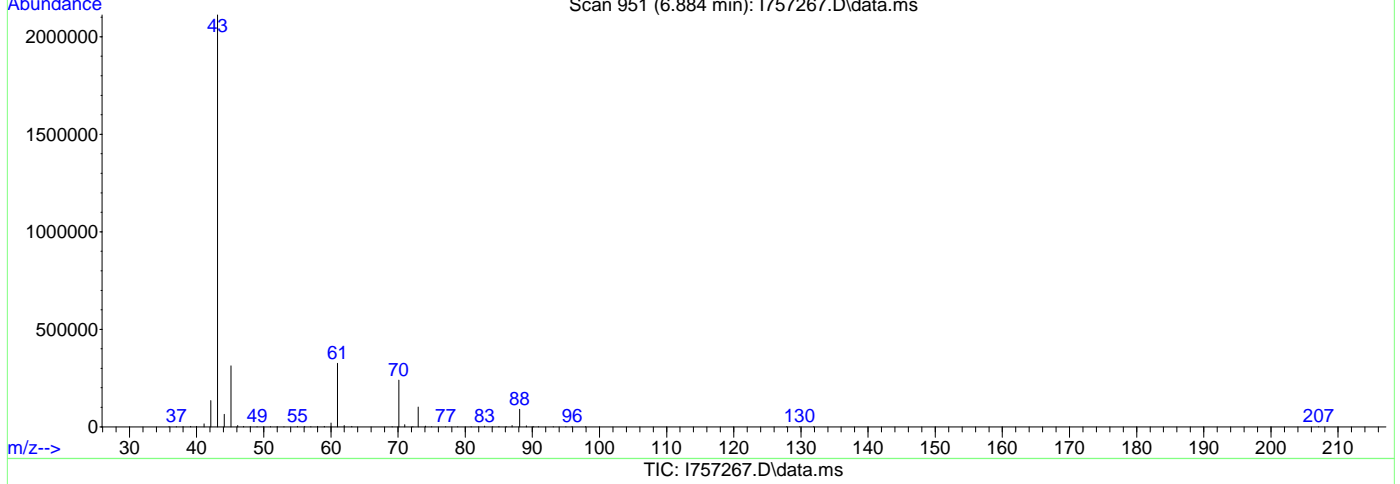
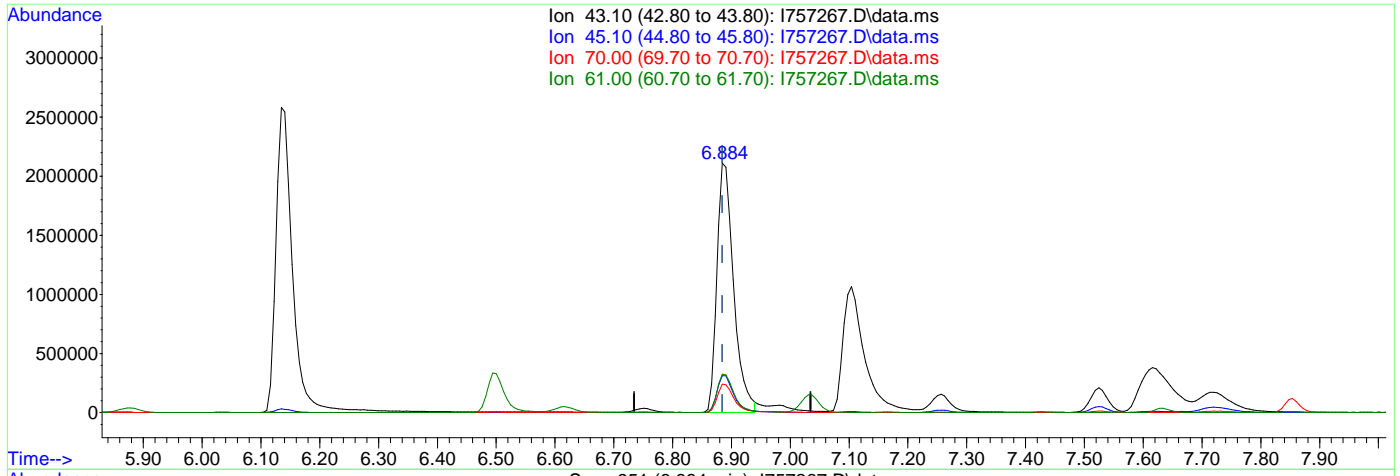
7.6.18.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:34:19 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 539.63ug/L m

response 4168769

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.78
70.00	11.10	11.35
61.00	15.10	15.40

7.6.18.5

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1167572	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	863763	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	536859	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	338967	51.15	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	102.30%		
49) 1,2-Dichloroethane-d4	7.561	65	299738	49.74	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	99.48%		
63) Toluene-d8	9.445	98	1241290	50.39	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	100.78%		
86) 4-Bromofluorobenzene	12.219	174	452105	50.02	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.04%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	181684	35.41	ug/L		99
3) Chloromethane	2.641	50	187721	35.62	ug/L		98
4) Vinyl Chloride	2.769	62	172721	33.14	ug/L		98
6) Bromomethane	3.233	94	63922	35.86	ug/L		99
7) Chloroethane	3.397	64	71580	32.75	ug/L		99
8) Trichlorofluoromethane	3.592	101	223977	32.47	ug/L		99
9) Ethyl Ether	4.019	59	153798	42.60	ug/L		96
10) 1,2-Dichlorotrifluoro...	4.245	67	176479	36.75	ug/L		97
11) 1,1-Dichloroethene	4.275	61	216177	34.12	ug/L		99
12) Ethanol	4.208	45	132725	755.11	ug/L		90
13) Freon 113	4.318	101	140462	35.68	ug/L		98
14) Carbon Disulfide	4.330	76	429418	33.00	ug/L		100
15) Iodomethane	4.458	142	131520	41.69	ug/L		95
16) Acrolein	4.678	56	313917	185.92	ug/L		100
17) Allyl chloride	4.854	41	211809	34.77	ug/L		99
18) Methylene Chloride	4.976	49	244818	38.34	ug/L		99
19) Acetone	5.025	43	611835	194.73	ug/L		97
20) Methyl acetate	5.165	43	1300972	197.56	ug/L		99
21) trans-1,2-Dichloroethene	5.184	61	242062	36.41	ug/L		98
22) Hexane	5.275	56	115756	35.52	ug/L		98
23) Methyl Tert Butyl Ether	5.299	73	576110	41.02	ug/L		99
24) Tert butyl alcohol	5.391	59	853158	444.00	ug/L		99
25) Acetonitrile	5.562	41	503982	389.31	ug/L		100
26) Di-isopropyl ether	5.726	45	565990	38.53	ug/L		100
28) 1,1-Dichloroethane	5.885	63	316951	36.32	ug/L		99
29) Acrylonitrile	5.921	53	680139	212.48	ug/L		99
30) ETBE	6.135	59	571099	40.39	ug/L		99
31) Vinyl acetate	6.141	43	1977348	208.01	ug/L		99
32) cis-1,2-Dichloroethene	6.507	96	194512	37.09	ug/L		98
33) 2,2-Dichloropropane	6.622	77	254068	38.19	ug/L		98
34) Bromochloromethane	6.726	128	101858	37.64	ug/L		100
35) Cyclohexane	6.757	56	236994	34.41	ug/L		99
36) Chloroform	6.793	83	340867	37.45	ug/L		98
37) Ethyl acetate	6.885	43	1529328m	196.35	ug/L		
38) Tetrahydrofuran	6.982	42	142102	39.15	ug/L		99
40) Carbon Tetrachloride	6.976	117	222115	34.74	ug/L		99
41) 1,1,1-Trichloroethane	7.037	97	269977	35.85	ug/L		99
42) 2-Butanone	7.098	43	972769	199.36	ug/L		97
43) 1,1-Dichloropropene	7.171	75	218372	36.74	ug/L		96
44) tert-Butyl Formate	7.256	59	955754	261.75	ug/L		98
45) Propionitrile	7.409	54	601193	374.75	ug/L		99
46) Methacrylonitrile	7.439	41	1662190	353.39	ug/L		99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Benzene	7.433	78	680777	37.35	ug/L	99
48) TAME	7.525	73	537529	39.26	ug/L	98
50) Isobutyl alcohol	7.592	42	328173	772.40	ug/L	99
51) 1,2-Dichloroethane	7.634	62	240861	38.04	ug/L	99
52) Tert Amyl Alcohol	7.701	59	698196	442.70	ug/L	99
53) Trichloroethene	8.043	95	181981	35.70	ug/L	99
54) Methylcyclohexane	8.049	83	209090	33.59	ug/L	97
55) Dibromomethane	8.482	93	128744	39.55	ug/L	94
56) 1,2-Dichloropropane	8.567	63	187462	39.91	ug/L	98
57) Bromodichloromethane	8.622	83	246195	38.02	ug/L	98
58) Methyl methacrylate	8.744	41	191932	36.54	ug/L	99
59) 1,4-Dioxane	8.817	88	121911	806.02	ug/L	96
60) 2-Chloroethyl vinyl ether	9.158	63	550429	188.36	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	292980	40.14	ug/L	98
64) Toluene	9.500	91	741775	37.64	ug/L	100
65) 2-Nitropropane	9.695	41	368926	193.74	ug/L	98
66) 4-Methyl-2-pentanone	9.829	43	1652533	193.45	ug/L	100
67) trans-1,3-Dichloropropene	9.896	75	250608	37.05	ug/L	92
68) Tetrachloroethene	9.908	166	215067	36.06	ug/L	97
69) Ethyl methacrylate	10.012	69	254883	39.79	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	154290	38.39	ug/L	97
71) Dibromochloromethane	10.256	129	232080	41.74	ug/L	99
72) 1,3-Dichloropropane	10.335	76	303210	43.29	ug/L	99
73) 1,2-Dibromoethane	10.512	107	210199	40.54	ug/L	98
74) 3,3-dimethyl-1-butanol	10.616	57	3275538m	2073.24	ug/L	
75) 2-hexanone	10.652	43	1355714	194.98	ug/L	100
76) 1-Chlorohexane	10.963	91	190234	34.11	ug/L	99
77) Ethylbenzene	11.024	91	782969	36.79	ug/L	99
78) Chlorobenzene	11.024	112	490186	37.64	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	194482	38.59	ug/L	98
80) m,p-Xylene	11.164	91	1226428	76.77	ug/L	100
81) o-Xylene	11.603	91	633604	36.88	ug/L	98
82) Styrene	11.658	104	482252	39.07	ug/L	99
83) Bromoform	11.707	173	192008	40.98	ug/L	99
84) Isopropylbenzene	11.908	105	737709	36.50	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	84225	43.75	ug/L	95
88) n-Propylbenzene	12.329	91	834036	35.29	ug/L	99
89) Bromobenzene	12.347	156	239619	39.54	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	317412	38.42	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	627879	37.07	ug/L	99
92) 2-Chlorotoluene	12.518	91	604554	37.50	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.572	53	79856	36.75	ug/L	83
94) 1,2,3-Trichloropropane	12.548	110	109631	42.92	ug/L	96
95) Cyclohexanone	12.609	55	140395	245.94	ug/L	96
96) 4-Chlorotoluene	12.682	91	540789	37.27	ug/L	100
97) tert-Butylbenzene	12.853	91	316053	35.11	ug/L	99
98) 1,2,4-Trimethylbenzene	12.926	105	624952	37.46	ug/L	98
99) Pentachloroethane	12.902	167	128027	34.56	ug/L	99
100) sec-Butylbenzene	13.036	105	646080	33.78	ug/L	99
101) 4-Isopropyltoluene	13.170	119	594660	35.25	ug/L	100
102) 1,3-Dichlorobenzene	13.304	146	394162	37.75	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	658021	37.65	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	415811	37.05	ug/L	99
105) n-Butylbenzene	13.615	92	318989	38.45	ug/L	99
106) Benzyl Chloride	13.627	126	120327	40.14	ug/L	94
107) 1,2-Dichlorobenzene	13.828	146	392215	38.33	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	89508	42.87	ug/L	97
109) Hexachlorobutadiene	15.145	225	118606	34.21	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) 1,2,4-Trichlorobenzene	15.188	180	296723	39.25	ug/L	99
111) Naphthalene	15.462	128	955180	40.40	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	295060	39.13	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed



# Manual Integration Approval Summary

**Sample Number:** VI2948-ICV2948      **Method:** SW846 8260D  
**Lab FileID:** I757269.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 14:04      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

7.6.19.1

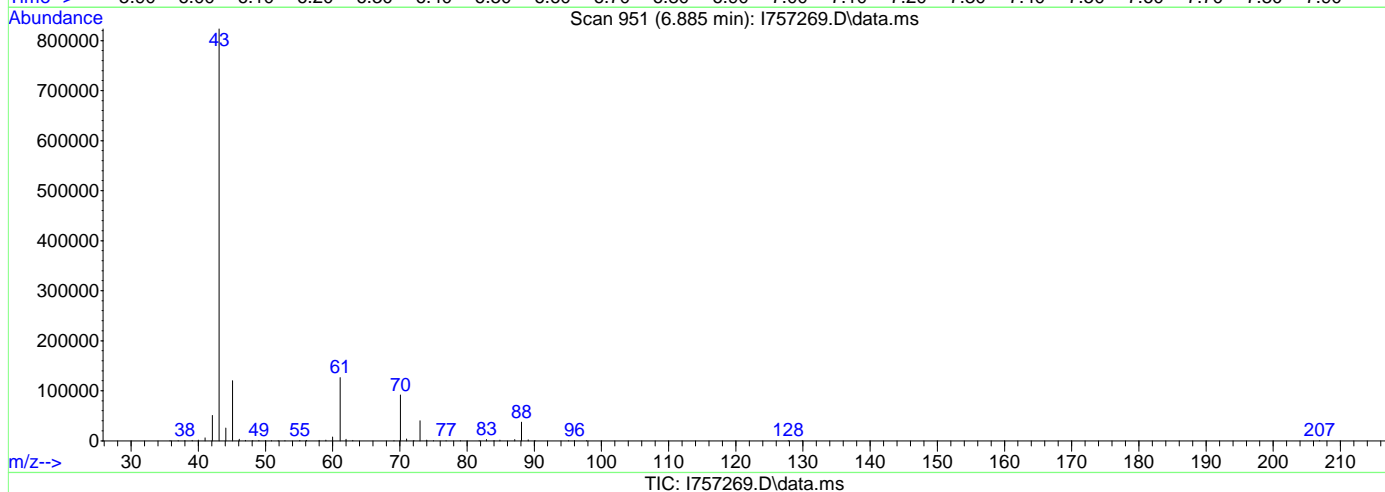
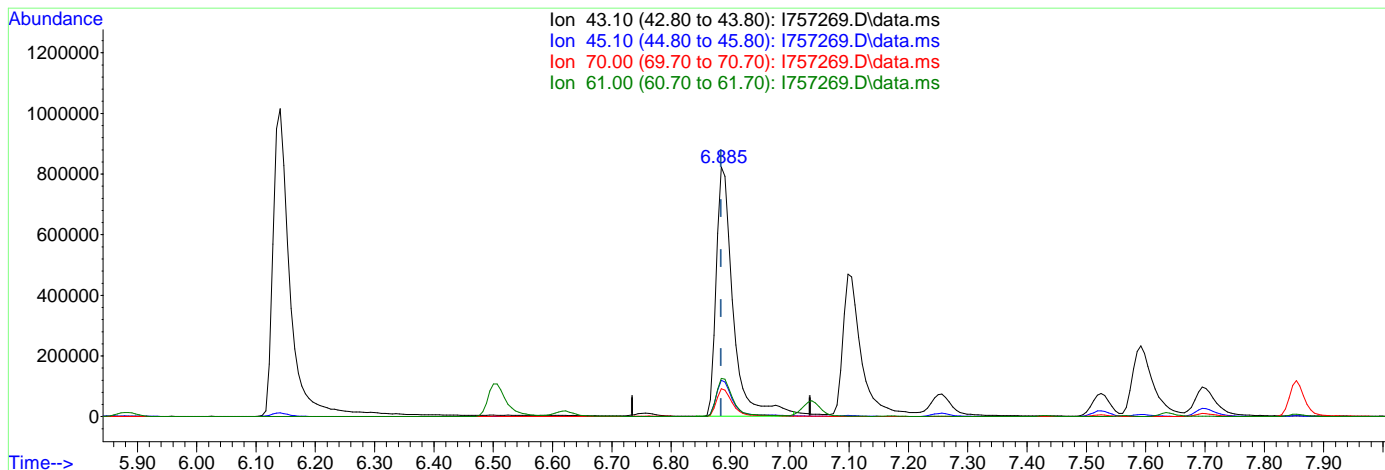
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.001) 208.54ug/L

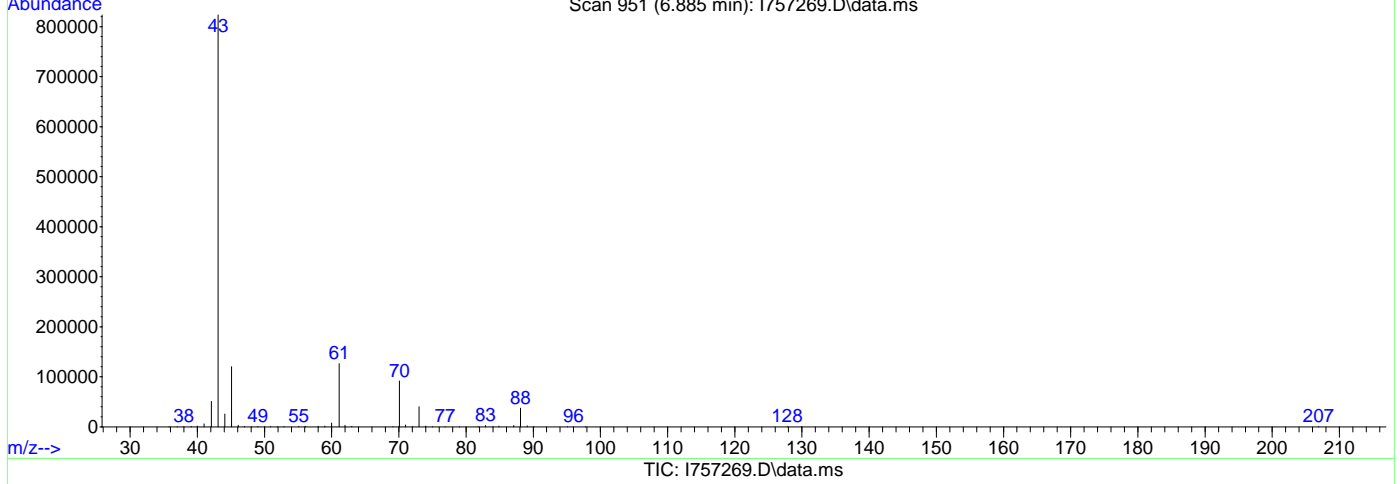
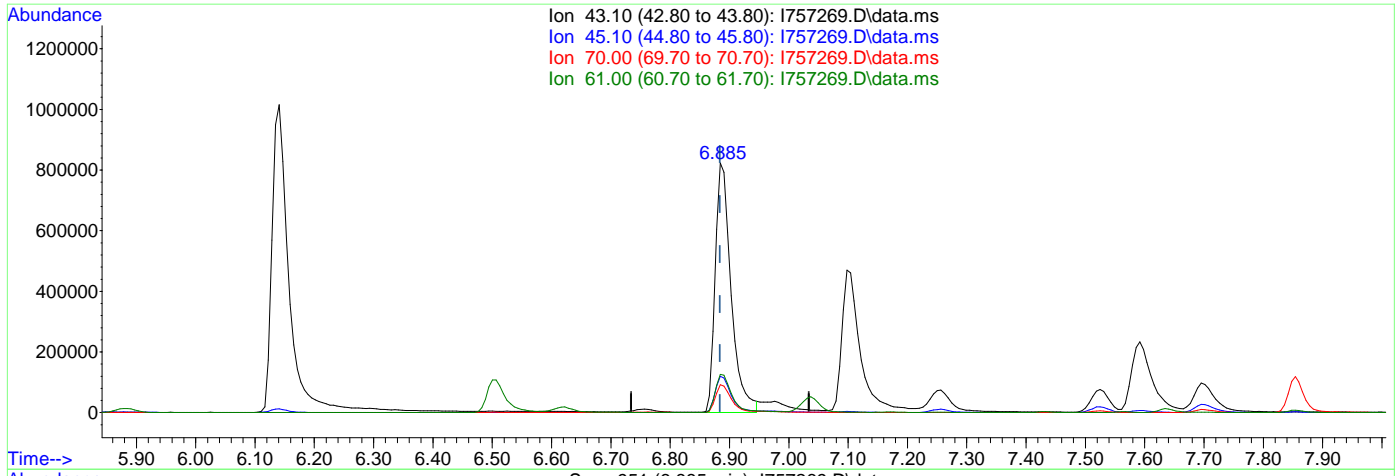
response 1630659

Ion	Exp%	Act%
43.10	100	100
45.10	15.00	14.60
70.00	10.90	11.11
61.00	15.40	15.32

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.001) 196.35ug/L m

response 1529328

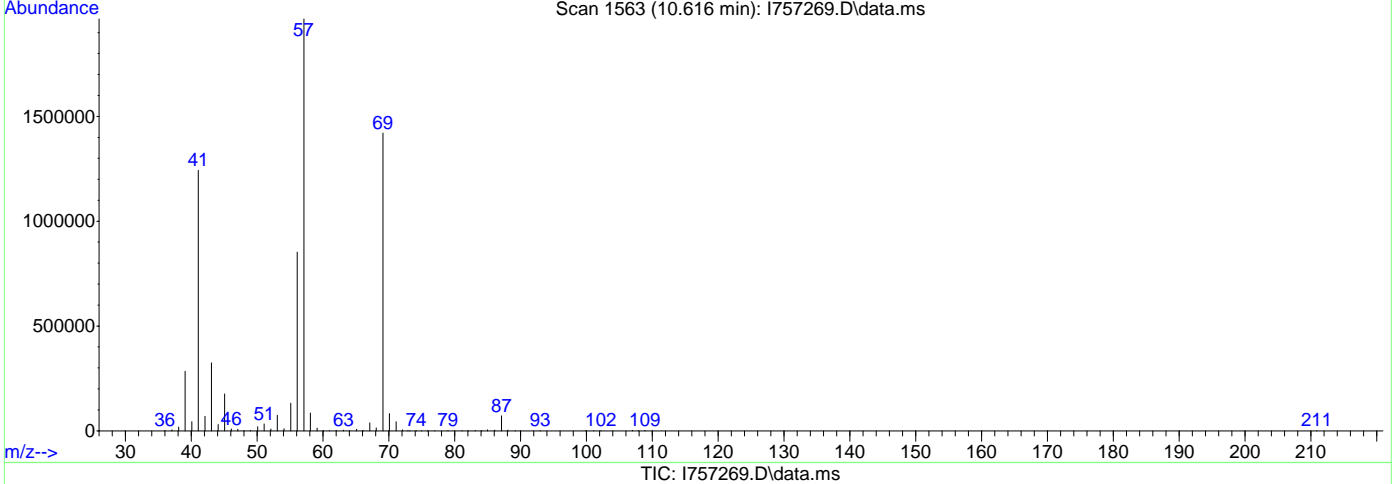
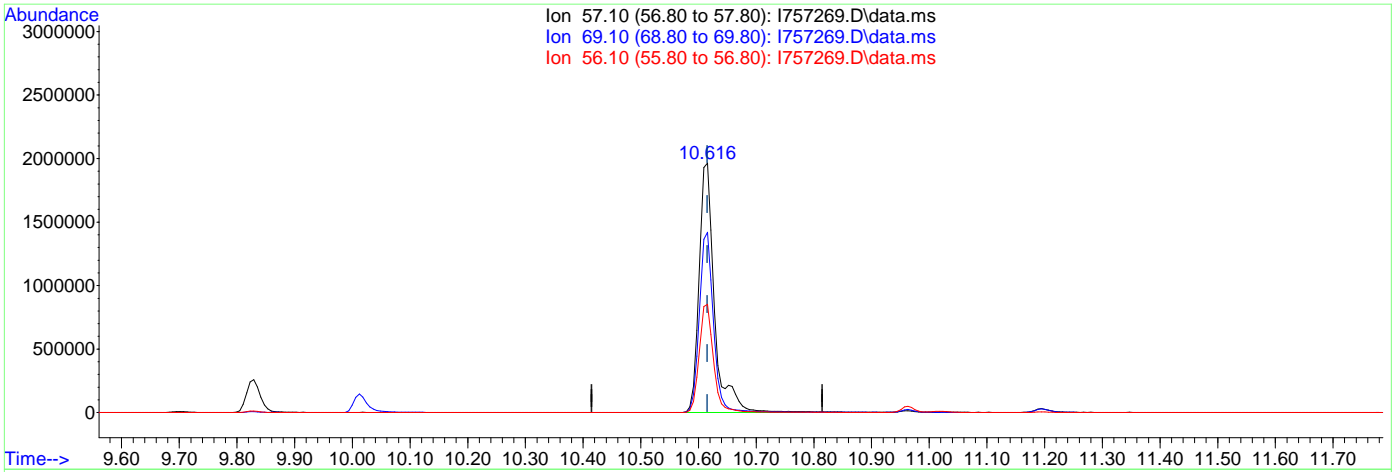
Ion	Exp%	Act%
43.10	100	100
45.10	15.00	14.58
70.00	10.90	11.11
61.00	15.40	15.33

7.6.19.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.616min (+0.001) 2309.74ug/L

response 3686923

Ion Exp% Act%

57.10 100 100

69.10 71.20 72.20

56.10 43.20 43.38

0.00 0.00 0.00

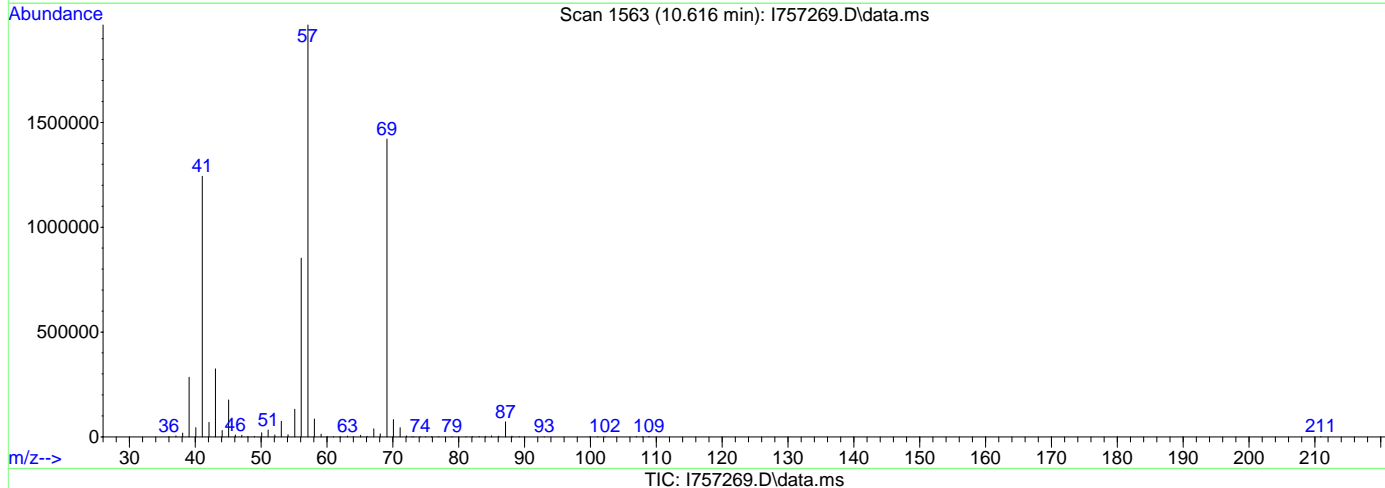
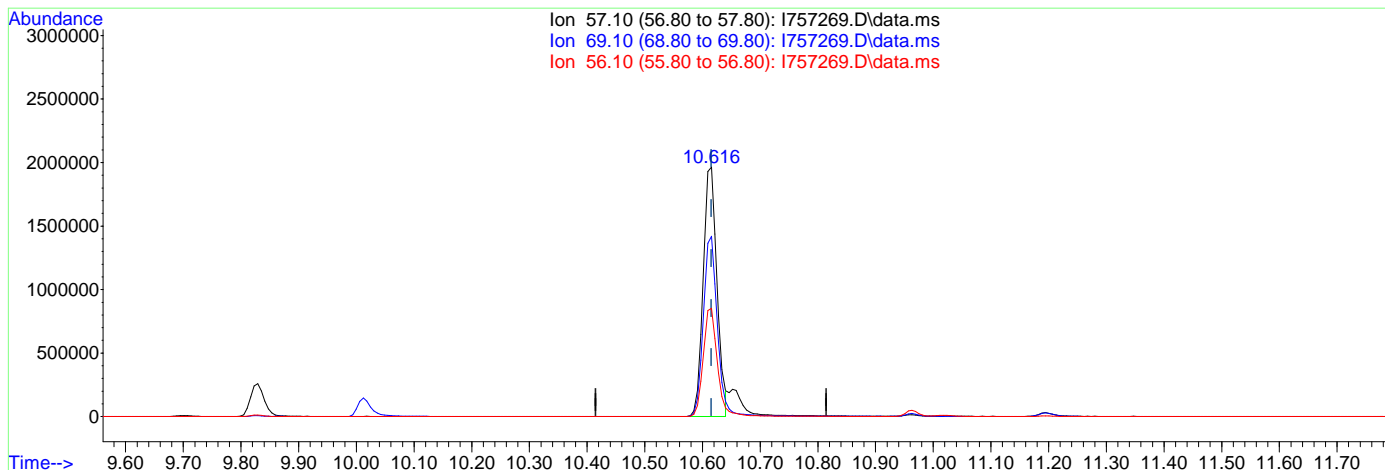
7.6.19.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.616min (+0.001) 2073.24ug/L m

response 3275538

Ion	Exp%	Act%
57.10	100	100
69.10	71.20	72.26
56.10	43.20	43.39
0.00	0.00	0.00

7.6.19.5  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757270.D  
 Acq On : 15 Jun 2023 2:27 pm  
 Operator : joannel  
 Sample : ICV2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 14:48:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	1153831	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	850734	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	529571	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	331960	50.69	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.38%	
49) 1,2-Dichloroethane-d4	7.561	65	309281	51.94	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.88%	
63) Toluene-d8	9.445	98	1229655	50.69	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	101.38%	
86) 4-Bromofluorobenzene	12.225	174	449316	50.39	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.78%	
Target Compounds						
5) 1,3-Butadiene	2.794	39	88557	19.95	ug/L	94
27) Chloroprene	5.866	53	134410	21.66	ug/L	99
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

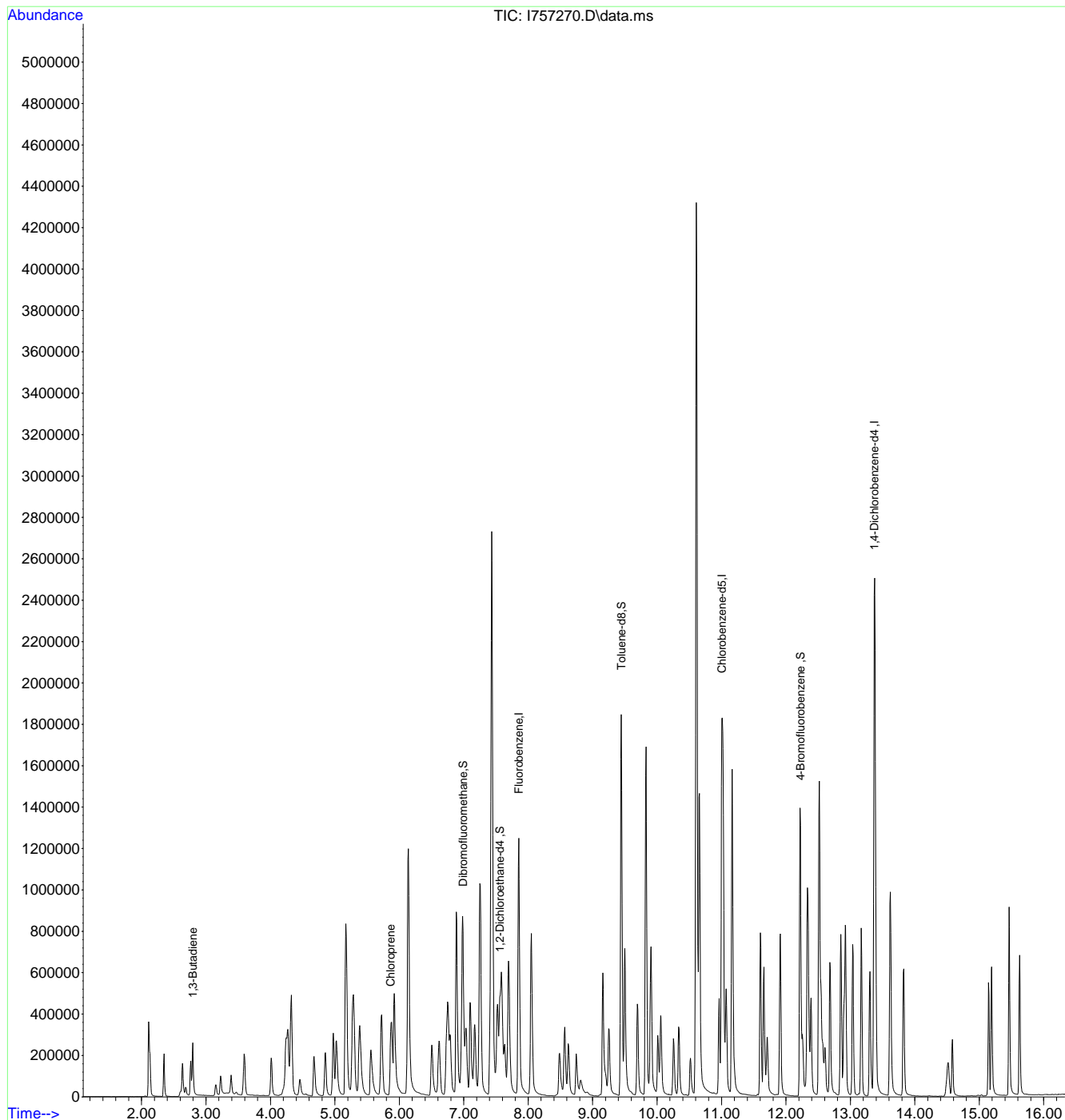
7.6.20  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757270.D  
 Acq On : 15 Jun 2023 2:27 pm  
 Operator : joannel  
 Sample : ICV2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 14:48:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.20  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1008433	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	708930	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	426284	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	288013	50.32	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.64%	
49) 1,2-Dichloroethane-d4	7.561	65	258218	49.61	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	99.22%	
63) Toluene-d8	9.445	98	1047914	51.84	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	103.68%	
86) 4-Bromofluorobenzene	12.219	174	358323	49.92	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.84%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	155671	35.13	ug/L		99
3) Chloromethane	2.635	50	179300	39.42	ug/L		100
4) Vinyl Chloride	2.763	62	175257	38.93	ug/L		98
5) 1,3-Butadiene	2.794	39	129634	33.75	ug/L		93
6) Bromomethane	3.227	94	72641	47.01	ug/L		99
7) Chloroethane	3.391	64	78186	41.42	ug/L		99
8) Trichlorofluoromethane	3.592	101	257820	43.28	ug/L		99
9) Ethyl Ether	4.013	59	120456	38.63	ug/L		96
10) 1,2-Dichlorotrifluoro...	4.239	67	166314	40.10	ug/L		98
11) 1,1-Dichloroethene	4.269	61	213810	39.07	ug/L		99
12) Ethanol	4.214	45	115489	761.08	ug/L		93
13) Freon 113	4.318	101	136235	40.07	ug/L		98
14) Carbon Disulfide	4.324	76	396055	35.24	ug/L		97
15) Iodomethane	4.458	142	127544	46.42	ug/L		95
16) Acrolein	4.678	56	223860	154.90	ug/L		98
17) Allyl chloride	4.848	41	195427	37.16	ug/L		98
18) Methylene Chloride	4.976	49	218489	39.66	ug/L		99
19) Acetone	5.019	43	549798	202.59	ug/L		100
20) Methyl acetate	5.165	43	1222746	214.99	ug/L		100
21) trans-1,2-Dichloroethene	5.178	61	225137	39.21	ug/L		98
22) Hexane	5.275	56	111743	39.70	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	464532	38.30	ug/L		92
24) Tert butyl alcohol	5.391	59	661364	398.51	ug/L		100
25) Acetonitrile	5.555	41	429719	383.82	ug/L		99
26) Di-isopropyl ether	5.720	45	486396	38.34	ug/L		98
27) Chloroprene	5.860	53	206158	37.18	ug/L		99
28) 1,1-Dichloroethane	5.879	63	297375	39.46	ug/L		98
29) Acrylonitrile	5.915	53	590928	213.74	ug/L		99
30) ETBE	6.135	59	461696	37.80	ug/L		99
31) Vinyl acetate	6.135	43	1659754	202.49	ug/L		100
32) cis-1,2-Dichloroethene	6.500	96	175939	38.84	ug/L		98
33) 2,2-Dichloropropane	6.616	77	219153	38.14	ug/L		98
34) Bromochloromethane	6.726	128	90674	38.79	ug/L		98
35) Cyclohexane	6.750	56	238643	39.74	ug/L		97
36) Chloroform	6.787	83	304419	38.72	ug/L		99
37) Ethyl acetate	6.885	43	1460008	215.68	ug/L		100
38) Tetrahydrofuran	6.976	42	120919	38.57	ug/L		94
40) Carbon Tetrachloride	6.970	117	220803	39.99	ug/L		97
41) 1,1,1-Trichloroethane	7.031	97	258370	39.72	ug/L		98
42) 2-Butanone	7.098	43	864609	204.75	ug/L		99
43) 1,1-Dichloropropene	7.171	75	205488	40.03	ug/L		99
44) tert-Butyl Formate	7.250	59	607008	192.47	ug/L		92

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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	538208	388.43	ug/L	97
46) Methacrylonitrile	7.433	41	1509781	371.64	ug/L	98
47) Benzene	7.427	78	610510	38.78	ug/L	94
48) TAME	7.525	73	443287	37.49	ug/L	98
50) Isobutyl alcohol	7.592	42	292157	796.14	ug/L	98
51) 1,2-Dichloroethane	7.634	62	208052	38.05	ug/L	100
52) Tert Amyl Alcohol	7.701	59	537460	394.56	ug/L	97
53) Trichloroethene	8.043	95	168013	38.16	ug/L	98
54) Methylcyclohexane	8.049	83	213535	39.29	ug/L	98
55) Dibromomethane	8.482	93	110209	39.20	ug/L	98
56) 1,2-Dichloropropane	8.561	63	156028	38.46	ug/L	98
57) Bromodichloromethane	8.622	83	223310	39.93	ug/L	99
58) Methyl methacrylate	8.738	41	178897	39.19	ug/L	96
59) 1,4-Dioxane	8.823	88	91387	704.76	ug/L	98
60) 2-Chloroethyl vinyl ether	9.152	63	528594	208.33	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	247601	39.28	ug/L	99
64) Toluene	9.494	91	654049	40.44	ug/L	100
65) 2-Nitropropane	9.695	41	362631	227.93	ug/L	93
66) 4-Methyl-2-pentanone	9.823	43	1519760	216.76	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	225365	40.37	ug/L	94
68) Tetrachloroethene	9.908	166	200578	40.97	ug/L	98
69) Ethyl methacrylate	10.012	69	213238	40.52	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	137325	41.63	ug/L	98
71) Dibromochloromethane	10.256	129	190015	41.63	ug/L	99
72) 1,3-Dichloropropane	10.335	76	243222	42.31	ug/L	99
73) 1,2-Dibromoethane	10.512	107	177153	41.62	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	3163458	2404.75	ug/L	99
75) 2-hexanone	10.652	43	1197748	209.26	ug/L	98
76) 1-Chlorohexane	10.963	91	185768	40.59	ug/L	97
77) Ethylbenzene	11.024	91	700468	40.10	ug/L	99
78) Chlorobenzene	11.024	112	437852	40.96	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	169136	40.89	ug/L	99
80) m,p-Xylene	11.164	91	1076128	82.07	ug/L	100
81) o-Xylene	11.603	91	552893	39.21	ug/L	99
82) Styrene	11.652	104	409582	40.34	ug/L	98
83) Bromoform	11.707	173	163738	42.58	ug/L	99
84) Isopropylbenzene	11.908	105	671097	40.45	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	64812	42.40	ug/L	98
88) n-Propylbenzene	12.329	91	779218	41.52	ug/L	97
89) Bromobenzene	12.347	156	200375	41.64	ug/L	97
90) 1,1,2,2-Tetrachloroethane	12.390	83	275414	41.99	ug/L	97
91) 1,3,5-Trimethylbenzene	12.511	105	541080	40.23	ug/L	100
92) 2-Chlorotoluene	12.518	91	532200	41.58	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.572	53	65982	38.17	ug/L	95
94) 1,2,3-Trichloropropane	12.542	110	82785	40.82	ug/L	95
95) Cyclohexanone	12.609	55	84591	186.62	ug/L	98
96) 4-Chlorotoluene	12.682	91	468822	40.70	ug/L	99
97) tert-Butylbenzene	12.853	91	290501	40.64	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	540491	40.80	ug/L	100
99) Pentachloroethane	12.902	167	126815	43.12	ug/L	97
100) sec-Butylbenzene	13.036	105	635577	41.59	ug/L	100
101) 4-Isopropyltoluene	13.170	119	549240	41.00	ug/L	99
102) 1,3-Dichlorobenzene	13.298	146	348465	42.03	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	562880	40.56	ug/L	99
104) 1,4-Dichlorobenzene	13.383	146	361689	40.59	ug/L	100
105) n-Butylbenzene	13.615	92	281963	42.81	ug/L	99
106) Benzyl Chloride	13.627	126	95105	39.97	ug/L	97
107) 1,2-Dichlorobenzene	13.822	146	339102	41.74	ug/L	99



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	69019	41.63	ug/L	87
109) Hexachlorobutadiene	15.145	225	115501	41.96	ug/L	98
110) 1,2,4-Trichlorobenzene	15.188	180	242928	40.47	ug/L	100
111) Naphthalene	15.462	128	767131	40.86	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	247309	41.31	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

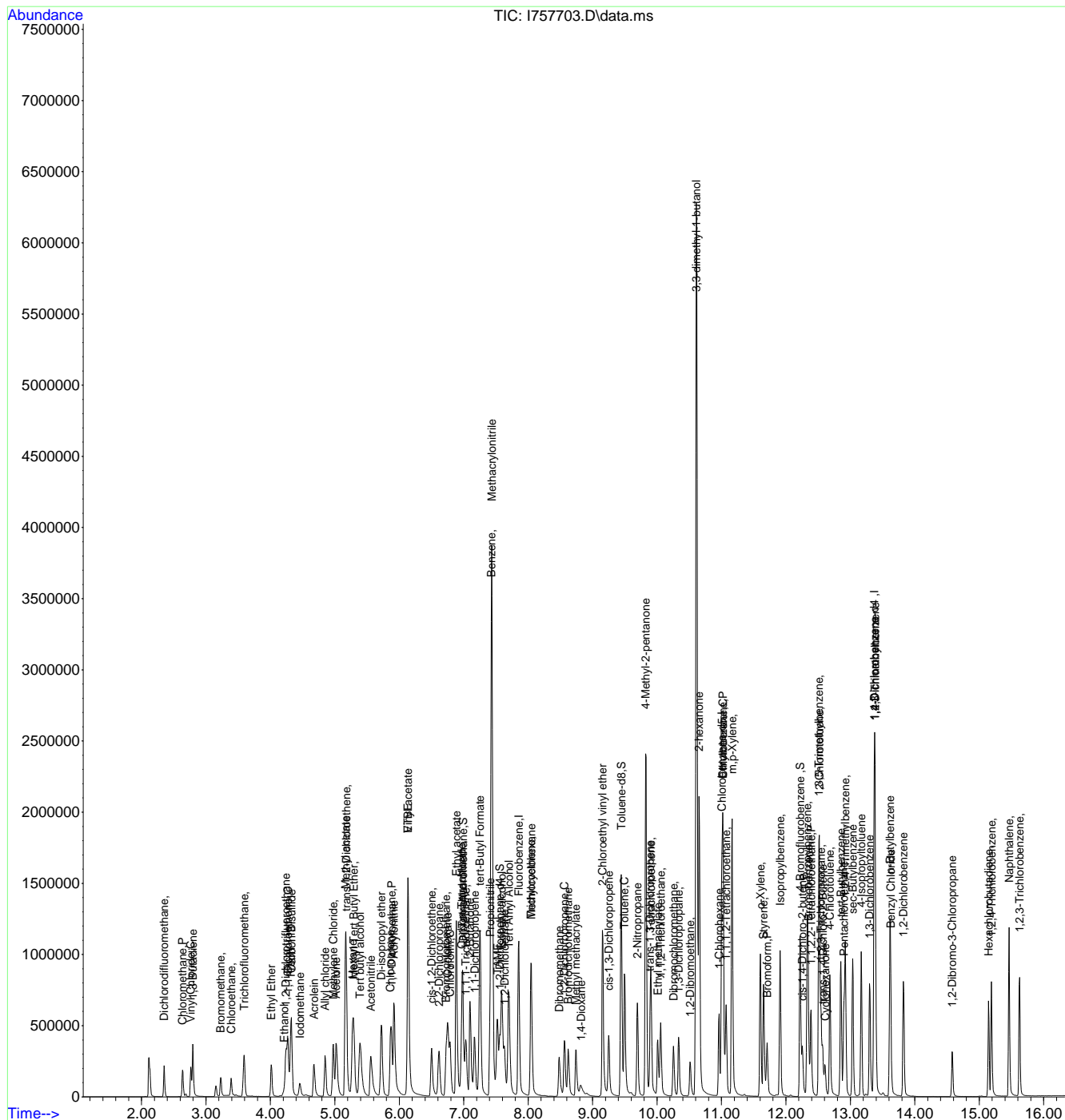
7.6.21  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.854	96	868567	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	623106	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	377823	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	250689	50.85	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.70%		
49) 1,2-Dichloroethane-d4	7.561	65	247061	55.11	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	110.22%		
63) Toluene-d8	9.445	98	910160	51.22	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	102.44%		
86) 4-Bromofluorobenzene	12.219	174	316696	49.78	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.56%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	155857	40.84	ug/L		98
3) Chloromethane	2.642	50	161913	41.34	ug/L		97
4) Vinyl Chloride	2.763	62	157281	40.57	ug/L		99
5) 1,3-Butadiene	2.794	39	120487	36.50	ug/L		93
6) Bromomethane	3.233	94	54522	41.05	ug/L		98
7) Chloroethane	3.391	64	66209	40.73	ug/L		96
8) Trichlorofluoromethane	3.593	101	213809	41.67	ug/L		96
9) Ethyl Ether	4.019	59	101095	37.64	ug/L		96
10) 1,2-Dichlorotrifluoro...	4.245	67	142637	39.93	ug/L		95
11) 1,1-Dichloroethene	4.269	61	184811	39.21	ug/L		99
12) Ethanol	4.214	45	101503	777.61	ug/L		98
13) Freon 113	4.318	101	114579	39.13	ug/L		98
14) Carbon Disulfide	4.330	76	330423	34.13	ug/L		98
15) Iodomethane	4.458	142	128074	53.44	ug/L		97
16) Acrolein	4.678	56	186662	150.16	ug/L		91
17) Allyl chloride	4.854	41	160038	35.32	ug/L		97
18) Methylene Chloride	4.976	49	203971	43.09	ug/L		95
19) Acetone	5.025	43	469432	200.84	ug/L		98
20) Methyl acetate	5.165	43	1075732	219.60	ug/L		98
21) trans-1,2-Dichloroethene	5.184	61	189917	38.41	ug/L		97
22) Hexane	5.275	56	93751	38.67	ug/L		98
23) Methyl Tert Butyl Ether	5.300	73	381709	36.54	ug/L		98
24) Tert butyl alcohol	5.391	59	578730	404.87	ug/L		93
25) Acetonitrile	5.562	41	367620	380.97	ug/L		98
26) Di-isopropyl ether	5.726	45	421489	38.57	ug/L		96
27) Chloroprene	5.866	53	173062	36.28	ug/L		99
28) 1,1-Dichloroethane	5.885	63	250717	38.63	ug/L		100
29) Acrylonitrile	5.921	53	496991	208.71	ug/L		98
30) ETBE	6.135	59	395568	37.61	ug/L		98
31) Vinyl acetate	6.141	43	1339504	190.41	ug/L		99
32) cis-1,2-Dichloroethene	6.507	96	142887	36.63	ug/L		96
33) 2,2-Dichloropropane	6.616	77	171612	34.68	ug/L		98
34) Bromochloromethane	6.732	128	70218	34.88	ug/L		91
35) Cyclohexane	6.757	56	205717	39.78	ug/L		97
36) Chloroform	6.793	83	252538	37.30	ug/L		99
37) Ethyl acetate	6.885	43	1242894	213.34	ug/L		99
38) Tetrahydrofuran	6.982	42	106913	39.60	ug/L		94
40) Carbon Tetrachloride	6.976	117	183521	38.59	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	215927	38.54	ug/L		99
42) 2-Butanone	7.098	43	746394	205.19	ug/L		95
43) 1,1-Dichloropropene	7.171	75	173168	39.17	ug/L		96

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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	476921	175.58	ug/L	92
45) Propionitrile	7.409	54	463017	387.97	ug/L	99
46) Methacrylonitrile	7.439	41	1304599	372.85	ug/L	99
47) Benzene	7.433	78	509693	37.59	ug/L	94
48) TAME	7.525	73	373006	36.62	ug/L	97
50) Isobutyl alcohol	7.592	42	261292	826.69	ug/L	97
51) 1,2-Dichloroethane	7.634	62	176340	37.44	ug/L	97
52) Tert Amyl Alcohol	7.701	59	474274	404.24	ug/L	96
53) Trichloroethene	8.043	95	141088	37.20	ug/L	99
54) Methylcyclohexane	8.049	83	181140	38.73	ug/L	97
55) Dibromomethane	8.482	93	89372	36.91	ug/L	99
56) 1,2-Dichloropropane	8.567	63	133203	38.12	ug/L	98
57) Bromodichloromethane	8.628	83	183546	38.11	ug/L	99
58) Methyl methacrylate	8.744	41	151608	38.61	ug/L	98
59) 1,4-Dioxane	8.817	88	82156	734.02	ug/L	95
60) 2-Chloroethyl vinyl ether	9.159	63	398032	183.34	ug/L	96
61) cis-1,3-Dichloropropene	9.250	75	204090	37.59	ug/L	98
64) Toluene	9.500	91	543651	38.24	ug/L	100
65) 2-Nitropropane	9.695	41	324603	231.68	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	1309353	212.48	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	189448	38.72	ug/L	97
68) Tetrachloroethene	9.908	166	177056	41.15	ug/L	97
69) Ethyl methacrylate	10.012	69	175465	38.05	ug/L	99
70) 1,1,2-Trichloroethane	10.055	83	112964	38.96	ug/L	99
71) Dibromochloromethane	10.256	129	155015	38.64	ug/L	98
72) 1,3-Dichloropropane	10.335	76	203297	40.23	ug/L	95
73) 1,2-Dibromoethane	10.512	107	146160	39.07	ug/L	94
74) 3,3-dimethyl-1-butanol	10.609	57	2764366	2392.11	ug/L	98
75) 2-hexanone	10.658	43	1043036	207.41	ug/L	98
76) 1-Chlorohexane	10.963	91	155538	38.66	ug/L	89
77) Ethylbenzene	11.024	91	597355	38.91	ug/L	98
78) Chlorobenzene	11.024	112	361086	38.43	ug/L	97
79) 1,1,1,2-Tetrachloroethane	11.073	131	138974	38.22	ug/L	99
80) m,p-Xylene	11.164	91	906631	78.67	ug/L	100
81) o-Xylene	11.603	91	472403	38.12	ug/L	100
82) Styrene	11.658	104	341099	38.36	ug/L	97
83) Bromoform	11.707	173	131085	38.78	ug/L	97
84) Isopropylbenzene	11.914	105	566551	38.86	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	46779	34.52	ug/L	96
88) n-Propylbenzene	12.329	91	656982	39.50	ug/L	98
89) Bromobenzene	12.347	156	164138	38.49	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.390	83	229419	39.46	ug/L	99
91) 1,3,5-Trimethylbenzene	12.518	105	461562	38.72	ug/L	100
92) 2-Chlorotoluene	12.518	91	449095	39.59	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.572	53	51365	33.72	ug/L	96
94) 1,2,3-Trichloropropane	12.548	110	70949	39.47	ug/L	96
95) Cyclohexanone	12.609	55	76667	190.84	ug/L	95
96) 4-Chlorotoluene	12.682	91	398404	39.02	ug/L	98
97) tert-Butylbenzene	12.853	91	245619	38.77	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	452769	38.57	ug/L	98
99) Pentachloroethane	12.902	167	94827	36.38	ug/L	96
100) sec-Butylbenzene	13.036	105	540302	39.94	ug/L	99
101) 4-Isopropyltoluene	13.170	119	465051	39.17	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	288549	39.27	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	472540	38.42	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	301149	38.13	ug/L	99
105) n-Butylbenzene	13.615	92	234956	40.25	ug/L	90

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

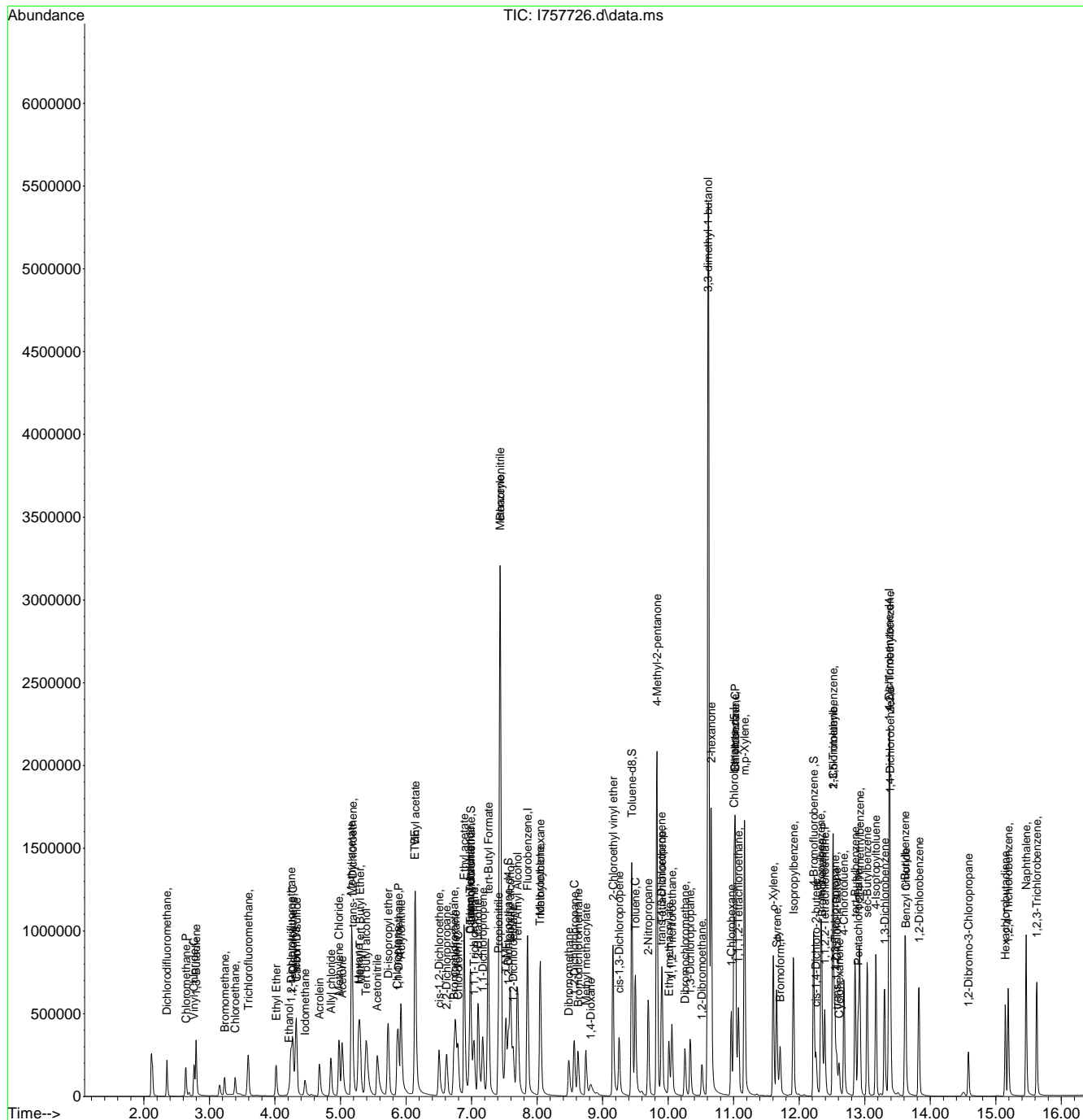
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	13.627	126	68069	32.74	ug/L #	72
107) 1,2-Dichlorobenzene	13.828	146	282234	39.20	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	59432	40.44	ug/L	91
109) Hexachlorobutadiene	15.145	225	93972	38.52	ug/L	97
110) 1,2,4-Trichlorobenzene	15.188	180	197340	37.09	ug/L	98
111) Naphthalene	15.462	128	630133	37.87	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	197413	37.20	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.22  
7



SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

Instrument:	MSVOA12-10
Date:	07/05/2023
Analyst:	Jenifer W
Column Type	RTX/VMS
Detector	5975C-MSD
Purge Pressure	1.1psi
Purge Volume	5 mL

Method(s):	8260
Method File:	V20_06-07-2023.M
Calibration Date:	06/07/2023
Acq. Method:	8260/VMS.M
EM Voltage:	1565V
Run ID:	V203017

BFB:	VS3211
ICAL/CC:	VS3199, VS3224, VS3236
VS219, VS3218, VS3247, \	
ICV/BS:	VS3238, VS3223, VS3251
VS3243, VS3242, VS3246,	
ISTD/Surr.:	VS3211

pH Paper Lot#:	230320/212521
KI Paper Lot#:	14-860 5/9/2022
AFA Lot#:	VS3075
Data processed by:	Jenifer W / Celline C.
Sample ID Ver. by:	Jenifer W
Date Verified:	07/05/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	C? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
2077411	BFB	-	-	Water	1	-	-	-	-	Autotune Passed ✓
2077412	CC2981-4	-	-	Water	2	-	-	-	-	12.5uL→50mL (OP) #40 (PBL) #49 #76 ✓
2077413	BS	-	-	Water	3	-	-	-	-	25uL→100mL (OP) #40 (PBL) #49 #76 ✓
2077414	CC2981-1	-	-	Water	4	-	-	-	-	1uL→100mL ✓
2077415	MB	-	-	Water	5	-	-	-	-	Acetone, ACN hit
2077416	FC7381-7	1x	1	Water	6	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077417	FC7382-3	1x	1	Water	7	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low; Toluene hit (Trip blank w/ detection)
2077418	FC7382-1	1x	1	Water	8	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077419	FC7382-2	1x	2	Water	9	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077420	FC7381-1	1x	5	Water	10	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077421	FC7381-3	1x	2	Water	11	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077422	FC7381-5	1x	5	Water	12	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077423	FC7381-6	1x	5	Water	13	MS54357	2	N	1x	AFA; DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077424	FC7413-1	1x	4	Water	14	MS54357	3	N	1x	AFA; DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077425	FC7413-2	1x	1	Water	15	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low; Multiple hits (Trip blank w/ detection)
2077426	FC7381-2	2x	5	Water	16	MS54357	1	N	2x	25mL→50mL DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077427	FC7381-4	1x	5	Water	17	MS54357	1	N	1x, 5x	cis-1,2-DCI; VC, o-Xylene OIR; DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077428	FC7451-6	1x	1	Water	18	MS54357	1	N	-	AFA, ND ✓
2077429	FC7451-7	1x	1	Water	19	MS54357	1	N	-	AFA, ND ✓
2077430	FC7451-8	1x	1	Water	20	MS54357	1	N	-	AFA, ND ✓
2077431	FC7451-9	1x	1	Water	21	MS54357	1	N	-	AFA ✓
2077432	FC7451-10	1x	1	Water	22	MS54357	1	N	-	AFA ✓
2077433	FC7451-11	1x	1	Water	23	MS54357	1	N	-	AFA, ND ✓
2077434	FC7451-12	1x	1	Water	24	MS54357	1	N	-	AFA ✓
2077435	FC7451-13	1x	1	Water	25	MS54357	1	N	-	AFA, ND ✓
2077436	FC7382-1MS	1x	2	Water	26	MS54357	1	N	-	Spike 12.5uL→40mL (OP) #40 (PBL) #49 #76 ✓
2077437	FC7382-1MSD	1x	3	Water	27	MS54357	1	N	-	Spike 12.5uL→40mL (OP) #40 (PBL) #49 #76 ✓
2077438	ECC2981-4	-	-	Water	28	-	-	-	-	12.5uL→50mL (OP) #40 (PBL) #49 #76 ✓

Matrix: Designate "V" for Water "S" for soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate  
 Manual Integration Rational SOP 0A029: NP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PI Poor Instrument



SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

Instrument:	MSVOA-16i
Date:	06/15/2023
Analyst:	JoAnn L
Column Type	RTX/VMS
Detector	5975C MSD
Purge Pressure	1.3 psi
Purge Volume	5mL

Method(s):	8260VMS40
Method File:	VI-2023-6-15.M
Calibration Date:	06/15/2023
Acq. Method:	RTX-VMS
EM Voltage:	1306V
Run ID:	VI2948

BFB:	VS3157	pH Paper Lot#:	206722/230320
ICAL/CC:	VS3199, VS3173, VS3198	KI Paper Lot#:	14-860 05/09/2022
VS3197, VS3190, VS3193.V		AFA Lot#:	VS3075
ICV/BS:	VS3180, VS3158, VS3206		
VS3208, VS3207, VS3210,		Data processed by:	JoAnn L
ISTD/Surr.:	VS3157	Sample ID Ver. by:	JoAnn L
		Date Verified:	06/15/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
I757260	BFB	-	-	Water	1	-	-	-	-	Autotune Passed✓
I757261	IC2948-1	-	-	Water	2	-	-	-	-	1uL→100mL; 100uL MeOH✓
I757262	IC2948-2	-	-	Water	3	-	-	-	-	5uL→100mL; 100uL MeOH✓
I757263	IC2948-3	-	-	Water	4	-	-	-	-	5uL→50mL; 100uL MeOH ✓
I757264	IC2948-4	-	-	Water	5	-	-	-	-	12.5uL→50mL✓
I757265	IC2948-5	-	-	Water	6	-	-	-	-	20uL→50mL✓
I757266	IC2948-6	-	-	Water	7	-	-	-	-	35uL→50mL✓
I757267	IC2948-7	-	-	Water	8	-	-	-	-	50uL→50mL✓
I757268	BLANK	-	-	Water	9	-	-	-	-	
I757269/A	ICV2948-5/CC2948	-	-	Water	10	-	-	-	-	20uL→50mL ✓
I757270/A	ICV2948-4/BS	-	-	Water	11	-	-	-	-	12.5uL→50mL✓
I757271	BSD	-	-	Water	12	-	-	-	-	12.5uL→50mL✓
I757272	BLANK	-	-	Water	13	-	-	-	-	
I757273	MB	-	-	Water	14	-	-	-	-	ND✓
I757274	FC6893-2	-	-	Water	15	MS54220	1	N	-	ND✓
I757275	FC6893-4	-	-	Water	16	MS54220	1	N	-	ND✓
I757276	FC6893-6	-	-	Water	17	MS54220	1	N	-	ND✓
I757277	FC6893-8	-	-	Water	18	MS54220	1	N	-	ND✓
I757278	FC6893-10	-	-	Water	19	MS54220	1	N	-	ND✓
I757279	FC6893-12	-	-	Water	20	MS54220	1	N	-	ND✓
I757280	FC6893-14	-	-	Water	21	MS54220	1	N	-	ND✓
I757281	FC6893-16	-	-	Water	22	MS54220	1	N	-	ND✓
I757282	FC6893-18	-	-	Water	23	MS54220	1	N	-	ND✓
I757283	FC6893-20	-	-	Water	24	MS54220	1	N	-	ND✓
I757284	FC6893-22	-	-	Water	25	MS54220	1	N	-	ND✓
I757285	FC6893-24	-	-	Water	26	MS54220	1	N	-	ND✓
I757286	ECC2948-5	-	-	Water	27	-	-	-	-	20uL→50mL✓

Matrix: Designate "W" for Water, "S" for soil, "O" for Oil, "L" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate  
 Manual Integration Rational SOP QAO29: I/P Missed Peak, O/P Overlapping Peak, S/P Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, P/I Poor Instrument



## GC Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

**Method Blank Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2900-MB	LL83530.D	1	07/07/23	SS	n/a	n/a	GLL2900

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

**Method Blank Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2901-MB	LL83560.D	1	07/10/23	SS	n/a	n/a	GLL2901

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-4, FC7381-5, FC7381-6

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

**Method Blank Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2902-MB	LL83597.D	1	07/11/23	SS	n/a	n/a	GLL2902

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-5

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2900-BS	LL83527.D	1	07/07/23	SS	n/a	n/a	GLL2900
GLL2900-BSD	LL83528.D	1	07/07/23	SS	n/a	n/a	GLL2900

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	108	95.0	88	88.4	82	7	62-139/30
74-84-0	Ethane	219	185	84	175	80	6	67-141/30
74-85-1	Ethene	290	244	84	228	79	7	68-141/30

8.2.1  
8

\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2901-BS	LL83557.D	1	07/10/23	SS	n/a	n/a	GLL2901
GLL2901-BSD	LL83558.D	1	07/10/23	SS	n/a	n/a	GLL2901

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-4, FC7381-5, FC7381-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	108	105	97	118	109	12	62-139/30
74-84-0	Ethane	219	187	85	207	95	10	67-141/30
74-85-1	Ethene	290	234	81	267	92	13	68-141/30

8.2.2  
8

\* = Outside of Control Limits.



# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2902-BS	LL83593.D	1	07/11/23	SS	n/a	n/a	GLL2902
GLL2902-BSD	LL83595.D	1	07/11/23	SS	n/a	n/a	GLL2902

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	108	124	115	118	109	5	62-139/30

8.2.3  
8

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7381-1MS	LL83549.D	1	07/07/23	SS	n/a	n/a	GLL2900
FC7381-1	LL83537.D	1	07/07/23	SS	n/a	n/a	GLL2900

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	FC7381-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	0.62	108	119	110	62-139
74-84-0	Ethane	1.0 U	219	234	107	67-141
74-85-1	Ethene	1.0 U	290	307	106	68-141

8.3.1

8

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7589-7MS	LL83589.D	1	07/10/23	SS	n/a	n/a	GLL2901
FC7589-7	LL83582.D	1	07/10/23	SS	n/a	n/a	GLL2901

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-4, FC7381-5, FC7381-6

CAS No.	Compound	FC7589-7 ug/l	Spike Q ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	0.50 U	108	118	109	62-139
74-84-0	Ethane	1.0 U	219	225	103	67-141
74-85-1	Ethene	1.0 U	290	295	102	68-141

8.3.2  
8

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7589-17MS	LL83622.D	1	07/11/23	SS	n/a	n/a	GLL2902
FC7589-17	LL83609.D	1	07/11/23	SS	n/a	n/a	GLL2902

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-5

CAS No.	Compound	FC7589-17 ug/l	Spike Q ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	0.50 U	108	114	106	62-139

8.3.3  
8

\* = Outside of Control Limits.

**Duplicate Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7381-1DUP	LL83548.D	1	07/07/23	SS	n/a	n/a	GLL2900
FC7381-1	LL83537.D	1	07/07/23	SS	n/a	n/a	GLL2900

**The QC reported here applies to the following samples:**

**Method:** RSKSOP-147/175

FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6, FC7381-7

CAS No.	Compound	FC7381-1 ug/l	DUP Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	0.62		0.55		12	30
74-84-0	Ethane	1.0 U		ND		nc	30
74-85-1	Ethene	1.0 U		ND		nc	30

\* = Outside of Control Limits.

## Duplicate Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7589-7DUP	LL83588.D	1	07/10/23	SS	n/a	n/a	GLL2901
FC7589-7	LL83582.D	1	07/10/23	SS	n/a	n/a	GLL2901

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7381-4, FC7381-5, FC7381-6

CAS No.	Compound	FC7589-7 ug/l	DUP Q	ug/l	Q	RPD	Limits
74-82-8	Methane	0.50 U	ND			nc	30
74-84-0	Ethane	1.0 U	ND			nc	30
74-85-1	Ethene	1.0 U	ND			nc	30

8.4.2

8

\* = Outside of Control Limits.

# Initial Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2678-ICC2678  
**Lab FileID:** LL77119.D

## Response Factor Report FID4-LL

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration

### Calibration Files

1 =LL77115.D 2 =LL77116.D 3 =LL77117.D 4 =LL77118.D  
 5 =LL77119.D 6 =LL77120.D 7 =LL77121.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) Methane	8.147	7.784	5.707	6.267	6.226	6.254	6.064	6.636	E5 14.09
---- Linear regr., Force(0,0) ---- Coefficient = 0.9998									
Response Ratio = 0.00000 + 610295.04174 *A									
2) Acetylene	0.876	1.146	1.052	1.258	1.278	1.267	1.366	1.177	E6 14.18
---- Linear regr., Force(0,0) ---- Coefficient = 0.9989									
Response Ratio = 0.00000 + 1345065.34207 *A									
3) Ethylene	0.806	0.993	0.972	1.105	1.114	1.088	1.088	1.024	E6 10.84
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 1087940.04642 *A									
4) Ethane	0.897	1.013	0.978	1.114	1.120	1.125	1.117	1.052	E6 8.60
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 1118890.75720 *A									
5) Propane	1.625	2.081	1.200	1.396	1.465	1.462	1.488	1.531	E6 17.89
---- Linear regr., Force(0,0) ---- Coefficient = 0.9999									
Response Ratio = 0.00000 + 1482646.11599 *A									

-----  
 (#) = Out of Range

RSK122321B.M

Tue Dec 28 15:06:18 2021

8.5.1  
8

# Initial Calibration Verification

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2678-ICV2678  
**Lab FileID:** LL77123.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15  
 Acq On : 12-23-2021 03:20:03 PM Operator: trangd  
 Sample : icv2678-5 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1023.341	-2.3	100	0.00	0.02	0.55
2 Acetylene	1000.000	963.101	3.7	101	0.00	0.28	0.88
3 Ethylene	1000.000	1024.733	-2.5	100	0.00	0.38	1.18
4 Ethane	1000.000	1017.149	-1.7	102	0.00	0.61	1.41
5 Propane	1000.000	1057.495	-5.7	107	0.00	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Thu Dec 30 10:09:01 2021

8.5.2  
8



# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2900-CC2678  
**Lab FileID:** LL83525.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\070723\LL83525.D Vial: 2  
 Acq On : 7-7-2023 07:35:11 AM Operator: samantha  
 Sample : cc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	957.203	4.3	94	0.00	0.02	0.55
2 Acetylene	1000.000	958.234	4.2	101	0.00	0.28	0.88
3 Ethylene	1000.000	896.063	10.4	87	0.00	0.38	1.18
4 Ethane	1000.000	922.644	7.7	92	-0.02	0.61	1.41
5 Propane	1000.000	851.640	14.8	86	-0.05	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Fri Jul 07 07:41:30 2023

8.5.3  
8

**Continuing Calibration Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2900-CC2678  
**Lab FileID:** LL83539.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\070723\LL83539.D Vial: 15  
 Acq On : 07 Jul 2023 10:28 am Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2900,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Methane	500.000	558.696	-11.7	109	0.00	0.02- 0.55
2	Acetylene	500.000	558.390	-11.7	119	0.00	0.28- 0.88
3	Ethylene	500.000	523.923	-4.8	103	0.00	0.38- 1.18
4	Ethane	500.000	544.954	-9.0	109	-0.01	0.61- 1.41
5	Propane	500.000	492.333	1.5	105	-0.05	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Fri Jul 07 10:34:59 2023

**Continuing Calibration Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2900-ECC2678  
**Lab FileID:** LL83550.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\070723\LL83550.D Vial: 26  
 Acq On : 07 Jul 2023 12:07 pm Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24242,gll2900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1089.747	-9.0	107	0.00	0.02	0.55
2 Acetylene	1000.000	1106.494	-10.6	116	0.00	0.28	0.88
3 Ethylene	1000.000	1026.462	-2.6	100	0.00	0.38	1.18
4 Ethane	1000.000	1059.170	-5.9	106	-0.02	0.61	1.41
5 Propane	1000.000	1024.788	-2.5	104	-0.05	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Fri Jul 07 12:13:52 2023

# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2901-CC2678  
**Lab FileID:** LL83555.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071023\LL83555.D Vial: 5  
 Acq On : 7-10-2023 09:08:59 AM Operator: samantha  
 Sample : cc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1062.693	-6.3	104	0.00	0.02	0.55
2 Acetylene	1000.000	904.938	9.5	95	0.00	0.28	0.88
3 Ethylene	1000.000	900.821	9.9	88	-0.03	0.38	1.18
4 Ethane	1000.000	914.446	8.6	91	-0.05	0.61	1.41
5 Propane	1000.000	176.653	82.3#	18	-0.14	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Mon Jul 10 09:32:18 2023

8.5.6  
8

# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2901-CC2678  
**Lab FileID:** LL83568.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071023\LL83568.D Vial: 18  
 Acq On : 10 Jul 2023 12:09 pm Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	500.000	538.042	-7.6	105	0.00	0.02	0.55
2 Acetylene	500.000	479.230	4.2	103	0.00	0.28	0.88
3 Ethylene	500.000	472.426	5.5	93	-0.03	0.38	1.18
4 Ethane	500.000	488.658	2.3	98	-0.04	0.61	1.41
5 Propane	500.000	238.108	52.4#	51	-0.11	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Mon Jul 10 12:16:06 2023

8.5.7  
8

**Continuing Calibration Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2901-CC2678  
**Lab FileID:** LL83579.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071023\LL83579.D Vial: 29  
 Acq On : 7-10-2023 02:28:19 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Methane	500.000	521.096	-4.2	101	0.00	0.02- 0.55
2	Acetylene	500.000	483.340	3.3	103	0.00	0.28- 0.88
3	Ethylene	500.000	466.437	6.7	92	-0.02	0.38- 1.18
4	Ethane	500.000	480.855	3.8	97	-0.04	0.61- 1.41
5	Propane	500.000	282.930	43.4#	60	-0.10	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Mon Jul 10 14:35:03 2023

# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2901-ECC2678  
**Lab FileID:** LL83590.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071023\LL83590.D Vial: 40  
 Acq On : 7-10-2023 04:20:11 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1080.703	-8.1	106	0.00	0.02	0.55
2 Acetylene	1000.000	1033.972	-3.4	109	0.00	0.28	0.88
3 Ethylene	1000.000	981.244	1.9	96	-0.02	0.38	1.18
4 Ethane	1000.000	1008.449	-0.8	101	-0.04	0.61	1.41
5 Propane	1000.000	854.957	14.5	87	-0.10	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Mon Jul 10 16:26:22 2023

8.5.9  
8

# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2902-CC2678  
**Lab FileID:** LL83592.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071123\LL83592.D Vial: 2  
 Acq On : 7-11-2023 08:33:00 AM Operator: samantha  
 Sample : CC2678-5 Inst : FID4-LL  
 Misc : gc24246,gll2902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1086.345	-8.6	106	0.00	0.02	0.55
2 Acetylene	1000.000	1000.534	-0.1	105	0.00	0.28	0.88
3 Ethylene	1000.000	966.206	3.4	94	-0.02	0.38	1.18
4 Ethane	1000.000	992.721	0.7	99	-0.04	0.61	1.41
5 Propane	1000.000	800.470	20.0#	81	-0.10	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Tue Jul 11 08:39:52 2023

8.5.10  
8



# Continuing Calibration Summary

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2902-CC2678  
**Lab FileID:** LL83605.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071123\LL83605.D Vial: 15  
 Acq On : 11 Jul 2023 11:27 am Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	500.000	486.239	2.8	95	0.00	0.02	0.55
2 Acetylene	500.000	456.354	8.7	98	0.00	0.28	0.88
3 Ethylene	500.000	438.554	12.3	86	-0.02	0.38	1.18
4 Ethane	500.000	450.409	9.9	90	-0.03	0.61	1.41
5 Propane	500.000	312.099	37.6#	66	-0.09	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Tue Jul 11 11:33:15 2023

8.5.11  
8

**Continuing Calibration Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2902-CC2678  
**Lab FileID:** LL83616.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071123\LL83616.D Vial: 26  
 Acq On : 7-11-2023 02:06:45 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Methane	500.000	549.256	-9.9	107	0.00	0.02- 0.55
2	Acetylene	500.000	524.992	-5.0	112	0.00	0.28- 0.88
3	Ethylene	500.000	500.740	-0.1	99	-0.02	0.38- 1.18
4	Ethane	500.000	515.741	-3.1	104	-0.03	0.61- 1.41
5	Propane	500.000	422.440	15.5#	90	-0.09	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Wed Jul 12 15:17:43 2023

**Continuing Calibration Summary**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2902-ECC2678  
**Lab FileID:** LL83623.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071123\LL83623.D Vial: 33  
 Acq On : 7-11-2023 03:11:24 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Methane	1000.000	1098.200	-9.8	108	0.00	0.02- 0.55
2	Acetylene	1000.000	1081.874	-8.2	114	0.00	0.28- 0.88
3	Ethylene	1000.000	1012.245	-1.2	99	-0.02	0.38- 1.18
4	Ethane	1000.000	1040.506	-4.1	104	-0.04	0.61- 1.41
5	Propane	1000.000	896.481	10.4	91	-0.09	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Wed Jul 12 15:17:24 2023

## Run Sequence Report

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> GLL2678	<b>Method:</b> RSKSOP-147/175	<b>Instrument ID:</b> GCLL
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2678-IC2678	LL77115.D	12/23/21 11:44	n/a	Initial cal 1
GLL2678-IC2678	LL77116.D	12/23/21 11:53	n/a	Initial cal 2
GLL2678-IC2678	LL77117.D	12/23/21 12:43	n/a	Initial cal 3
GLL2678-IC2678	LL77118.D	12/23/21 12:54	n/a	Initial cal 4
GLL2678-ICC2678	LL77119.D	12/23/21 13:01	n/a	Initial cal 5
GLL2678-IC2678	LL77120.D	12/23/21 14:24	n/a	Initial cal 6
GLL2678-IC2678	LL77121.D	12/23/21 14:39	n/a	Initial cal 7
GLL2678-ICV2678	LL77123.D	12/23/21 15:20	n/a	Initial cal verification 5

**Run Sequence Report**

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> GLL2900	<b>Method:</b> RSKSOP-147/175	<b>Instrument ID:</b> GCLL
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2900-CC2678	LL83525.D	07/07/23 07:35	n/a	Continuing cal 5
GLL2900-BS	LL83527.D	07/07/23 07:51	n/a	Blank Spike
GLL2900-BSD	LL83528.D	07/07/23 08:05	n/a	Blank Spike Duplicate
GLL2900-MB	LL83530.D	07/07/23 08:26	n/a	Method Blank
ZZZZZZ	LL83532.D	07/07/23 09:00	n/a	(unrelated sample)
ZZZZZZ	LL83533.D	07/07/23 09:25	n/a	(unrelated sample)
ZZZZZZ	LL83534.D	07/07/23 09:39	n/a	(unrelated sample)
ZZZZZZ	LL83535.D	07/07/23 09:48	n/a	(unrelated sample)
ZZZZZZ	LL83536.D	07/07/23 10:05	n/a	(unrelated sample)
FC7381-1	LL83537.D	07/07/23 10:13	n/a	SEAD-AL-PT-24-20230628
FC7381-2	LL83538.D	07/07/23 10:21	n/a	SEAD-AL-MWT-7-20230628
GLL2900-CC2678	LL83539.D	07/07/23 10:28	n/a	Continuing cal 4
FC7381-4	LL83541.D	07/07/23 10:46	n/a	SEAD-AL-MWT-29-20230628
FC7381-5	LL83542.D	07/07/23 10:54	n/a	SEAD-AL-MWT-26-20230628
FC7381-6	LL83543.D	07/07/23 11:04	n/a	SEAD-AL-MWT-27-20230628
FC7381-7	LL83544.D	07/07/23 11:14	n/a	TB
ZZZZZZ	LL83545.D	07/07/23 11:22	n/a	(unrelated sample)
ZZZZZZ	LL83546.D	07/07/23 11:32	n/a	(unrelated sample)
ZZZZZZ	LL83547.D	07/07/23 11:40	n/a	(unrelated sample)
FC7381-1DUP	LL83548.D	07/07/23 11:47	n/a	Duplicate
FC7381-1MS	LL83549.D	07/07/23 11:58	n/a	Matrix Spike
GLL2900-ECC2678	LL83550.D	07/07/23 12:07	n/a	Ending cal 5

## Run Sequence Report

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> GLL2901	<b>Method:</b> RSKSOP-147/175	<b>Instrument ID:</b> GCLL
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2901-CC2678	LL83555.D	07/10/23 09:08	n/a	Continuing cal 5
GLL2901-BS	LL83557.D	07/10/23 09:35	n/a	Blank Spike
GLL2901-BSD	LL83558.D	07/10/23 09:45	n/a	Blank Spike Duplicate
GLL2901-MB	LL83560.D	07/10/23 10:10	n/a	Method Blank
FC7492-1	LL83561.D	07/10/23 10:18	n/a	(used for QC only; not part of job FC7381)
ZZZZZZ	LL83562.D	07/10/23 10:43	n/a	(unrelated sample)
FC7381-4	LL83564.D	07/10/23 11:15	n/a	SEAD-AL-MWT-29-20230628
FC7381-6	LL83565.D	07/10/23 11:26	n/a	SEAD-AL-MWT-27-20230628
ZZZZZZ	LL83566.D	07/10/23 11:35	n/a	(unrelated sample)
ZZZZZZ	LL83567.D	07/10/23 11:44	n/a	(unrelated sample)
GLL2901-CC2678	LL83568.D	07/10/23 12:09	n/a	Continuing cal 4
ZZZZZZ	LL83570.D	07/10/23 12:26	n/a	(unrelated sample)
ZZZZZZ	LL83571.D	07/10/23 12:36	n/a	(unrelated sample)
ZZZZZZ	LL83572.D	07/10/23 12:44	n/a	(unrelated sample)
ZZZZZZ	LL83573.D	07/10/23 12:53	n/a	(unrelated sample)
ZZZZZZ	LL83574.D	07/10/23 13:04	n/a	(unrelated sample)
ZZZZZZ	LL83575.D	07/10/23 13:14	n/a	(unrelated sample)
ZZZZZZ	LL83576.D	07/10/23 13:57	n/a	(unrelated sample)
GLL2901-CC2678	LL83579.D	07/10/23 14:28	n/a	Continuing cal 4
FC7381-5	LL83581.D	07/10/23 14:51	n/a	SEAD-AL-MWT-26-20230628
FC7589-7	LL83582.D	07/10/23 15:01	n/a	(used for QC only; not part of job FC7381)
ZZZZZZ	LL83583.D	07/10/23 15:16	n/a	(unrelated sample)
ZZZZZZ	LL83584.D	07/10/23 15:26	n/a	(unrelated sample)
ZZZZZZ	LL83585.D	07/10/23 15:34	n/a	(unrelated sample)
ZZZZZZ	LL83586.D	07/10/23 15:41	n/a	(unrelated sample)
ZZZZZZ	LL83587.D	07/10/23 15:49	n/a	(unrelated sample)
FC7589-7DUP	LL83588.D	07/10/23 15:56	n/a	Duplicate
FC7589-7MS	LL83589.D	07/10/23 16:11	n/a	Matrix Spike
GLL2901-ECC2678	LL83590.D	07/10/23 16:20	n/a	Ending cal 5

## Run Sequence Report

**Job Number:** FC7381  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> GLL2902	<b>Method:</b> RSKSOP-147/175	<b>Instrument ID:</b> GCLL
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2902-CC2678	LL83592.D	07/11/23 08:33	n/a	Continuing cal 5
GLL2902-BS	LL83593.D	07/11/23 08:44	n/a	Blank Spike
GLL2902-BSD	LL83595.D	07/11/23 09:16	n/a	Blank Spike Duplicate
GLL2902-MB	LL83597.D	07/11/23 09:40	n/a	Method Blank
FC7381-5	LL83598.D	07/11/23 10:00	n/a	SEAD-AL-MWT-26-20230628
ZZZZZZ	LL83599.D	07/11/23 10:14	n/a	(unrelated sample)
ZZZZZZ	LL83600.D	07/11/23 10:23	n/a	(unrelated sample)
FC7589-13	LL83601.D	07/11/23 10:39	n/a	(used for QC only; not part of job FC7381)
ZZZZZZ	LL83602.D	07/11/23 10:50	n/a	(unrelated sample)
ZZZZZZ	LL83603.D	07/11/23 10:58	n/a	(unrelated sample)
ZZZZZZ	LL83604.D	07/11/23 11:11	n/a	(unrelated sample)
GLL2902-CC2678	LL83605.D	07/11/23 11:27	n/a	Continuing cal 4
FC7589-17	LL83609.D	07/11/23 12:52	n/a	(used for QC only; not part of job FC7381)
ZZZZZZ	LL83610.D	07/11/23 13:00	n/a	(unrelated sample)
ZZZZZZ	LL83611.D	07/11/23 13:14	n/a	(unrelated sample)
ZZZZZZ	LL83612.D	07/11/23 13:22	n/a	(unrelated sample)
ZZZZZZ	LL83613.D	07/11/23 13:36	n/a	(unrelated sample)
ZZZZZZ	LL83614.D	07/11/23 13:43	n/a	(unrelated sample)
ZZZZZZ	LL83615.D	07/11/23 13:57	n/a	(unrelated sample)
GLL2902-CC2678	LL83616.D	07/11/23 14:06	n/a	Continuing cal 4
ZZZZZZ	LL83618.D	07/11/23 14:25	n/a	(unrelated sample)
ZZZZZZ	LL83619.D	07/11/23 14:36	n/a	(unrelated sample)
ZZZZZZ	LL83620.D	07/11/23 14:44	n/a	(unrelated sample)
FC7589-17DUP	LL83621.D	07/11/23 14:53	n/a	Duplicate
FC7589-17MS	LL83622.D	07/11/23 15:02	n/a	Matrix Spike
GLL2902-ECC2678	LL83623.D	07/11/23 15:11	n/a	Ending cal 5

GC Volatiles

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Raw Data

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Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83537.D Vial: 13  
 Acq On : 07 Jul 2023 10:13 am Operator: samantha  
 Sample : fc7381-1 Inst : FID4-LL  
 Misc : gc24240,g112900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 10:18:45 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	3388049	5.551 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv
4) Ethane	0.00	0	N.D. ppmv
5) Propane	0.00	0	N.D. ppmv

9.1.1  
**9**

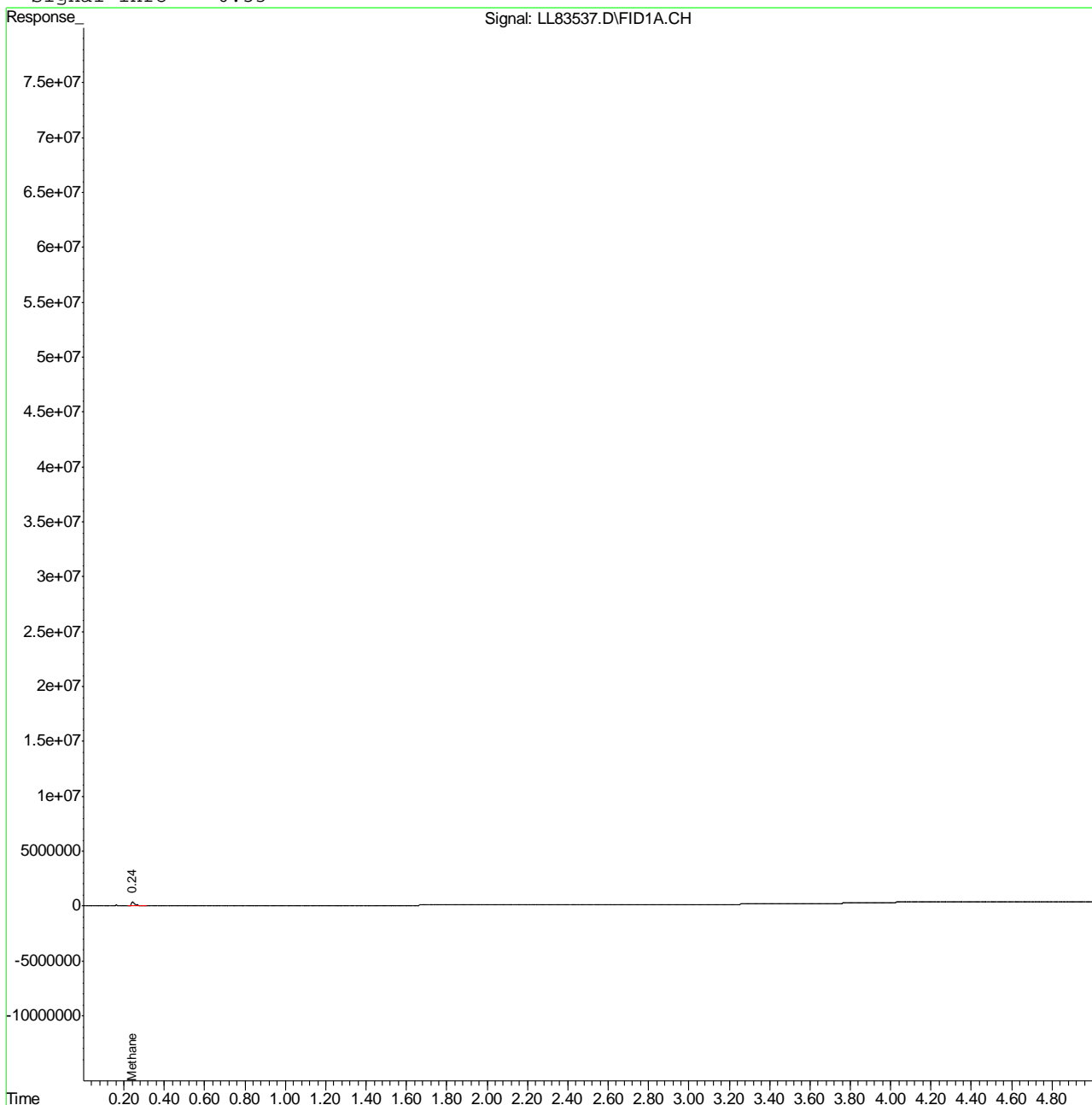
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 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83537.D RSK122321B.M Fri Jul 07 10:19:56 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83537.D Vial: 13  
Acq On : 07 Jul 2023 10:13 am Operator: samantha  
Sample : fc7381-1 Inst : FID4-LL  
Misc : gc24240,g112900,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 7 10:18 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.1.1  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-1      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83537.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 10:13      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	5.55	37600	0.62	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83538.D Vial: 14  
 Acq On : 07 Jul 2023 10:21 am Operator: samantha  
 Sample : fc7381-2 Inst : FID4-LL  
 Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 10:27:29 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	553143	0.906 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv
4) Ethane	0.00	0	N.D. ppmv
5) Propane	0.00	0	N.D. ppmv

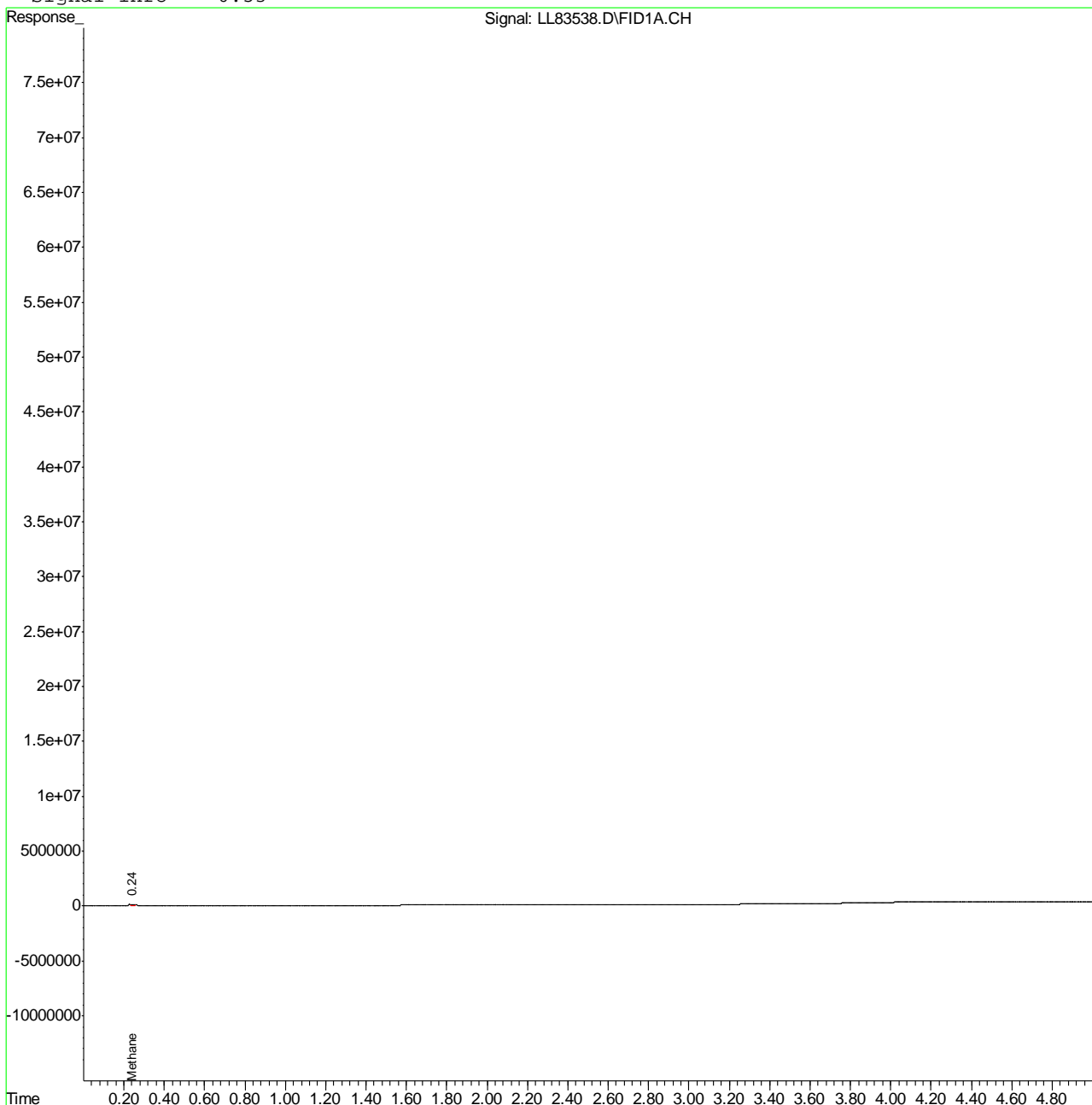
9.12  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83538.D Vial: 14  
Acq On : 07 Jul 2023 10:21 am Operator: samantha  
Sample : fc7381-2 Inst : FID4-LL  
Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 7 10:27 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.12  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-2      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83538.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 10:21      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.91	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.2.1

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83541.D Vial: 17
Acq On : 07 Jul 2023 10:46 am Operator: samantha
Sample : fc7381-4 Inst : FID4-LL
Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 07 10:52:29 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Initial Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include Target Compounds: 1) Methane, 2) Acetylene, 3) Ethylene, 4) Ethane, 5) Propane.

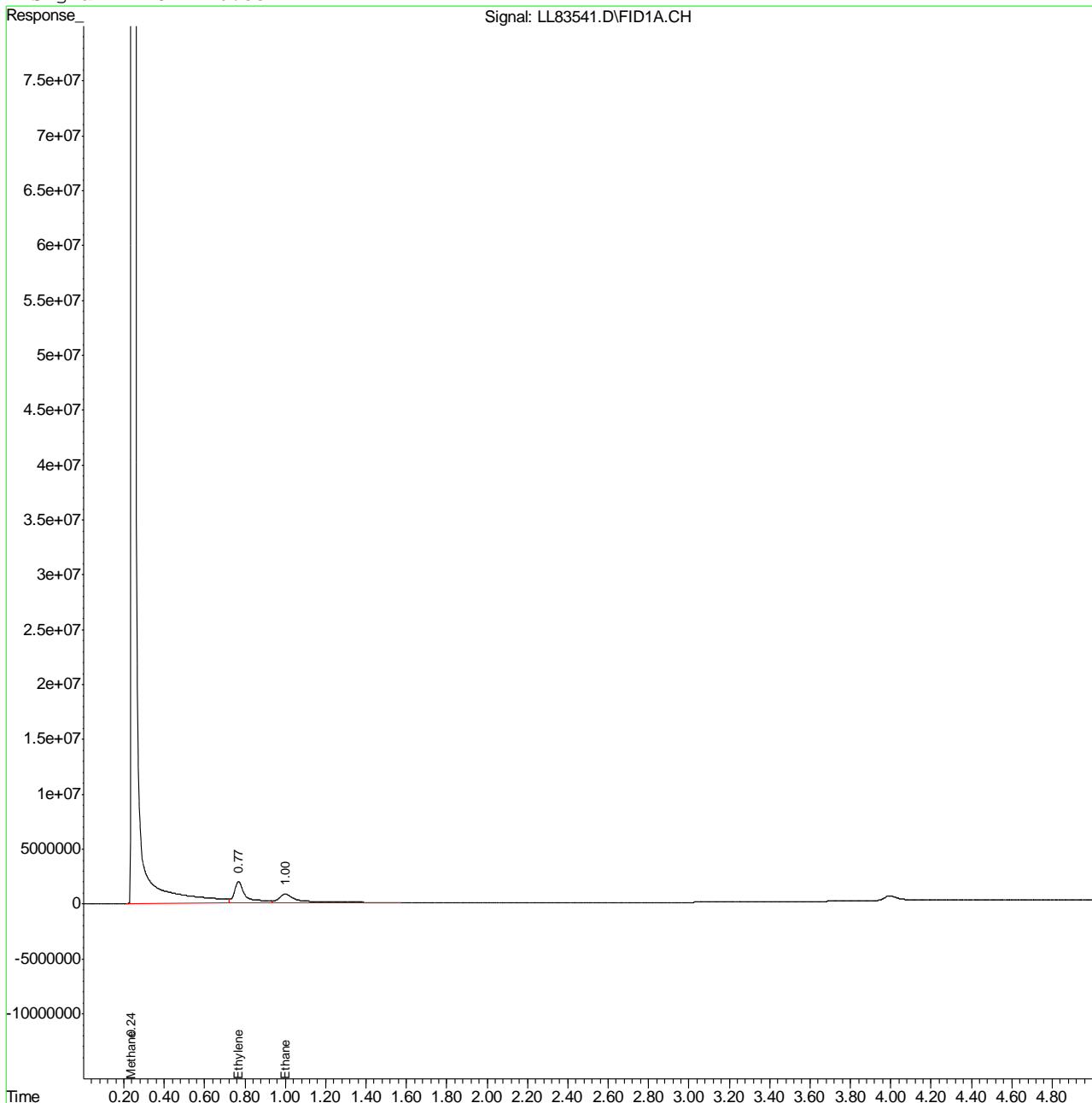
9.1.3
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83541.D Vial: 17
Acq On : 07 Jul 2023 10:46 am Operator: samantha
Sample : fc7381-4 Inst : FID4-LL
Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 7 10:52 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



9.1.3
9





# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-4      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83541.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 10:46      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	30828.14	37600	3430	ug/l
Ethane	74-84-0	30	49.64	26300	11.3	ug/l
Ethene	74-85-1	28	71.9	10200	22.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.3.1

9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83564.D Vial: 14  
 Acq On : 10 Jul 2023 11:15 am Operator: samantha  
 Sample : fc7381-4 Inst : FID4-LL  
 Misc : gc24242,g112901,38,20,500,5,10 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 11:22:36 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	1491464991	2443.843	ppmv
2) Acetylene	0.51	1829240	1.360	ppmv
3) Ethylene	0.75	4219297	3.878	ppmv
4) Ethane	0.97	1970298	1.761	ppmv
5) Propane	0.00	0	N.D.	ppmv

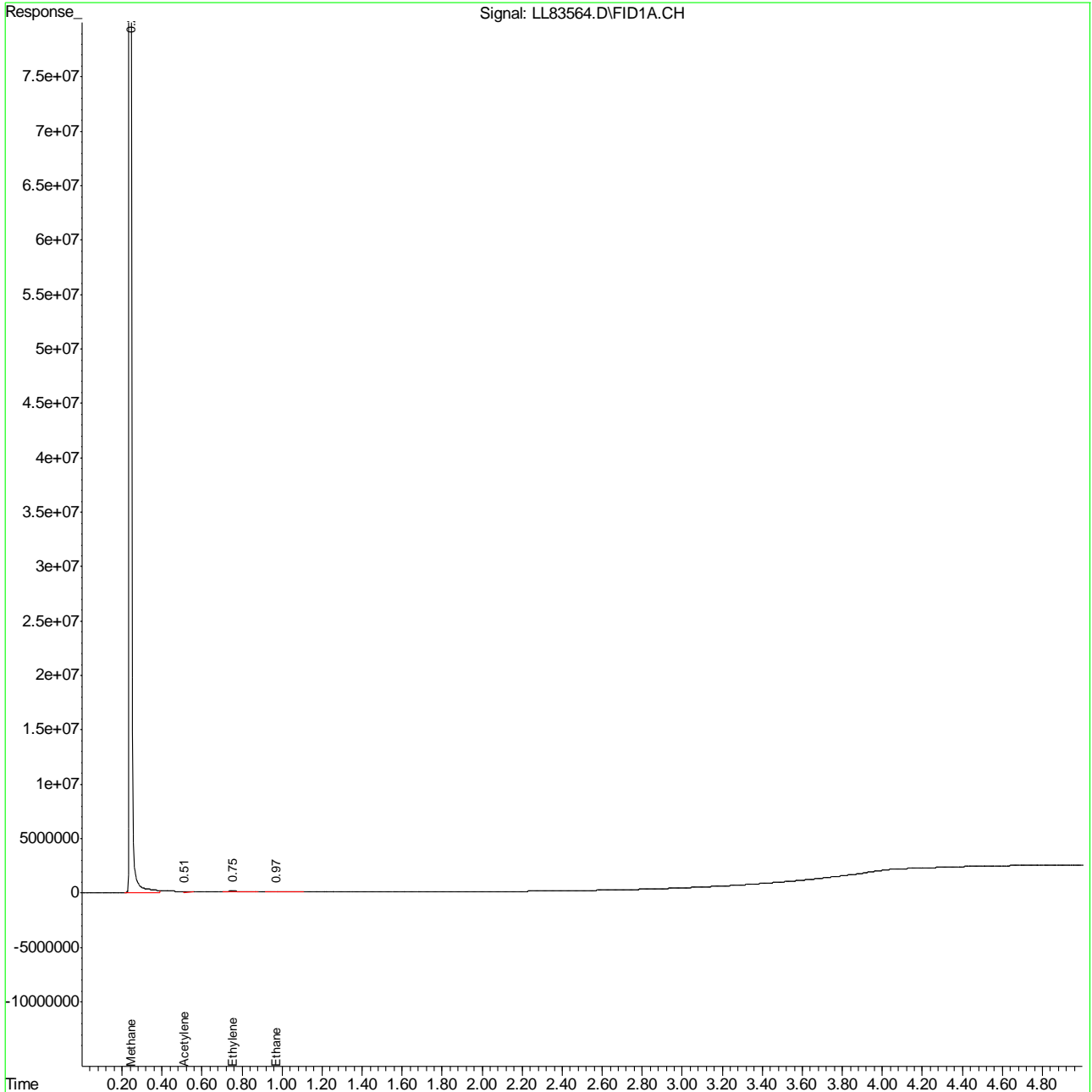
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83564.D RSK122321B.M Mon Jul 10 11:23:15 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83564.D Vial: 14  
 Acq On : 10 Jul 2023 11:15 am Operator: samantha  
 Sample : fc7381-4 Inst : FID4-LL  
 Misc : gc24242,g112901,38,20,500,5,10 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 11:22 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.14  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-4      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83564.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 11:15      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	2443.84	37600	2720	ug/l
Ethane	74-84-0	30	1.76	26300	4.0	ug/l
Ethene	74-85-1	28	3.88	10200	11.9	ug/l
Acetylene	74-86-2	26	1.36	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.4.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83542.D Vial: 18  
 Acq On : 07 Jul 2023 10:54 am Operator: samantha  
 Sample : fc7381-5 Inst : FID4-LL  
 Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 11:00:29 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	10855365051	17787.077 ppmv
2) Acetylene	0.00	0	N.D. ppmv d
3) Ethylene	0.77	10401827	9.561 ppmv
4) Ethane	1.00	30685113	27.425 ppmv
5) Propane	0.00	0	N.D. ppmv

9.1.5  
9

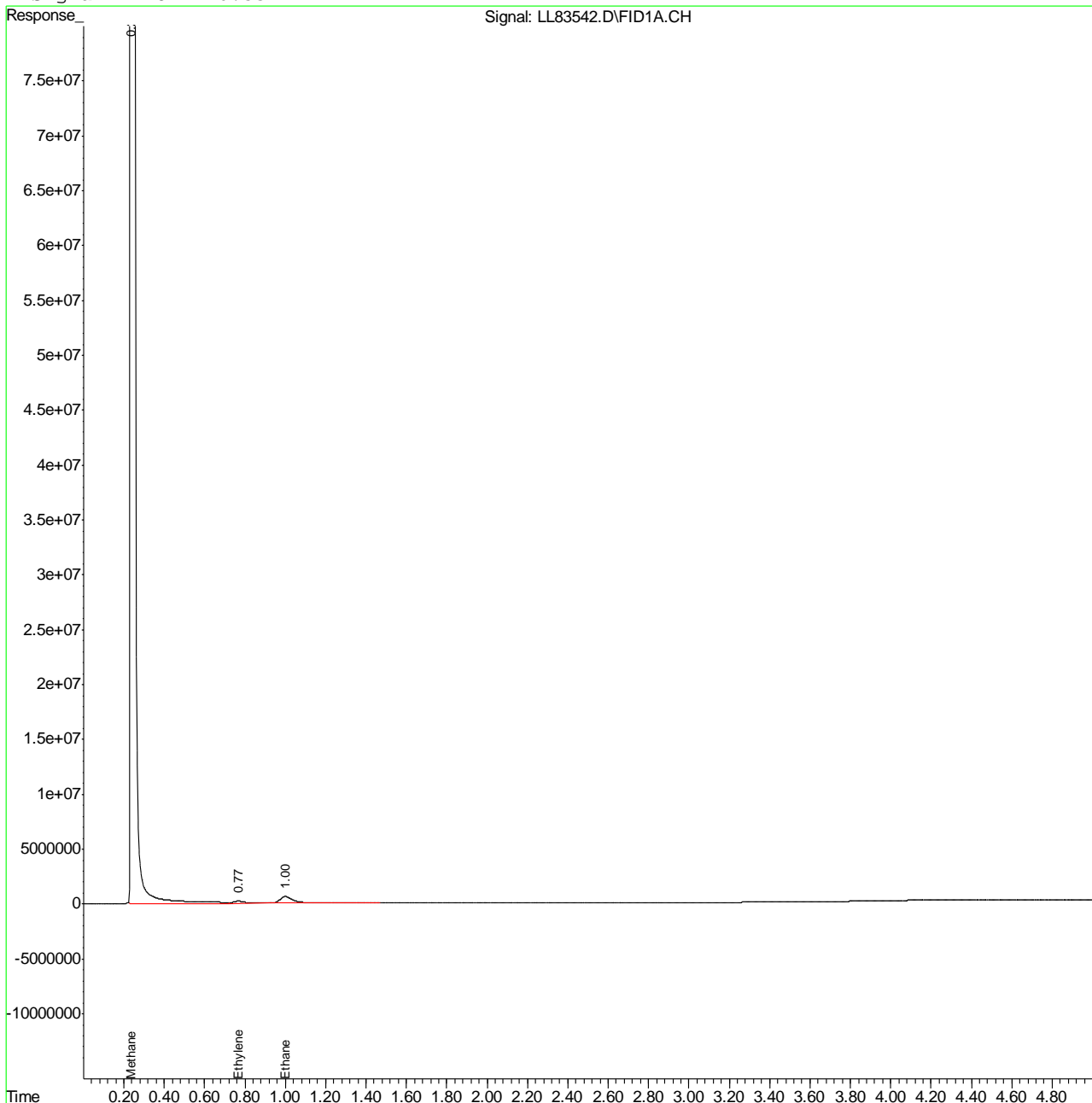
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 LL83542.D RSK122321B.M Fri Jul 07 11:01:05 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83542.D Vial: 18  
Acq On : 07 Jul 2023 10:54 am Operator: samantha  
Sample : fc7381-5 Inst : FID4-LL  
Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 7 11:00 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.15  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-5      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83542.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 10:54      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	17787.08	37600	1980	ug/l
Ethane	74-84-0	30	27.42	26300	6.2	ug/l
Ethene	74-85-1	28	9.56	10200	2.9	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.5.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83581.D Vial: 31  
 Acq On : 7-10-2023 02:51:09 PM Operator: samantha  
 Sample : fc7381-5 Inst : FID4-LL  
 Misc : gc24242,g112901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 14:59:12 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	6630834374	10864.965 ppmv
2) Acetylene	0.57	1969238	1.464 ppmv
3) Ethylene	0.75	7244395	6.659 ppmv
4) Ethane	0.98	16950161	15.149 ppmv
5) Propane	0.00	0	N.D. ppmv

9.1.6  
**9**

-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83581.D RSK122321B.M Mon Jul 10 15:02:46 2023

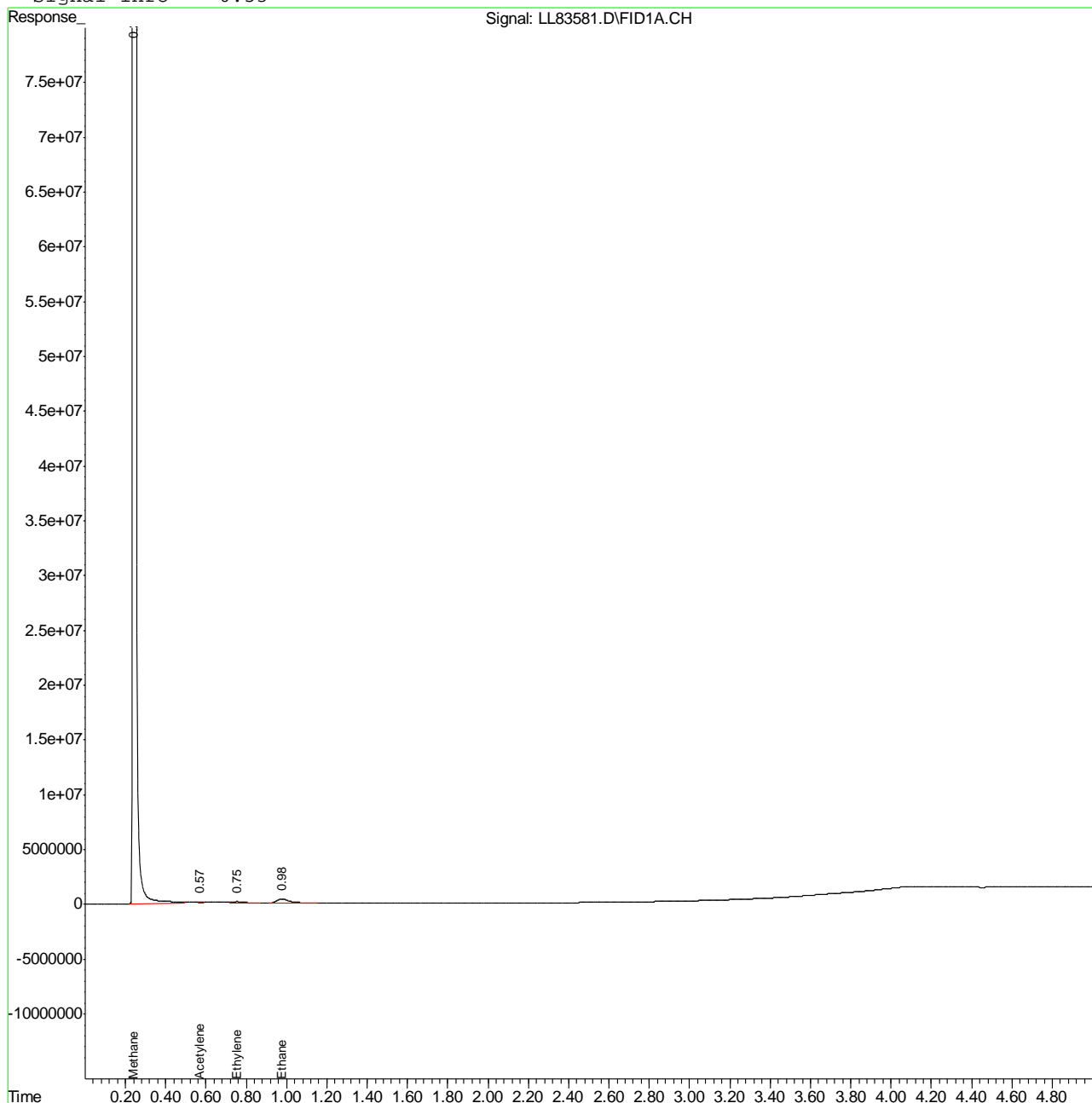


Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83581.D Vial: 31  
 Acq On : 7-10-2023 02:51:09 PM Operator: samantha  
 Sample : fc7381-5 Inst : FID4-LL  
 Misc : gc24242,g112901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 14:59 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.1.6  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-5      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83581.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 14:51      **Volume Injected:** 250 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	10864.97	37600	2420	ug/l
Ethane	74-84-0	30	15.15	26300	6.9	ug/l
Ethene	74-85-1	28	6.66	10200	4.1	ug/l
Acetylene	74-86-2	26	1.46	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.6.1

9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83598.D Vial: 8  
 Acq On : 11 Jul 2023 10:00 am Operator: samantha  
 Sample : fc7381-5 Inst : FID4-LL  
 Misc : gc24242,g112902,38,20,500,5,10 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 10:05:47 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	993901040	1628.558 ppmv
2) Acetylene	0.60	48589	0.036 ppmv
3) Ethylene	0.76	328721	0.302 ppmv
4) Ethane	0.98	2343768	2.095 ppmv
5) Propane	0.00	0	N.D. ppmv

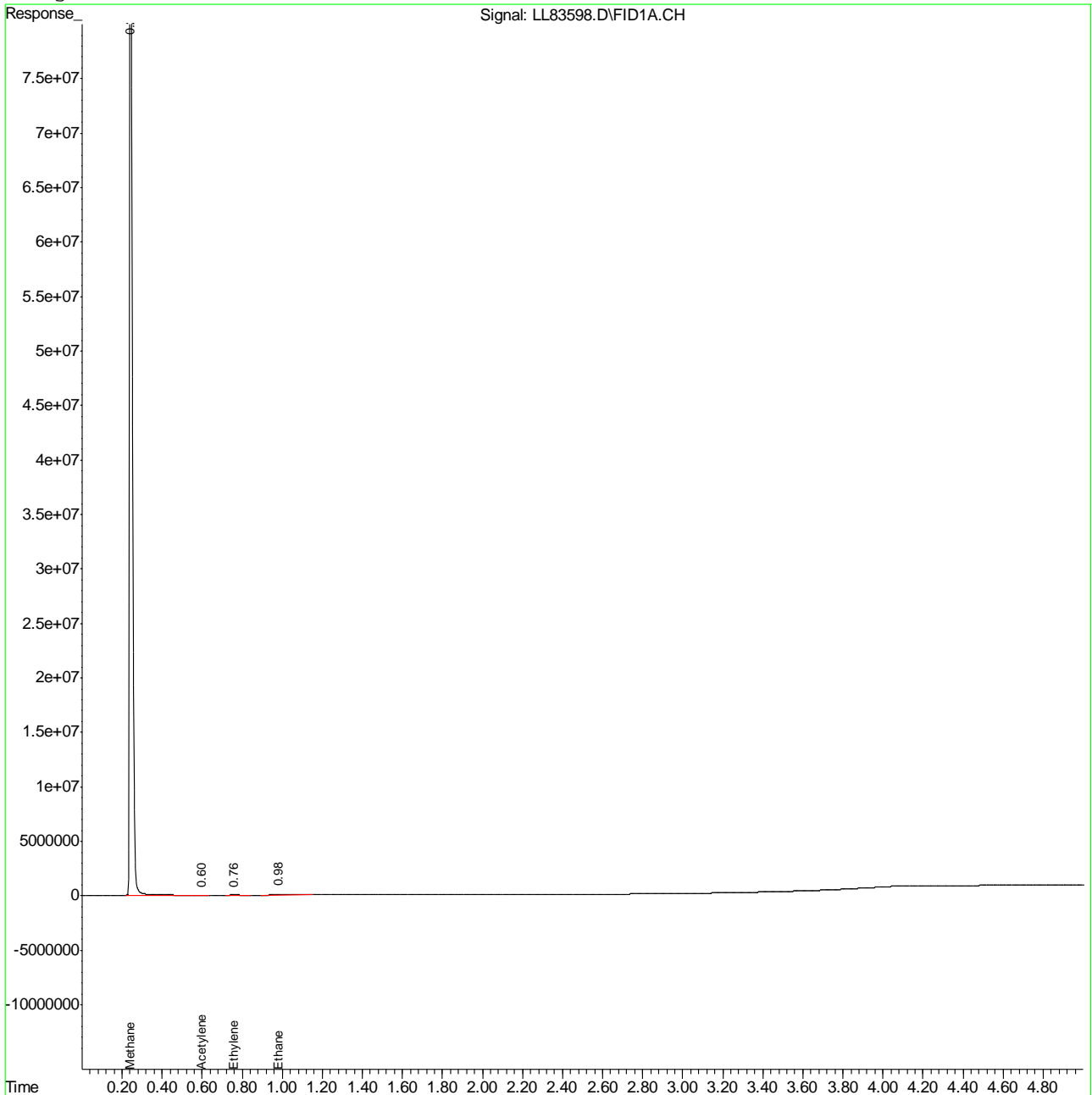
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83598.D RSK122321B.M Tue Jul 11 10:22:03 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83598.D Vial: 8  
 Acq On : 11 Jul 2023 10:00 am Operator: samantha  
 Sample : fc7381-5 Inst : FID4-LL  
 Misc : gc24242,g112902,38,20,500,5,10 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 10:05 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.1.7  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-5      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83598.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 10:00      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1628.56	37600	1810	ug/l
Ethane	74-84-0	30	2.09	26300	4.8	ug/l
Ethene	74-85-1	28	0.3	10200	0.0	ug/l
Acetylene	74-86-2	26	0.04	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.7.1

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83543.D Vial: 19  
 Acq On : 07 Jul 2023 11:04 am Operator: samantha  
 Sample : fc7381-6 Inst : FID4-LL  
 Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 11:13:06 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	31465062054	51557.132 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv d
4) Ethane	0.99	103426381	92.437 ppmv
5) Propane	3.32	423343	0.286 ppmv

9.1.8  
9

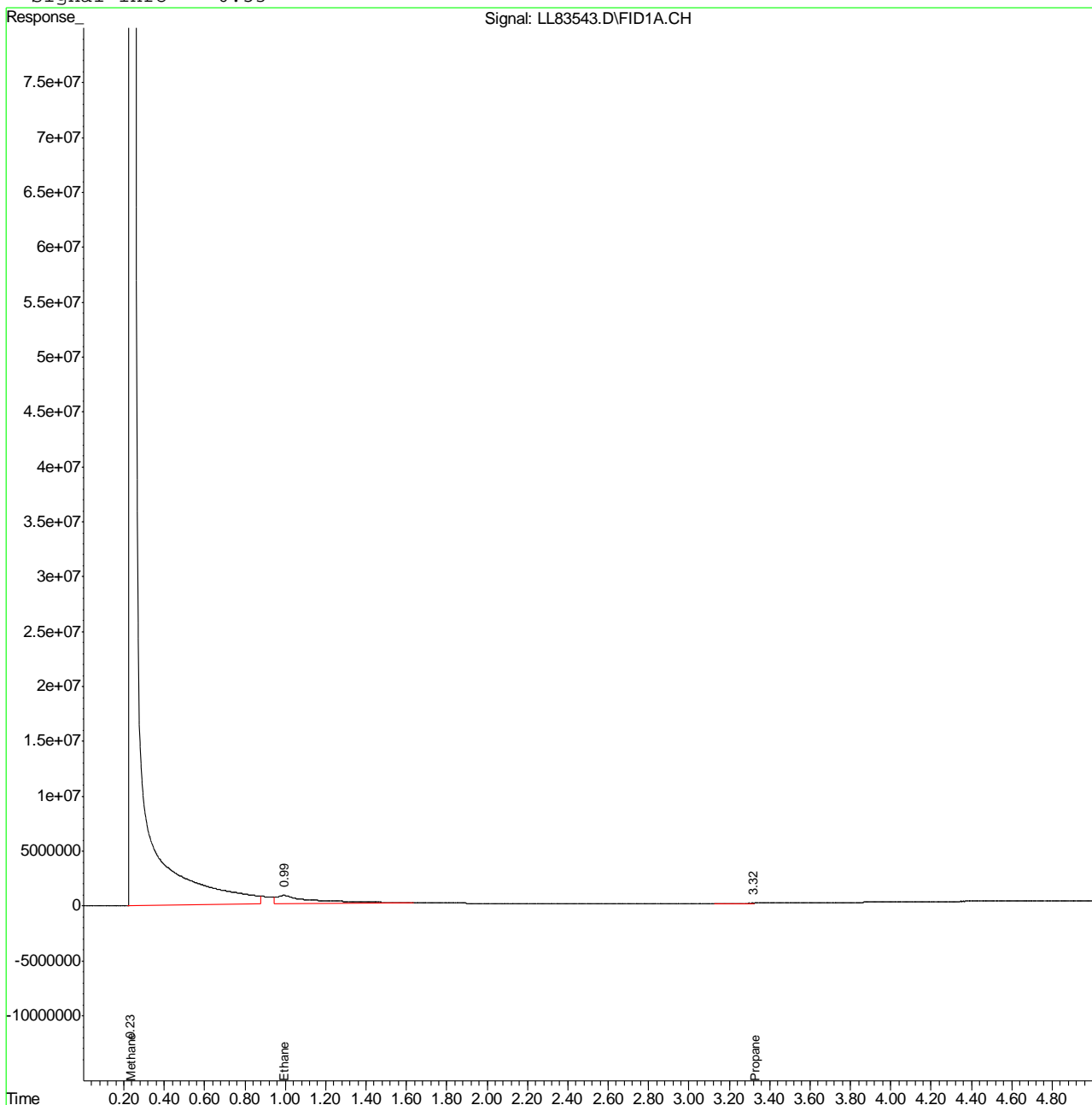
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83543.D RSK122321B.M Mon Jul 10 11:33:09 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83543.D Vial: 19  
Acq On : 07 Jul 2023 11:04 am Operator: samantha  
Sample : fc7381-6 Inst : FID4-LL  
Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 7 11:13 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.1.8  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-6      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83543.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 11:04      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	51557.13	37600	5730	ug/l
Ethane	74-84-0	30	92.44	26300	21.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0.29	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.8.1  
9



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83565.D Vial: 15  
 Acq On : 10 Jul 2023 11:26 am Operator: samantha  
 Sample : fc7381-6 Inst : FID4-LL  
 Misc : gc24242,g112901,38,20,500,5,20 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 11:31:34 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	3765843200	6170.529 ppmv
2) Acetylene	0.56	1043451	0.776 ppmv
3) Ethylene	0.00	0	N.D. ppmv d
4) Ethane	0.99	344372	0.308 ppmv
5) Propane	0.00	0	N.D. ppmv

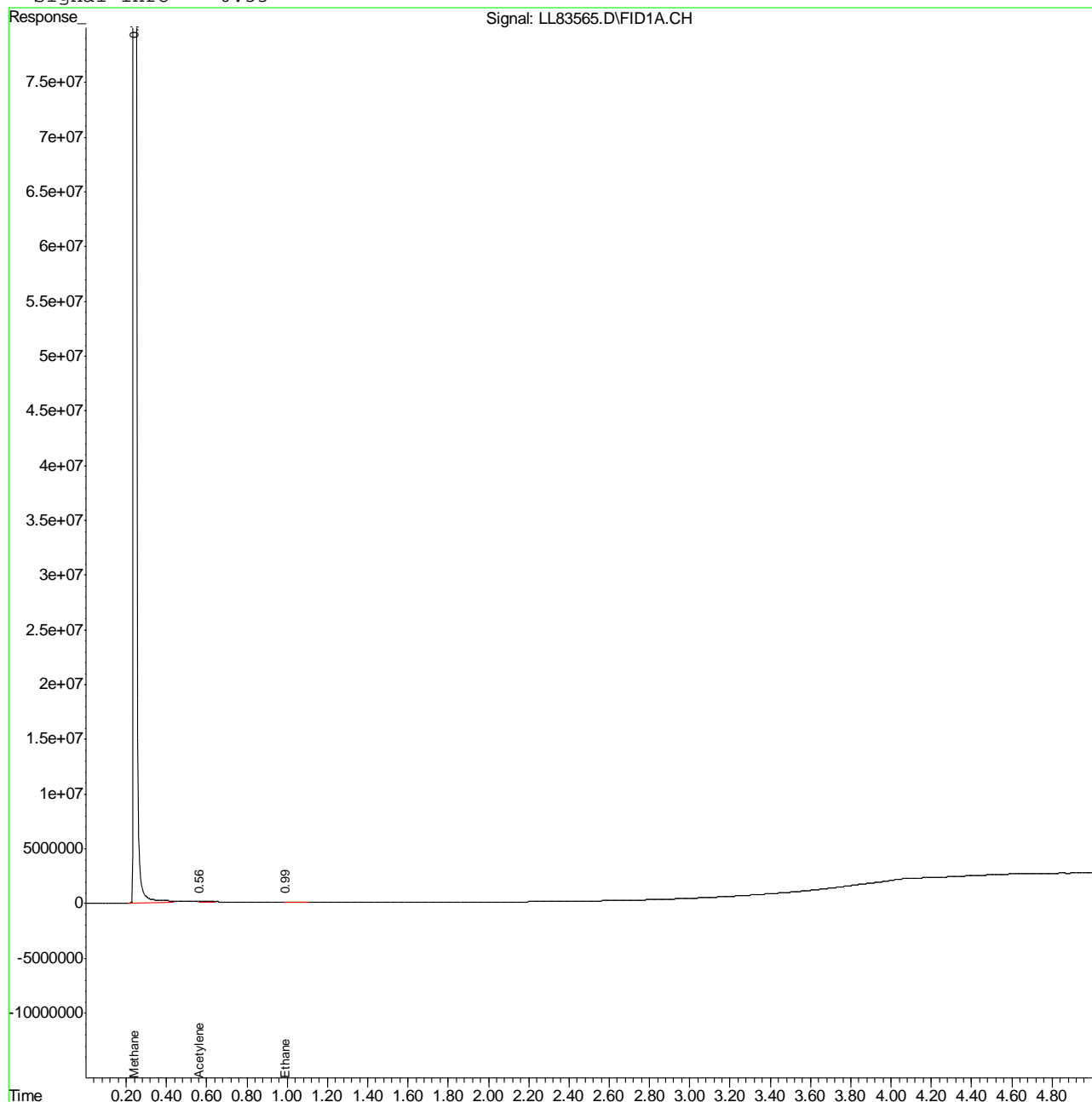
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83565.D RSK122321B.M Mon Jul 10 11:32:05 2023

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83565.D Vial: 15  
Acq On : 10 Jul 2023 11:26 am Operator: samantha  
Sample : fc7381-6 Inst : FID4-LL  
Misc : gc24242,g112901,38,20,500,5,20 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 10 11:31 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-6      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83565.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 11:26      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	6170.53	37600	13700	ug/l
Ethane	74-84-0	30	0.31	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0.78	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.9.1

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83544.D Vial: 20  
 Acq On : 07 Jul 2023 11:14 am Operator: samantha  
 Sample : fc7381-7 Inst : FID4-LL  
 Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 11:20:47 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	641895	1.052 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv
4) Ethane	0.00	0	N.D. ppmv
5) Propane	0.00	0	N.D. ppmv

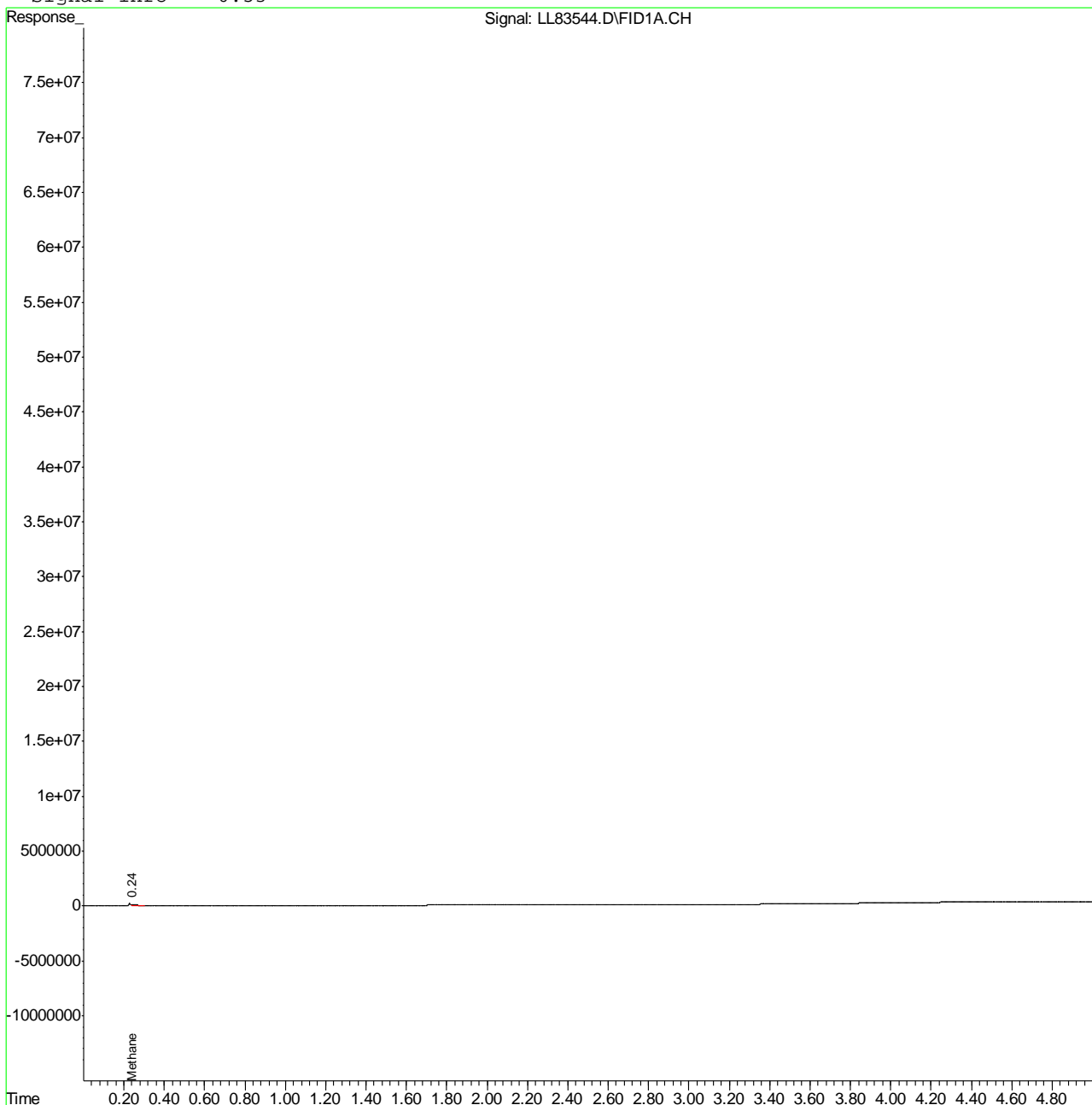
9.1.10  
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83544.D Vial: 20  
Acq On : 07 Jul 2023 11:14 am Operator: samantha  
Sample : fc7381-7 Inst : FID4-LL  
Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 7 11:20 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.1.10  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-7      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83544.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 11:14      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1.05	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.10.1

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83530.D Vial: 7  
 Acq On : 7-7-2023 08:26:45 AM Operator: samantha  
 Sample : mb Inst : FID4-LL  
 Misc : gc24240,gll2900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 08:32:58 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	104008	0.170 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv
4) Ethane	0.00	0	N.D. ppmv
5) Propane	0.00	0	N.D. ppmv

9.2.1  
9

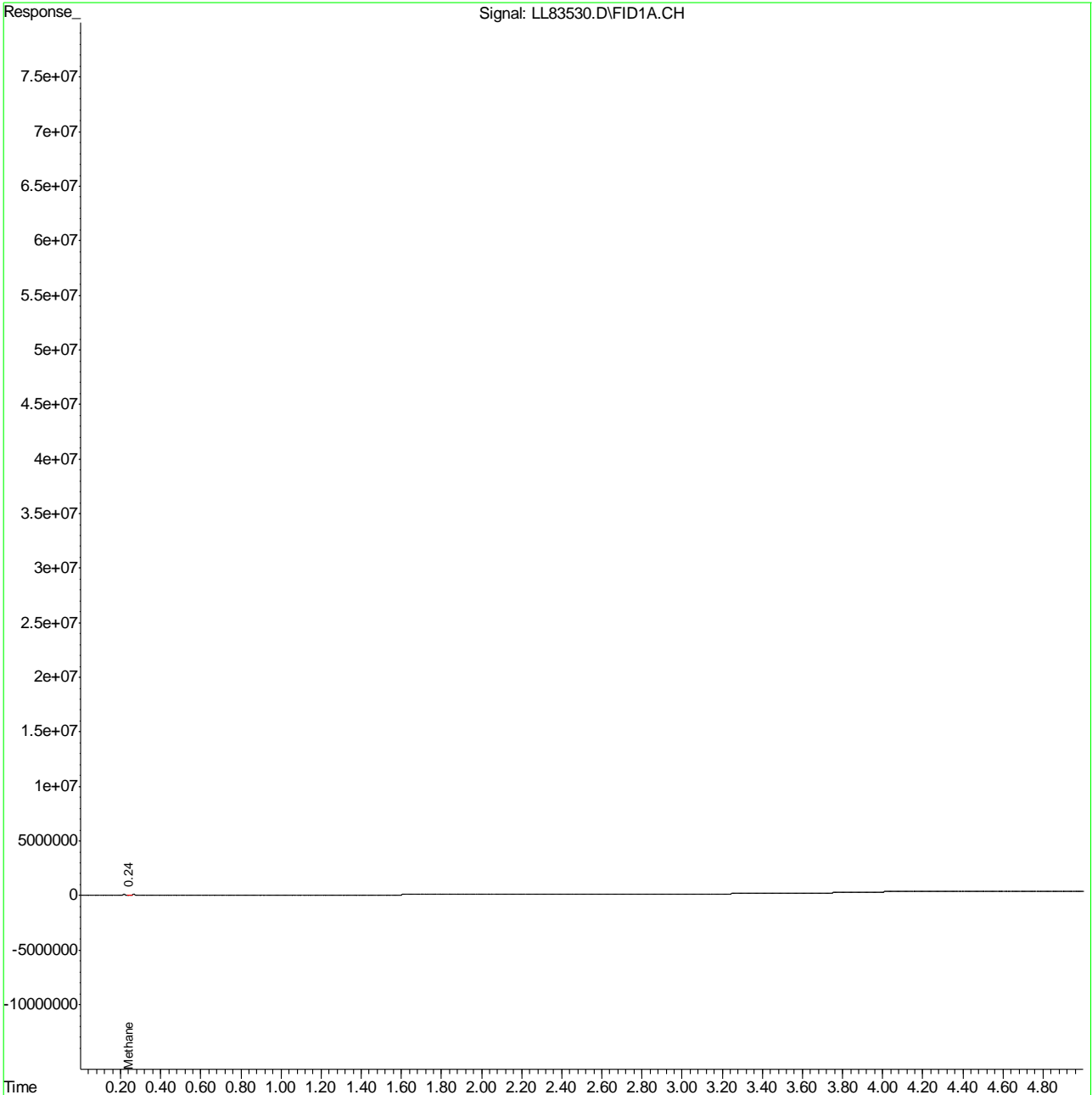
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 LL83530.D RSK122321B.M Fri Jul 07 13:52:13 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83530.D Vial: 7  
Acq On : 7-7-2023 08:26:45 AM Operator: samantha  
Sample : mb Inst : FID4-LL  
Misc : gc24240,gll2900,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 7 8:32 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.2.1  
9





# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2900-MB      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83530.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 08:26      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.17	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.2.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83560.D Vial: 10  
 Acq On : 10 Jul 2023 10:10 am Operator: samantha  
 Sample : mb Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 10:16:03 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	305077	0.500 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv
4) Ethane	0.00	0	N.D. ppmv
5) Propane	0.00	0	N.D. ppmv

9.2.2  
9

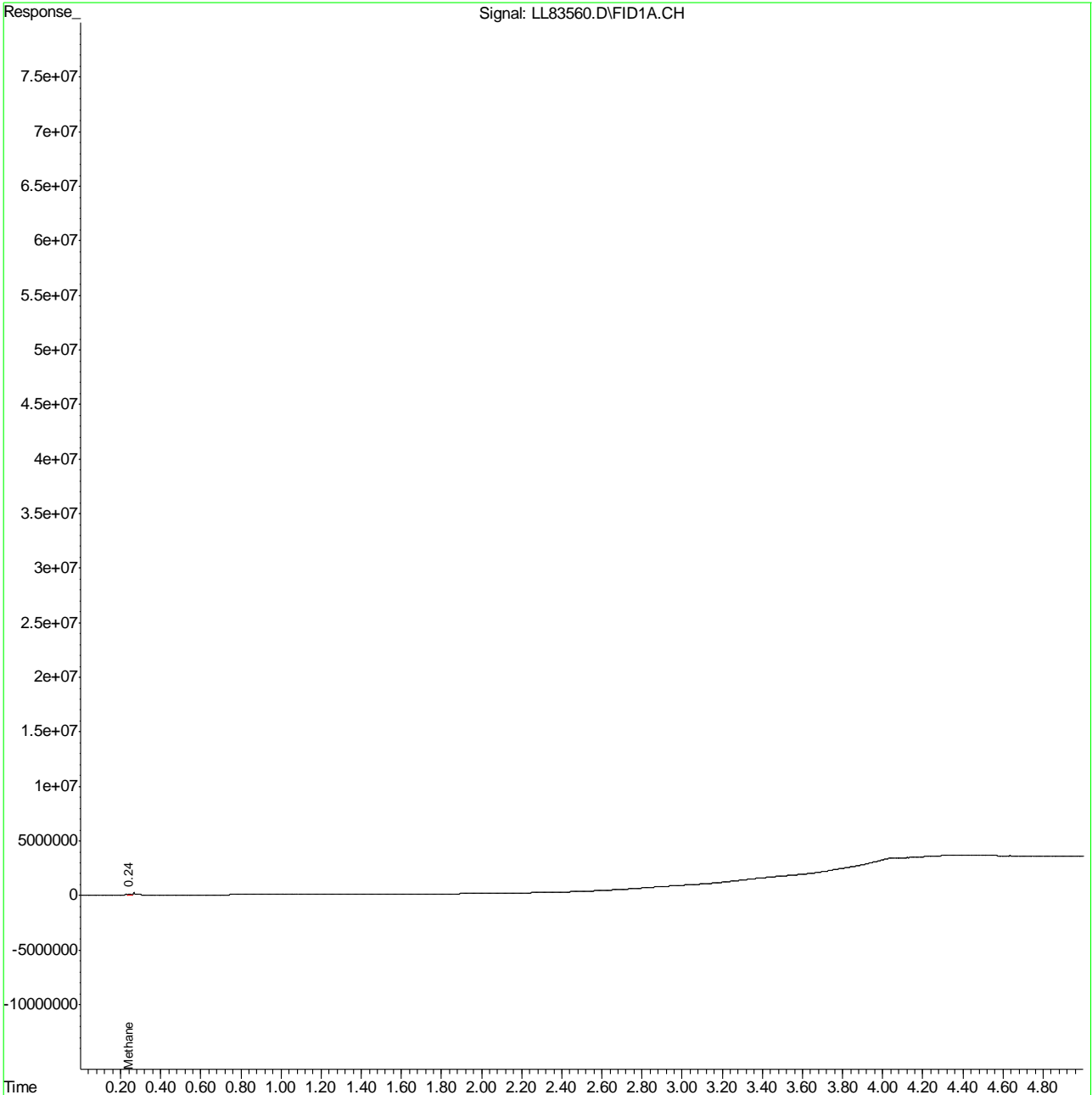
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 LL83560.D RSK122321B.M Mon Jul 10 10:16:30 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83560.D Vial: 10  
Acq On : 10 Jul 2023 10:10 am Operator: samantha  
Sample : mb Inst : FID4-LL  
Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 10 10:16 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.2.2  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2901-MB      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83560.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 10:10      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.5	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.2.2.1

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83597.D Vial: 7  
 Acq On : 7-11-2023 09:40:43 AM Operator: samantha  
 Sample : mb Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 09:58:18 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	136342	0.223 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	1.00f	218032	0.200 ppmv
4) Ethane	1.00	218032	0.195 ppmv
5) Propane	0.00	0	N.D. ppmv

9.2.3  
9

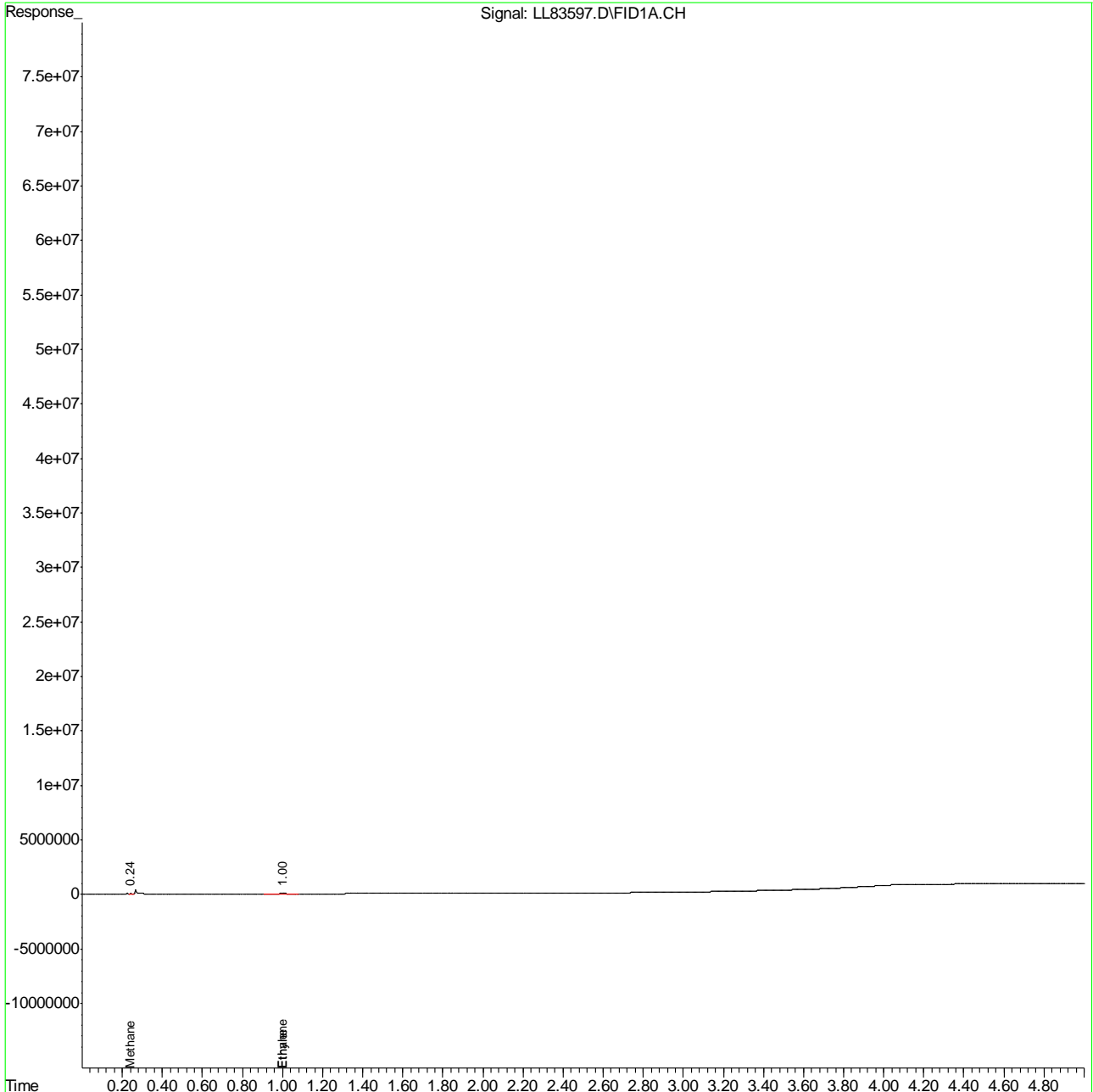
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 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83597.D RSK122321B.M Tue Jul 11 09:58:41 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83597.D Vial: 7  
Acq On : 7-11-2023 09:40:43 AM Operator: samantha  
Sample : mb Inst : FID4-LL  
Misc : gc24246,gll2902,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 11 9:58 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.2.3  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2902-MB      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83597.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 09:40      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.22	37600	0.0	ug/l
Ethane	74-84-0	30	0.19	26300	0.0	ug/l
Ethene	74-85-1	28	0.2	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.2.3.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83527.D Vial: 4  
 Acq On : 7-7-2023 07:51:53 AM Operator: samantha  
 Sample : bs Inst : FID4-LL  
 Misc : gc24240,gll2900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 08:02:09 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	521581731	854.639 ppmv
2) Acetylene	0.57	946305842	703.539 ppmv
3) Ethylene	0.77	867650628	797.517 ppmv
4) Ethane	1.00	912058478	815.145 ppmv
5) Propane	3.22	1191085344	803.351 ppmv

9.3.1  
9

(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83527.D RSK122321B.M Fri Jul 07 13:52:11 2023

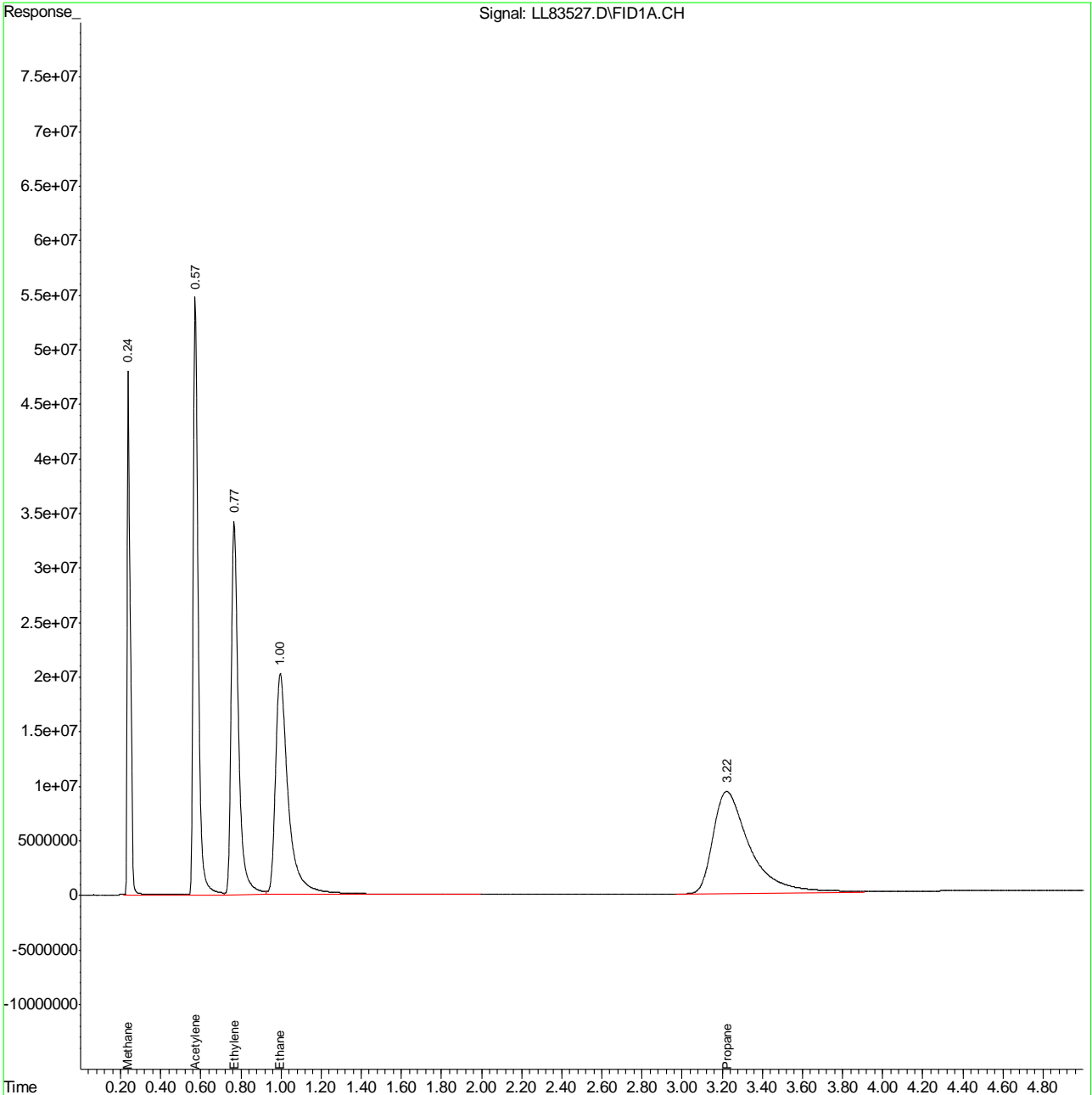


Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83527.D Vial: 4  
Acq On : 7-7-2023 07:51:53 AM Operator: samantha  
Sample : bs Inst : FID4-LL  
Misc : gc24240,gll2900,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 7 8:02 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.3.1  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2900-BS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83527.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 07:51      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	854.64	37600	95.0	ug/l
Ethane	74-84-0	30	815.15	26300	185	ug/l
Ethene	74-85-1	28	797.52	10200	244	ug/l
Acetylene	74-86-2	26	703.54	11940	185	ug/l
Propane	74-98-6	44	803.35	31474	256	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.1.1  
9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83528.D Vial: 5  
 Acq On : 7-7-2023 08:05:40 AM Operator: samantha  
 Sample : BSD Inst : FID4-LL  
 Misc : gc24240,g112900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 08:12:54 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	485093599	794.851 ppmv
2) Acetylene	0.58	896980760	666.868 ppmv
3) Ethylene	0.77	811505035	745.910 ppmv
4) Ethane	1.00	859995163	768.614 ppmv
5) Propane	3.23	1109924147	748.610 ppmv

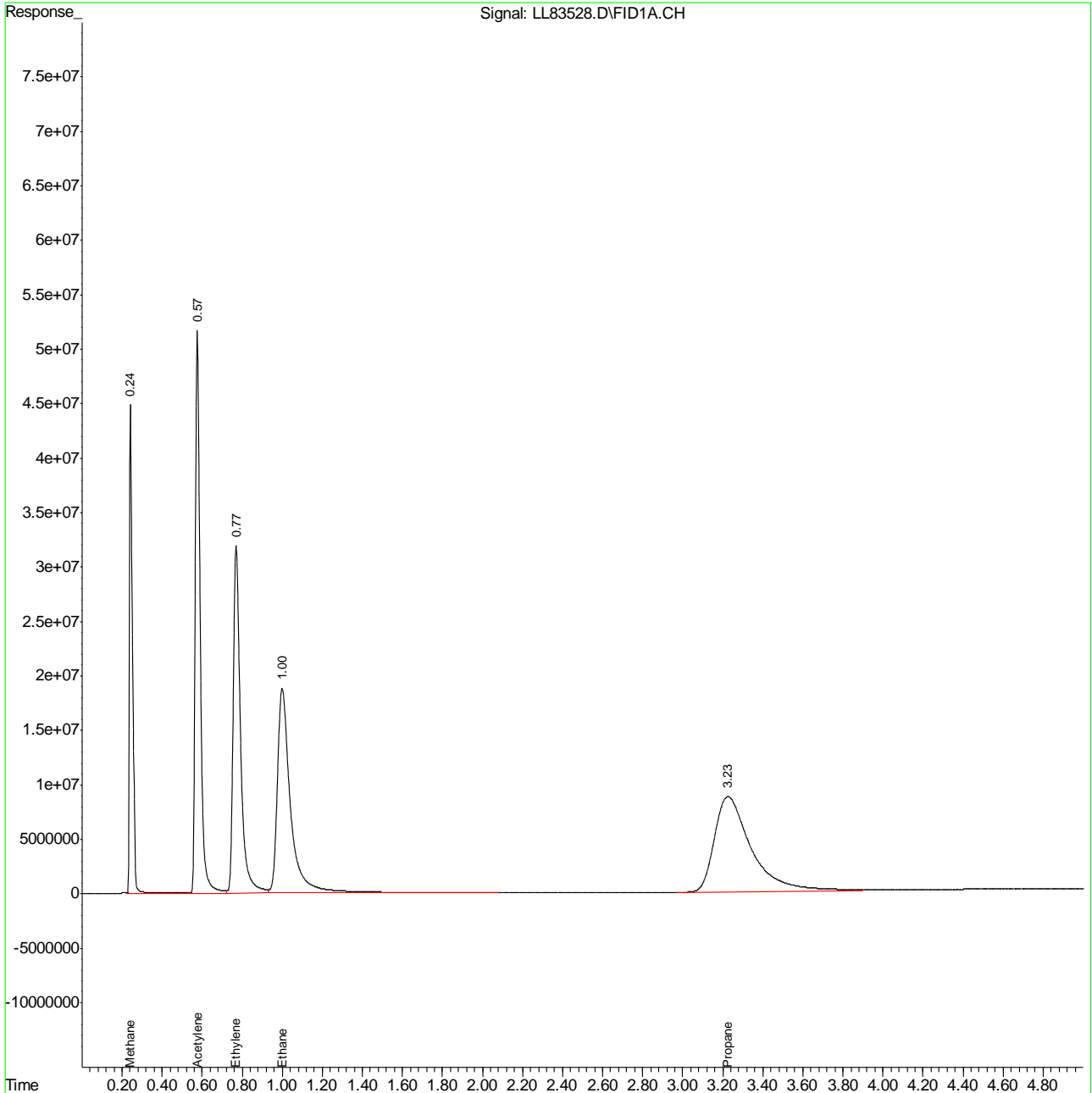
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 LL83528.D RSK122321B.M Fri Jul 07 13:52:12 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83528.D Vial: 5  
 Acq On : 7-7-2023 08:05:40 AM Operator: samantha  
 Sample : BSD Inst : FID4-LL  
 Misc : gc24240,gll2900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 7 8:12 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.3.2  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2900-BSD      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83528.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 08:05      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	794.85	37600	88.4	ug/l
Ethane	74-84-0	30	768.61	26300	175	ug/l
Ethene	74-85-1	28	745.91	10200	228	ug/l
Acetylene	74-86-2	26	666.87	11940	175	ug/l
Propane	74-98-6	44	748.61	31474	238	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.2.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83557.D Vial: 7  
 Acq On : 7-10-2023 09:35:39 AM Operator: samantha  
 Sample : bs Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 09:41:37 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	575645033	943.224 ppmv
2) Acetylene	0.57	703488092	523.014 ppmv
3) Ethylene	0.75	833777611	766.382 ppmv
4) Ethane	0.96	920774637	822.935 ppmv
5) Propane	3.14	429906076	289.959 ppmv

9.3.3  
9

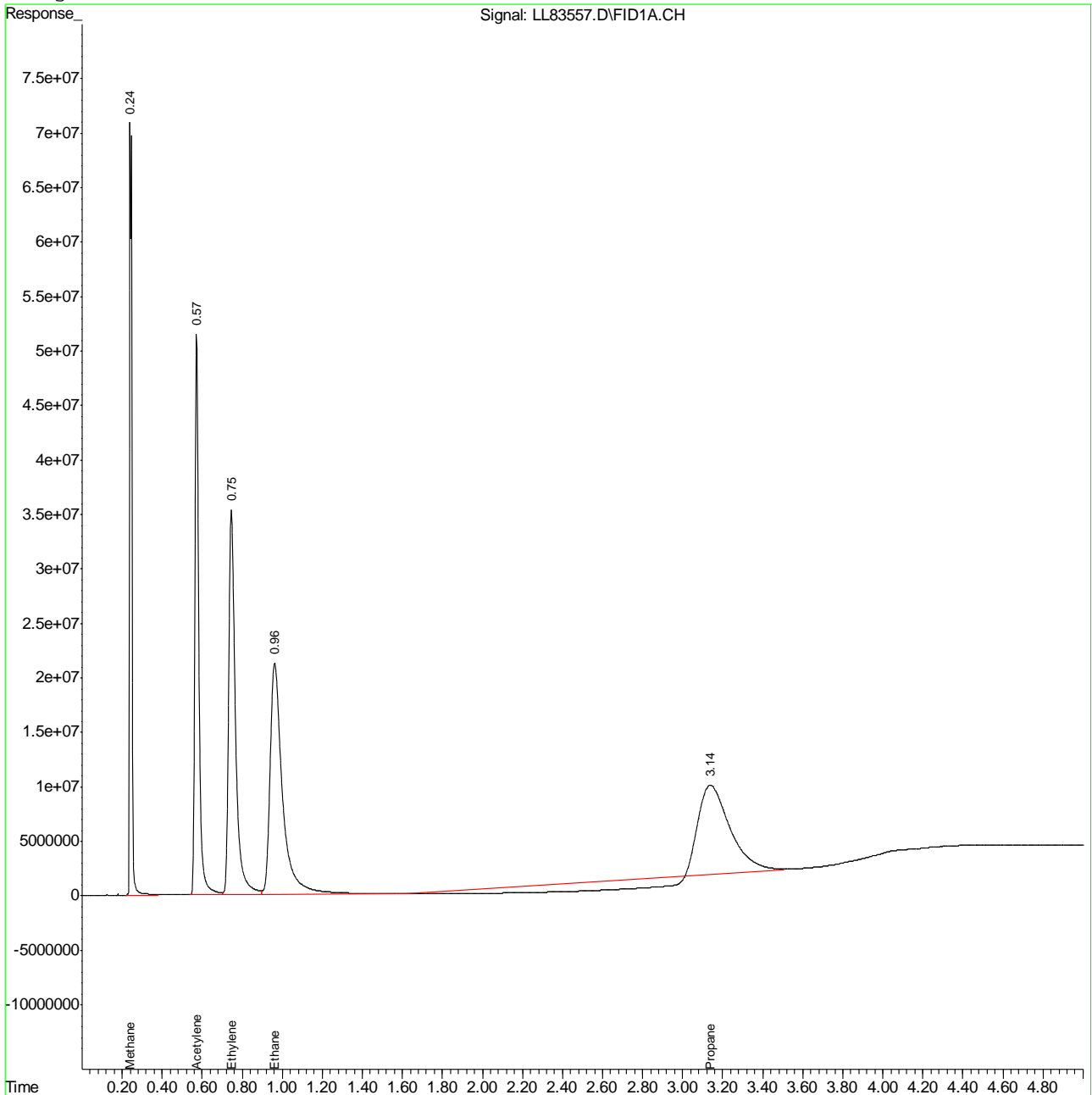
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 LL83557.D RSK122321B.M Mon Jul 10 09:42:52 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83557.D Vial: 7  
 Acq On : 7-10-2023 09:35:39 AM Operator: samantha  
 Sample : bs Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 9:41 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.3.3  
6



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2901-BS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83557.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 09:35      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	943.22	37600	105	ug/l
Ethane	74-84-0	30	822.94	26300	187	ug/l
Ethene	74-85-1	28	766.38	10200	234	ug/l
Acetylene	74-86-2	26	523.01	11940	138	ug/l
Propane	74-98-6	44	289.96	31474	92.3	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.3.1  
9



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83558.D Vial: 8  
 Acq On : 7-10-2023 09:45:28 AM Operator: samantha  
 Sample : bsd Inst : FID4-LL  
 Misc : gc24240,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 09:51:34 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	647548036	1061.041 ppmv
2) Acetylene	0.57	921364823	684.996 ppmv
3) Ethylene	0.75	952053716	875.098 ppmv
4) Ethane	0.96	1019794088	911.433 ppmv
5) Propane	3.14	606311621	408.939 ppmv

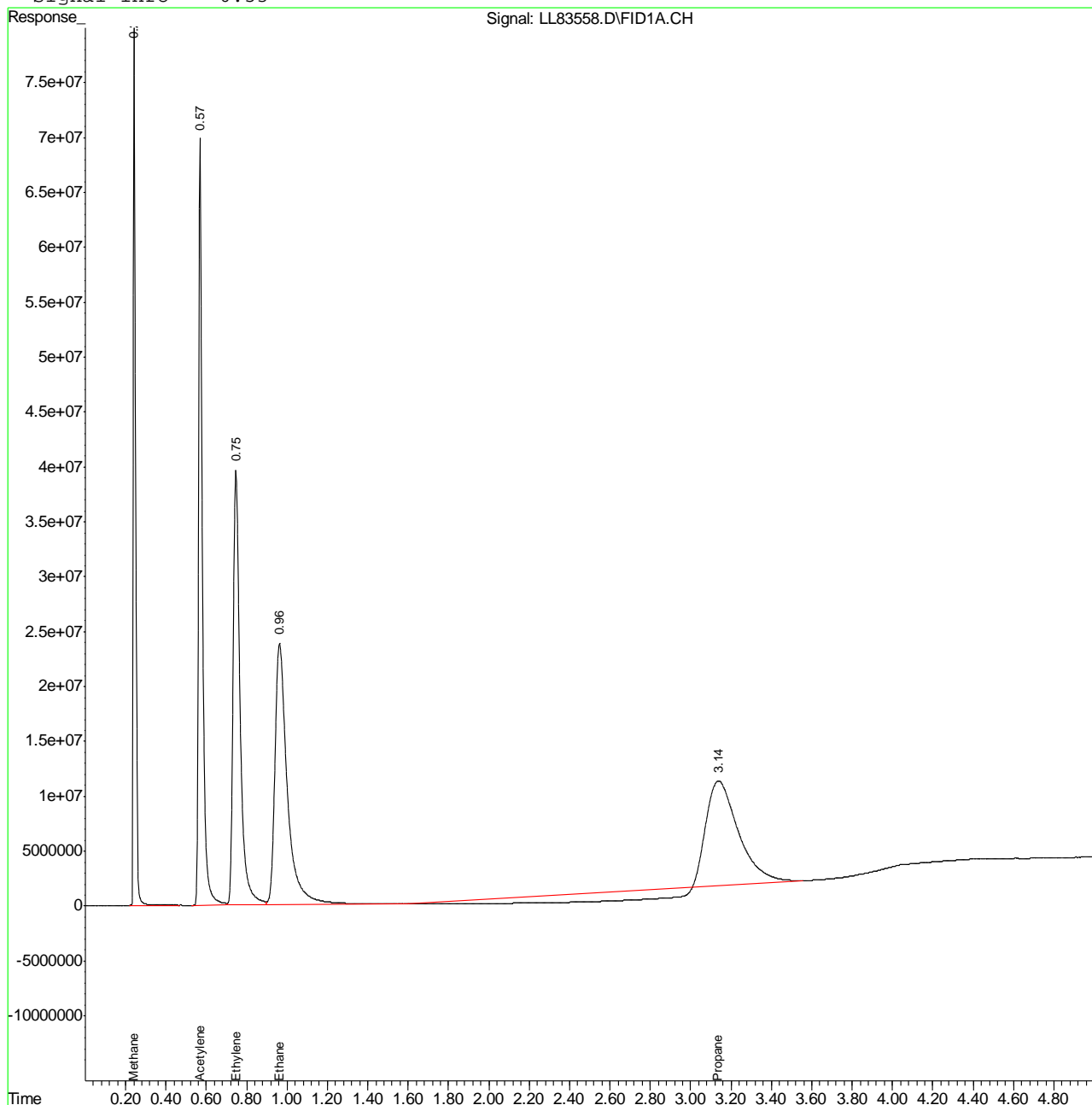
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 LL83558.D RSK122321B.M Mon Jul 10 09:51:57 2023

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83558.D Vial: 8  
Acq On : 7-10-2023 09:45:28 AM Operator: samantha  
Sample : bsd Inst : FID4-LL  
Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 10 9:51 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2901-BSD      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83558.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 09:45      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1061.04	37600	118	ug/l
Ethane	74-84-0	30	911.43	26300	207	ug/l
Ethene	74-85-1	28	875.1	10200	267	ug/l
Acetylene	74-86-2	26	685	11940	180	ug/l
Propane	74-98-6	44	408.94	31474	130	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.4.1

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83593.D Vial: 3  
 Acq On : 7-11-2023 08:44:18 AM Operator: samantha  
 Sample : bs Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 08:49:36 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	681868975	1117.278	ppmv
2) Acetylene	0.58	1017242983	756.278	ppmv
3) Ethylene	0.76	1066801282	980.570	ppmv
4) Ethane	0.98	1137459750	1016.596	ppmv
5) Propane	3.17	1316832451	888.164	ppmv

9.3.5  
9

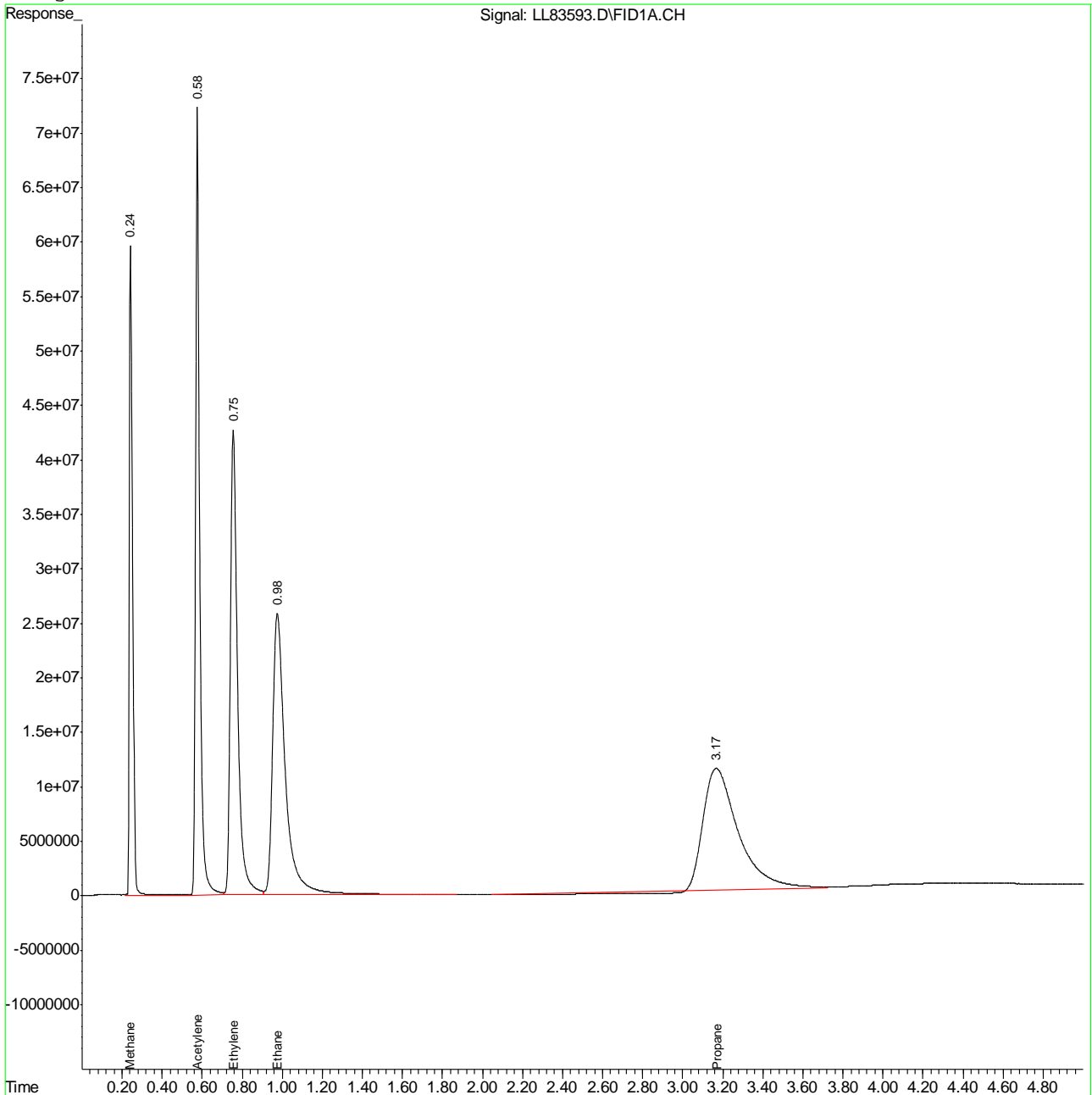
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 LL83593.D RSK122321B.M Tue Jul 11 08:50:03 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83593.D Vial: 3  
 Acq On : 7-11-2023 08:44:18 AM Operator: samantha  
 Sample : bs Inst : FID4-LL  
 Misc : gc24246,gll2902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 8:49 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.3.5  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2902-BS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83593.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 08:44      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1117.28	37600	124	ug/l
Ethane	74-84-0	30	1016.6	26300	231	ug/l
Ethene	74-85-1	28	980.57	10200	300	ug/l
Acetylene	74-86-2	26	756.28	11940	199	ug/l
Propane	74-98-6	44	888.16	31474	283	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.5.1  
9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83595.D Vial: 5  
 Acq On : 7-11-2023 09:16:08 AM Operator: samantha  
 Sample : bsd Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 09:21:37 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	646749354	1059.732 ppmv
2) Acetylene	0.57	1152710197	856.992 ppmv
3) Ethylene	0.75	1064799141	978.730 ppmv
4) Ethane	0.97	1118015471	999.218 ppmv
5) Propane	3.17	1329603212	896.777 ppmv

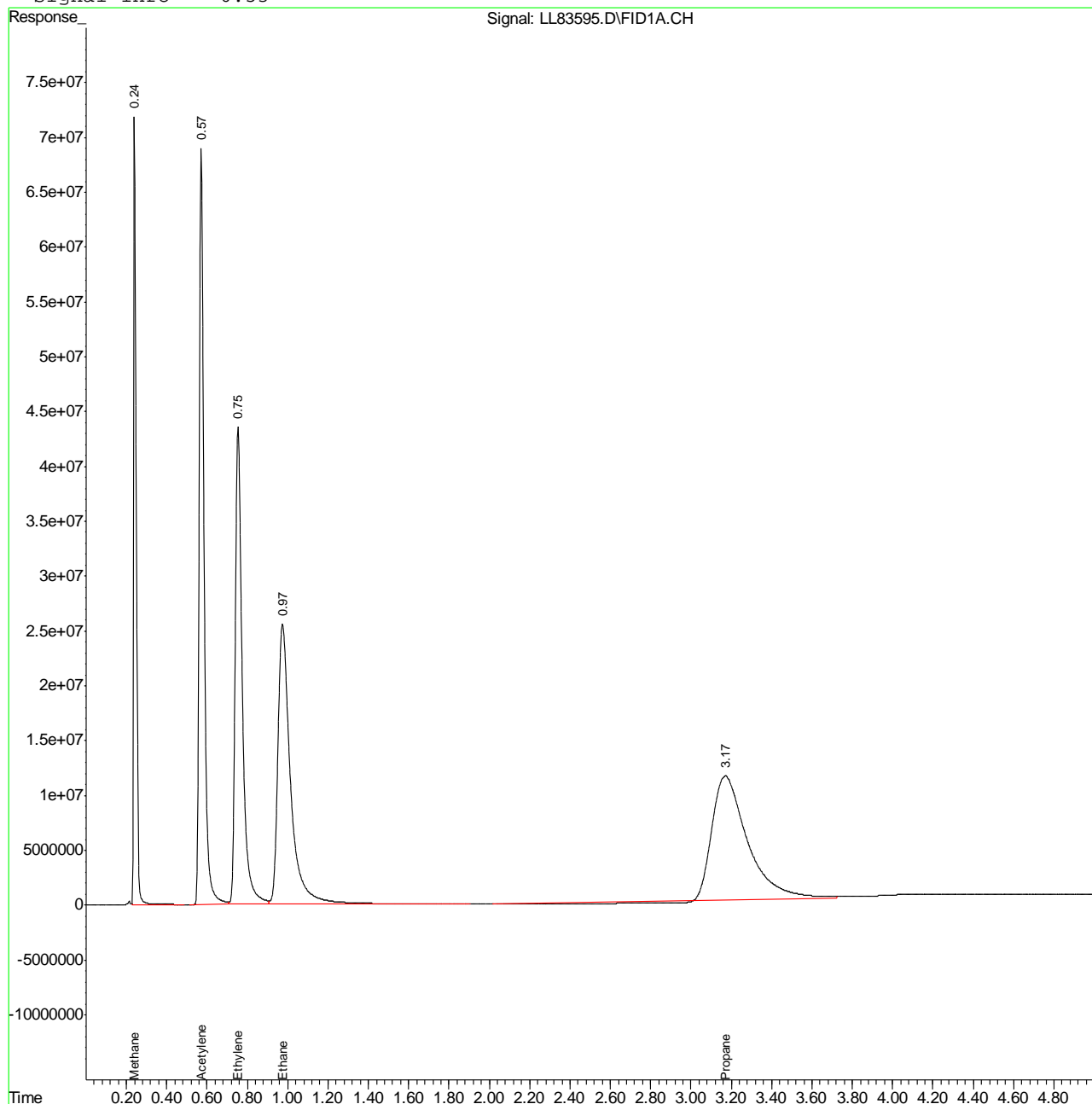
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83595.D RSK122321B.M Tue Jul 11 09:22:02 2023

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83595.D Vial: 5  
Acq On : 7-11-2023 09:16:08 AM Operator: samantha  
Sample : bsd Inst : FID4-LL  
Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 11 9:21 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53





# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2902-BSD      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83595.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 09:16      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1059.73	37600	118	ug/l
Ethane	74-84-0	30	999.22	26300	227	ug/l
Ethene	74-85-1	28	978.73	10200	299	ug/l
Acetylene	74-86-2	26	856.99	11940	226	ug/l
Propane	74-98-6	44	896.78	31474	286	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.6.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83549.D Vial: 25  
 Acq On : 07 Jul 2023 11:58 am Operator: samantha  
 Sample : fc7381-lms Inst : FID4-LL  
 Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 12:03:49 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	654252040	1072.026	ppmv
2) Acetylene	0.57	1214301477	902.783	ppmv
3) Ethylene	0.77	1093173335	1004.810	ppmv
4) Ethane	1.00	1149918261	1027.731	ppmv
5) Propane	3.22	1507112976	1016.502	ppmv

9.4.1  
9

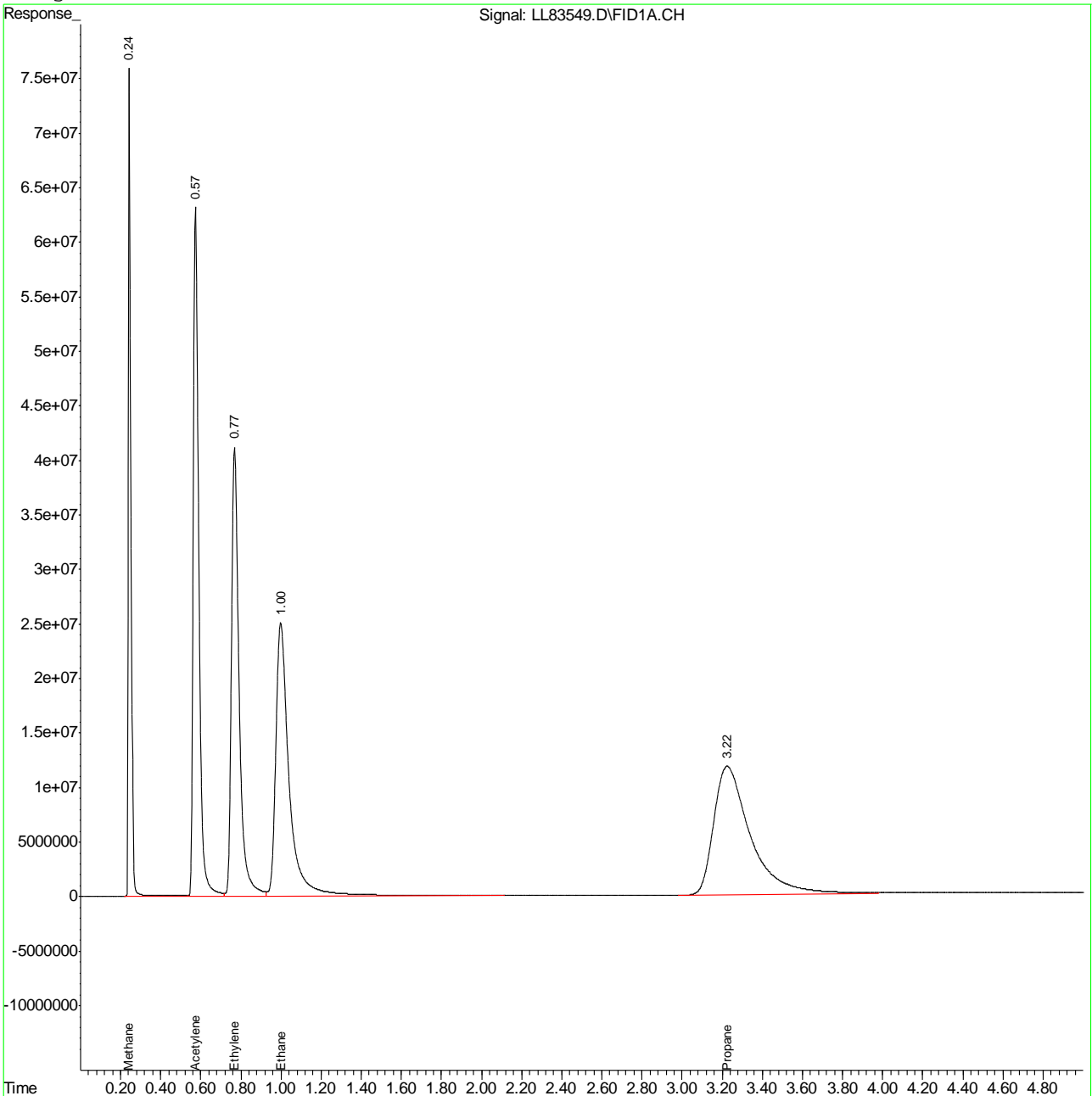
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Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83549.D Vial: 25  
Acq On : 07 Jul 2023 11:58 am Operator: samantha  
Sample : fc7381-1ms Inst : FID4-LL  
Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 7 12:03 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.4.1  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-1MS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83549.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 11:58      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1072.03	37600	119	ug/l
Ethane	74-84-0	30	1027.73	26300	234	ug/l
Ethene	74-85-1	28	1004.81	10200	307	ug/l
Acetylene	74-86-2	26	902.78	11940	238	ug/l
Propane	74-98-6	44	1016.5	31474	324	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.4.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83589.D Vial: 39  
 Acq On : 7-10-2023 04:11:57 PM Operator: samantha  
 Sample : fc7589-7ms Inst : FID4-LL  
 Misc : gc24246,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:17:39 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	645261778	1057.295 ppmv
2) Acetylene	0.57	1108715744	824.284 ppmv
3) Ethylene	0.75	1049070250	964.272 ppmv
4) Ethane	0.98	1106546619	988.968 ppmv
5) Propane	3.17	1290334970	870.292 ppmv

9.4.2  
9

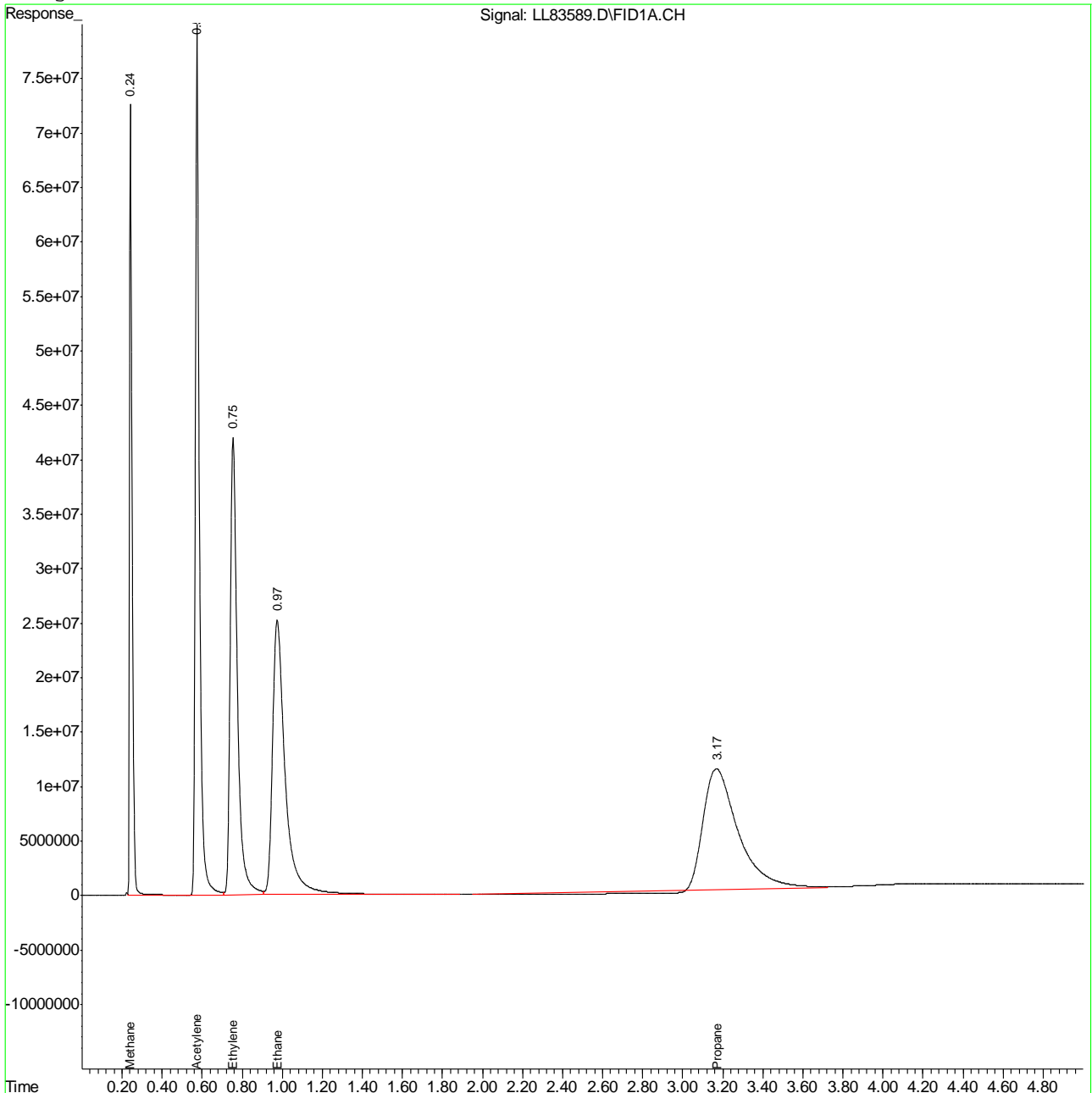
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Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83589.D Vial: 39  
 Acq On : 7-10-2023 04:11:57 PM Operator: samantha  
 Sample : fc7589-7ms Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:17 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.4.2  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7589-7MS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83589.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 16:11      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1057.29	37600	118	ug/l
Ethane	74-84-0	30	988.97	26300	225	ug/l
Ethene	74-85-1	28	964.27	10200	295	ug/l
Acetylene	74-86-2	26	824.28	11940	217	ug/l
Propane	74-98-6	44	870.29	31474	277	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.4.2.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83622.D Vial: 32  
 Acq On : 7-11-2023 03:02:09 PM Operator: samantha  
 Sample : fc7589-17ms Inst : FID4-LL  
 Misc : gc24249,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 15:07:47 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	625817497	1025.434 ppmv
2) Acetylene	0.58	1189926070	884.660 ppmv
3) Ethylene	0.76	1054579596	969.336 ppmv
4) Ethane	0.98	1099942232	983.065 ppmv
5) Propane	3.18	1447183393	976.081 ppmv

9.4.3  
9

-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83622.D RSK122321B.M Tue Jul 11 15:22:17 2023

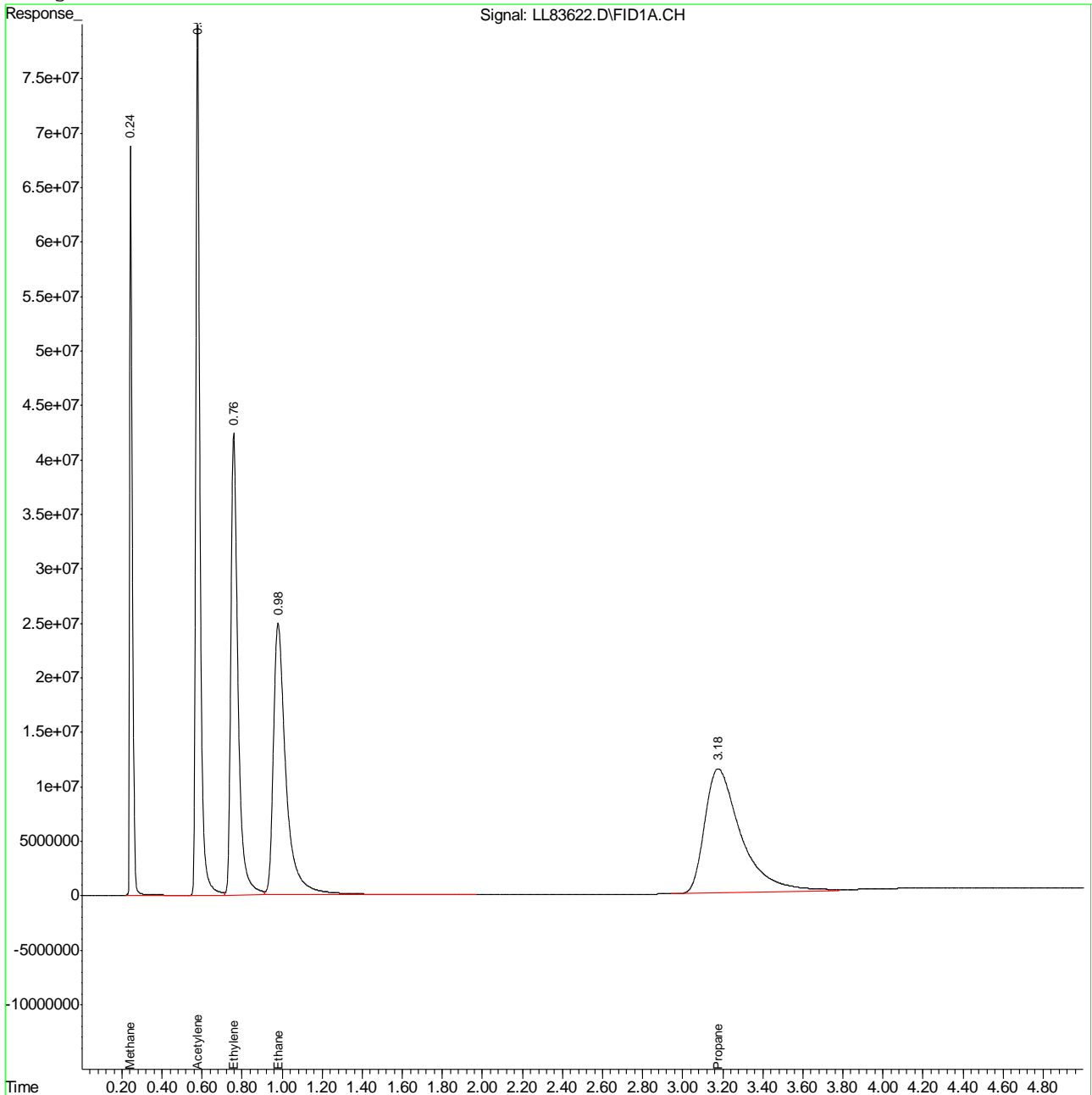


Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83622.D Vial: 32  
Acq On : 7-11-2023 03:02:09 PM Operator: samantha  
Sample : fc7589-17ms Inst : FID4-LL  
Misc : gc24249,g112902,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 11 15:07 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.4.3  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7589-17MS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83622.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 15:02      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1025.43	37600	114	ug/l
Ethane	74-84-0	30	983.06	26300	224	ug/l
Ethene	74-85-1	28	969.34	10200	296	ug/l
Acetylene	74-86-2	26	884.66	11940	233	ug/l
Propane	74-98-6	44	976.08	31474	311	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.4.3.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83548.D Vial: 24  
 Acq On : 07 Jul 2023 11:47 am Operator: samantha  
 Sample : FC7381-1dup Inst : FID4-LL  
 Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 11:55:42 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	3003349	4.921 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv
4) Ethane	0.00	0	N.D. ppmv
5) Propane	0.00	0	N.D. ppmv

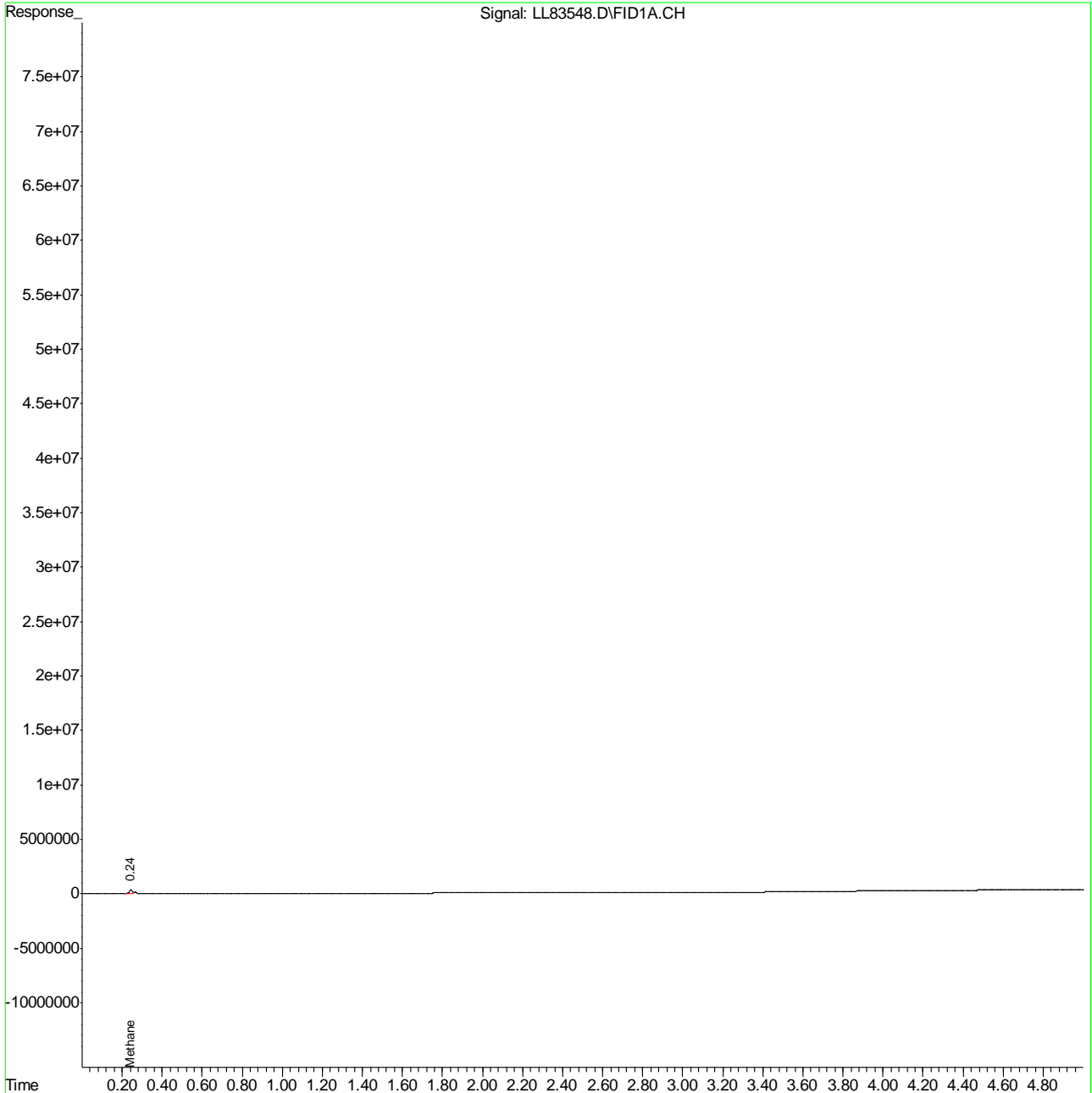
9.5.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83548.D Vial: 24  
Acq On : 07 Jul 2023 11:47 am Operator: samantha  
Sample : FC7381-1dup Inst : FID4-LL  
Misc : gc24242,gll2900,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 7 11:55 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.5.1  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** FC7381-1DUP      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83548.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/07/23 11:47      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	4.92	37600	0.55	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.5.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83588.D Vial: 38  
 Acq On : 7-10-2023 03:56:22 PM Operator: samantha  
 Sample : fc7589-7dup Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:07:49 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	217518	0.356 ppmv m
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	1.00f	219198	0.201 ppmv
4) Ethane	1.00	219198	0.196 ppmv
5) Propane	0.00	0	N.D. ppmv

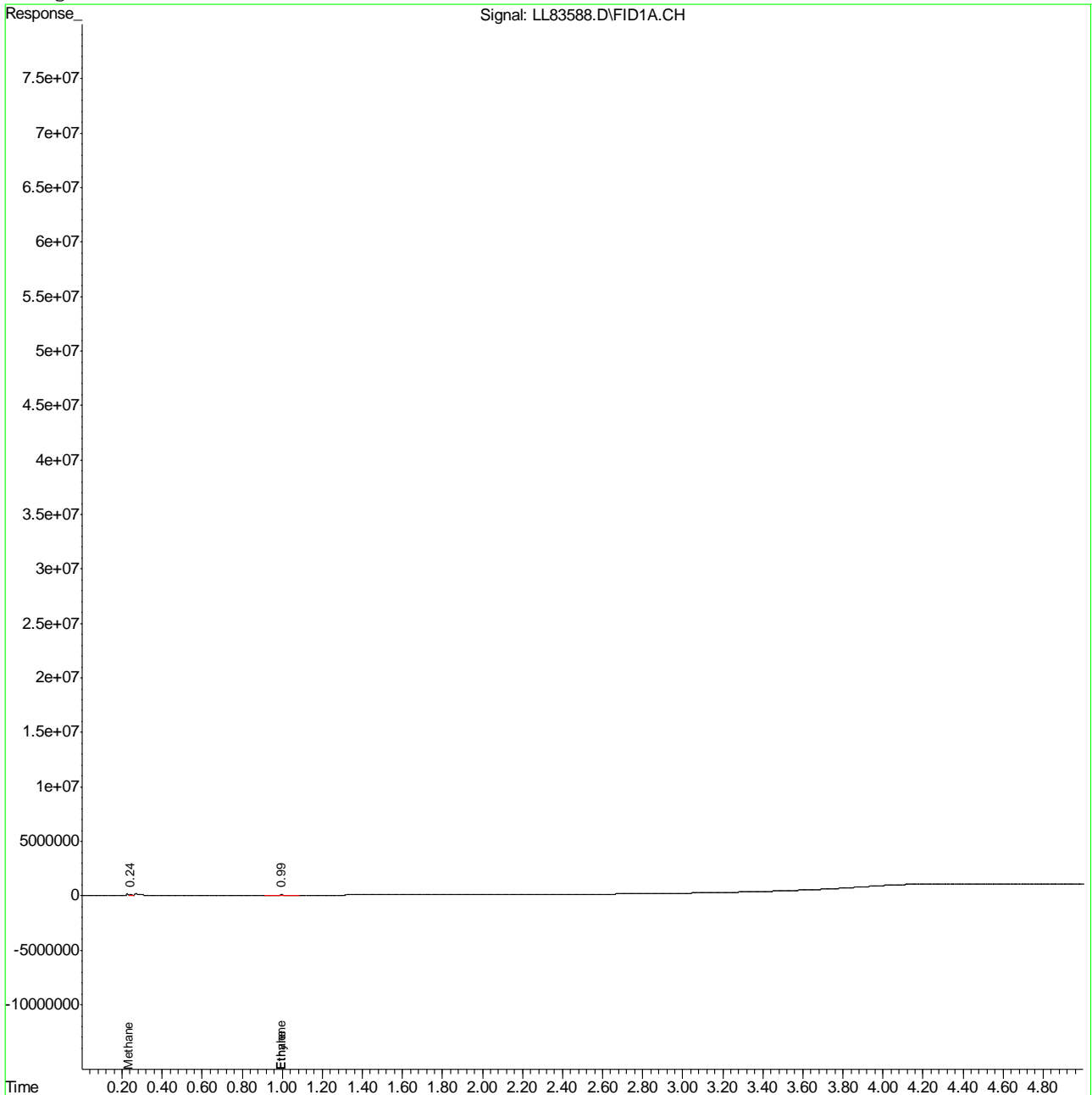
9.5.2  
**9**

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83588.D Vial: 38  
Acq On : 7-10-2023 03:56:22 PM Operator: samantha  
Sample : fc7589-7dup Inst : FID4-LL  
Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 10 16:09 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.5.2  
9

# Manual Integration Approval Summary

**Sample Number:** FC7589-7DUP

**Method:** RSKSOP-147/175

**Lab FileID:** LL83588.D

**Analyst approved:** 07/10/23 16:10 Samantha Skitowski

**Injection Time:** 07/10/23 15:56

**Supervisor approved:** 07/12/23 08:49 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	0.24	Overlapping peak



# Dissolved Gases Raw Data Summary

**Sample Number:** FC7589-7DUP      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83588.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 15:56      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.36	37600	0.0	ug/l
Ethane	74-84-0	30	0.2	26300	0.0	ug/l
Ethene	74-85-1	28	0.2	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

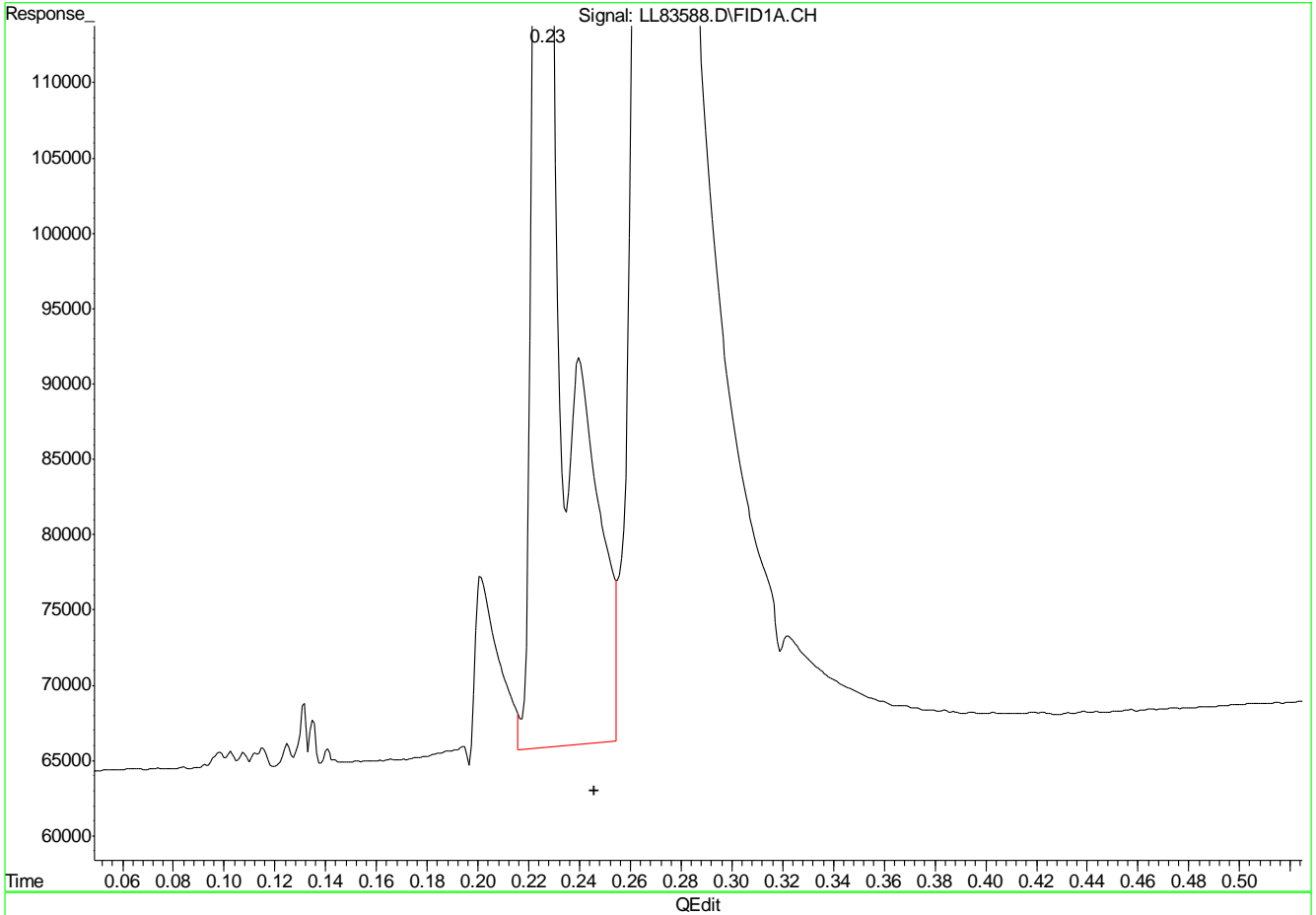
Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.5.2.2  
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\071023\LL83588.D Vial: 38  
 Acq On : 7-10-2023 03:56:22 PM Operator: samantha  
 Sample : fc7589-7dup Inst : FID4-LL  
 Misc : gc24246,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:07 2023 Quant Results File: RSK122321B.RES

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration



(1) Methane  
 0.23min 1.413ppmv  
 response 862647

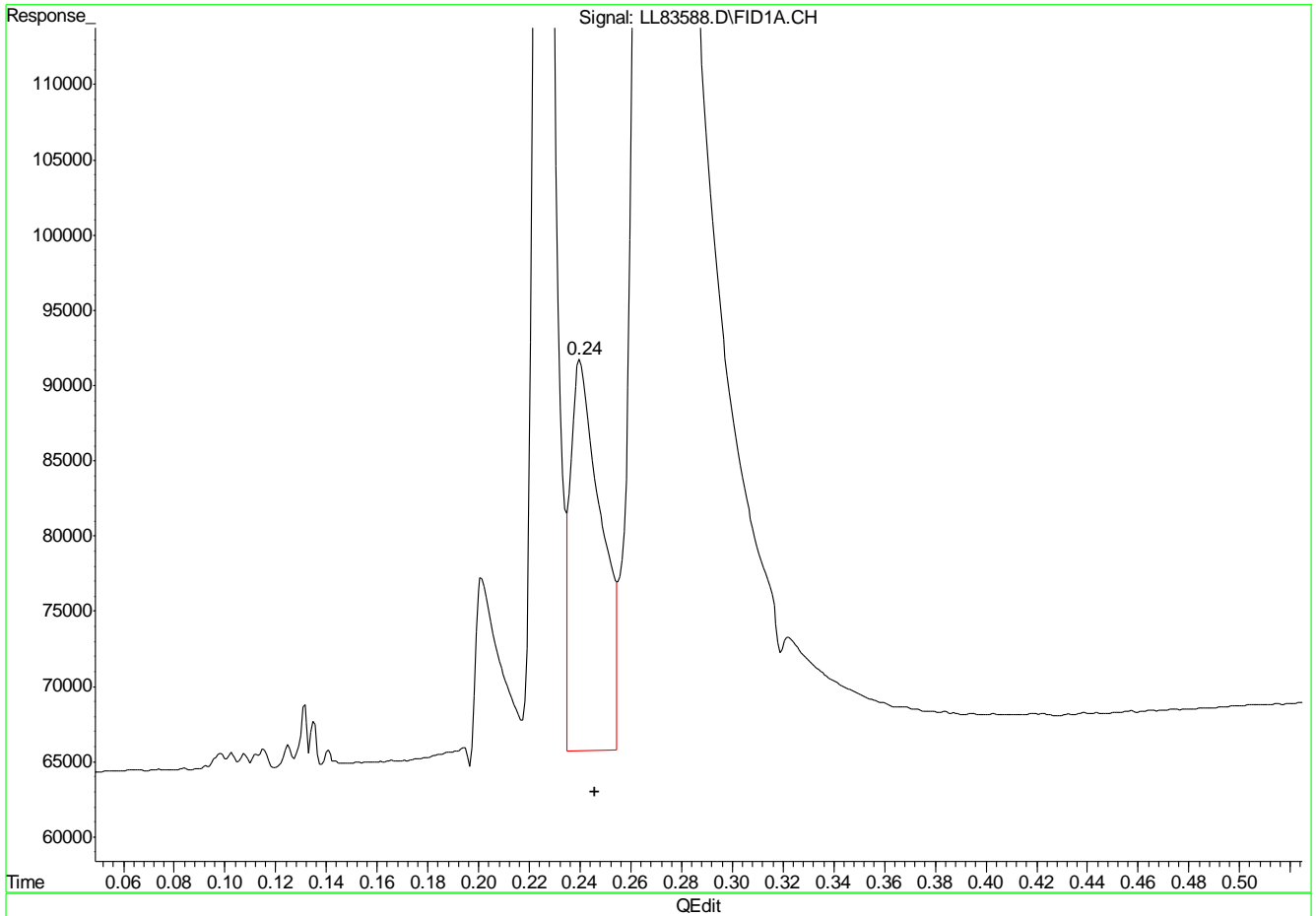
(+) = Expected Retention Time

LL83588.D RSK122321B.M Mon Jul 10 16:09:37 2023

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\071023\LL83588.D Vial: 38  
 Acq On : 7-10-2023 03:56:22 PM Operator: samantha  
 Sample : fc7589-7dup Inst : FID4-LL  
 Misc : gc24246,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:07 2023 Quant Results File: RSK122321B.RES

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration



(1) Methane  
 0.24min 0.356ppmv m  
 response 217518

(+) = Expected Retention Time

LL83588.D RSK122321B.M Mon Jul 10 16:09:45 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77115.D Vial: 7  
 Acq On : 23 Dec 2021 11:44 am Operator: trangd  
 Sample : IC2678-1 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:37 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.25	1222064	2.351 ppmv m
2) Acetylene	0.58	1314517	1.290 ppmv
3) Ethylene	0.78	1209561	1.131 ppmv
4) Ethane	1.02	1345578	1.229 ppmv
5) Propane	3.32	2438213	1.652 ppmv m

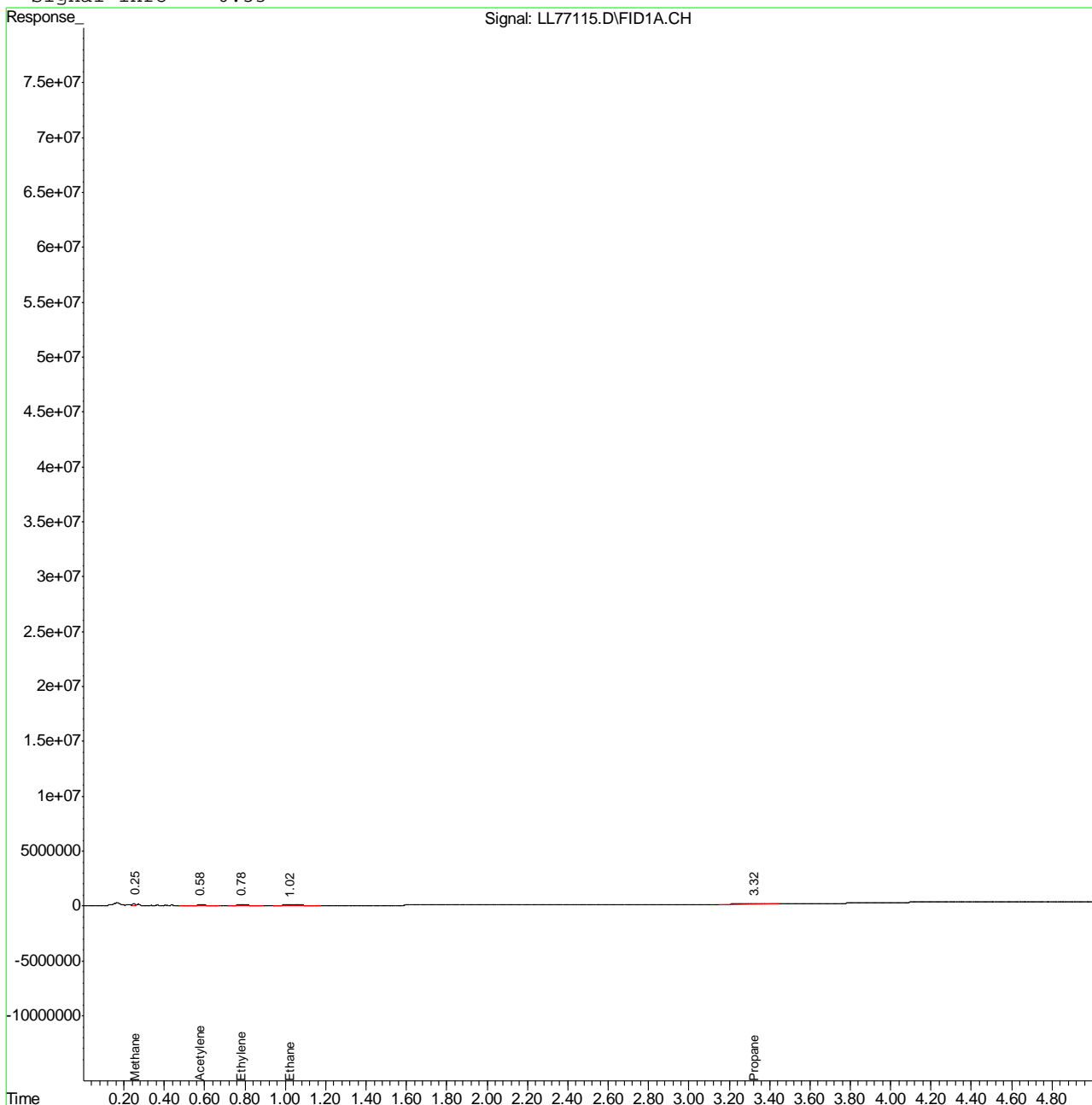
9.6.1  
**9**

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77115.D Vial: 7  
 Acq On : 23 Dec 2021 11:44 am Operator: trangd  
 Sample : IC2678-1 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:33 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.1  
9

# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77115.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 11:44      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	0.25	Poor instrument integration
Propane	74-98-6	1	3.32	Poor instrument integration

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77116.D Vial: 8  
 Acq On : 23 Dec 2021 11:53 am Operator: trangd  
 Sample : IC2678-2 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:38 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

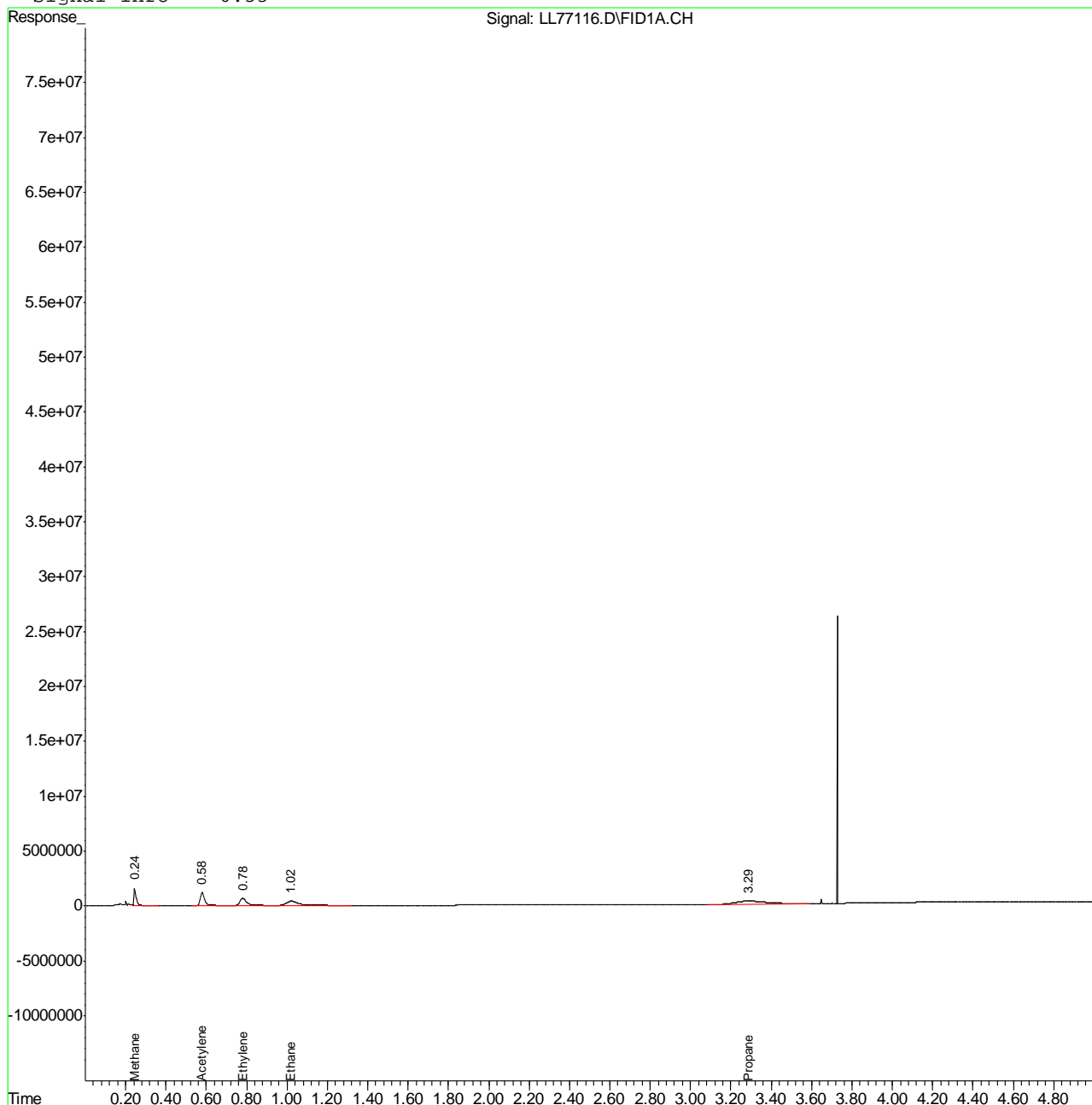
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.25	11676132	22.458 ppmv
2) Acetylene	0.58	17192128	16.867 ppmv
3) Ethylene	0.78	14889046	13.923 ppmv
4) Ethane	1.02	15188973	13.873 ppmv
5) Propane	3.29	31221296	21.155 ppmv m

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77116.D Vial: 8  
Acq On : 23 Dec 2021 11:53 am Operator: trangd  
Sample : IC2678-2 Inst : FID4-LL  
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53





# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77116.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 11:53      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.29	Poor instrument integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77117.D Vial: 9  
 Acq On : 23 Dec 2021 12:43 pm Operator: trangd  
 Sample : IC2678-3 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:39 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.25	57068216	109.623 ppmv
2) Acetylene	0.58	105203176	102.861 ppmv
3) Ethylene	0.78	97229155	90.919 ppmv
4) Ethane	1.02	97815788	89.344 ppmv
5) Propane	3.28	120041232	81.337 ppmv m

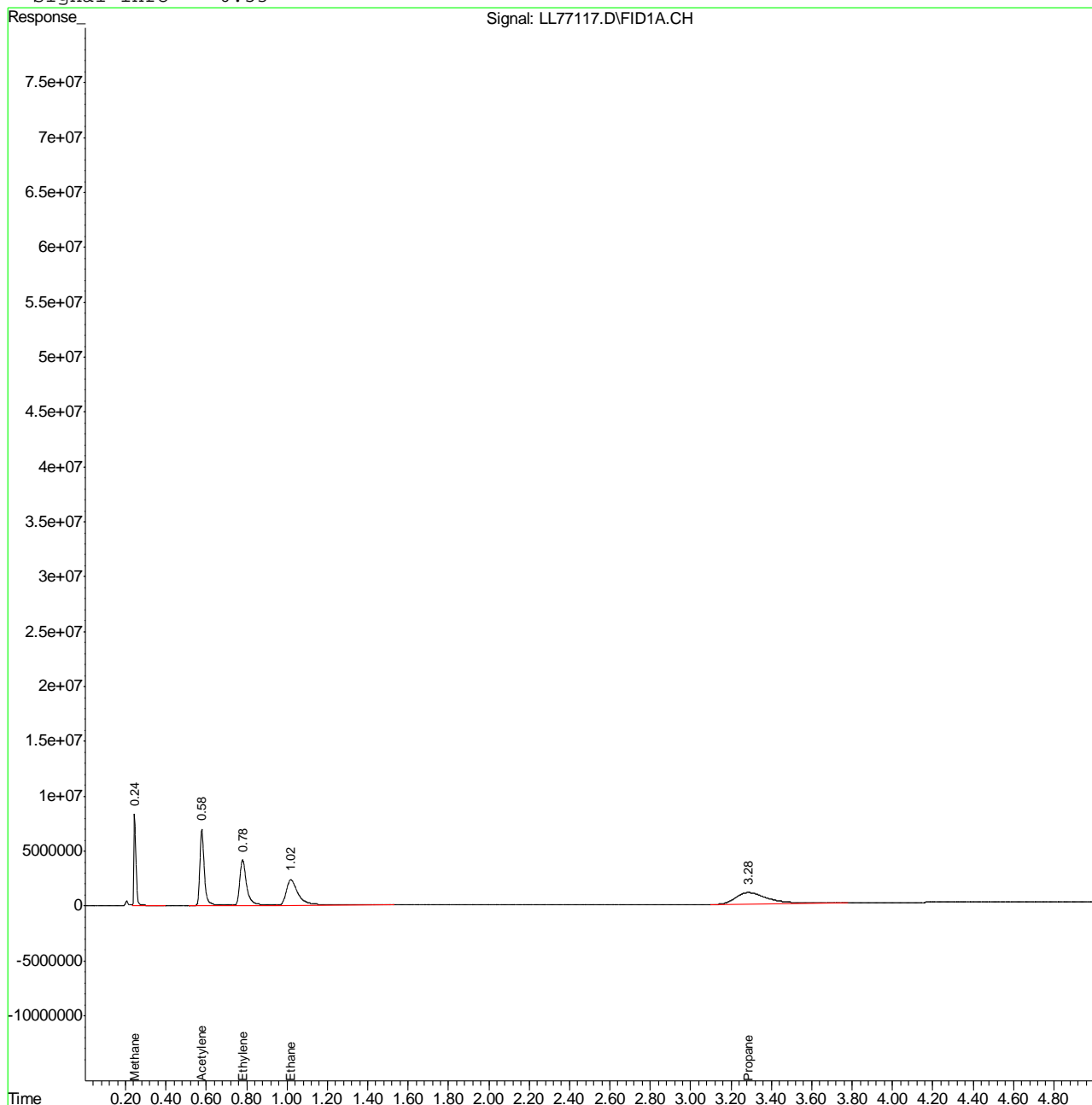
9.6.3  
**9**

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77117.D Vial: 9  
Acq On : 23 Dec 2021 12:43 pm Operator: trangd  
Sample : IC2678-3 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77117.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 12:43      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.28	Poor instrument integration

9.6.3.1

9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77118.D Vial: 10  
 Acq On : 23 Dec 2021 12:54 pm Operator: trangd  
 Sample : IC2678-4 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:40 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

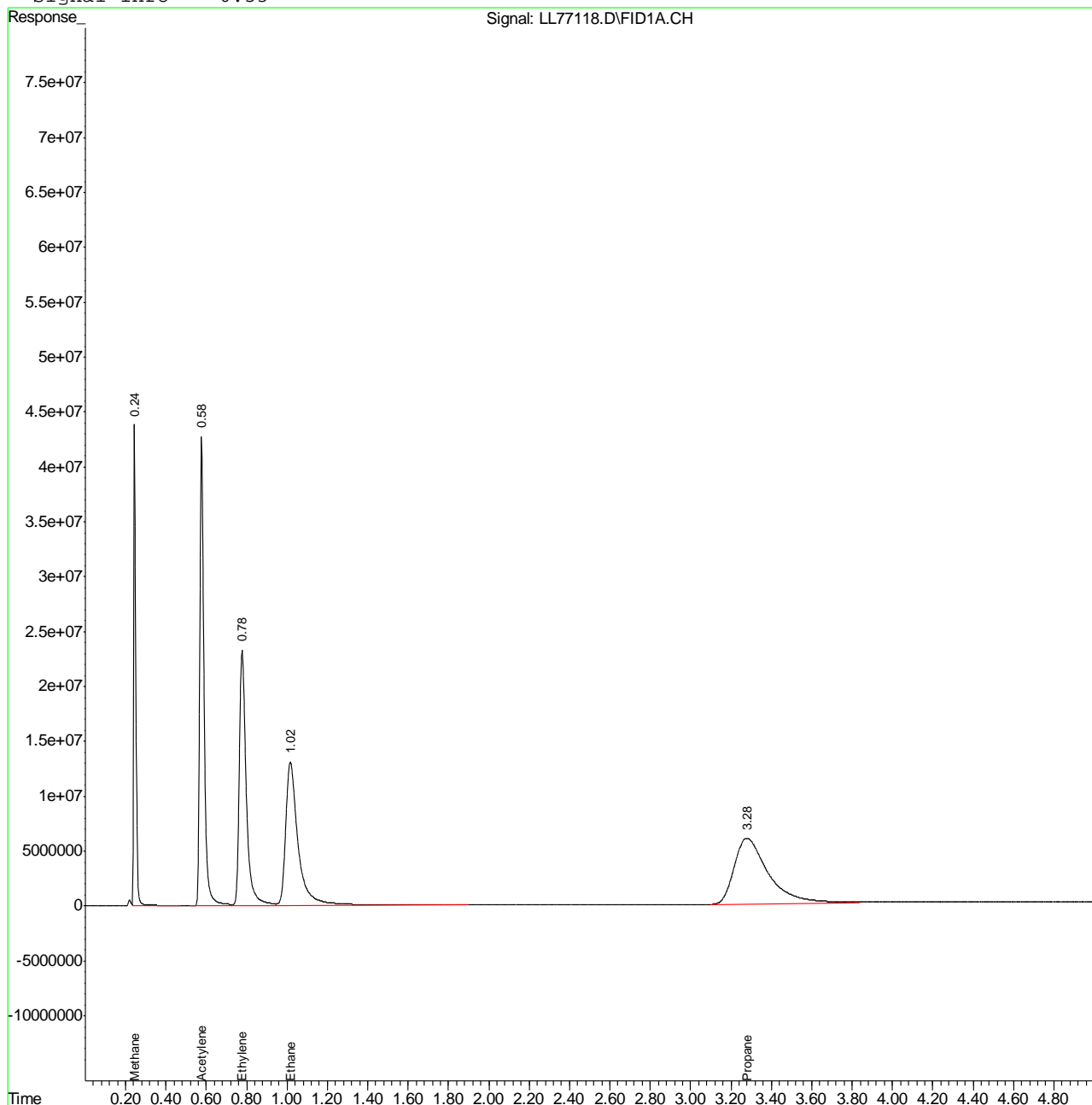
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	313371378	597.545 ppmv
2) Acetylene	0.58	628819108	602.808 ppmv
3) Ethylene	0.78	552483232	516.628 ppmv
4) Ethane	1.02	557176327	508.920 ppmv
5) Propane	3.28	698198981	473.084 ppmv m

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77118.D Vial: 10  
Acq On : 23 Dec 2021 12:54 pm Operator: trangd  
Sample : IC2678-4 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77118.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 12:54      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.28	Poor instrument integration

9.6.4.1

9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77119.D Vial: 11  
 Acq On : 12-23-2021 01:01:40 PM Operator: trangd  
 Sample : ICC2678-5 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:41 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.25	622614864	1176.969	ppmv
2) Acetylene	0.58	1277889494	1197.217	ppmv
3) Ethylene	0.78	1114273972	1041.959	ppmv
4) Ethane	1.01	1119942427	1022.946	ppmv
5) Propane	3.27	1464950772	992.619	ppmv m

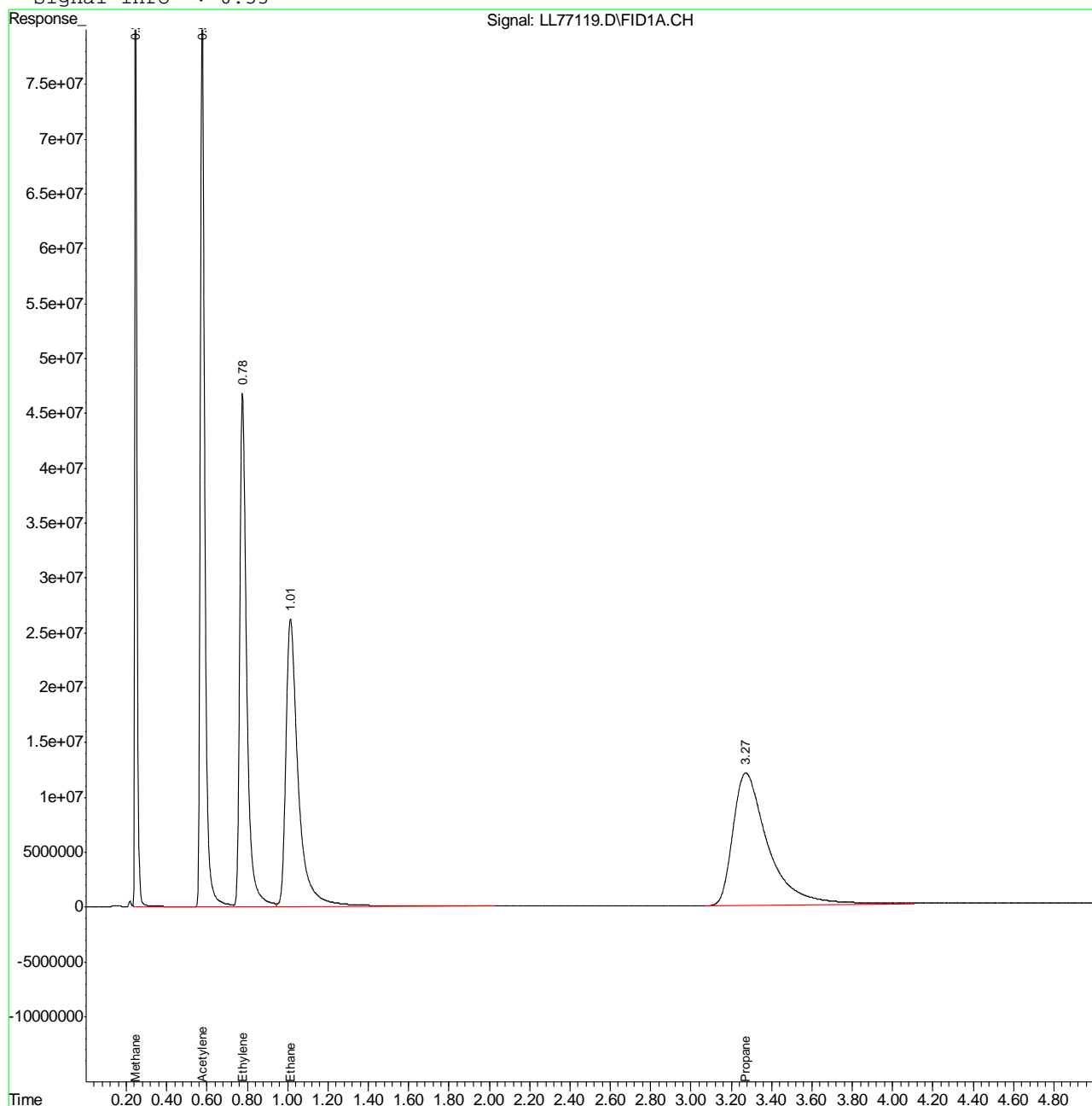


## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77119.D Vial: 11  
Acq On : 12-23-2021 01:01:40 PM Operator: trangd  
Sample : ICC2678-5 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-ICC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77119.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 13:01      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.27	Poor instrument integration

9.6.5.1

9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77120.D Vial: 12  
 Acq On : 12-23-2021 02:24:22 PM Operator: trangd  
 Sample : IC2678-6 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:42 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

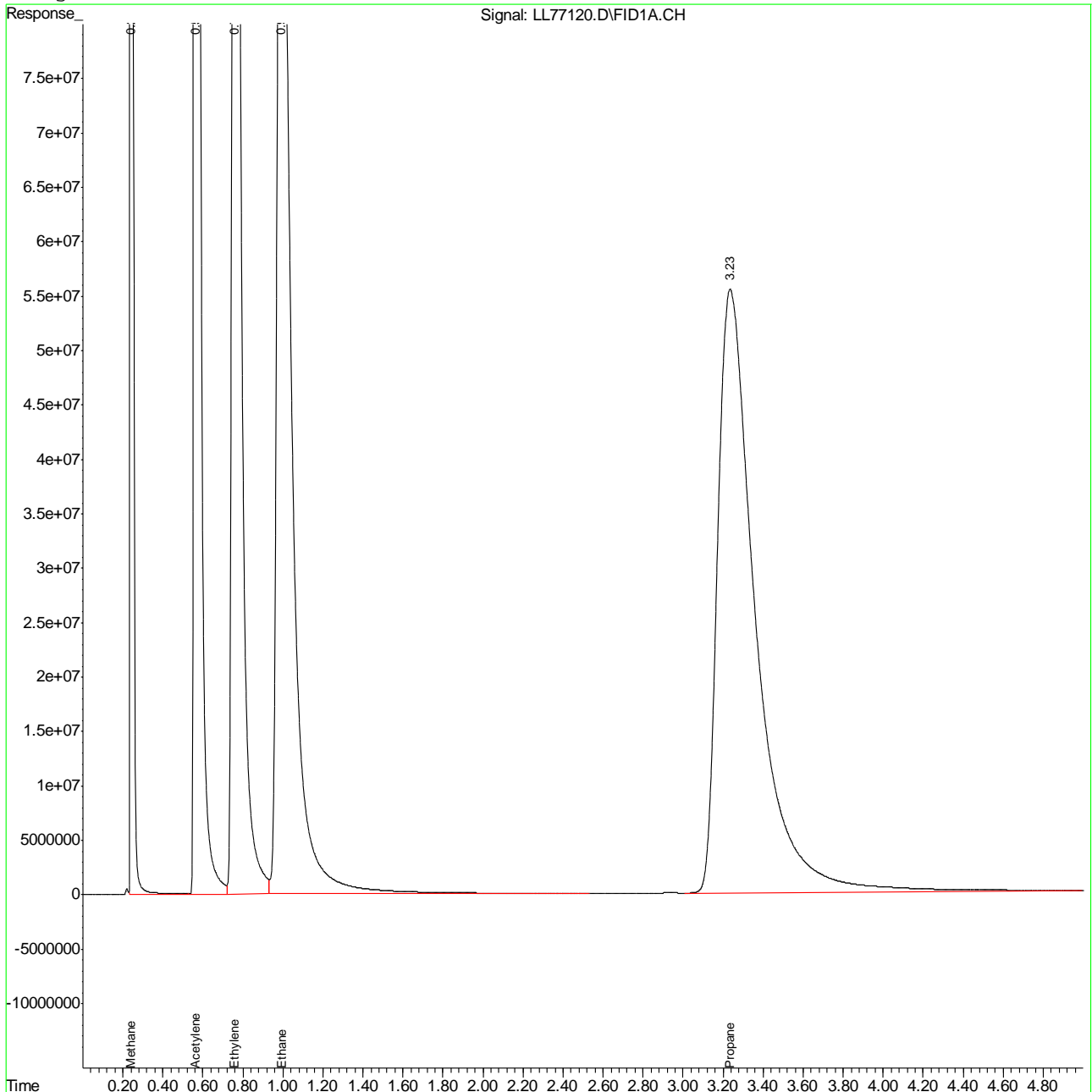
Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	3127094366	5549.763	ppmv
2) Acetylene	0.57	6334260778	5155.089	ppmv
3) Ethylene	0.76	5440050642	5086.999	ppmv
4) Ethane	0.99	5622997301	5135.999	ppmv
5) Propane	3.23	7311594809	4954.177	ppmv

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77120.D Vial: 12  
Acq On : 12-23-2021 02:24:22 PM Operator: trangd  
Sample : IC2678-6 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:27 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77121.D Vial: 13  
 Acq On : 12-23-2021 02:39:43 PM Operator: trangd  
 Sample : IC2678-7 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:43 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	6063533448	10115.185 ppmv
2) Acetylene	0.56	13655387265	9666.436 ppmv
3) Ethylene	0.74	10876284063	10170.428 ppmv
4) Ethane	0.98	11174787274	10206.958 ppmv
5) Propane	3.19	14881473513	10083.362 ppmv

9.67  
9

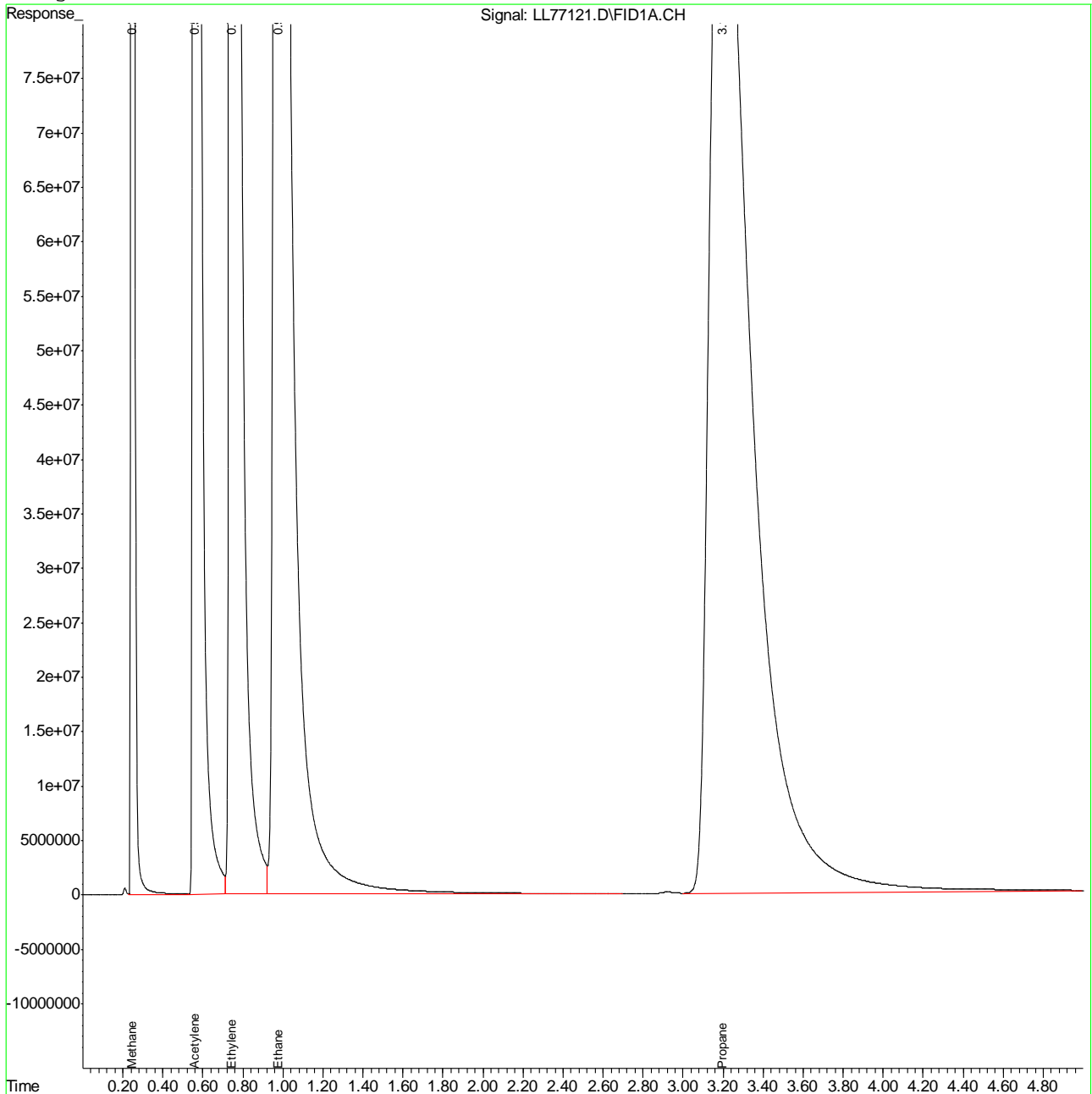
-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL77121.D RSK122321B.M Thu Dec 30 10:08:19 2021

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77121.D Vial: 13  
Acq On : 12-23-2021 02:39:43 PM Operator: trangd  
Sample : IC2678-7 Inst : FID4-LL  
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:27 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15  
 Acq On : 12-23-2021 03:20:03 PM Operator: trangd  
 Sample : icv2678-5 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 28 15:03:54 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.25	624539960	1023.341	ppmv
2) Acetylene	0.58	1295434265	963.101	ppmv
3) Ethylene	0.78	1114848289	1024.733	ppmv
4) Ethane	1.02	1138078608	1017.149	ppmv
5) Propane	3.27	1567891284	1057.495	ppmv m

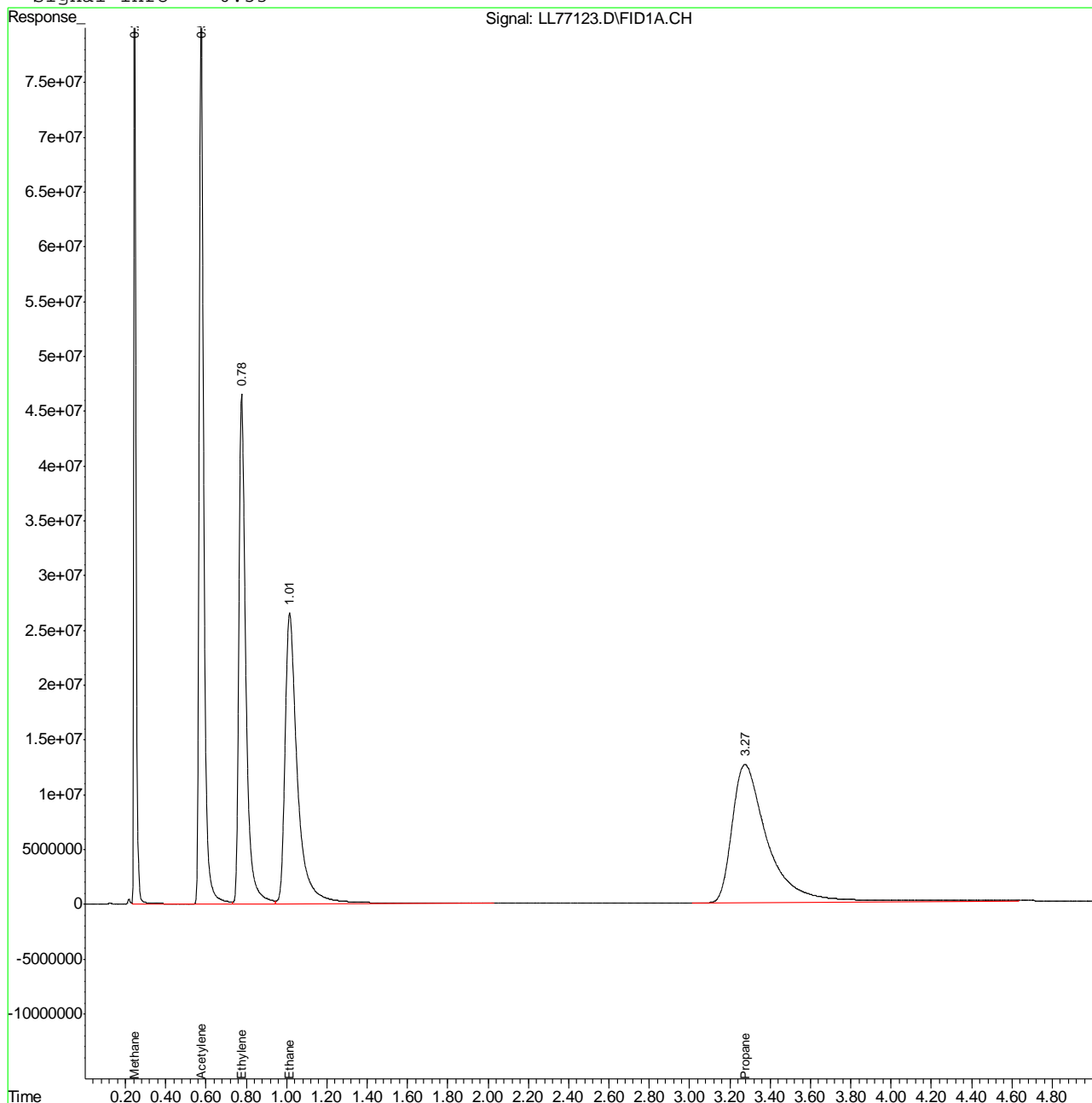
6 8.9.6

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15  
 Acq On : 12-23-2021 03:20:03 PM Operator: trangd  
 Sample : icv2678-5 Inst : FID4-LL  
 Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 28 15:04 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



6 896



# Manual Integration Approval Summary

**Sample Number:** GLL2678-ICV2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77123.D      **Analyst approved:** 12/30/21 10:10 Trang Diep  
**Injection Time:** 12/23/21 15:20      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.27	Poor instrument integration

9.6.8.1

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83525.D Vial: 2  
 Acq On : 7-7-2023 07:35:11 AM Operator: samantha  
 Sample : cc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 07:40:57 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	584176079	957.203 ppmv
2) Acetylene	0.58	1288887161	958.234 ppmv
3) Ethylene	0.77	974862608	896.063 ppmv
4) Ethane	1.00	1032337619	922.644 ppmv
5) Propane	3.22	1262680561	851.640 ppmv

6.9.6  
6

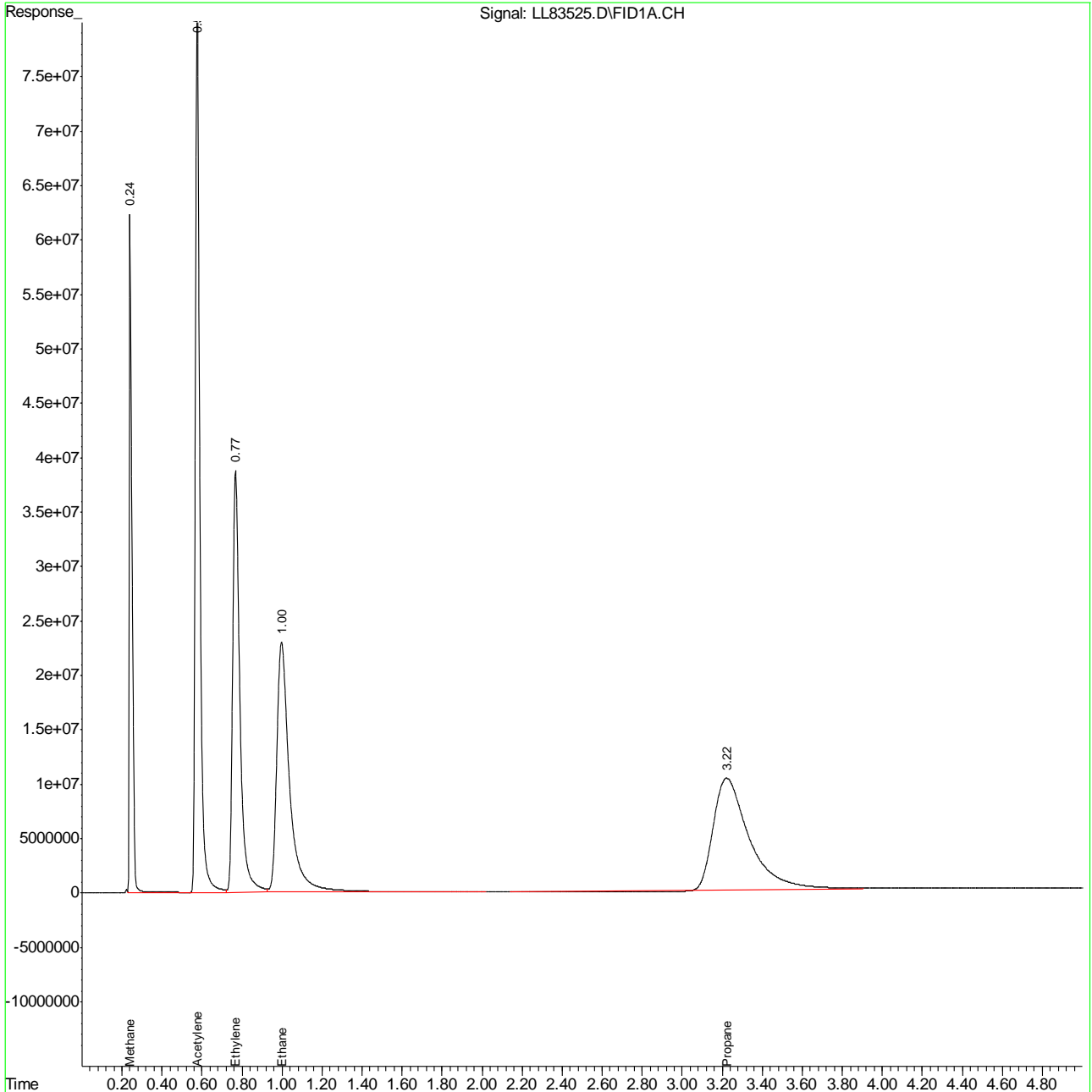
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 LL83525.D RSK122321B.M Fri Jul 07 07:42:23 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83525.D Vial: 2  
 Acq On : 7-7-2023 07:35:11 AM Operator: samantha  
 Sample : cc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 7 7:40 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



6 696

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83539.D Vial: 15  
 Acq On : 07 Jul 2023 10:28 am Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2900,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 10:34:26 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	340969195	558.696 ppmv
2) Acetylene	0.58	751070377	558.390 ppmv
3) Ethylene	0.77	569996543	523.923 ppmv
4) Ethane	1.00	609744474	544.954 ppmv
5) Propane	3.23	729955088	492.333 ppmv

9.6.10  
9

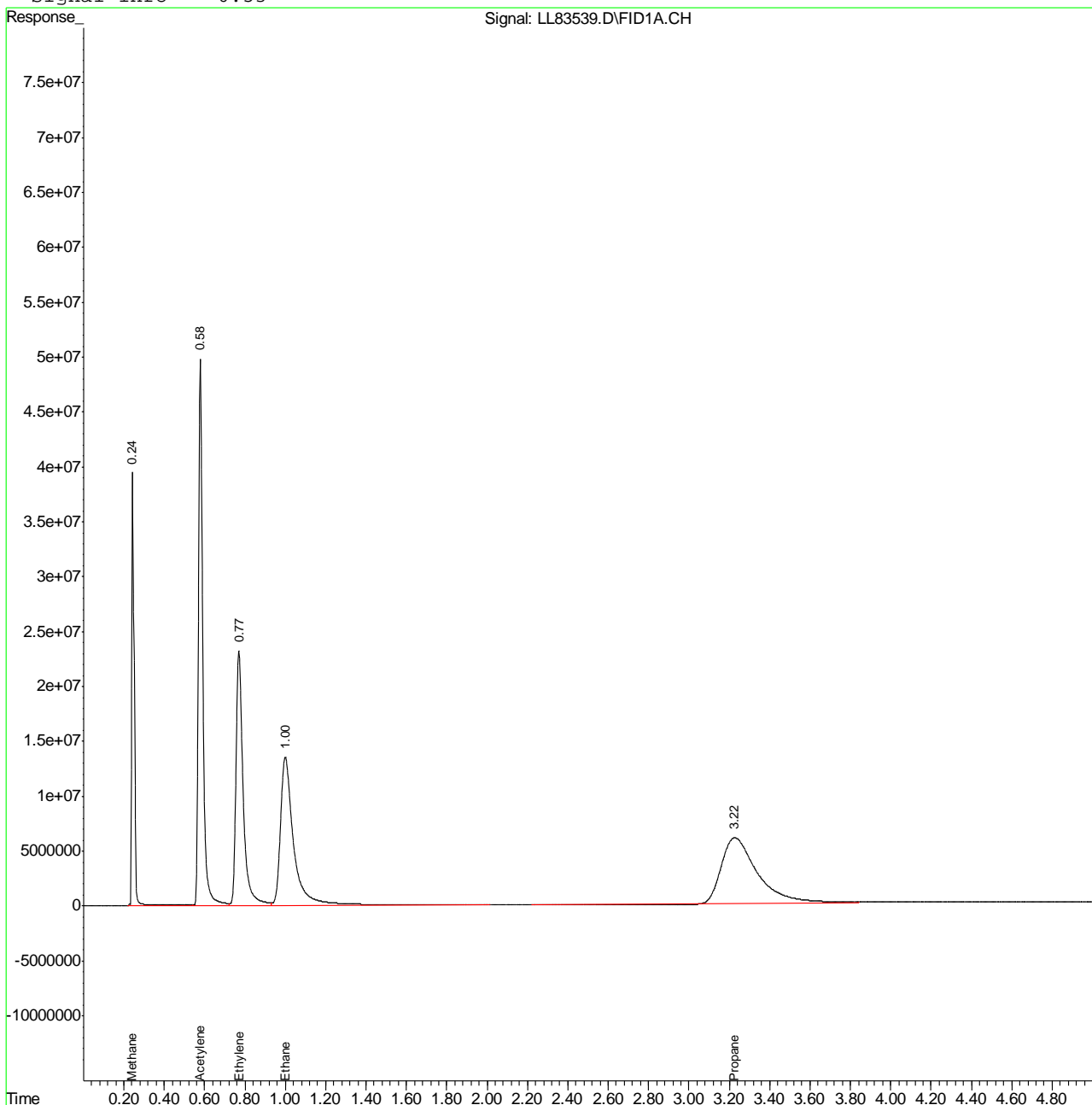
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 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83539.D RSK122321B.M Fri Jul 07 13:53:16 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83539.D Vial: 15  
 Acq On : 07 Jul 2023 10:28 am Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2900,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 7 10:34 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6-10  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83550.D Vial: 26  
 Acq On : 07 Jul 2023 12:07 pm Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24242,gll2900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 07 12:12:45 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	665067235	1089.747 ppmv
2) Acetylene	0.57	1488306497	1106.494 ppmv
3) Ethylene	0.77	1116728878	1026.462 ppmv
4) Ethane	1.00	1185095914	1059.170 ppmv
5) Propane	3.22	1519397734	1024.788 ppmv

9.6.11  
9

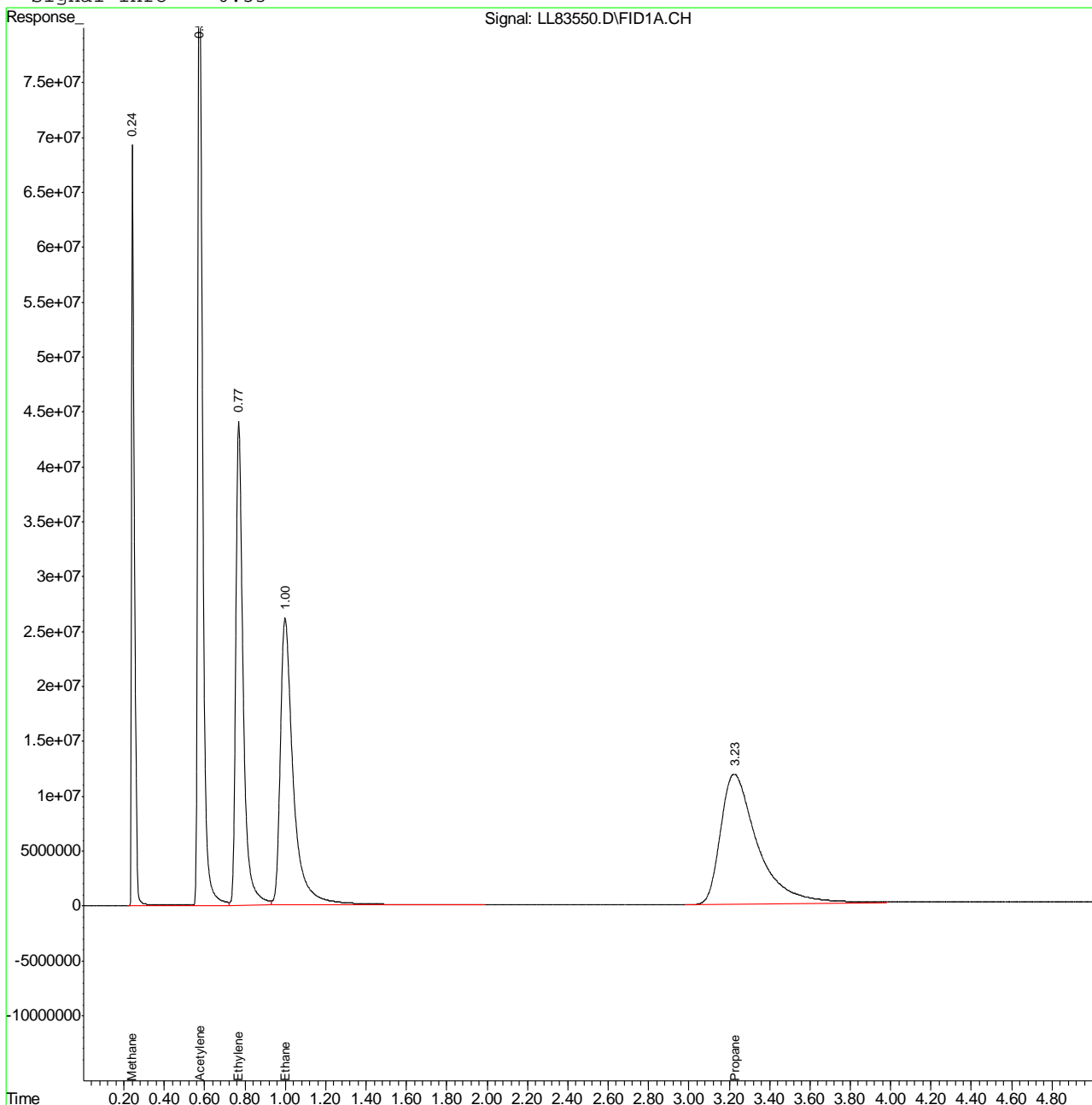
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 LL83550.D RSK122321B.M Fri Jul 07 12:13:26 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\070723\LL83550.D Vial: 26  
 Acq On : 07 Jul 2023 12:07 pm Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24242,g112900,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 7 12:12 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.11  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83555.D Vial: 5  
 Acq On : 7-10-2023 09:08:59 AM Operator: samantha  
 Sample : cc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 09:14:37 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	648556572	1062.693 ppmv
2) Acetylene	0.57	1217200532	904.938 ppmv
3) Ethylene	0.75	980039276	900.821 ppmv
4) Ethane	0.96	1023164772	914.446 ppmv
5) Propane	3.13	261913465	176.653 ppmv

9.6.12  
9

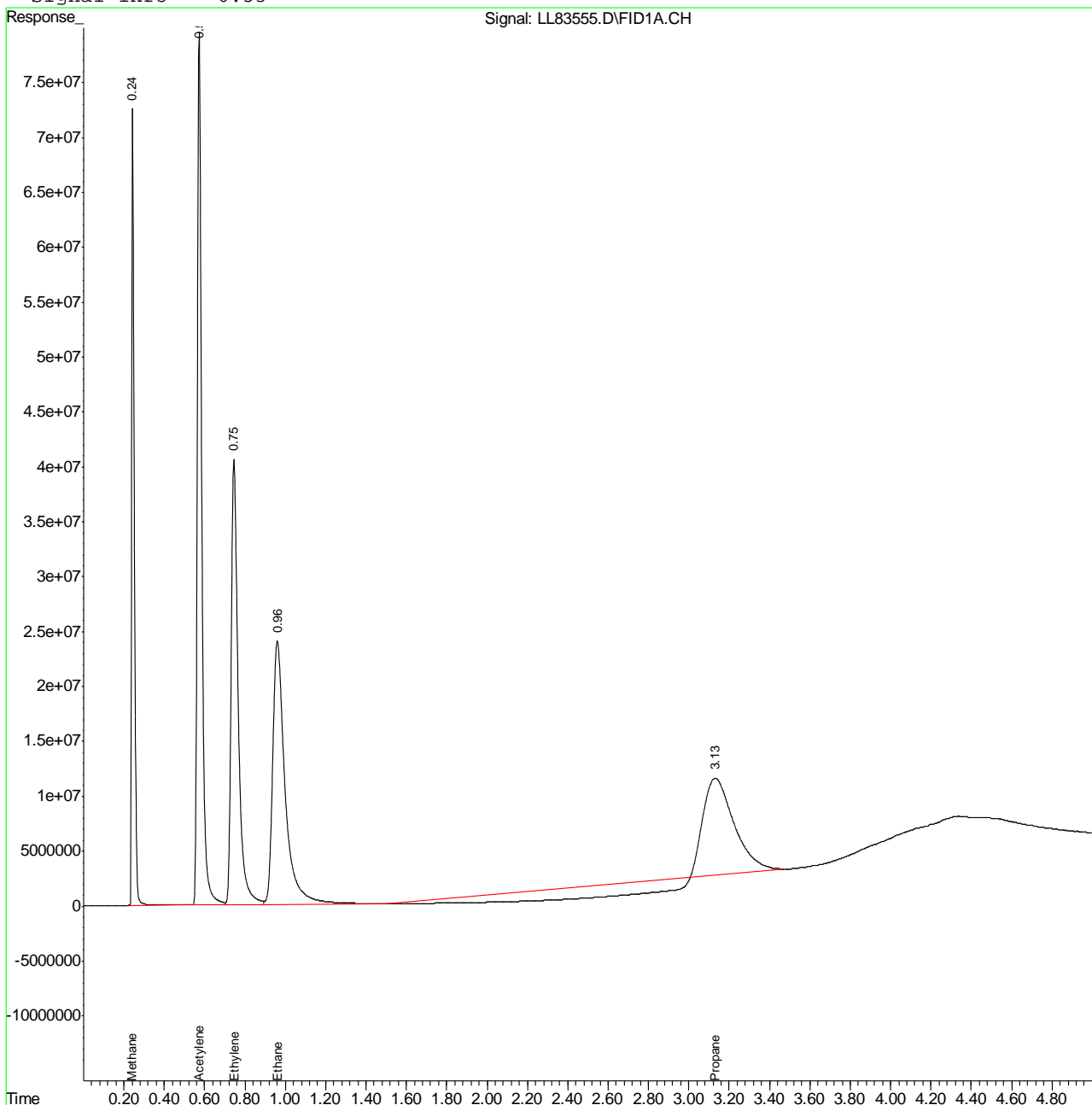


Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83555.D Vial: 5  
 Acq On : 7-10-2023 09:08:59 AM Operator: samantha  
 Sample : cc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 9:14 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.12  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83568.D Vial: 18  
 Acq On : 10 Jul 2023 12:09 pm Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 12:15:14 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	328364253	538.042 ppmv
2) Acetylene	0.57	644596330	479.230 ppmv
3) Ethylene	0.75	513971675	472.426 ppmv
4) Ethane	0.97	546754704	488.658 ppmv
5) Propane	3.16	353029980	238.108 ppmv

9.6.13  
9

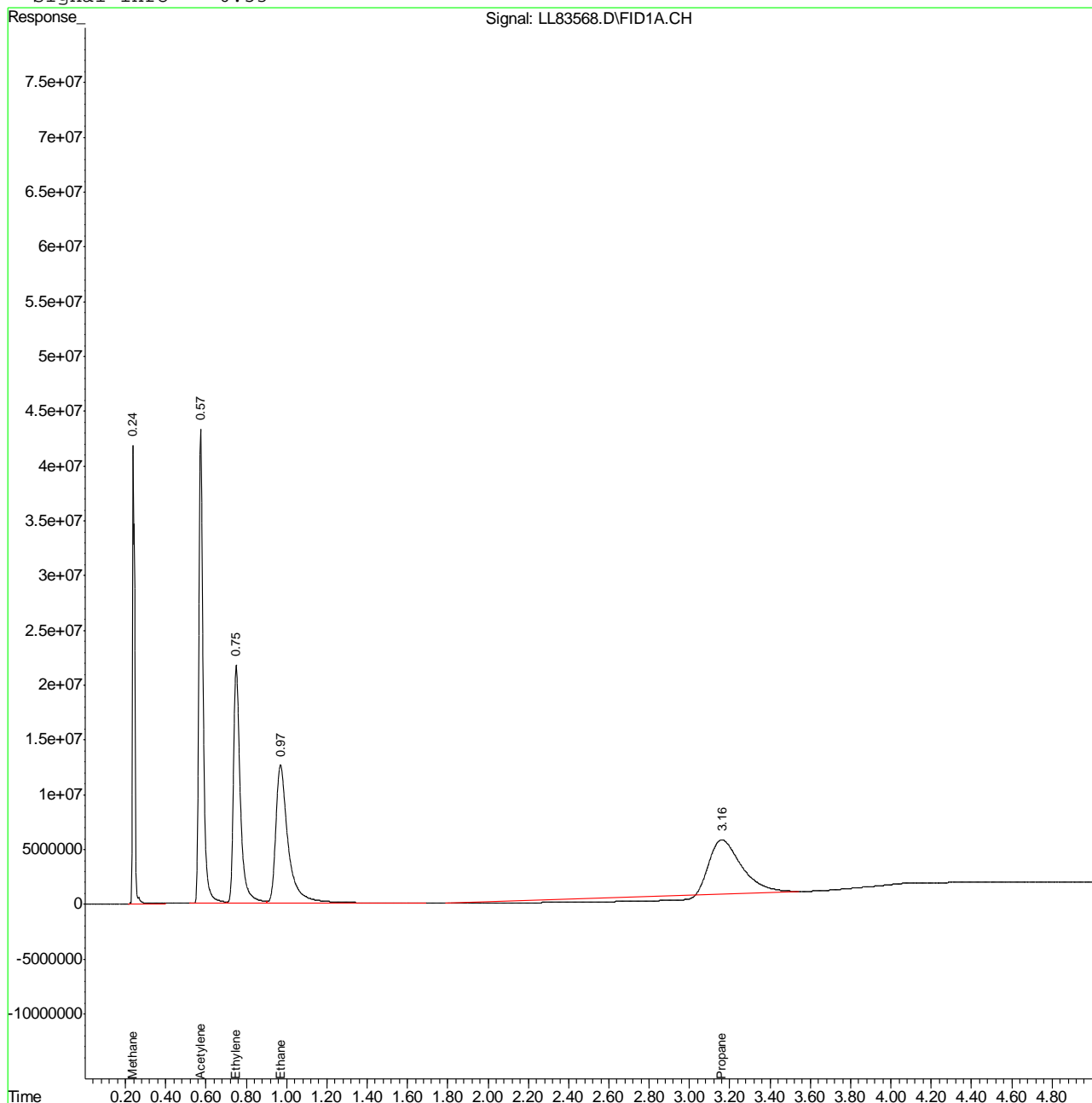
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 LL83568.D RSK122321B.M Mon Jul 10 12:15:45 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83568.D Vial: 18  
 Acq On : 10 Jul 2023 12:09 pm Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 12:15 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.13  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83579.D Vial: 29  
 Acq On : 7-10-2023 02:28:19 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 14:34:17 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	318022421	521.096 ppmv
2) Acetylene	0.58	650123860	483.340 ppmv
3) Ethylene	0.75	507455164	466.437 ppmv
4) Ethane	0.97	538024570	480.855 ppmv
5) Propane	3.17	419485302	282.930 ppmv

9.6.14  
9

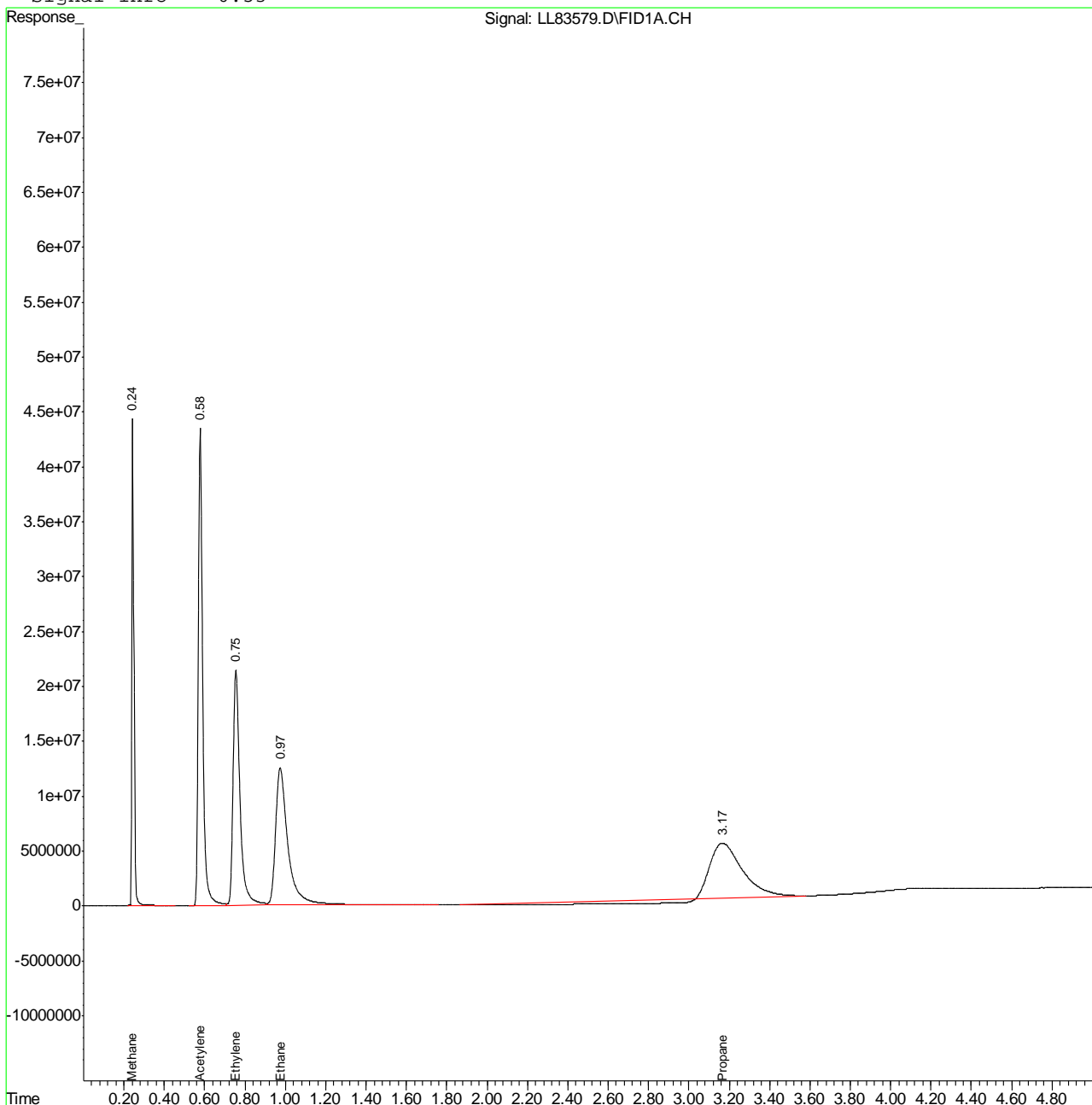
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83579.D RSK122321B.M Mon Jul 10 14:34:42 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83579.D Vial: 29  
 Acq On : 7-10-2023 02:28:19 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 14:34 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.14  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83590.D Vial: 40  
 Acq On : 7-10-2023 04:20:11 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:25:47 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	659547893	1080.703	ppmv
2) Acetylene	0.58	1390760014	1033.972	ppmv
3) Ethylene	0.75	1067534877	981.244	ppmv
4) Ethane	0.97	1128343708	1008.449	ppmv
5) Propane	3.17	1267598134	854.957	ppmv

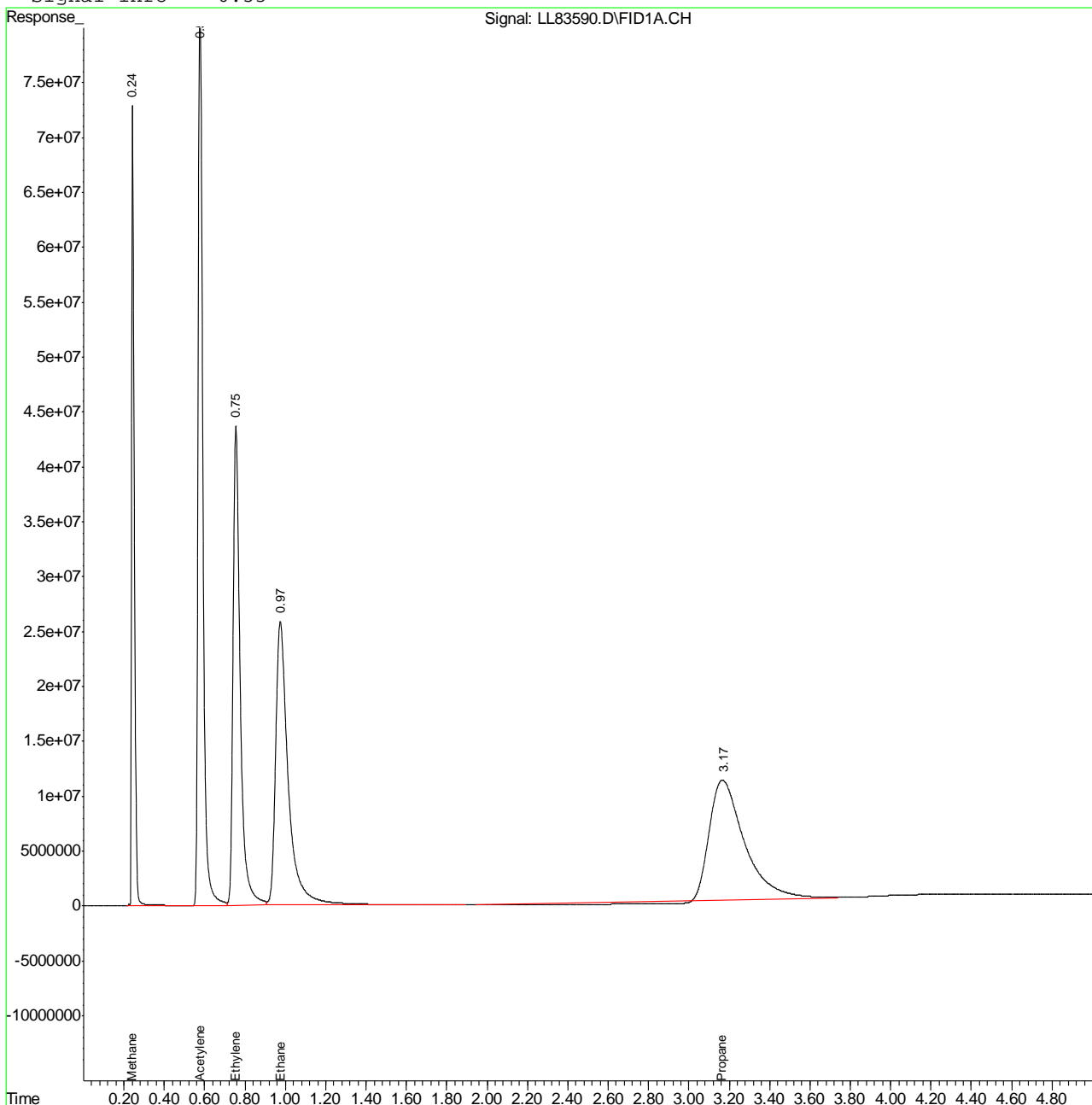
9.6.15  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83590.D Vial: 40  
 Acq On : 7-10-2023 04:20:11 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:25 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.15  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83592.D Vial: 2  
 Acq On : 7-11-2023 08:33:00 AM Operator: samantha  
 Sample : CC2678-5 Inst : FID4-LL  
 Misc : gc24246,gll2902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 08:39:21 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	662991055	1086.345	ppmv
2) Acetylene	0.58	1345784113	1000.534	ppmv
3) Ethylene	0.75	1051174264	966.206	ppmv
4) Ethane	0.97	1110746483	992.721	ppmv
5) Propane	3.17	1186813280	800.470	ppmv

9.6.16  
9

-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83592.D RSK122321B.M Tue Jul 11 08:40:10 2023

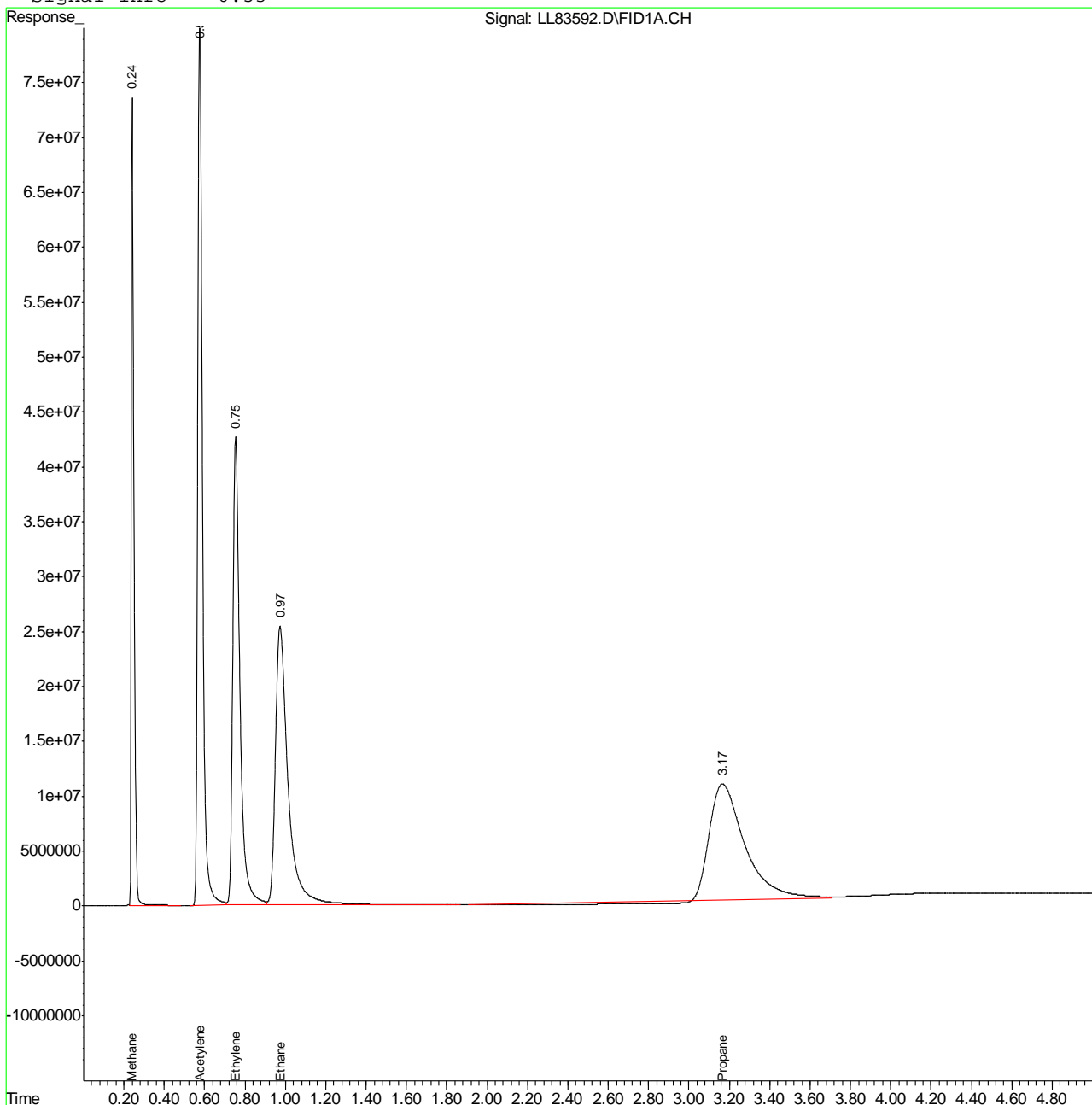


Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83592.D Vial: 2  
 Acq On : 7-11-2023 08:33:00 AM Operator: samantha  
 Sample : CC2678-5 Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 8:39 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.16  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83605.D Vial: 15  
 Acq On : 11 Jul 2023 11:27 am Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 11:32:40 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	296749355	486.239 ppmv
2) Acetylene	0.58	613825322	456.354 ppmv
3) Ethylene	0.76	477120941	438.554 ppmv
4) Ethane	0.98	503959001	450.409 ppmv
5) Propane	3.18	462732515	312.099 ppmv

9.6.17  
9

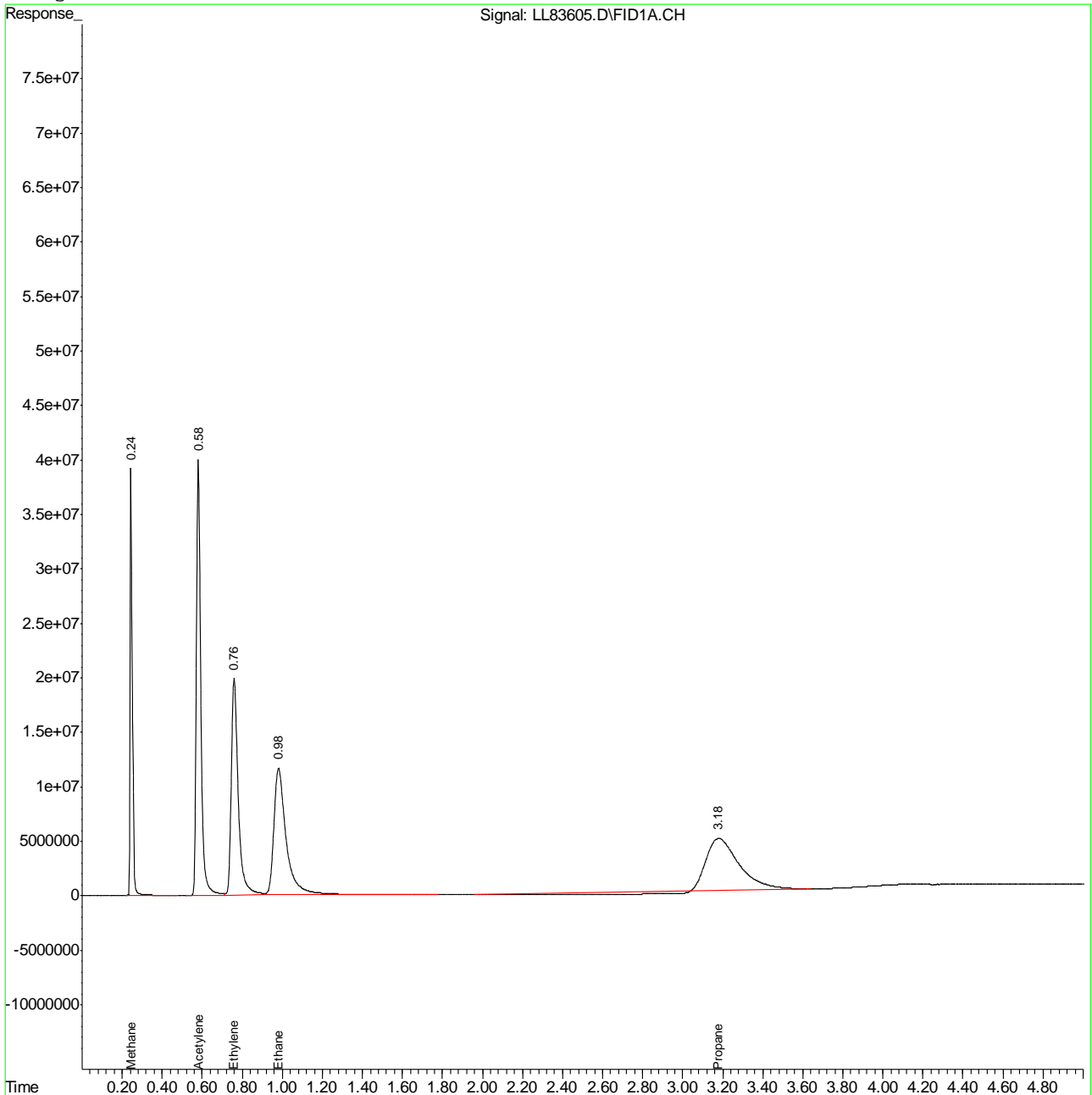
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 LL83605.D RSK122321B.M Tue Jul 11 11:33:25 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83605.D Vial: 15  
 Acq On : 11 Jul 2023 11:27 am Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,g112902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 11:32 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6-17  
9



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83616.D Vial: 26  
 Acq On : 7-11-2023 02:06:45 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 14:12:08 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	335208426	549.256 ppmv
2) Acetylene	0.58	706148655	524.992 ppmv
3) Ethylene	0.76	544775640	500.740 ppmv
4) Ethane	0.98	577057755	515.741 ppmv
5) Propane	3.18	626329313	422.440 ppmv

9.6.18  
9

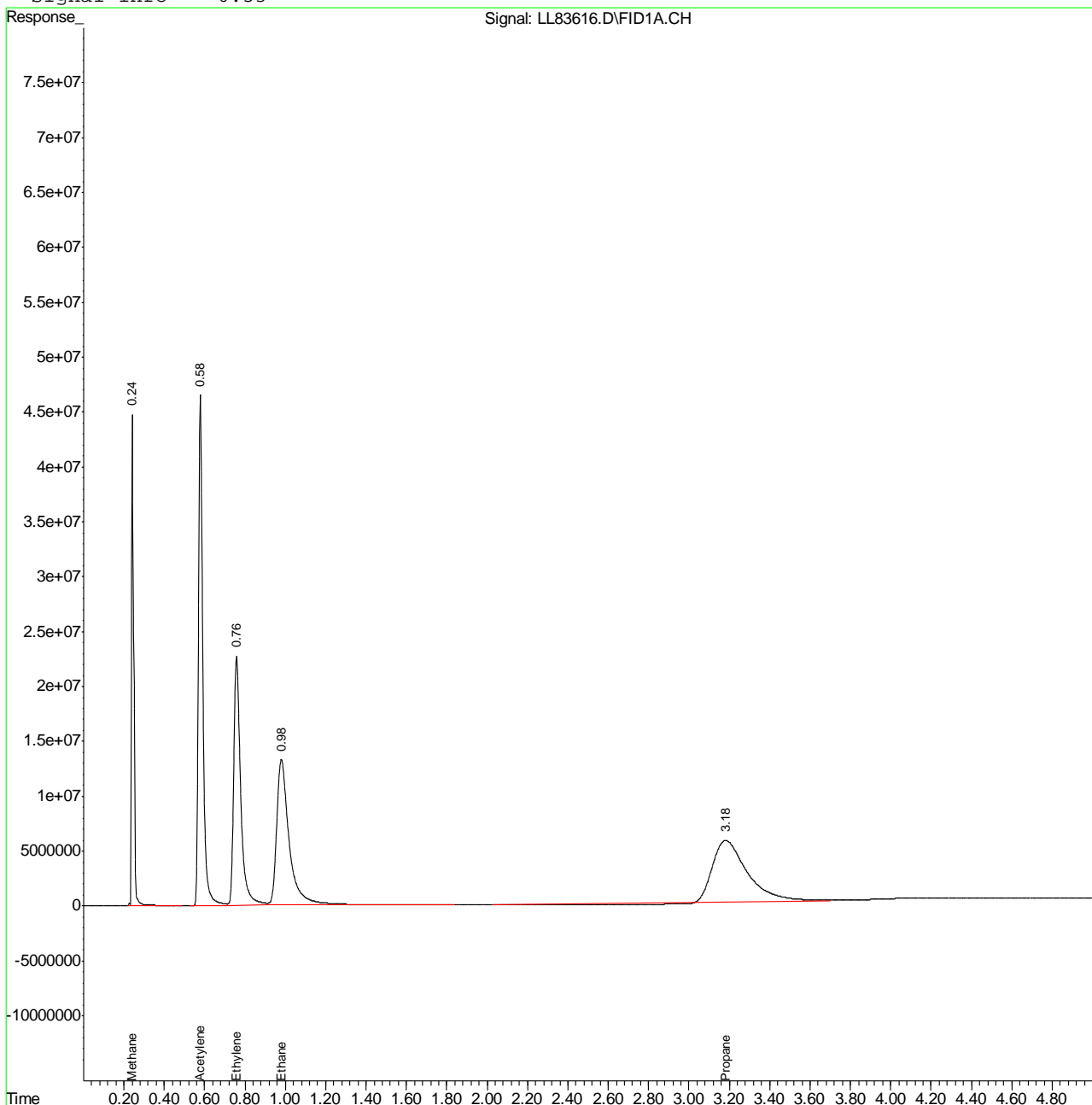
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 LL83616.D RSK122321B.M Wed Jul 12 15:18:26 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83616.D Vial: 26  
 Acq On : 7-11-2023 02:06:45 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,g112902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 14:12 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.18  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83623.D Vial: 33  
 Acq On : 7-11-2023 03:11:24 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 15:18:50 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	670226209	1098.200	ppmv
2) Acetylene	0.58	1455191557	1081.874	ppmv
3) Ethylene	0.76	1101262128	1012.245	ppmv
4) Ethane	0.98	1164212830	1040.506	ppmv
5) Propane	3.18	1329163420	896.481	ppmv

9.6.19  
9

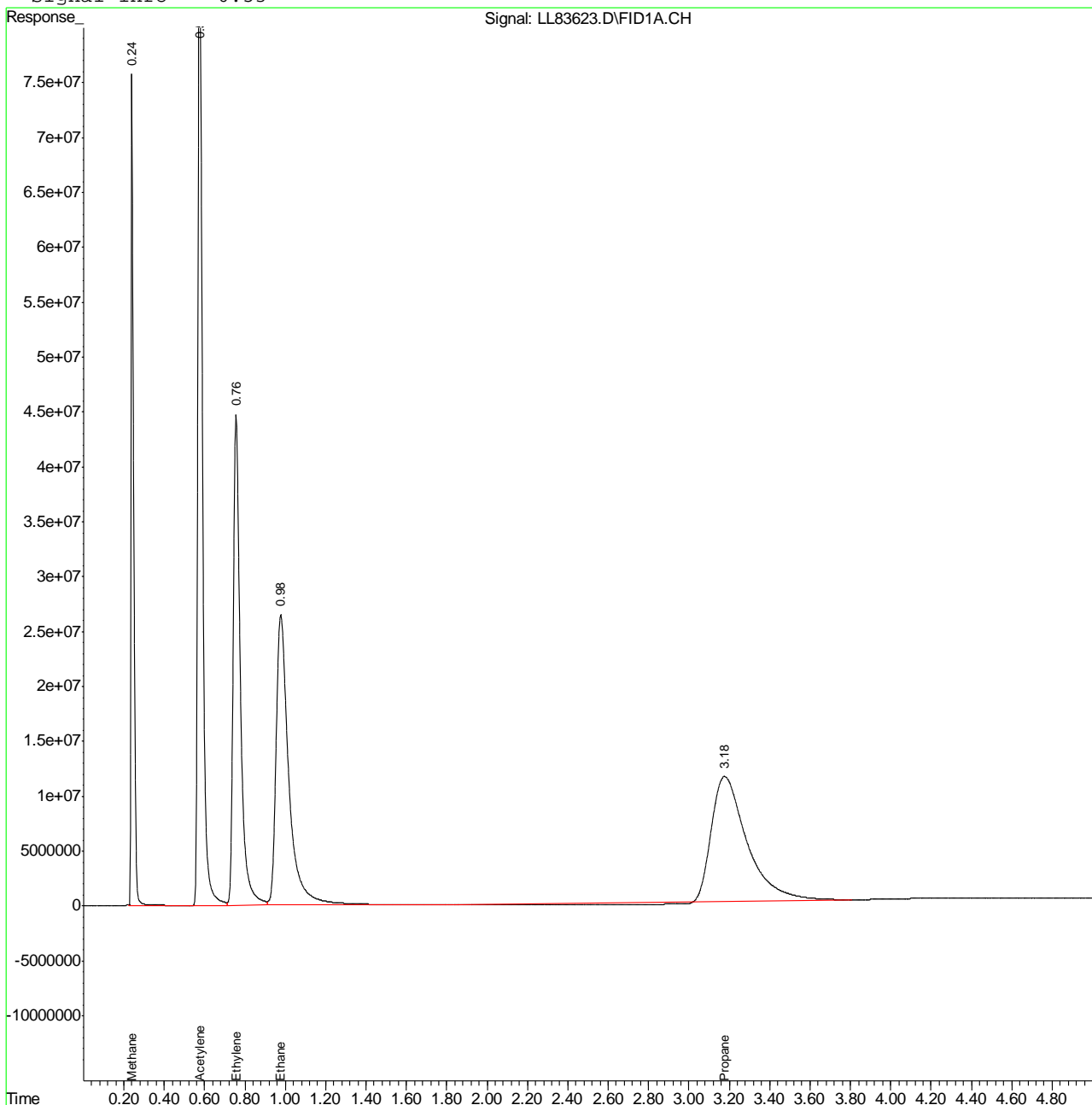
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 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83623.D RSK122321B.M Tue Jul 11 15:22:18 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83623.D Vial: 33  
 Acq On : 7-11-2023 03:11:24 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24249,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 15:18 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.19  
9

SGS -ORLANDO

GC VOA4-LL ANALYSIS LOG

DATE: 12/23/21
COLUMN TYPE: C1006
DETECTOR: FID
INSTRUMENT: FID4-LL
ANALYST: trandg

METHODS: NEWRSK 147175
METHOD FILE: RSK122321B.M
CALIB. DATE: 12/23/21
DataAcqMeth: DGMEE3.M
RUN ID: GLL2678

STANDARDS:
ICAL/CCV: 9808, 10447A, 10395B
ISTD/SURR: NA
ICV/QC: 10456A, 9513

PH LOT: 225320
KI PAPER LOT: 011819
AMBIENT TEMP.: 18C-20°C
THERM ID: 170563927
Sample ID Verified: trandg
DATE VERIFIED: 12/23/21

Data File	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Manually Integrated Peaks Rationale, Peak#	pH	CI	RR	Comments
LL77103	-	-	-	-	-		-	-	-	
LL77104	-	-	W	500	1000		-	-	-	Low; not used
LL77105	-	-	-	500	10000		-	-	-	Low; not used
LL77106	-	-	W	500	1000		-	-	-	change gases septa; restart
LL77107	-	-	W	500			-	-	-	
LL77108	-	-	W	500	1000		-	-	-	high; not used
LL77109	-	-	W	500	1000		-	-	-	high; not used
LL77110	-	-	W	500			-	-	-	
LL77111	-	-	W	500	10000		-	-	-	test std; not used
LL77112	-	-	W	500	1000		-	-	-	test std; not used
LL77113	-	-	W	500			-	-	-	
LL77114	-	-	W	500			-	-	-	
LL77115	10x	-	W	500	15	pl1: 1.5	-	-	-	500mL/5mL
LL77116	-	-	W	500	15	pl1: 5	-	-	-	
LL77117	10x	-	W	500	1000	pl1: 5	-	-	-	500mL/5mL
LL77118	-	-	W	250	1000	pl1: 5	-	-	-	
LL77119	-	-	W	500	1000	pl1: 5	-	-	-	
LL77120	-	-	W	250	10000	pl1: 5	-	-	-	
LL77121	-	-	W	500	10000		-	-	-	
LL77122	-	-	W	500			-	-	-	
LL77123	-	-	W	500	10000	pl1: 5	-	-	-	passed
					TD					
					12/23/21					

Matrix: Designate "W" for Water, "S" for soil, "C" for Oil, "Liq" for Non-aqueous Liquid, and "ICL" for "SPL" for Leachate.  
 All spikes must be initiated and dated. If correction was not due to a transcription error, then list the reason for correction.  
 Manual Integration: Retention SOP Q4029 MIP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PI Poor Instrument

Analyst's Signature: 



# GC VOA RSK ANALYSIS LOG

## SGS -ORLANDO

<b>Instrument</b>	FID4-LL	<b>METHODS:</b>	NEWRSK 147175	<b>PH LOT</b>	230320
<b>Date</b>	7/7/2023	<b>METHOD FILE:</b>	RSK122321B.M	<b>KI PAPER LOT</b>	14-860
<b>ANAL YST:</b>	samantha	<b>CALIB. DATE</b>	12/23/2021	<b>AMBIENT TEMP.</b>	20°C
<b>Column Type</b>	C1006	<b>DataAcqMeth</b>	DGMEE3.M	<b>THERM ID:</b>	170563327
<b>Detector</b>	FID	<b>RUN ID:</b>	GLL2900	<b>Sample ID Verified:</b>	samantha
				<b>DATE VERIFIED:</b>	7/7/2023

Data File	Sample ID	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Manually Integrated Peaks	pH	CI	RR	Comments
LL83524	ccb_helium	-	-	-	500	1000	-	-	-	-	✓
LL83525	cc2678-5	-	-	W	500	10000	-	-	-	-	✓ Acetylene below DOB limits (not reported)
LL83527	bs	-	-	W	500	10000	-	-	-	-	✓ Acetylene below DOB limits (not reported)
LL83528	bsd	-	-	W	500	10000	-	-	-	-	✓
LL83529	ccb_helium	-	-	-	500	-	-	-	-	-	✓
LL83530	mb	-	-	W	500	-	-	-	-	-	✓
LL83532	fc7384-11	50X	8	W	500	-	100uL (-)5mL	1	N	-	✓ E-combine
LL83533	fc7384-16	50X	6	W	500	-	100uL (-)5mL	1	N	-	✓ E-combine
LL83534	fc7384-14	25X	7	W	500	-	200uL (-)5mL	1	N	-	✓ E-combine
LL83535	fc7379-3	2X	3	W	250	-	-	1	N	-	✓ E-combine
LL83536	fc7377-4	10X	5	W	500	-	500uL (-)5mL	1	N	-	✓ E-combine
LL83537	fc7381-1	1X	6	W	500	-	-	1	N	-	✓
LL83538	fc7381-2	1X	7	W	500	-	-	1	N	-	✓
LL83539	cc2678-4	-	-	-	250	1000	-	-	-	-	✓
LL83540	ccb_helium	-	-	-	-	-	-	-	-	-	✓
LL83541	fc7381-4	1X	8	W	500	-	-	1	N	10X	Methane over range
LL83542	fc7381-5	1X	7	W	500	-	-	1	N	2X	Methane over range
LL83543	fc7381-6	1X	7	W	500	-	-	1	N	20X	Methane over range
LL83544	fc7381-7	1X	2	W	500	-	-	1	N	-	✓
LL83545	fc7402-1	1X	11	W	500	-	-	1	N	10X	Methane over range
LL83546	fc7402-2	1X	11	W	500	-	-	1	N	2X	Methane over range
LL83547	fc7402-4	1X	11	W	500	-	-	1	N	2X	Methane over range
LL83548	fc7381-1dup	1X	8	W	500	-	-	1	N	-	✓
LL83549	fc7381-1ms	1X	9	W	500	-	-	1	N	-	✓
LL83550	ecc2678-5	-	-	-	500	1000	-	-	-	-	✓

Matrix: Designate "W" for Water, "S" for soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPUP" for Leachate.  
 All effluents must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.  
 Manual Integration Rational: SOP 0A023: MP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PI Poor Instrument



SGS -ORLANDO

GC VOA RSK ANALYSIS LOG

Instrument	FID4-LL
Date	7/10/2023
ANALYST:	samantha
Column Type	C1006
Detector	FID

METHODS:	NEWRSK 147/175
METHOD FILE:	RSK122321B.M
CALIB. DATE	12/23/2021
DataAcqMeth	DGMEE3.M
RUN ID:	GLL2901

STANDARDS:	230320
ICAL/CCV:	9808, 11151A, 10395B
PH LOT	14-860
KI PAPER LOT	20°C
AMBIENT TEMP.	170563327
THERM ID:	samantha
Sample ID Verified:	
DATE VERIFIED:	7/10/2023

Data File	Sample ID	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Peaks Rationale, Peak#	pH	CI	RR	Comments
LL83551	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83555	cc2678-5	-	-	-	500	1000	-	-	-	-	Propane low (not reported)
LL83557	bs	-	-	W	500	10000	-	-	-	-	Acetyln, Propane below DOD (not reported)
LL83558	bsd	-	-	W	500	10000	-	-	-	-	Propane below DOD (not reported)
LL83559	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83560	mb	-	-	W	500	-	-	-	-	-	
LL83561	fc7492-1	1X	7	W	500	-	-	1	N	-	
LL83562	fc7492-2	1X	1	W	500	-	-	1	N	-	
LL83563	fc7381-4	10X	9	W	500	-	500ul(-)5mL	1	N	Y	FID shut off
LL83564	fc7381-4	10X	9	W	500	-	500ul(-)5mL	1	N	-	E-combine
LL83565	fc7381-6	20X	8	W	500	-	250ul(-)5mL	1	N	-	E-combine
LL83566	fc7402-1	10X	12	W	500	-	500ul(-)5mL	1	N	-	E-combine
LL83567	fc7402-2	1X	12	W	250	-	-	1	N	-	E-combine
LL83568	cc2678-4	-	-	-	250	1000	-	-	-	-	Propane low (not reported)
LL83569	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83570	fc7402-4	1X	12	W	250	-	-	1	N	-	E-combine
LL83571	fc7413-1	1X	5	W	500	-	-	1	N	10X	Methane over range
LL83572	fc7413-2	1X	2	W	500	-	-	1	N	-	
LL83573	fc7417-2	1X	7	W	500	-	-	1	N	-	
LL83574	fc7417-4	1X	7	W	500	-	-	1	N	-	
LL83575	fc7491-1	1X	5	W	500	-	-	1	N	-	
LL83576	fc7491-2	1X	2	W	500	-	-	1	N	-	
LL83577	fc7492-1dup	1X	8	W	500	-	-	1	N	-	Nonhomogenous vials - all vials used
LL83578	fc7492-1ms	1X	9	W	500	10000	-	1	N	-	Not in LIMS - different DUP/MS chosen
LL83579	cc2678-5	-	-	-	250	1000	-	-	-	-	Propane low (not reported)
LL83580	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83581	fc7381-4	1X	8	W	250	-	-	1	N	10X	Methane over range
LL83582	fc7589-7	1X	7	W	500	-	-	1	N	-	
LL83583	fc7589-8	1X	1	W	500	-	-	1	N	-	
LL83584	fc7589-9	1X	4	W	500	-	-	1	N	-	
LL83585	fc7589-10	1X	1	W	500	-	-	1	N	-	
LL83586	fc7589-11	1X	4	W	500	-	-	1	N	-	
LL83587	fc7589-12	1X	1	W	500	-	-	1	N	-	
LL83588	fc7589-7dup	1X	8	W	500	-	#1(OP)	1	N	-	
LL83589	fc7589-7ms	1X	9	W	500	10000	-	1	N	-	
LL83590	ecc2678-5	-	-	-	500	1000	-	-	-	-	

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "L" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate.  
 All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.  
 Manual Integration Rational SOP Q.A2.9; MP Misled Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument

SGS -ORLANDO

GC VOA RSK ANALYSIS LOG

Instrument	FID4-LL
Date	7/11/2023
ANALYST:	samantha
Column_Type	C1006
Detector	FID

METHODS:	NEWRSK 147/175
METHOD FILE:	RSK122321B.M
CALIB. DATE	12/23/2021
DataAcqMeth	DGMEE3.M
RUN ID:	GLL2902

STANDARDS:	230320
ICAL/CCV:	9808, 11151A, 10395B
PH LOT	14-860
KI PAPER LOT	20°C
AMBIENT TEMP.	170563327
THERM ID:	samantha
Sample ID Verified:	
DATE VERIFIED:	7/11/2023

Data File	Sample ID	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Peaks Rationale, Peak#	pH	CI	RR	Comments
LL83591	ccb, helium	-	-	-	-	-	-	-	-	-	-
LL83592	cc2678-5	-	-	-	500	1000	-	-	-	-	Propane low (not reported)
LL83593	bs	-	-	W	500	10000	-	-	-	-	
LL83595	bsd	-	-	W	500	10000	-	-	-	-	
LL83596	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83597	mb	-	-	W	500	-	-	-	-	-	
LL83598	fc7381-5	10X	9	W	500	-	500ul(-)5mL	1	N	-	E-combine
LL83599	fc7413-1	10X	8	W	500	-	500ul(-)5mL	1	N	-	E-combine
LL83600	fc7417-3	1X	7	W	500	-	-	1	N	-	
LL83601	fc7589-13	1X	7	W	500	-	-	1	N	-	
LL83602	fc7589-14	1X	1	W	500	-	-	1	N	-	
LL83603	fc7589-15	1X	7	W	500	-	-	1	N	-	
LL83604	fc7589-16	1X	1	W	500	-	-	1	N	-	
LL83605	cc2678-4	-	-	-	250	1000	-	-	-	-	Propane low (not reported)
LL83606	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83607	fc7589-13dup	1X	8	W	500	-	-	1	N	-	Non-homogenous sample - no more vials
LL83608	fc7589-13ms	1X	9	W	500	10000	-	1	N	-	Non-homogenous dupe - different sample used
LL83609	fc7589-17	1X	4	W	500	-	-	1	N	-	
LL83610	fc7589-18	1X	1	W	500	-	-	1	N	-	
LL83611	fc7589-19	1X	7	W	500	-	-	1	N	-	
LL83612	fc7589-20	1X	1	W	500	-	-	1	N	-	
LL83613	fc7589-21	1X	7	W	500	-	-	1	N	-	
LL83614	fc7589-22	1X	1	W	500	-	-	1	N	-	
LL83615	fc7592-7	1X	4	W	500	-	-	1	N	-	
LL83616	cc2678-4	-	-	-	250	1000	-	-	-	-	Propane low (not reported)
LL83617	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83618	fc7592-8	1X	2	W	500	-	-	1	N	-	
LL83619	fc7592-9	1X	3	W	500	-	-	1	N	-	
LL83620	fc7592-10	1X	2	W	500	-	-	1	N	-	
LL83621	fc7589-17dup	1X	6	W	500	-	#1(OP)	1	N	-	
LL83622	fc7589-17ms	1X	5	W	500	10000	-	1	N	-	
LL83623	ecc2678-5	-	-	-	500	1000	-	-	-	-	

Matrix: Designate 'W' for Water 'S' for soil, 'O' for Oil, 'L' for Non-aqueous Liquid, and 'TCLP' or 'SPLP' for Leachate. All aliquots must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

### SGS -ORLANDO

Instrument	FID4-LL
Date	7/11/2023
ANALYST:	samantha
Column Type	C1006
Detector	FID

Manual Integration Rational SOP-QA028; MP: Missed Peak, OF: Overlapping Peak, SP: Split Peak, PDB: Poorly Defined Baseline, BR: Baseline Ripple, PH: Poor Instrument

### GC VOA RSK ANALYSIS LOG

STANDARDS:	PH LOT	230320
ICAL/CCV:	9808, 11151A, 10395B	14-860
	AMBIENT TEMP.	20°C
ISTD/SURR:	NA	170563327
ICV/QC:	10456A, 11171A, 11530A	samantha
	DATE VERIFIED:	7/11/2023

METHODS:	NEWRSK 147/175
METHOD FILE:	RSK122321B.M
CALIB. DATE	12/23/2021
DataAcqMeth	DGMEE3.M
RUN ID:	GLL2902

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP38906/GN94605	2.0	0.0	mg/l	50	49.1	98.2	90-110%
Nitrogen, Nitrate	GP38906/GN94605	0.10	0.0	mg/l	2.5	2.65	106.0	90-110%
Nitrogen, Nitrite	GP38906/GN94605	0.10	0.0	mg/l	2.5	2.52	100.8	90-110%
Sulfate	GP38906/GN94605	2.0	0.0	mg/l	50	50.5	101.0	90-110%
Total Organic Carbon	GP38942/GN94706	2.0	0.0	mg/l	15	14.9	99.3	90-110%

Associated Samples:

Batch GP38906: FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6  
 Batch GP38942: FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6  
 (\*) Outside of QC limits

10.1  
10

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP38906/GN94605	FC7373-1	mg/l	127	50	152	50.0N(a)	90-110%
Nitrogen, Nitrate	GP38906/GN94605	FC7373-1	mg/l	15.0	2.5	15.5	20.0(b)	90-110%
Nitrogen, Nitrite	GP38906/GN94605	FC7373-1	mg/l	1.0 U	2.5	2.6	104.0	90-110%
Sulfate	GP38906/GN94605	FC7373-1	mg/l	1500	50	1340	-320.0(b)	90-110%
Total Organic Carbon	GP38942/GN94706	FC7381-1	mg/l	1.5	15	16.9	102.7	90-110%

Associated Samples:

Batch GP38906: FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6  
Batch GP38942: FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Spike recovery indicates possible matrix interference.

(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

10.2  
10

MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP38906/GN94605	FC7373-1	mg/l	127	50	154	1.3	15%
Nitrogen, Nitrate	GP38906/GN94605	FC7373-1	mg/l	15.0	2.5	15.7	1.3	15%
Nitrogen, Nitrite	GP38906/GN94605	FC7373-1	mg/l	1.0 U	2.5	2.7	3.8	15%
Sulfate	GP38906/GN94605	FC7373-1	mg/l	1500	50	1350	0.7	15%
Total Organic Carbon	GP38942/GN94706	FC7381-1	mg/l	1.5	15	16.7	1.2	20%

Associated Samples:

Batch GP38906: FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6

Batch GP38942: FC7381-1, FC7381-2, FC7381-4, FC7381-5, FC7381-6

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

10.3  
10



SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062901.CSV Date Analyzed: 06/06/23 Methods: EPA 300/SW846 9056A  
Analyst: JB Run ID: GN94605  
Parameters: Chloride,Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:10	GN94605-STD1	1		STDA
11:32	GN94605-STD2	1		STDB
11:54	GN94605-STD3	1		STDC
12:15	GN94605-STD4	1		STDD
12:37	GN94605-STD5	1		STDE
12:59	GN94605-STD6	1		STDF
13:21	GN94605-STD7	1		STDG
13:44	GN94605-STD8	1		STDH
14:06	GN94605-STD9	1		STDI
14:28	GN94605-STD10	1		STDJ
14:50	GN94605-STD11	1		STDK
15:12	GN94605-ICV1	1		
15:34	GN94605-ICB1	1		
15:56	GN94605-CRI1	1		
16:19	GN94605-CCV1	1		
16:42	GN94605-CCB1	1		
10:44	GN94605-CCV2	1		
11:10	GN94605-CCB2	1		
11:31	GP38906-MB1	1		
11:52	GP38906-B1	1		
12:13	FC7373-1	25		(sample used for QC only; not part of login FC7381)
12:34	GP38906-S1	25		
12:55	GP38906-S2	25		
13:16	ZZZZZZ	25		
13:36	ZZZZZZ	25		
13:57	ZZZZZZ	25		
14:18	ZZZZZZ	25		
14:39	ZZZZZZ	200		
14:59	GN94605-CCV3	1		
15:20	GN94605-CCB3	1		
15:41	ZZZZZZ	10		
16:02	ZZZZZZ	1		
16:23	ZZZZZZ	1		

10.4  
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SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062901.CSV      Date Analyzed: 06/06/23      Methods: EPA 300/SW846 9056A  
Analyst: JB      Run ID: GN94605  
Parameters: Chloride,Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:44	ZZZZZZ	1		
17:05	FC7380-2	1		(sample used for QC only; not part of login FC7381)
17:26	GP38906-S3	1		
17:47	GP38906-S4	1		
18:08	ZZZZZZ	1		
18:29	ZZZZZZ	5		
18:50	FC7381-1	1		
19:11	GN94605-CCV4	1		
19:32	GN94605-CCB4	1		
19:53	FC7381-2	1		
20:15	FC7381-4	10		
20:35	FC7381-5	10		
20:56	FC7381-6	10		
21:17	ZZZZZZ	1		
21:38	ZZZZZZ	25		
21:59	GP38907-MB1F	1		
22:20	GP38907-B1F	1		
22:41	FC7148-12	5		(sample used for QC only; not part of login FC7381)
23:02	GP38907-S1	5		
23:23	GN94605-CCV5	1		
23:44	GN94605-CCB5	1		
00:05	GP38907-S2	5		
00:26	ZZZZZZ	5		
00:47	ZZZZZZ	5		
01:08	ZZZZZZ	5		
01:29	ZZZZZZ	5		
01:50	ZZZZZZ	5		
02:11	ZZZZZZ	5		
02:32	ZZZZZZ	5		
02:53	ZZZZZZ	5		
03:14	ZZZZZZ	5		
03:35	GN94605-CCV6	1		
03:56	GN94605-CCB6	1		

10.4  
10

SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062901.CSV      Date Analyzed: 06/06/23      Methods: EPA 300/SW846 9056A  
Analyst: JB      Run ID: GN94605  
Parameters: Chloride,Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
04:17	FC7148-22	5		(sample used for QC only; not part of login FC7381)
04:38	GP38907-S3	5		
04:59	GP38907-S4	5		
05:20	ZZZZZZ	5		
05:41	ZZZZZZ	5		
06:02	ZZZZZZ	5		
06:23	ZZZZZZ	5		
06:44	ZZZZZZ	5		
07:05	ZZZZZZ	5		
07:26	ZZZZZZ	5		
07:47	GN94605-CCV7	1		
08:08	GN94605-CCB7	1		
08:29	ZZZZZZ	5		
08:50	ZZZZZZ	5		
09:11	GN94605-CCV8	1		
09:37	GN94605-CCB8	1		

Refer to raw data for calibration curve and standards.

10.4  
10

Instrument QC Summary  
Inorganics Analyses

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062901.CSV

Date Analyzed: 06/06/23  
Run ID: GN94605

Methods: EPA 300/SW846 9056A  
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94605-ICV1	Chloride	48.6	2.0	0.80	50	97.2	90-110
GN94605-ICV1	Nitrogen, Nitrate	2.47	0.10	0.040	2.5	98.8	90-110
GN94605-ICV1	Sulfate	49.5	2.0	0.60	50	99.0	90-110
GN94605-ICB1	Chloride	0.80 U	2.0	0.80			
GN94605-ICB1	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94605-ICB1	Sulfate	0.60 U	2.0	0.60			
GN94605-CRI1	Chloride	1.08	2.0	0.80	1	108.0	50-150
GN94605-CRI1	Nitrogen, Nitrate	0.125	0.10	0.040	.1	125.0	50-150
GN94605-CRI1	Sulfate	1.19	2.0	0.60	1	119.0	50-150
GN94605-CCV1	Chloride	49.4	2.0	0.80	50	98.8	90-110
GN94605-CCV1	Nitrogen, Nitrate	2.38	0.10	0.040	2.5	95.2	90-110
GN94605-CCV1	Sulfate	49.8	2.0	0.60	50	99.6	90-110
GN94605-CCB1	Chloride	0.80 U	2.0	0.80			
GN94605-CCB1	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94605-CCB1	Sulfate	0.60 U	2.0	0.60			
GN94605-CCV2	Chloride	50.3	2.0	0.80	50	100.6	90-110
GN94605-CCV2	Nitrogen, Nitrate	2.53	0.10	0.040	2.5	101.2	90-110
GN94605-CCV2	Sulfate	51.0	2.0	0.60	50	102.0	90-110
GN94605-CCB2	Chloride	0.80 U	2.0	0.80			
GN94605-CCB2	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94605-CCB2	Sulfate	0.60 U	2.0	0.60			
GN94605-CCV3	Chloride	50.4	2.0	0.80	50	100.8	90-110
GN94605-CCV3	Nitrogen, Nitrate	2.53	0.10	0.040	2.5	101.2	90-110
GN94605-CCV3	Sulfate	50.8	2.0	0.60	50	101.6	90-110
GN94605-CCB3	Chloride	0.80 U	2.0	0.80			
GN94605-CCB3	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94605-CCB3	Sulfate	0.60 U	2.0	0.60			
GN94605-CCV4	Chloride	50.6	2.0	0.80	50	101.2	90-110
GN94605-CCV4	Nitrogen, Nitrate	2.54	0.10	0.040	2.5	101.6	90-110
GN94605-CCV4	Sulfate	50.9	2.0	0.60	50	101.8	90-110
GN94605-CCB4	Chloride	0.80 U	2.0	0.80			
GN94605-CCB4	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94605-CCB4	Sulfate	0.60 U	2.0	0.60			
GN94605-CCV5	Chloride	50.7	2.0	0.80	50	101.4	90-110
GN94605-CCV5	Nitrogen, Nitrate	2.54	0.10	0.040	2.5	101.6	90-110
GN94605-CCV5	Sulfate	51.4	2.0	0.60	50	102.8	90-110
GN94605-CCB5	Chloride	0.80 U	2.0	0.80			
GN94605-CCB5	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94605-CCB5	Sulfate	0.60 U	2.0	0.60			
GN94605-CCV6	Chloride	50.8	2.0	0.80	50	101.6	90-110
GN94605-CCV6	Nitrogen, Nitrate	2.55	0.10	0.040	2.5	102.0	90-110
GN94605-CCV6	Sulfate	51.6	2.0	0.60	50	103.2	90-110
GN94605-CCB6	Chloride	0.80 U	2.0	0.80			
GN94605-CCB6	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94605-CCB6	Sulfate	0.60 U	2.0	0.60			
GN94605-CCV7	Chloride	50.9	2.0	0.80	50	101.8	90-110
GN94605-CCV7	Nitrogen, Nitrate	2.55	0.10	0.040	2.5	102.0	90-110
GN94605-CCV7	Sulfate	51.7	2.0	0.60	50	103.4	90-110
GN94605-CCB7	Chloride	0.80 U	2.0	0.80			
GN94605-CCB7	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94605-CCB7	Sulfate	0.60 U	2.0	0.60			

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Instrument QC Summary  
Inorganics Analyses

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023062901.CSV

Date Analyzed: 06/06/23  
Run ID: GN94605

Methods: EPA 300/SW846 9056A  
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94605-CCV8	Chloride	50.9	2.0	0.80	50	101.8	90-110
GN94605-CCV8	Nitrogen, Nitrate	2.56	0.10	0.040	2.5	102.4	90-110
GN94605-CCV8	Sulfate	51.9	2.0	0.60	50	103.8	90-110
GN94605-CCB8	Chloride	0.80 U	2.0	0.80			
GN94605-CCB8	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94605-CCB8	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: C230710W1.TXT Date Analyzed: 07/10/23 Methods: SM5310 B-14/SW9060A  
Analyst: FN Run ID: GN94706  
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
19:45	GN94706-CCV1	1		
20:05	GP38942-MB1	1		
20:27	GP38942-B1	1		
20:48	ZZZZZ	1		
21:09	ZZZZZ	1		
21:31	FC7381-1	1		
21:51	GP38942-S1	1		
22:11	GP38942-S2	1		
22:32	FC7381-2	1		
22:55	FC7381-4	1		
23:19	FC7381-5	1		
23:42	GN94706-CCV2	1		
00:05	GN94706-CCB1	1		
00:24	FC7381-6	1		
00:47	ZZZZZ	1		
01:09	ZZZZZ	1		
01:32	ZZZZZ	1		
01:53	ZZZZZ	1		
02:14	ZZZZZ	1		
02:33	ZZZZZ	1		
03:24	ZZZZZ	100		
03:45	GN94706-CCV3	1		
04:05	GN94706-CCB2	1		
06:04	ZZZZZ	1		
07:38	GN94706-CCV4	1		
07:59	GN94706-CCB3	1		
08:58	GN94706-CCV5	1		
09:35	GN94706-CCB4	1		
10:15	ZZZZZ	100		
10:36	FC7513-1	10		(sample used for QC only; not part of login FC7381)
10:56	GP38942-S3	10		
11:15	GP38942-S4	10		
11:36	ZZZZZ	2		

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SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: C230710W1.TXT      Date Analyzed: 07/10/23      Methods: SM5310 B-14/SW9060A  
Analyst: FN      Run ID: GN94706  
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
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12:00 GN94706-CCV6 1

12:21 GN94706-CCB5 1

Refer to raw data for calibration curve and standards.

10.5  
10

Instrument QC Summary  
Inorganics Analyses

Login Number: FC7381  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: C230710W1.TXT

Date Analyzed: 07/10/23  
Run ID: GN94706

Methods: SM5310 B-14/SW9060A  
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94706-CCV1	Total Organic Carbon	15.2	2.0	0.54	15	101.3	90-110
GN94706-CCV2	Total Organic Carbon	15.2	2.0	0.54	15	101.3	90-110
GN94706-CCB1	Total Organic Carbon	0.54 U	2.0	0.54			
GN94706-CCV3	Total Organic Carbon	15.1	2.0	0.54	15	100.7	90-110
GN94706-CCB2	Total Organic Carbon	0.54 U	2.0	0.54			
GN94706-CCV4	Total Organic Carbon	15.2	2.0	0.54	15	101.3	90-110
GN94706-CCB3	Total Organic Carbon	0.54 U	2.0	0.54			
GN94706-CCV5	Total Organic Carbon	14.9	2.0	0.54	15	99.3	90-110
GN94706-CCB4	Total Organic Carbon	0.54 U	2.0	0.54			
GN94706-CCV6	Total Organic Carbon	15.2	2.0	0.54	15	101.3	90-110
GN94706-CCB5	Total Organic Carbon	0.54 U	2.0	0.54			

(!) Outside of QC limits

10.5  
10



General Chemistry

Raw Data

IC STANDARDS PREP LOG

STANDARD NAME	ANALYTES	STOCK MFG. #	STOCK LOT #	STOCK EXP. DATE	STOCK CONC. (mg/l)	VOLUME ADDED (ml)	TOTAL VOLUME (ml)	STANDARD CONC. (mg/l)	PREP DATE	INITIALS	STD LOT #	EXP. DATE
B1	NO <sub>2</sub> , NO <sub>3</sub> , SO <sub>4</sub>	W111F5810	Ref	6-28-23	100	2.5	100	2.5	6-27-23	gg	16014761	6-28-23
	LI	W135250	↓	7-26-23	1000	5		50				
	F	W10905	Spec	9-30-23	↓	0.25		2.5				
	PO <sub>4</sub>	W135261	Ref	7-26-23	↓	1		10				
1 <sup>o</sup> NO <sub>2</sub>	NO <sub>2</sub>	W12050	Ref	01-1-23	1000	2.5	25	100	6-16-23	gg	16014762	6-30-23
1 <sup>o</sup> NO <sub>3</sub>	NO <sub>3</sub>	W13	↓	5-1-24	↓							
2 <sup>o</sup> NO <sub>2</sub>	NO <sub>2</sub>	32	Phosphate	11-29-24	↓							
2 <sup>o</sup> NO <sub>3</sub>	NO <sub>3</sub>	33	↓	11-3-25	↓							
CW	NO <sub>2</sub> , NO <sub>3</sub>	11014762B	Ref	6-30-23	100	5	200	2.5				
	SO <sub>4</sub>	W12035	Ref	11-1-23	1000	10		50				
	CA	45	↓	12-1-24	↓							
	F	74	↓	6-1-24	↓	0.5		2.5				
	PO <sub>4</sub>	W10905	Spec	6-30-23	↓	0		10				
B1	NO <sub>2</sub> , NO <sub>3</sub>	11014761K	Ref	6-30-23	100	0.5	100	2.5				
	SO <sub>4</sub>	W135250	↓	7-26-23	1000	5		50				
	LI	W13	↓	↓	↓	0.25		2.5				
	F	W10905	Spec	9-30-23	↓	1		10				
	PO <sub>4</sub>	W135261	Ref	7-26-23	↓							

### IC Instrument Log

Method: EPA300.07-SW846 9056A (circle one)

Standards  
 ICAL: \_\_\_\_\_  
 ICV: \_\_\_\_\_  
 CCV: iLDM766  
 QC: ↓ 7

Vial lot# 7 28443-673535  
 Cap lot# \_\_\_\_\_  
 Syringe lot# \_\_\_\_\_  
 Filter lot# \_\_\_\_\_

Prep Batches: 38900 7  
 Analytical Batch: 94405  
 Calibration Date: 6/16/23  
 Pump pressure: 2.10 MPa

Date: 6/29/23 @ 10:44  
 Analyst: JL  
 Instrument: #4  
 Inst. File Name: 42023062901.LSV

Sample#	Bo#	Matrix	Scan	DF	Filter (m)	Ions Needed					Results OK or Dilution Needed					Comments						
						F	Cl	NO2	Br	NO3	SO4	DF	Cl	NO2	Br		NO3	SO4				
DW	-	AIQ	-	1	N																	
CMB	-		-																			
MPI	-		-																			
P1	-		254	7385																		
FL7373-1	-161																					
	-187																					
	-2																					
	-3																					
	-4																					
FL7377-U	10		4305	25																		
	-5																					
DW	-																					
OCB	-																					
FL7370-1	11		10815	10																		
	-7																					
	-3																					
FL7380-1	9		272																			
	-2																					
	-253																					
	-254																					
	-3																					
	-4																					
FL7381-1	10		5707	5																		
DW	-																					
CMB	-																					
FL7381-2	10		6155	10																		
	-34																					

Rev 0116 LM  
 2023062901

SGS Accutest - Orlando

# IC Instrument Log

Method: EPA300.0 / SW846 9056A (circle one)

Date: 6/29/23 (Dwt)  
 Analyst:  
 Instrument:  
 Inst. File Name:

Prep Batches:  
 Analytical Batch:  
 Calibration Date:  
 Pump pressure:

Vial lot#  
 Cap lot#  
 Syringe lot#  
 Filter lot#

Standards  
 ICAL:  
 ICV:  
 CCV:  
 QC:

Sample#	Bot#	Matrix	Scon	DF	Filter (y/m)	Ions Needed					Results OK or Dilution Needed					Comments			
						F	Cl	NO2	Br	NO3	SO4	F	Cl	NO2	Br		NO3	SO4	
FC7381-45	10	AQ	MBA	10	N														
FC7379-4	8		324	1															
FC7377-1	1		246	25															
MBIE	-	SO	MIA	1															
BIF	4			5															
FC7148-12	↓			↓															
LW	-	AQ		1															
CLB	-	SO		5															
FC7148-1252	4	SO		5															
	-13																		
	-14																		
	-15																		
	-16																		
	-17																		
	-18																		
	-19																		
	-20																		
	-21																		
CAN	-	AQ		1															
CLB	-	SO		5															
FC7148-22	5	SO		5															
	-2253																		
	-2254																		
	-23																		
	-24																		
	-25																		

Rev 0116 LM

SGS Accutest - Orlando





IC Soil Prep

Method: SW846 9056A

Analyst: Jo  
GP 38907

Date (mm/dd/yy): <sup>June 29/23</sup> 6/30 6/29/23  
Time (24:00): 11:16

	Sample ID	Bottle #	Weight g	Final Vol ml
MB	MBIF	-	5.19	50ml
SB	BIF	-	5.17	
MS1	FC7148-12	4	5.15	
MSD1	-12	↓	5.00	
QC1	-12	↓	5.09	
2	-13	5	5.14	
3	-14		4.98	
4	-15		5.29	
5	-16		5.16	
6	-17		5.04	
7	-18		5.02	
8	-19		5.07	
9	-20		5.13	
10	-21		5.29	
MS2	-27		5.15	
MSD2	-27		5.17	
QC2	-27		5.13	
12	-23		5.18	
13	-24		5.06	
14	-25	↓	5.18	
15	-26	4	5.03	
16	FC7175-13	5	5.15	
17	-16		5.23	
18	-17		5.04	
19	-18		5.23	
20	-19	↓	5.19	↓

Balance ID <sup>June 29/23</sup> Nov H AdvPro1

REAGENTS

Spike Lot # 11014767  
Cup Lot # 2200050  
SRM Lot # 30975838  
Vial Lot # 728442-G23535  
Syringe Lot # 0  
Filter Lot # ↓

Comments: 0 Samples filtered through 0.2µm filter on the instrument.

Analyst's Signature: [Signature] Date: 6/29/23

Reveiw'er's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Sample data**

Ident . . . . . STDK  
 Sample type . . . . . Standard 10  
 Determination start . . . . . 2023-06-06 14:50:16 UTC-4  
 Method . . . . . SGS In-Vial Anions191003A  
 Operator . . . . . JR

**Anions**

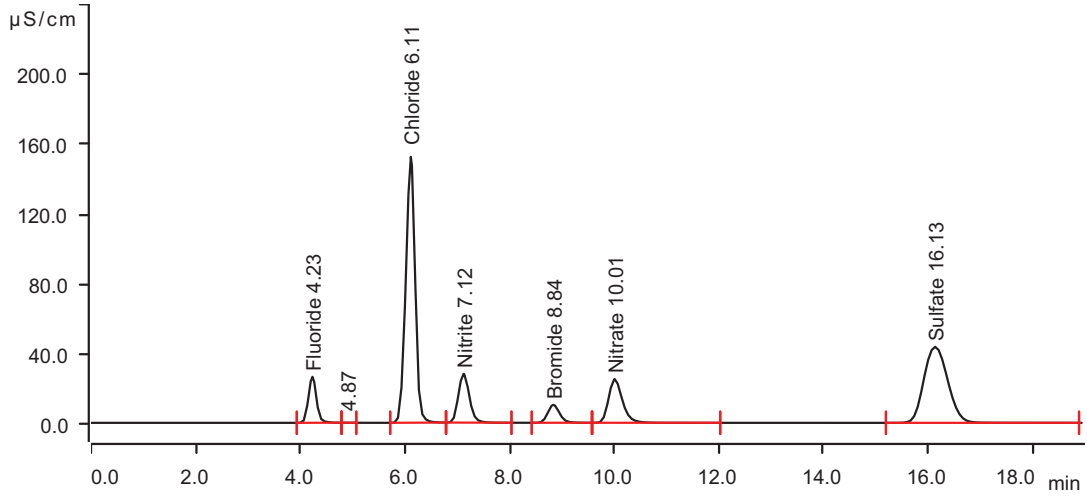
Data source . . . . . Conductivity detector 1 (930 Compact IC Flex 1)  
 Channel . . . . . Conductivity  
 Recording time . . . . . 19.0 min  
 Integration . . . . . Automatically  
 Column type . . . . . Metrosep A Supp 5 - 150/4.0  
 Eluent composition . . . . . not defined  
 Flow . . . . . 0.700 mL/min  
 Maximum flow monitored . . . . . yes  
 Pressure . . . . . 8.21 MPa  
 Maximum pressure monitored . . . . . yes  
 Temperature . . . . . 30.0 °C

**Pressure**

Data source . . . . . Pump (930 Compact IC Flex 1)  
 Channel . . . . . System pressure  
 Recording time . . . . . 17.5 min  
 Integration . . . . . Automatically  
 Flow . . . . . ---- mL/min  
 Maximum flow monitored . . . . . no  
 Pressure . . . . . ---- MPa  
 Maximum pressure monitored . . . . . no  
 Temperature . . . . . ---- °C

11.1  
11

Anions

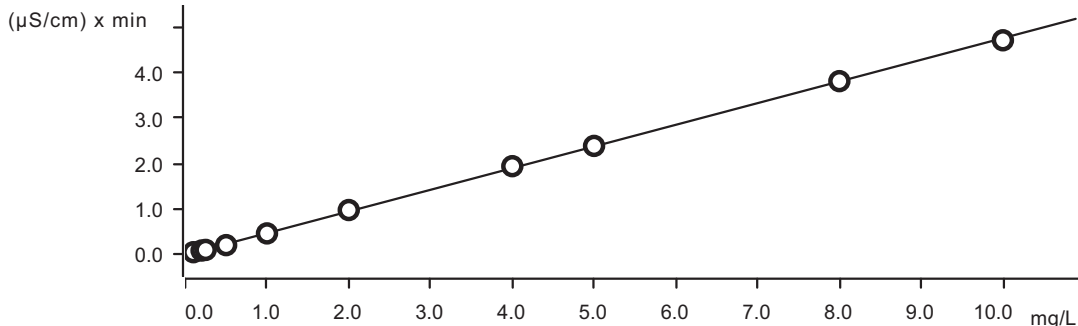


Peak number	Retention time min	Area ( $\mu\text{S/cm}$ ) x min	Height $\mu\text{S/cm}$	Concentration mg/L	Component name
1	4.233	4.7211	26.266	9.901	Fluoride
2	4.868	0.0027	0.017	invalid	
3	6.113	31.4653	151.958	100.116	Chloride
4	7.122	6.8154	27.885	9.968	Nitrite
5	8.837	2.6832	10.267	20.760	Bromide
6	10.010	7.6401	24.961	10.221	Nitrate
7	16.133	22.8839	43.451	100.925	Sulfate

11.1  
11



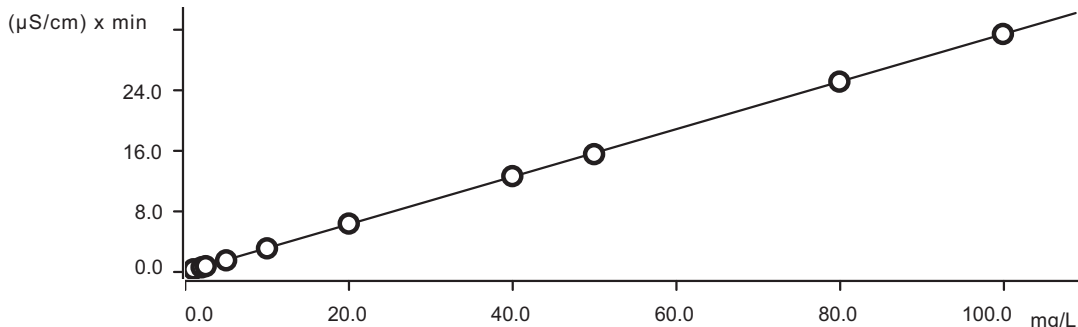
**Fluoride (Anions)**



Function:  $A = -0.0211997 + 0.0239476 \times Q$   
 Relative standard deviation: 1.906714 %  
 Correlation coefficient: 0.999880

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0362	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.0728	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.0864	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.1924	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.4513	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	0.9684	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	1.9379	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	2.3860	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	3.8173	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	4.7211	STDK	2023-06-06 14:50:16 UTC-4

**Chloride (Anions)**



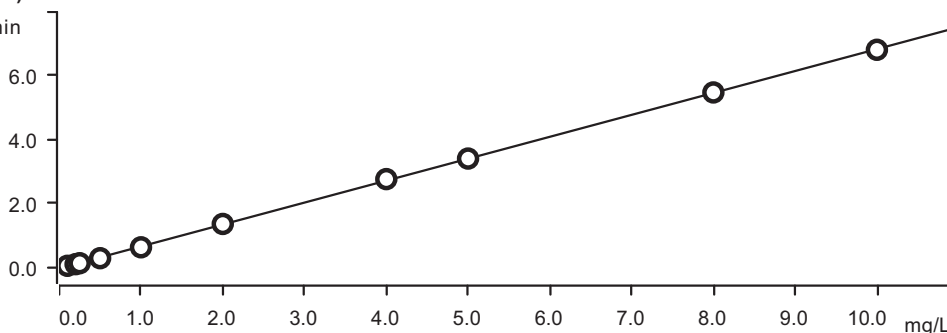
11.1 11

Function: . . . . .  $A = -0.0931798 + 0.0157609 \times Q$   
 Relative standard deviation . . . . . 0.798820 %  
 Correlation coefficient . . . . . 0.999979

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.2524	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.5119	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.6639	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	1.4385	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	3.0285	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	20.000	20.0	1.0	1.0	6.3172	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	12.6101	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	15.5240	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	25.1438	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	31.4653	STDK	2023-06-06 14:50:16 UTC-4

**Nitrite (Anions)**

( $\mu\text{S}/\text{cm}$ ) x min



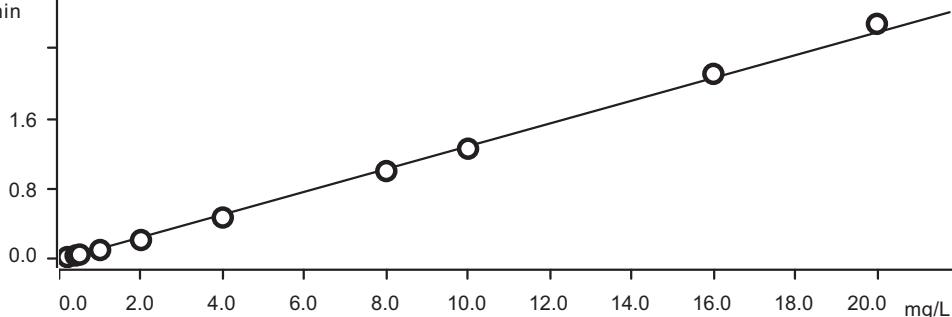
Function: . . . . .  $A = -0.0301378 + 0.0343379 \times Q$   
 Relative standard deviation . . . . . 1.195968 %  
 Correlation coefficient . . . . . 0.999953

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0504	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1013	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1313	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.2879	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.6299	STDF	2023-06-06 12:59:49 UTC-4

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	2.000	20.0	1.0	1.0	1.3610	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	2.7654	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	3.4088	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	5.4796	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	6.8154	STDK	2023-06-06 14:50:16 UTC-4

**Bromide (Anions)**

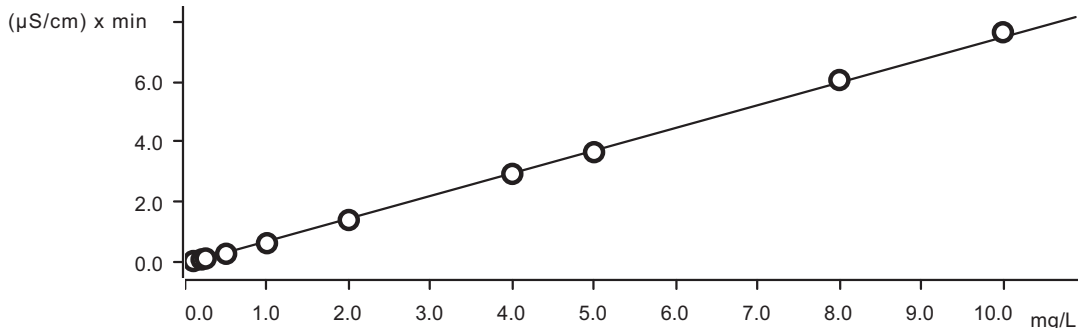
(µS/cm) x min



Function: . . . . .  $A = -0.0148861 + 6.49841E-3 \times Q$   
 Relative standard deviation . . . . . 5.588305 %  
 Correlation coefficient . . . . . 0.999041

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.200	20.0	1.0	1.0	0.0191	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.400	20.0	1.0	1.0	0.0370	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.500	20.0	1.0	1.0	0.0475	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	1.000	20.0	1.0	1.0	0.0996	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	2.000	20.0	1.0	1.0	0.2139	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	4.000	20.0	1.0	1.0	0.4706	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	8.000	20.0	1.0	1.0	1.0015	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	10.000	20.0	1.0	1.0	1.2568	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	16.000	20.0	1.0	1.0	2.1117	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	20.000	20.0	1.0	1.0	2.6832	STDK	2023-06-06 14:50:16 UTC-4

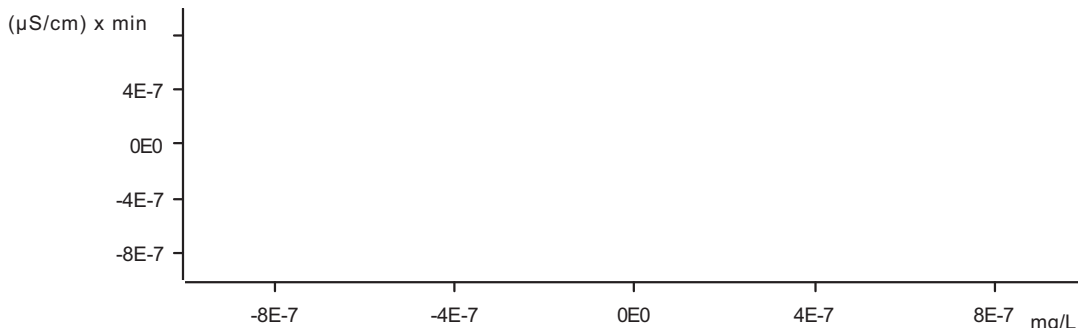
**Nitrate (Anions)**



Function: . . . . .  $A = -0.0411561 + 0.0375757 \times Q$   
 Relative standard deviation . . . . . 3.335615 %  
 Correlation coefficient . . . . . 0.999650

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0535	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1057	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1369	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.2940	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.6446	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	1.4138	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	2.9429	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	3.6632	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	6.0558	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	7.6401	STDK	2023-06-06 14:50:16 UTC-4

**Phosphate (Anions)**

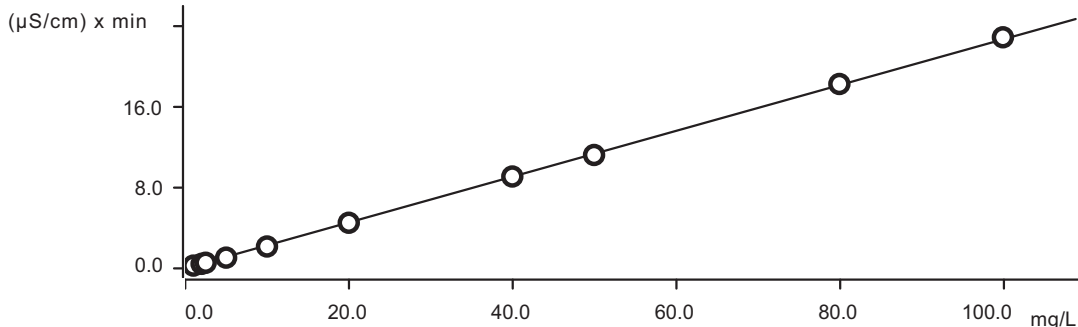


11.1

Function: .....  
 Relative standard deviation ..... *invalid %*  
 Correlation coefficient ..... *invalid*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	n. d.	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	n. d.	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	n. d.	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	n. d.	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	n. d.	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	n. d.	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	n. d.	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	n. d.	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	n. d.	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	n. d.	STDK	2023-06-06 14:50:16 UTC-4

**Sulfate (Anions)**



Function: .....  $A = -0.0942335 + 0.0113838 \times Q$   
 Relative standard deviation ..... 1.544949 %  
 Correlation coefficient ..... 0.999923

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.1710	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.3463	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.4552	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	0.9645	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	2.0732	STDF	2023-06-06 12:59:49 UTC-4

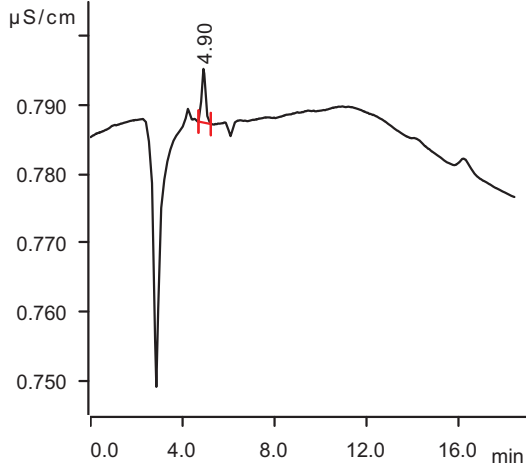
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	20.000	20.0	1.0	1.0	4.4336	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	9.0343	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	11.1759	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	18.2394	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	22.8839	STDK	2023-06-06 14:50:16 UTC-4

11.1  
11

**Sample data**

Ident. . . . . STDA  
 Sample type . . . . . Standard 100  
 Determination start . . . . . 2023-06-06 11:10:48  
 Dilution factor . . . . . 1.00

**Anions**

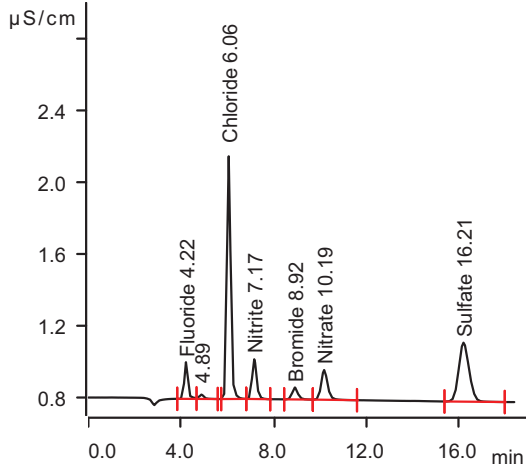


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
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**Sample data**

Ident. . . . . STDB  
 Sample type . . . . . Standard 1  
 Determination start . . . . . 2023-06-06 11:32:19  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0362	0.120	0.120
6.06	Chloride	0.2524	1.096	1.096
7.17	Nitrite	0.0504	0.117	0.117
8.92	Bromide	0.0191	0.261	0.261
10.19	Nitrate	0.0535	0.126	0.126
16.21	Sulfate	0.1710	1.165	1.165



# Summary Report

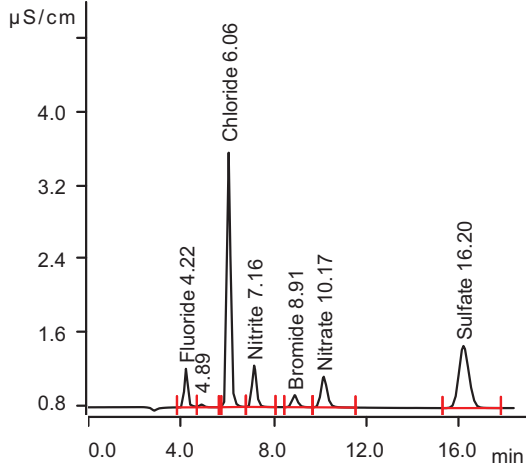
2023-06-30 11:34:25

MagIC Net 3.2 - 123

### Sample data

Ident. . . . . STDC  
 Sample type . . . . . Standard 2  
 Determination start . . . . . 2023-06-06 11:54:00  
 Dilution factor . . . . . 1.00

### Anions

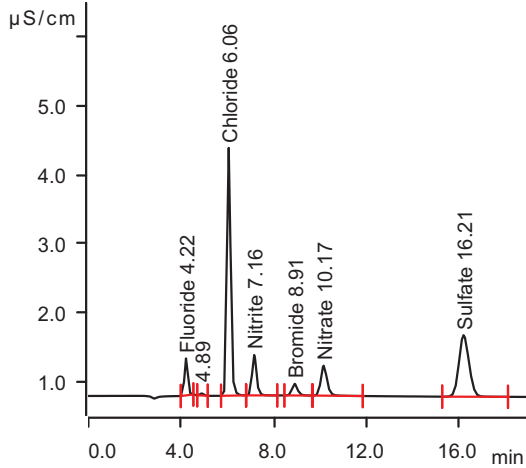


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0728	0.196	0.196
6.06	Chloride	0.5119	1.920	1.920
7.16	Nitrite	0.1013	0.191	0.191
8.91	Bromide	0.0370	0.399	0.399
10.17	Nitrate	0.1057	0.195	0.195
16.20	Sulfate	0.3463	1.935	1.935

### Sample data

Ident. . . . . STDD  
 Sample type . . . . . Standard 3  
 Determination start . . . . . 2023-06-06 12:15:39  
 Dilution factor . . . . . 1.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0864	0.225	0.225
6.06	Chloride	0.6639	2.402	2.402
7.16	Nitrite	0.1313	0.235	0.235
8.91	Bromide	0.0475	0.480	0.480
10.17	Nitrate	0.1369	0.237	0.237
16.21	Sulfate	0.4552	2.413	2.413

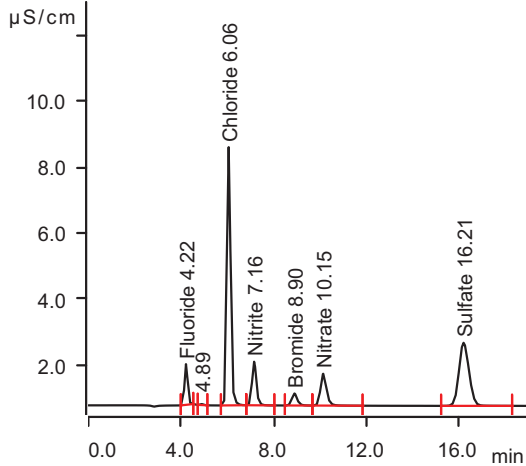




**Sample data**

Ident. . . . . STDE  
 Sample type . . . . . Standard 4  
 Determination start . . . . . 2023-06-06 12:37:44  
 Dilution factor . . . . . 1.00

**Anions**

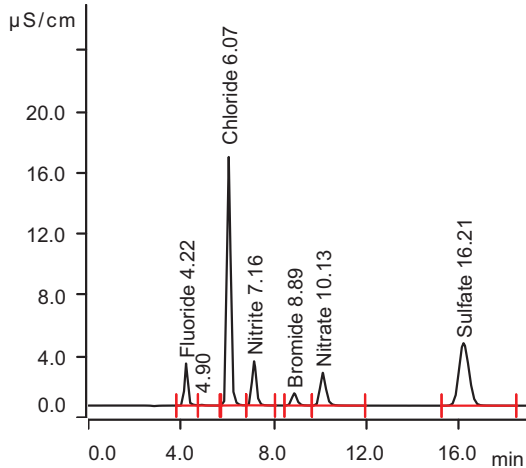


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.1924	0.446	0.446
6.06	Chloride	1.4385	4.859	4.859
7.16	Nitrite	0.2879	0.463	0.463
8.90	Bromide	0.0996	0.881	0.881
10.15	Nitrate	0.2940	0.446	0.446
16.21	Sulfate	0.9645	4.650	4.650

**Sample data**

Ident. . . . . STDF  
 Sample type . . . . . Standard 5  
 Determination start . . . . . 2023-06-06 12:59:49  
 Dilution factor . . . . . 1.00

**Anions**

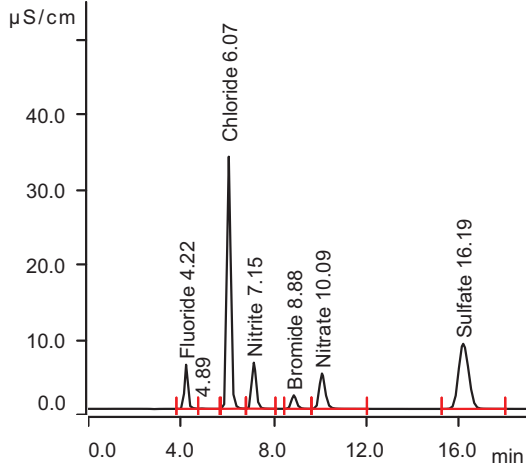


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.4513	0.987	0.987
6.07	Chloride	3.0285	9.903	9.903
7.16	Nitrite	0.6299	0.961	0.961
8.89	Bromide	0.2139	1.760	1.760
10.13	Nitrate	0.6446	0.912	0.912
16.21	Sulfate	2.0732	9.520	9.520

**Sample data**

Ident. . . . . STDG  
 Sample type . . . . . Standard 6  
 Determination start . . . . . 2023-06-06 13:21:55  
 Dilution factor . . . . . 1.00

**Anions**

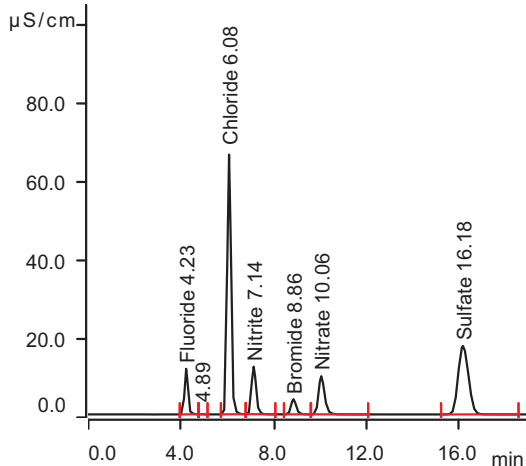


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.9684	2.066	2.066
6.07	Chloride	6.3172	20.336	20.336
7.15	Nitrite	1.3610	2.026	2.026
8.88	Bromide	0.4706	3.736	3.736
10.09	Nitrate	1.4138	1.936	1.936
16.19	Sulfate	4.4336	19.887	19.887

**Sample data**

Ident. . . . . STDH  
 Sample type . . . . . Standard 7  
 Determination start . . . . . 2023-06-06 13:44:00  
 Dilution factor . . . . . 1.00

**Anions**

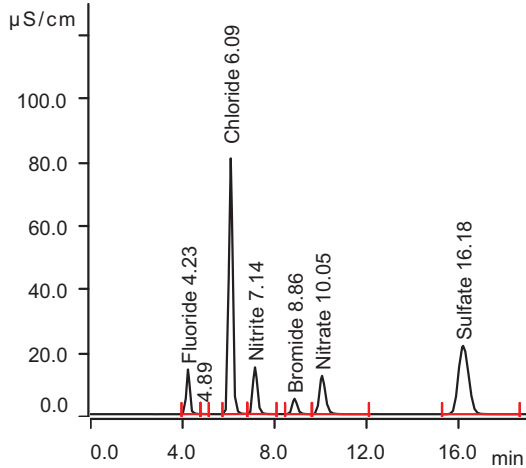


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	1.9379	4.090	4.090
6.08	Chloride	12.6101	40.300	40.300
7.14	Nitrite	2.7654	4.071	4.071
8.86	Bromide	1.0015	7.820	7.820
10.06	Nitrate	2.9429	3.971	3.971
16.18	Sulfate	9.0343	40.094	40.094

**Sample data**

Ident. . . . . STDI  
 Sample type . . . . . Standard 8  
 Determination start . . . . . 2023-06-06 14:06:05  
 Dilution factor . . . . . 1.00

**Anions**

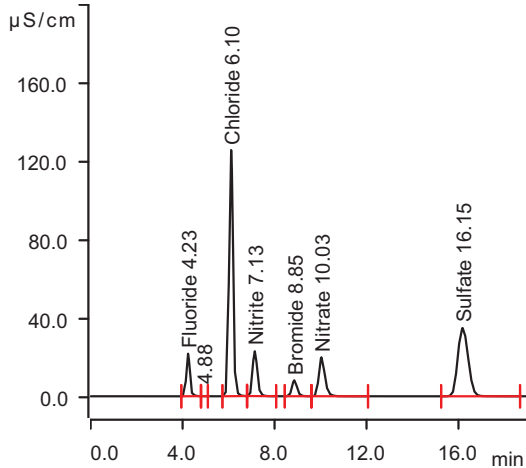


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	2.3860	5.026	5.026
6.09	Chloride	15.5240	49.544	49.544
7.14	Nitrite	3.4088	5.007	5.007
8.86	Bromide	1.2568	9.785	9.785
10.05	Nitrate	3.6632	4.929	4.929
16.18	Sulfate	11.1759	49.501	49.501

**Sample data**

Ident. . . . . STDJ  
 Sample type . . . . . Standard 9  
 Determination start . . . . . 2023-06-06 14:28:12  
 Dilution factor . . . . . 1.00

**Anions**

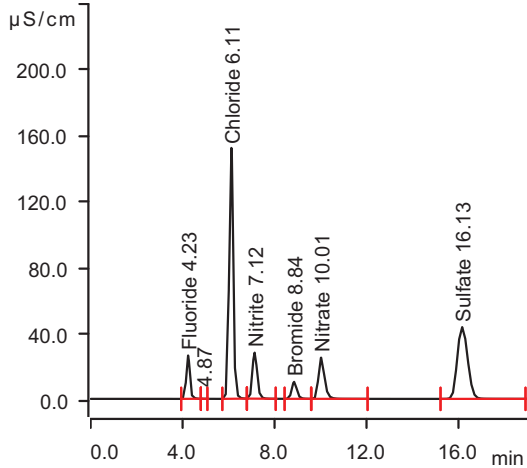


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	3.8173	8.014	8.014
6.10	Chloride	25.1438	80.062	80.062
7.13	Nitrite	5.4796	8.023	8.023
8.85	Bromide	2.1117	16.362	16.362
10.03	Nitrate	6.0558	8.113	8.113
16.15	Sulfate	18.2394	80.525	80.525

**Sample data**

Ident . . . . . STDK  
 Sample type . . . . . Standard 10  
 Determination start . . . . . 2023-06-06 14:50:16  
 Dilution factor . . . . . 1.00

**Anions**

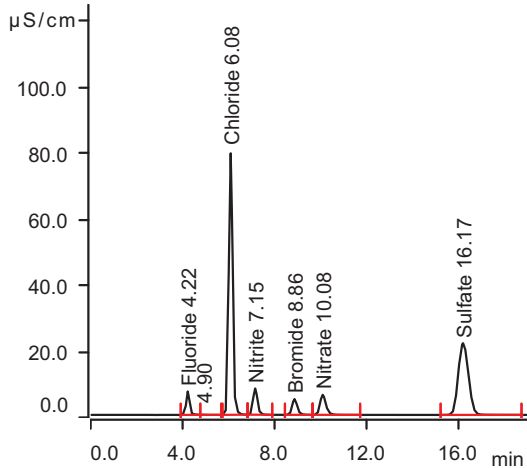


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	4.7211	9.901	9.901
6.11	Chloride	31.4653	100.116	100.116
7.12	Nitrite	6.8154	9.968	9.968
8.84	Bromide	2.6832	20.760	20.760
10.01	Nitrate	7.6401	10.221	10.221
16.13	Sulfate	22.8839	100.925	100.925

**Sample data**

Ident . . . . . ICV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 15:12:21  
 Dilution factor . . . . . 1.00

**Anions**

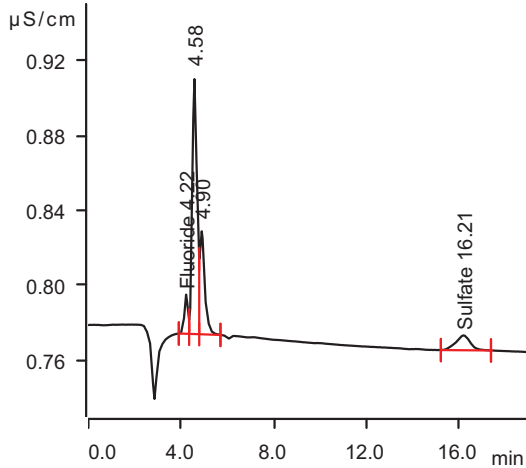


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	1.1903	2.530	2.530
6.08	Chloride	15.2367	48.633	48.633
7.15	Nitrite	1.7705	2.622	2.622
8.86	Bromide	1.2346	9.614	9.614
10.08	Nitrate	1.8167	2.472	2.472
16.17	Sulfate	11.1676	49.464	49.464

**Sample data**

Ident . . . . . ICB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 15:34:24  
 Dilution factor . . . . . 1.00

**Anions**

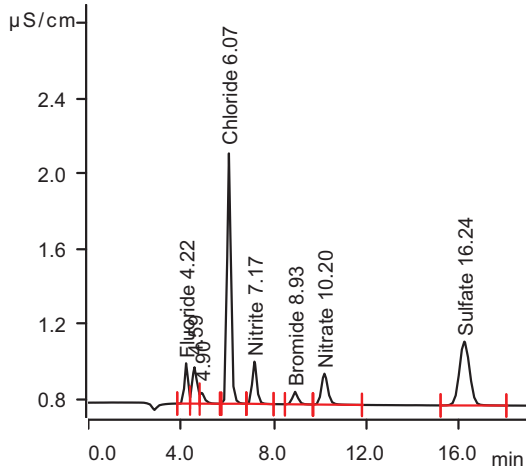


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0036	0.052	0.052
16.21	Sulfate	0.0057	0.439	0.439

**Sample data**

Ident . . . . . CRI  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 15:56:31  
 Dilution factor . . . . . 1.00

**Anions**

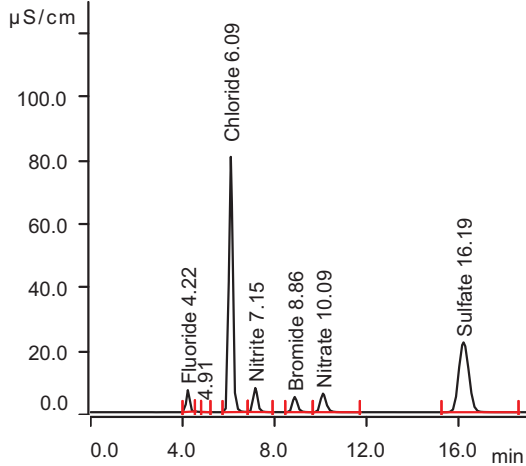


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0360	0.119	0.119
6.07	Chloride	0.2485	1.084	1.084
7.17	Nitrite	0.0513	0.119	0.119
8.93	Bromide	0.0190	0.261	0.261
10.20	Nitrate	0.0531	0.125	0.125
16.24	Sulfate	0.1755	1.185	1.185

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 16:19:28  
 Dilution factor . . . . . 1.00

**Anions**

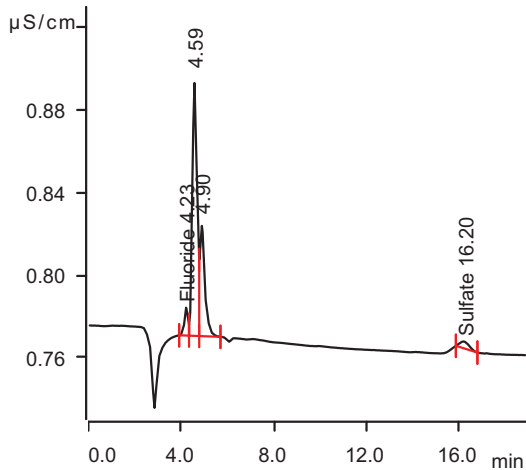


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	1.0859	2.311	2.311
6.09	Chloride	15.4850	49.420	49.420
7.15	Nitrite	1.6828	2.494	2.494
8.86	Bromide	1.2354	9.620	9.620
10.09	Nitrate	1.7444	2.376	2.376
16.19	Sulfate	11.2335	49.754	49.754

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 16:42:23  
 Dilution factor . . . . . 1.00

**Anions**

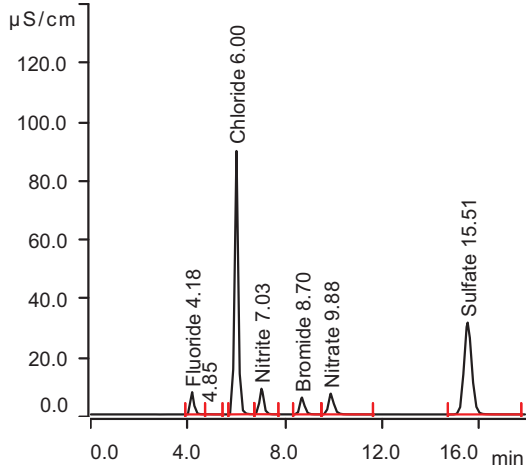


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	0.0023	0.049	0.049
16.20	Sulfate	0.0015	0.421	0.421

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 10:44:43  
 Dilution factor . . . . . 1.00

**Anions**

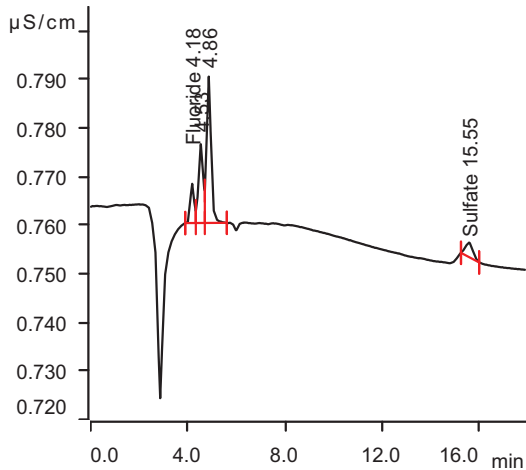


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.2259	2.604	2.604
6.00	Chloride	15.7720	50.331	50.331
7.03	Nitrite	1.7360	2.572	2.572
8.70	Bromide	1.2879	10.024	10.024
9.88	Nitrate	1.8163	2.526	2.526
15.51	Sulfate	11.5244	51.031	51.031

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 11:10:33  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0014	0.047	0.047
15.55	Sulfate	0.0011	0.419	0.419

11.1  
11



# Summary Report

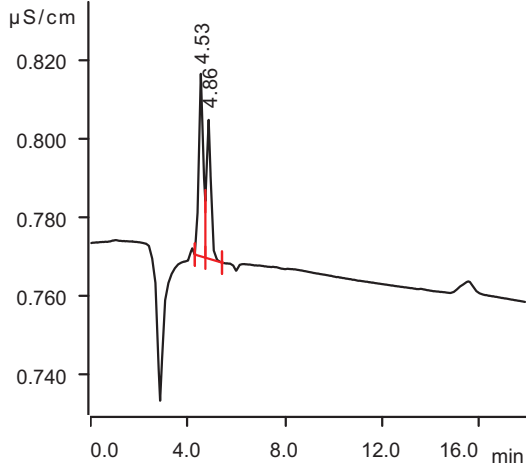
2023-06-30 11:34:25

MagIC Net 3.2 - 123

**Sample data**

Ident. . . . . MB1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 11:31:34  
 Dilution factor . . . . . 1.00

**Anions**

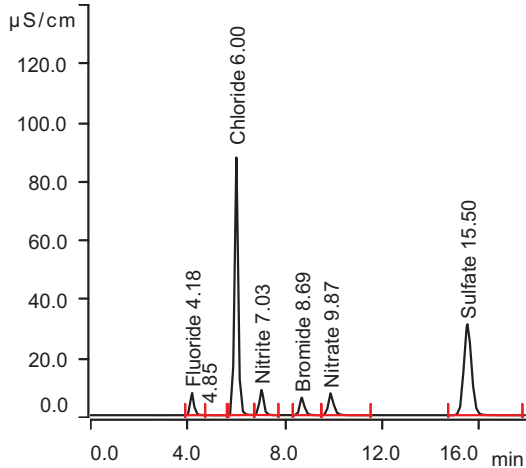


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
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**Sample data**

Ident. . . . . B1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 11:52:36  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	1.2297	2.612	2.612
6.00	Chloride	15.3851	49.103	49.103
7.03	Nitrite	1.7027	2.523	2.523
8.69	Bromide	1.3419	10.439	10.439
9.87	Nitrate	1.9110	2.648	2.648
15.50	Sulfate	11.3994	50.483	50.483

System Operator: JR IC4  
 EPA 300.0 / SW846 9056A

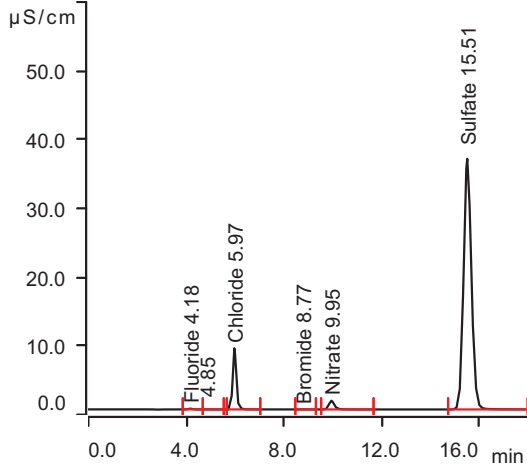




**Sample data**

Ident. . . . . FC7373-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 12:13:40  
 Dilution factor . . . . . 25.00

**Anions**

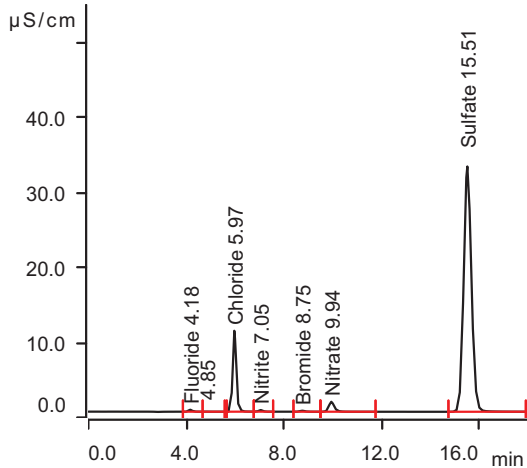


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0206	0.087	2.179
5.97	Chloride	1.5105	5.088	127.191
8.77	Bromide	0.0017	0.128	3.194
9.95	Nitrate	0.3301	0.601	15.016
15.51	Sulfate	13.5246	59.817	1495.421

**Sample data**

Ident. . . . . FC7373-1S1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 12:34:27  
 Dilution factor . . . . . 25.00

**Anions**



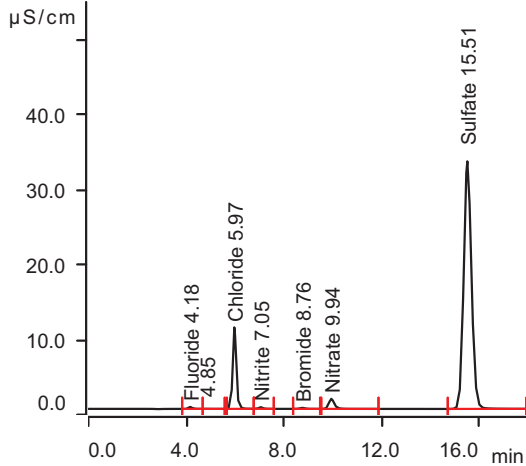
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0447	0.138	3.442
5.97	Chloride	1.8265	6.090	152.252
7.05	Nitrite	0.0420	0.105	2.626
8.75	Bromide	0.0319	0.360	9.002
9.94	Nitrate	0.3440	0.619	15.468
15.51	Sulfate	12.0810	53.476	1336.900

11.1  
11

**Sample data**

Ident. . . . . FC7373-1S2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 12:55:14  
 Dilution factor . . . . . 25.00

**Anions**

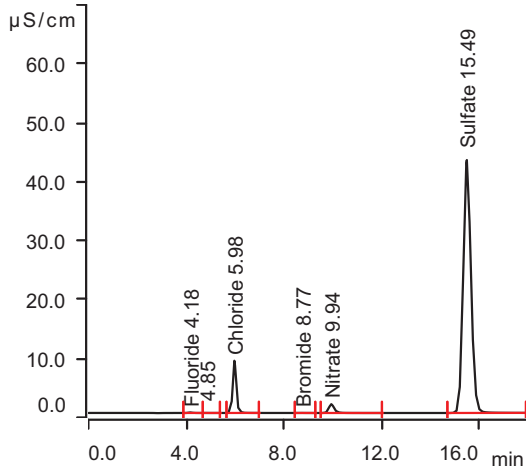


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0449	0.138	3.450
5.97	Chloride	1.8521	6.171	154.284
7.05	Nitrite	0.0432	0.107	2.671
8.76	Bromide	0.0324	0.364	9.089
9.94	Nitrate	0.3496	0.626	15.650
15.51	Sulfate	12.2232	54.101	1352.521

**Sample data**

Ident. . . . . FC7373-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 13:16:00  
 Dilution factor . . . . . 25.00

**Anions**

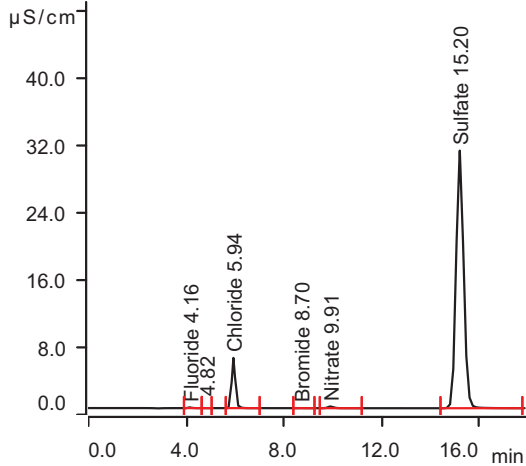


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.18	Fluoride	0.0156	0.077	1.923
5.98	Chloride	1.5012	5.058	126.452
8.77	Bromide	0.0018	0.128	3.209
9.94	Nitrate	0.3873	0.675	16.868
15.49	Sulfate	15.8855	70.186	1754.659

**Sample data**

Ident. . . . . FC7373-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 13:36:46  
 Dilution factor . . . . . 25.00

**Anions**

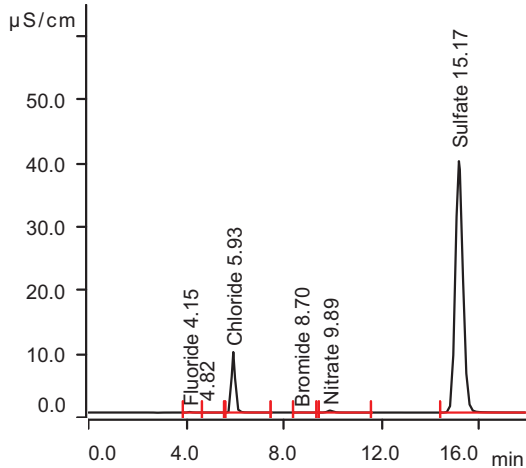


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0143	0.074	1.852
5.94	Chloride	1.0040	3.481	87.017
8.70	Bromide	0.0021	0.130	3.259
9.91	Nitrate	0.0560	0.246	6.141
15.20	Sulfate	11.0602	48.992	1224.812

**Sample data**

Ident. . . . . FC7373-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 13:57:32  
 Dilution factor . . . . . 25.00

**Anions**



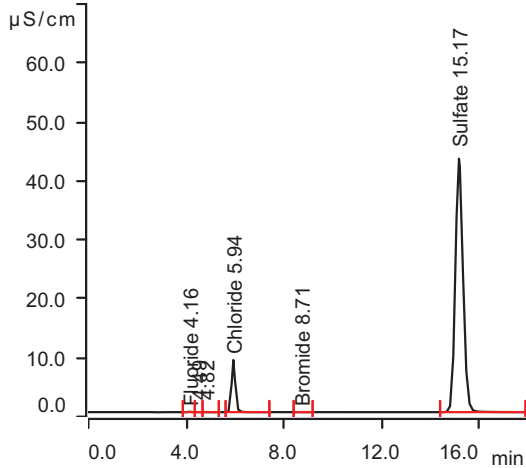
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0152	0.076	1.901
5.93	Chloride	1.6194	5.433	135.822
8.70	Bromide	0.0021	0.131	3.273
9.89	Nitrate	0.0853	0.284	7.088
15.17	Sulfate	14.4436	63.853	1596.332

11.1  
11

**Sample data**

Ident. . . . . FC7377-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 14:18:18  
 Dilution factor . . . . . 25.00

**Anions**

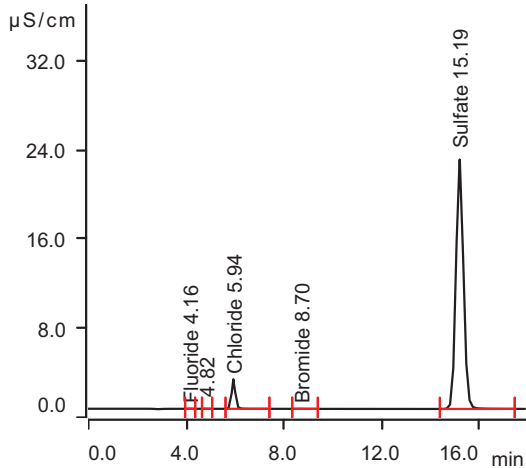


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0098	0.065	1.618
5.94	Chloride	1.5044	5.068	126.704
8.71	Bromide	0.0027	0.136	3.389
15.17	Sulfate	15.6761	69.267	1731.665

**Sample data**

Ident. . . . . FC7377-5  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 14:39:04  
 Dilution factor . . . . . 200.00

**Anions**

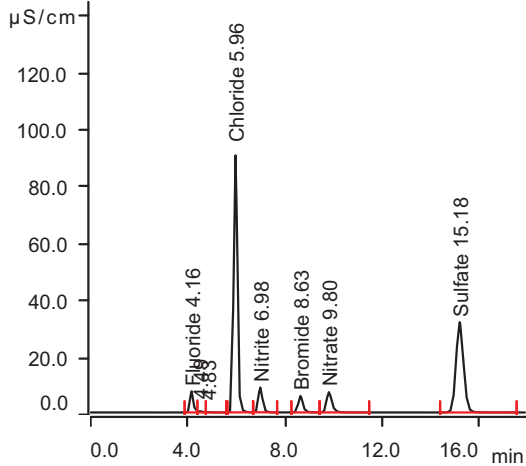


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0017	0.048	9.553
5.94	Chloride	0.4469	1.713	342.682
8.70	Bromide	0.0023	0.132	26.459
15.19	Sulfate	8.0139	35.613	7122.556

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 14:59:50  
 Dilution factor . . . . . 1.00

**Anions**

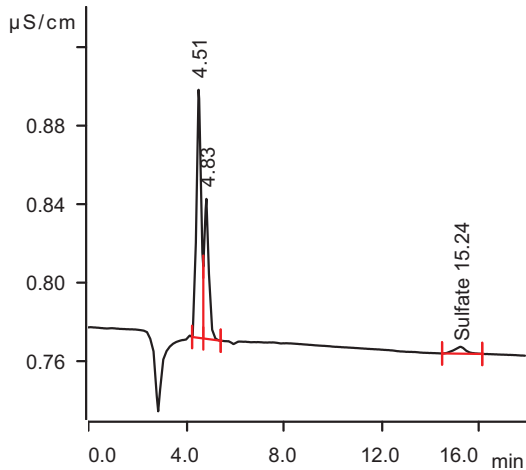


Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.1756	2.499	2.499
5.96	Chloride	15.8075	50.443	50.443
6.98	Nitrite	1.7300	2.563	2.563
8.63	Bromide	1.2906	10.045	10.045
9.80	Nitrate	1.8199	2.530	2.530
15.18	Sulfate	11.4814	50.843	50.843

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 15:20:57  
 Dilution factor . . . . . 1.00

**Anions**

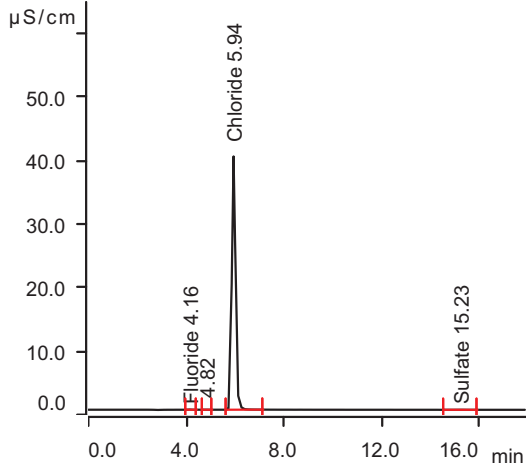


Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.24	Sulfate	0.0020	0.423	0.423

**Sample data**

Ident. . . . . FC7379-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 15:41:57  
 Dilution factor . . . . . 10.00

**Anions**

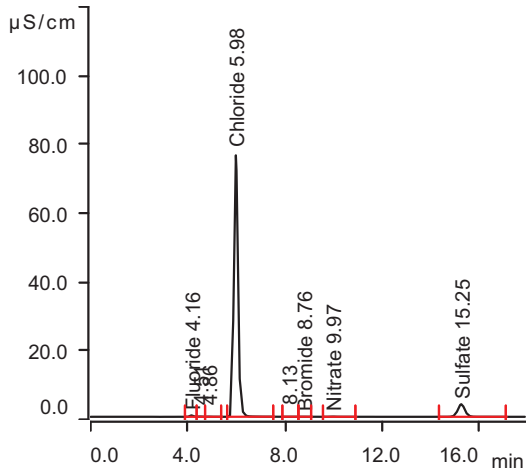


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0053	0.055	0.553
5.94	Chloride	6.8405	21.996	219.962
15.23	Sulfate	0.0046	0.434	4.340

**Sample data**

Ident. . . . . FC7379-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 16:02:45  
 Dilution factor . . . . . 1.00

**Anions**

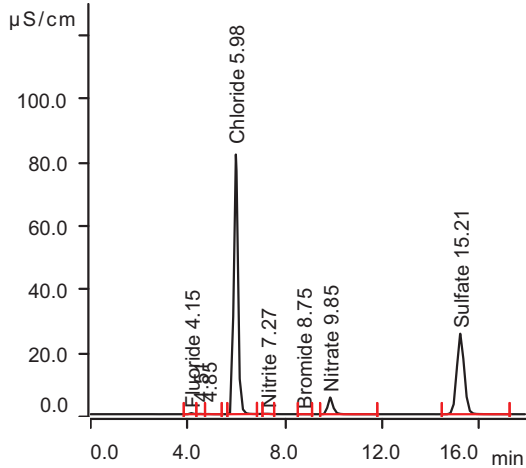


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0678	0.186	0.186
5.98	Chloride	15.0567	48.061	48.061
8.76	Bromide	0.0013	0.125	0.125
9.97	Nitrate	0.0144	0.192	0.192
15.25	Sulfate	1.2675	5.981	5.981

**Sample data**

Ident. . . . . FC7379-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 16:23:49  
 Dilution factor . . . . . 1.00

**Anions**

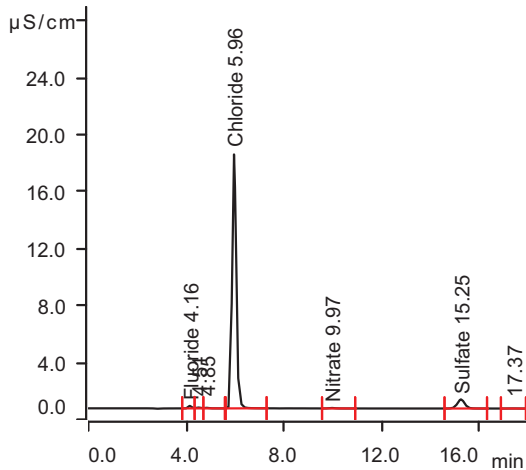


Retention Time (min)	Component Name	Area (uS*min)	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0562	0.162	0.162
5.98	Chloride	16.0784	51.303	51.303
7.27	Nitrite	0.0129	0.063	0.063
8.75	Bromide	0.0017	0.127	0.127
9.85	Nitrate	1.3116	1.872	1.872
15.21	Sulfate	9.0426	40.131	40.131

**Sample data**

Ident. . . . . FC7380-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 16:44:50  
 Dilution factor . . . . . 1.00

**Anions**



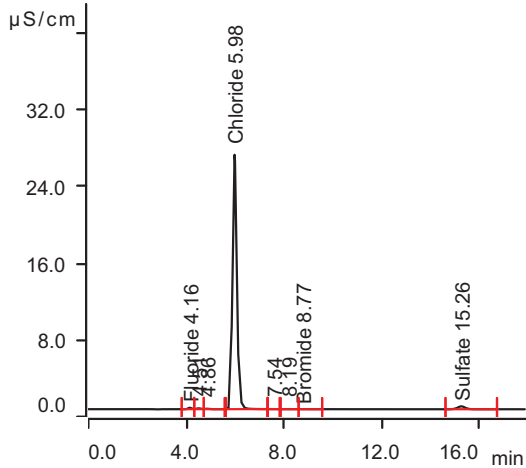
Retention Time (min)	Component Name	Area (uS*min)	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0301	0.107	0.107
5.96	Chloride	3.4388	11.205	11.205
9.97	Nitrate	0.0090	0.185	0.185
15.25	Sulfate	0.2277	1.414	1.414

11.1  
11

**Sample data**

Ident. . . . . FC7380-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 17:05:51  
 Dilution factor . . . . . 1.00

**Anions**

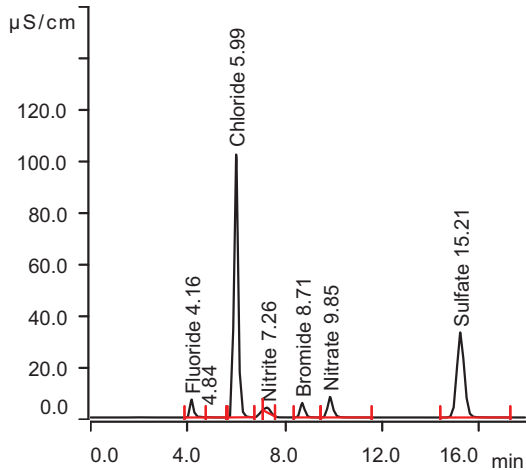


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0260	0.099	0.099
5.98	Chloride	5.5223	17.814	17.814
8.77	Bromide	0.0016	0.127	0.127
15.26	Sulfate	0.1110	0.901	0.901

**Sample data**

Ident. . . . . FC7380-2S3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 17:26:52  
 Dilution factor . . . . . 1.00

**Anions**



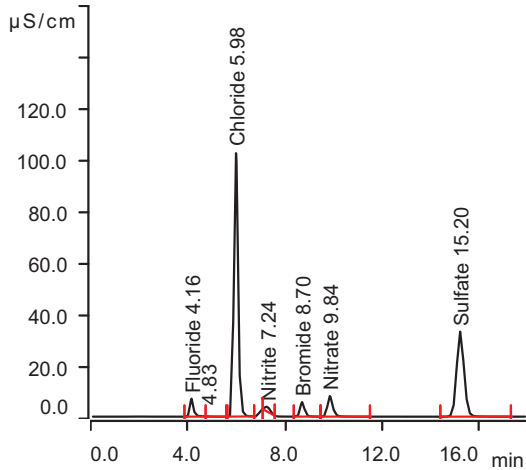
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.2154	2.582	2.582
5.99	Chloride	20.5187	65.389	65.389
7.26	Nitrite	0.4879	0.754	0.754
8.71	Bromide	1.1844	9.227	9.227
9.85	Nitrate	1.9809	2.739	2.739
15.21	Sulfate	11.8096	52.284	52.284



**Sample data**

Ident. . . . . FC7380-2S4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 17:47:52  
 Dilution factor . . . . . 1.00

**Anions**

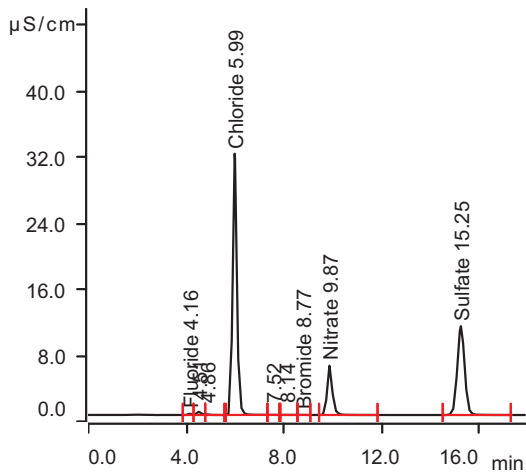


Retention Time (min)	Component Name	Area (uS*min)	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.2154	2.582	2.582
5.98	Chloride	20.4989	65.326	65.326
7.24	Nitrite	0.4666	0.723	0.723
8.70	Bromide	1.1844	9.228	9.228
9.84	Nitrate	1.9803	2.738	2.738
15.20	Sulfate	11.8000	52.242	52.242

**Sample data**

Ident. . . . . FC7380-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 18:08:53  
 Dilution factor . . . . . 1.00

**Anions**

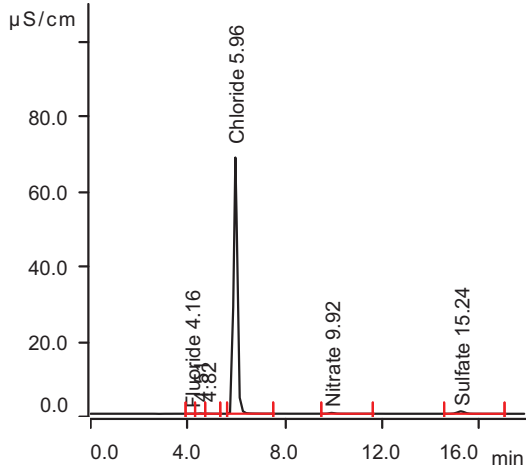


Retention Time (min)	Component Name	Area (uS*min)	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0245	0.095	0.095
5.99	Chloride	6.4235	20.674	20.674
8.77	Bromide	0.0013	0.124	0.124
9.87	Nitrate	1.4796	2.090	2.090
15.25	Sulfate	3.7592	16.925	16.925

**Sample data**

Ident. . . . . FC7380-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 18:29:55  
 Dilution factor . . . . . 5.00

**Anions**

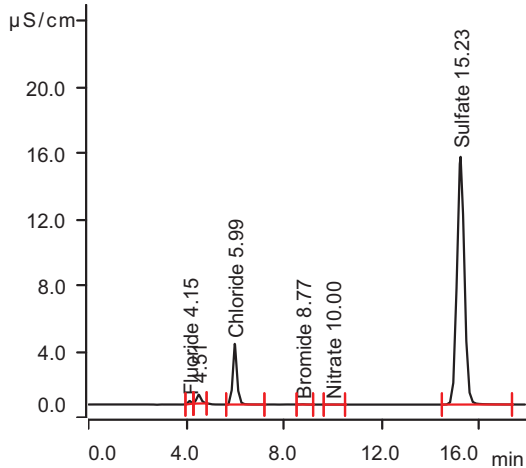


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0041	0.053	0.264
5.96	Chloride	11.8284	37.820	189.100
9.92	Nitrate	0.0600	0.251	1.254
15.24	Sulfate	0.2327	1.436	7.180

**Sample data**

Ident. . . . . FC7381-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 18:50:40  
 Dilution factor . . . . . 1.00

**Anions**



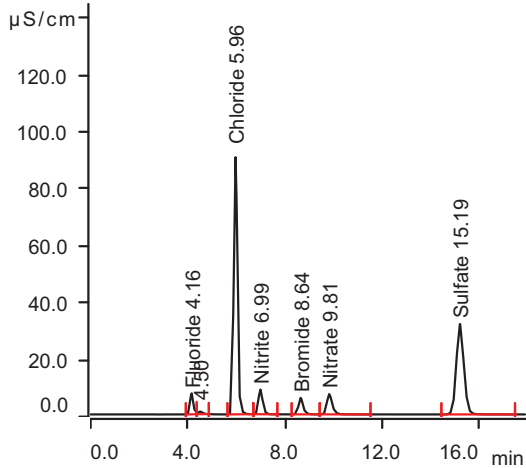
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0269	0.101	0.101
5.99	Chloride	0.7349	2.627	2.627
8.77	Bromide	0.0029	0.137	0.137
10.00	Nitrate	0.0009	0.174	0.174
15.23	Sulfate	5.2735	23.576	23.576

11.1  
11

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 19:11:43  
 Dilution factor . . . . . 1.00

**Anions**

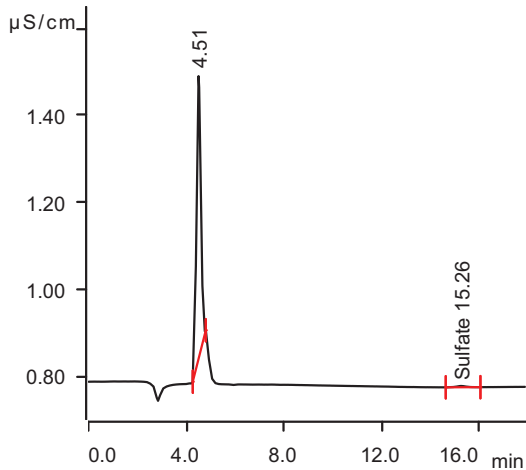


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.1562	2.458	2.458
5.96	Chloride	15.8410	50.550	50.550
6.99	Nitrite	1.7347	2.570	2.570
8.64	Bromide	1.2948	10.077	10.077
9.81	Nitrate	1.8250	2.537	2.537
15.19	Sulfate	11.4962	50.908	50.908

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 19:32:54  
 Dilution factor . . . . . 1.00

**Anions**

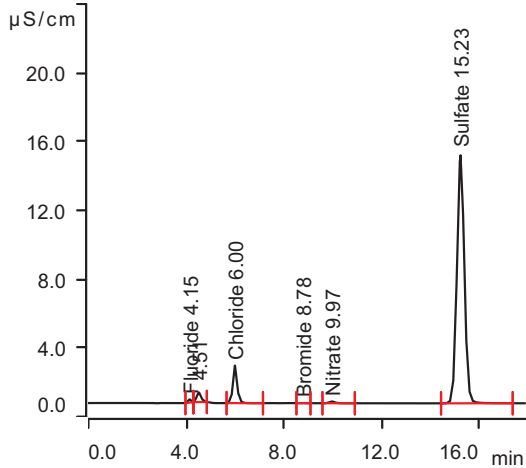


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.26	Sulfate	0.0014	0.420	0.420

**Sample data**

Ident. . . . . FC7381-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 19:53:54  
 Dilution factor . . . . . 1.00

**Anions**

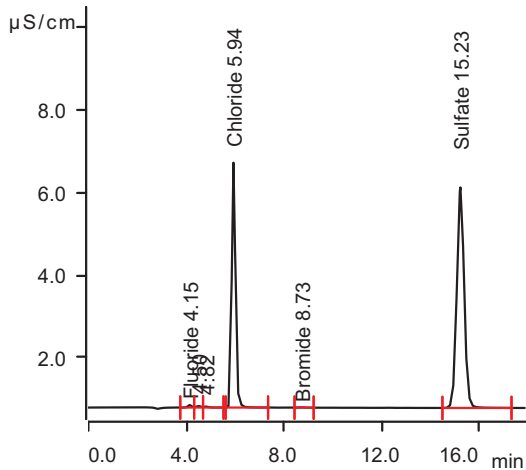


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0268	0.100	0.100
6.00	Chloride	0.4509	1.726	1.726
8.78	Bromide	0.0013	0.124	0.124
9.97	Nitrate	0.0273	0.208	0.208
15.23	Sulfate	5.0831	22.740	22.740

**Sample data**

Ident. . . . . FC7381-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 20:15:02  
 Dilution factor . . . . . 10.00

**Anions**



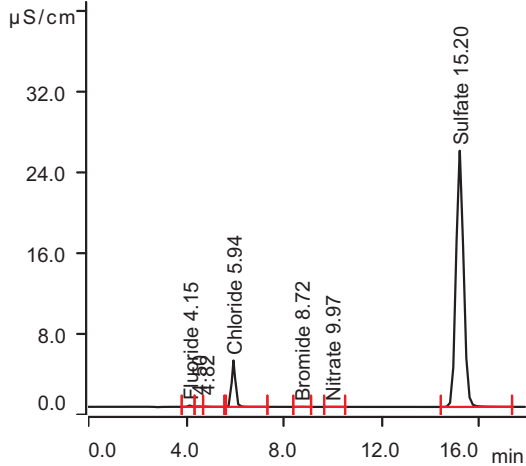
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0104	0.066	0.659
5.94	Chloride	1.0243	3.545	35.451
8.73	Bromide	0.0016	0.127	1.268
15.23	Sulfate	1.8665	8.612	86.121

11.1  
11

**Sample data**

Ident. . . . . FC7381-5  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 20:35:48  
 Dilution factor . . . . . 10.00

**Anions**

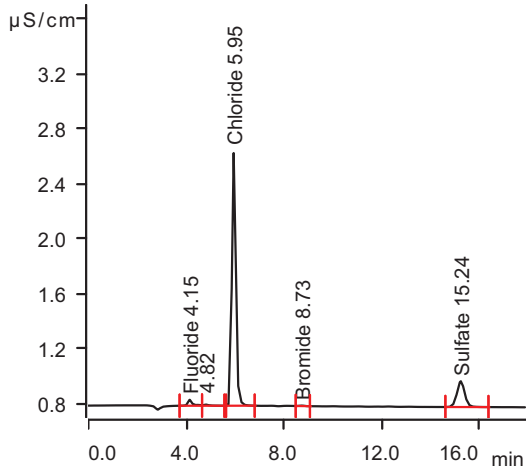


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0211	0.088	0.882
5.94	Chloride	0.7867	2.791	27.914
8.72	Bromide	0.0018	0.128	1.281
9.97	Nitrate	0.0014	0.175	1.749
15.20	Sulfate	9.1327	40.526	405.265

**Sample data**

Ident. . . . . FC7381-6  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 20:56:34  
 Dilution factor . . . . . 10.00

**Anions**

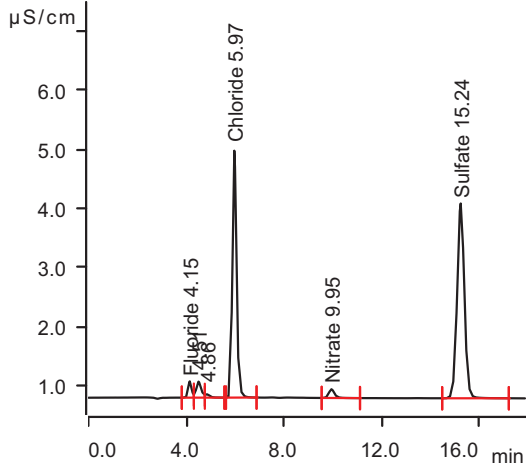


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0095	0.064	0.640
5.95	Chloride	0.3277	1.335	13.352
8.73	Bromide	0.0008	0.121	1.207
15.24	Sulfate	0.0696	0.719	7.194

**Sample data**

Ident. . . . . FC7379-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 21:17:20  
 Dilution factor . . . . . 1.00

**Anions**

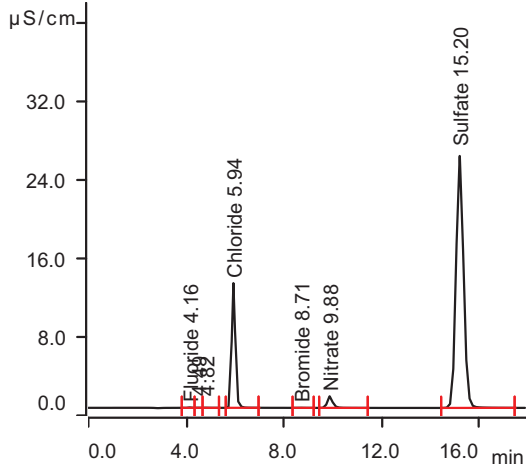


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0464	0.141	0.141
5.97	Chloride	0.8312	2.932	2.932
9.95	Nitrate	0.0402	0.225	0.225
15.24	Sulfate	1.1397	5.420	5.420

**Sample data**

Ident. . . . . FC7317-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 21:38:23  
 Dilution factor . . . . . 25.00

**Anions**



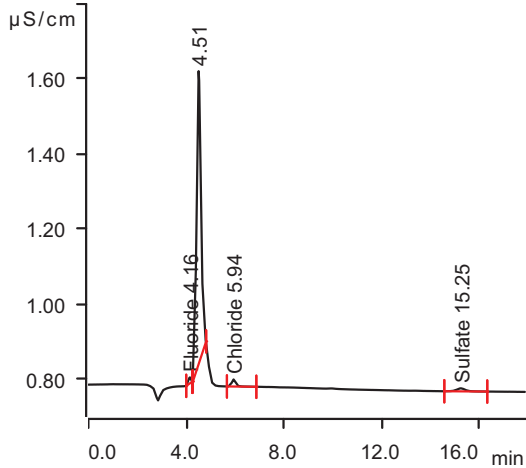
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0067	0.058	1.455
5.94	Chloride	2.1456	7.102	177.559
8.71	Bromide	0.0022	0.132	3.295
9.88	Nitrate	0.3016	0.564	14.093
15.20	Sulfate	9.1942	40.797	1019.914

11.1  
11

**Sample data**

Ident . . . . . MB1F  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 21:59:09  
 Dilution factor . . . . . 1.00

**Anions**

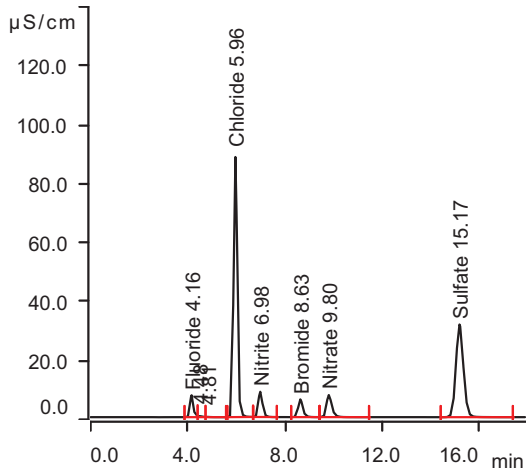


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0019	0.048	0.048
5.94	Chloride	0.0036	0.307	0.307
15.25	Sulfate	0.0034	0.429	0.429

**Sample data**

Ident . . . . . B1F  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 22:20:11  
 Dilution factor . . . . . 1.00

**Anions**

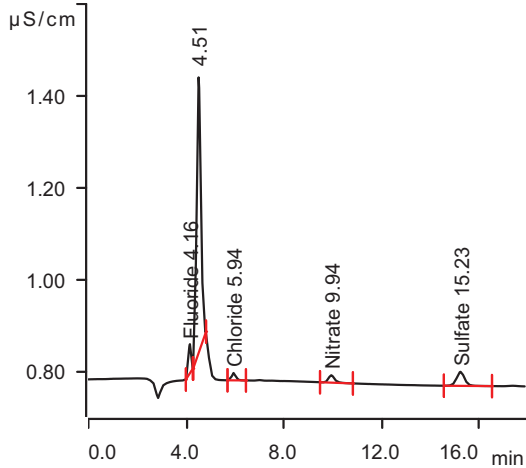


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.1808	2.510	2.510
5.96	Chloride	15.4174	49.206	49.206
6.98	Nitrite	1.7040	2.525	2.525
8.63	Bromide	1.3440	10.456	10.456
9.80	Nitrate	1.9149	2.654	2.654
15.17	Sulfate	11.3427	50.234	50.234

**Sample data**

Ident. . . . . FC7148-12  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 22:41:12  
 Dilution factor . . . . . 5.00

**Anions**

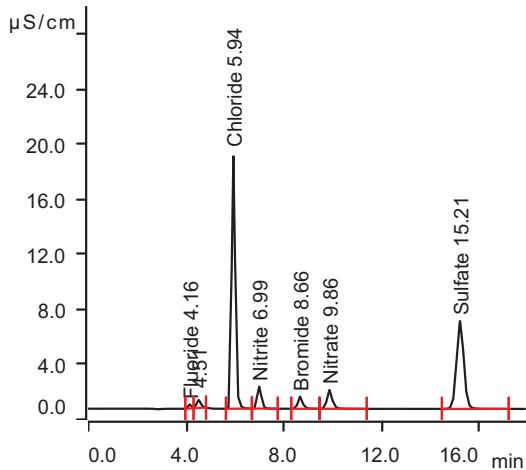


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0085	0.062	0.310
5.94	Chloride	0.0030	0.305	1.525
9.94	Nitrate	0.0047	0.179	0.896
15.23	Sulfate	0.0118	0.466	2.329

**Sample data**

Ident. . . . . FC7148-12S1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 23:02:12  
 Dilution factor . . . . . 5.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0419	0.132	0.659
5.94	Chloride	3.0786	10.062	50.311
6.99	Nitrite	0.3081	0.492	2.462
8.66	Bromide	0.2010	1.661	8.305
9.86	Nitrate	0.3481	0.624	3.120
15.21	Sulfate	2.2199	10.164	50.820

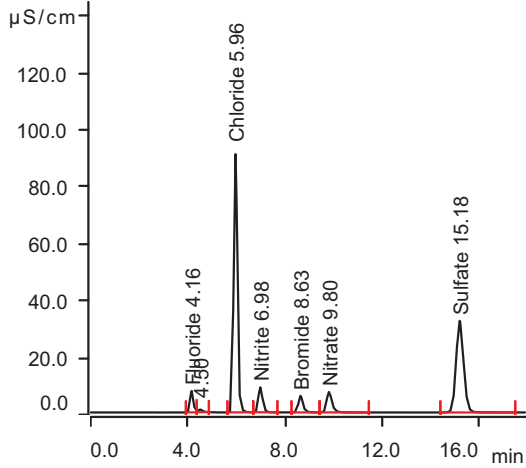
11.1  
11



**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 23:23:13  
 Dilution factor . . . . . 1.00

**Anions**

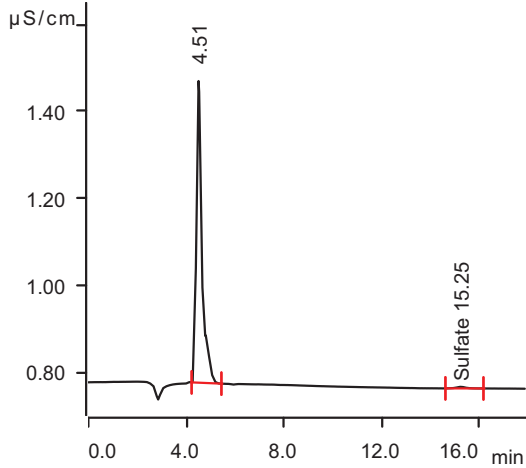


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.1808	2.510	2.510
5.96	Chloride	15.8825	50.681	50.681
6.98	Nitrite	1.7514	2.594	2.594
8.63	Bromide	1.2981	10.103	10.103
9.80	Nitrate	1.8301	2.544	2.544
15.18	Sulfate	11.6118	51.415	51.415

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-29 23:44:19  
 Dilution factor . . . . . 1.00

**Anions**

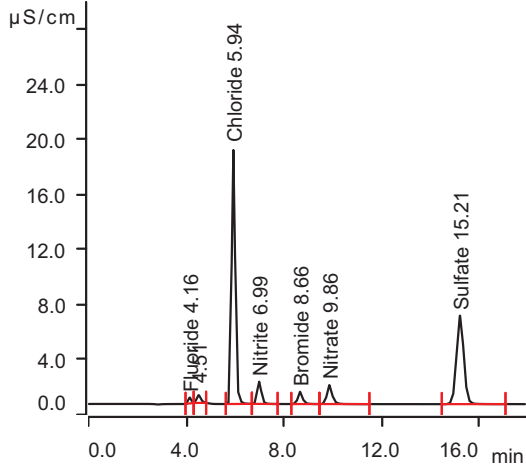


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.25	Sulfate	0.0017	0.421	0.421

**Sample data**

Ident. . . . . FC7148-12S2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 00:05:20  
 Dilution factor . . . . . 5.00

**Anions**

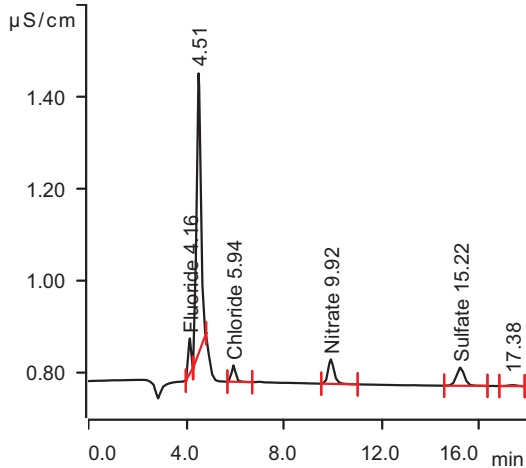


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0603	0.170	0.851
5.94	Chloride	3.0920	10.105	50.524
6.99	Nitrite	0.3109	0.497	2.483
8.66	Bromide	0.2017	1.667	8.334
9.86	Nitrate	0.3497	0.626	3.131
15.21	Sulfate	2.2368	10.238	51.192

**Sample data**

Ident. . . . . FC7148-13  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 00:26:26  
 Dilution factor . . . . . 5.00

**Anions**



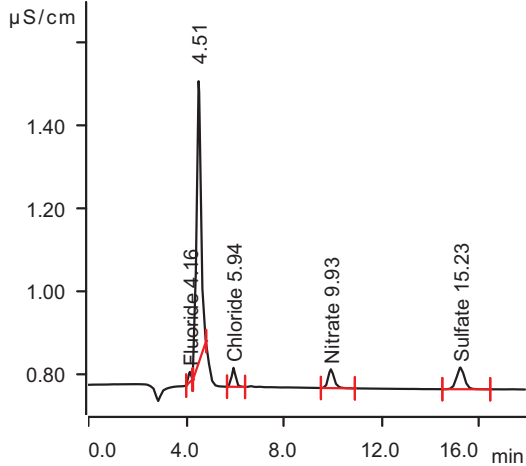
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0103	0.066	0.329
5.94	Chloride	0.0066	0.317	1.583
9.92	Nitrate	0.0151	0.193	0.963
15.22	Sulfate	0.0152	0.481	2.403

11.1  
11

**Sample data**

Ident. . . . . FC7148-14  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 00:47:26  
 Dilution factor . . . . . 5.00

**Anions**

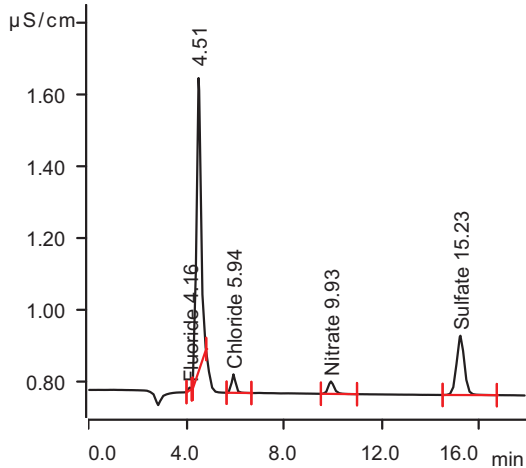


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0031	0.051	0.253
5.94	Chloride	0.0083	0.322	1.610
9.93	Nitrate	0.0129	0.190	0.949
15.23	Sulfate	0.0198	0.501	2.505

**Sample data**

Ident. . . . . FC7148-15  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 01:08:27  
 Dilution factor . . . . . 5.00

**Anions**



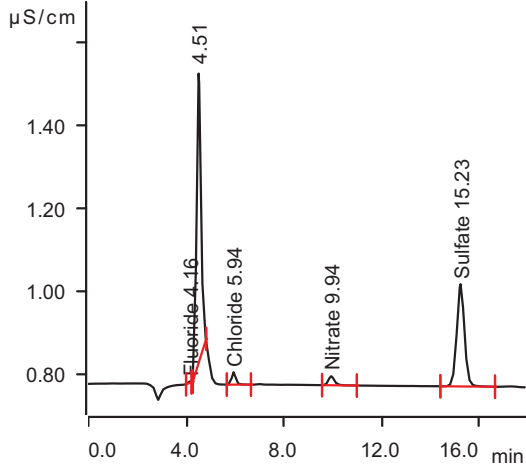
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0009	0.046	0.230
5.94	Chloride	0.0094	0.325	1.627
9.93	Nitrate	0.0099	0.186	0.929
15.23	Sulfate	0.0609	0.681	3.406

11.1  
11

**Sample data**

Ident. . . . . FC7148-16  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 01:29:26  
 Dilution factor . . . . . 5.00

**Anions**

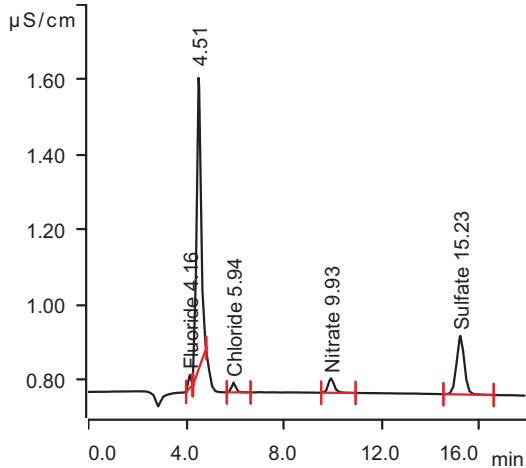


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0004	0.045	0.226
5.94	Chloride	0.0055	0.313	1.566
9.94	Nitrate	0.0063	0.181	0.906
15.23	Sulfate	0.0907	0.812	4.061

**Sample data**

Ident. . . . . FC7148-17  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 01:50:26  
 Dilution factor . . . . . 5.00

**Anions**



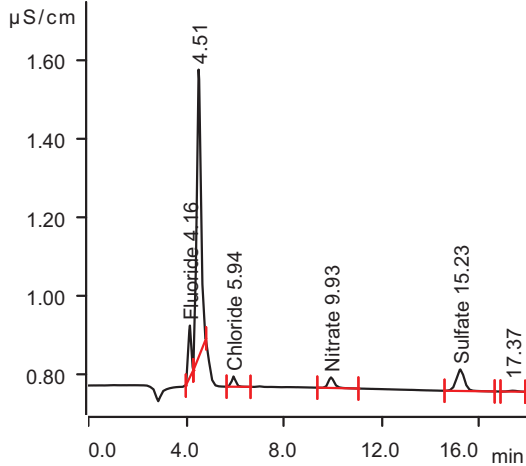
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0043	0.053	0.266
5.94	Chloride	0.0048	0.311	1.554
9.93	Nitrate	0.0109	0.187	0.936
15.23	Sulfate	0.0575	0.667	3.333

11.1  
11

**Sample data**

Ident. . . . . FC7148-18  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 02:11:25  
 Dilution factor . . . . . 5.00

**Anions**

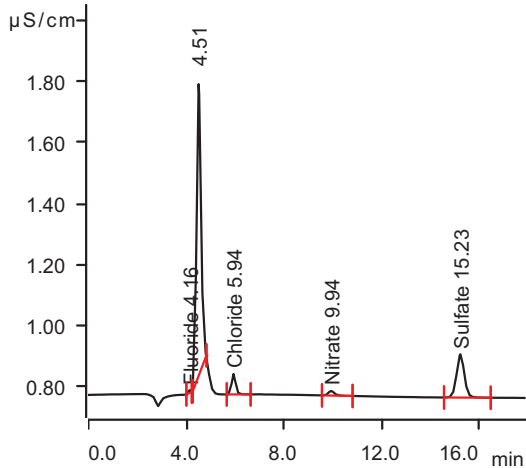


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0179	0.082	0.408
5.94	Chloride	0.0048	0.311	1.555
9.93	Nitrate	0.0077	0.183	0.916
15.23	Sulfate	0.0213	0.507	2.537

**Sample data**

Ident. . . . . FC7148-19  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 02:32:25  
 Dilution factor . . . . . 5.00

**Anions**

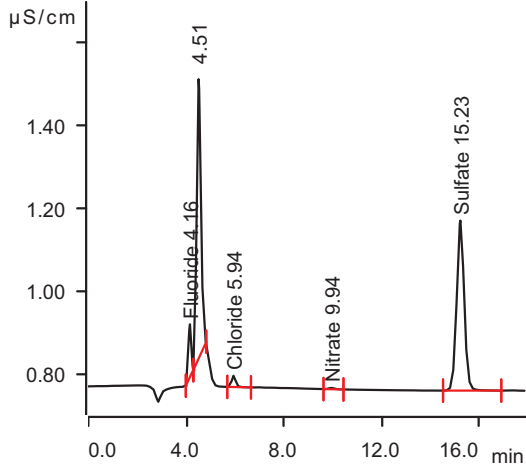


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0010	0.046	0.231
5.94	Chloride	0.0123	0.335	1.674
9.94	Nitrate	0.0044	0.179	0.894
15.23	Sulfate	0.0522	0.643	3.215

**Sample data**

Ident. . . . . FC7148-20  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 02:53:24  
 Dilution factor . . . . . 5.00

**Anions**

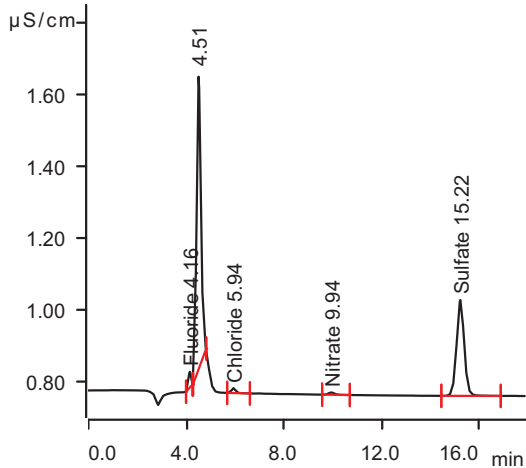


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0174	0.081	0.403
5.94	Chloride	0.0050	0.311	1.557
9.94	Nitrate	0.0009	0.174	0.871
15.23	Sulfate	0.1475	1.062	5.309

**Sample data**

Ident. . . . . FC7148-21  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 03:14:23  
 Dilution factor . . . . . 5.00

**Anions**



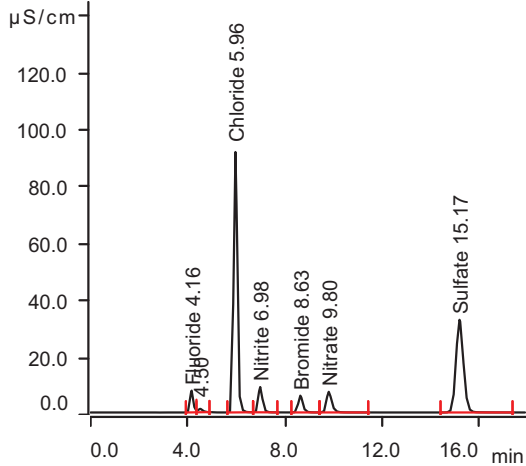
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0056	0.056	0.280
5.94	Chloride	0.0025	0.304	1.518
9.94	Nitrate	0.0019	0.176	0.878
15.22	Sulfate	0.0967	0.839	4.194

11.1  
11

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 03:35:22  
 Dilution factor . . . . . 1.00

**Anions**

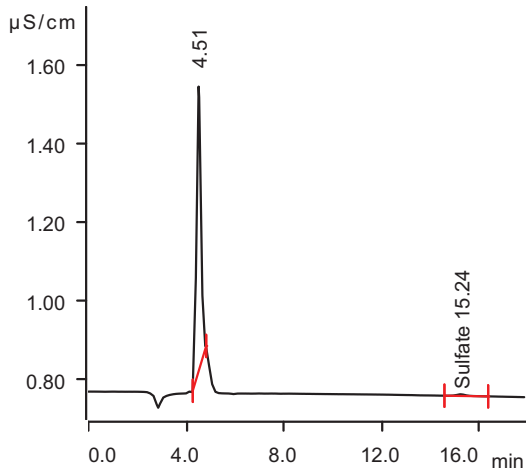


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.1946	2.539	2.539
5.96	Chloride	15.9114	50.773	50.773
6.98	Nitrite	1.7628	2.611	2.611
8.63	Bromide	1.3015	10.129	10.129
9.80	Nitrate	1.8346	2.549	2.549
15.17	Sulfate	11.6612	51.632	51.632

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 03:56:24  
 Dilution factor . . . . . 1.00

**Anions**

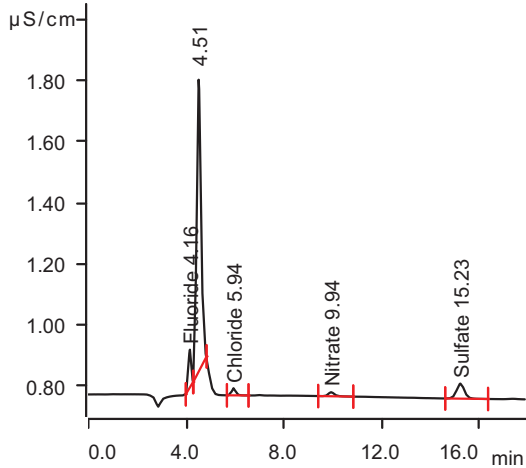


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.24	Sulfate	0.0019	0.422	0.422

**Sample data**

Ident. . . . . FC7148-22  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 04:17:24  
 Dilution factor . . . . . 5.00

**Anions**

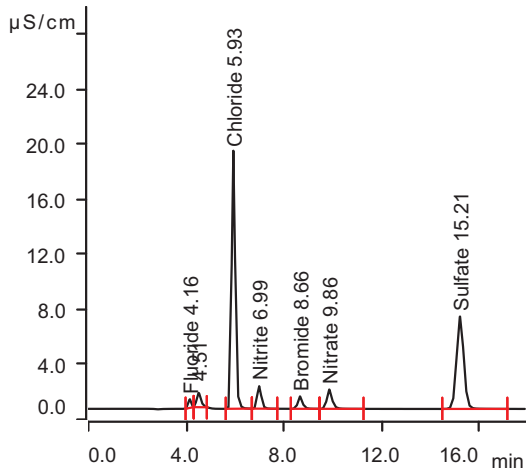


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0166	0.079	0.394
5.94	Chloride	0.0043	0.309	1.546
9.94	Nitrate	0.0039	0.178	0.891
15.23	Sulfate	0.0186	0.495	2.477

**Sample data**

Ident. . . . . FC7148-22S3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 04:38:26  
 Dilution factor . . . . . 5.00

**Anions**



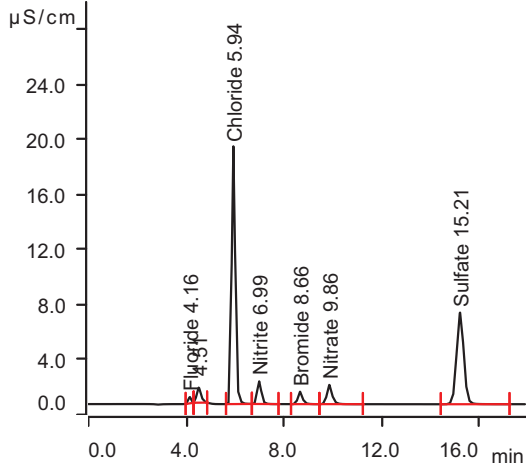
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0872	0.226	1.132
5.93	Chloride	3.1455	10.274	51.372
6.99	Nitrite	0.3153	0.503	2.515
8.66	Bromide	0.2035	1.680	8.402
9.86	Nitrate	0.3550	0.633	3.165
15.21	Sulfate	2.3223	10.614	53.070



**Sample data**

Ident. . . . . FC7148-22S4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 04:59:27  
 Dilution factor . . . . . 5.00

**Anions**

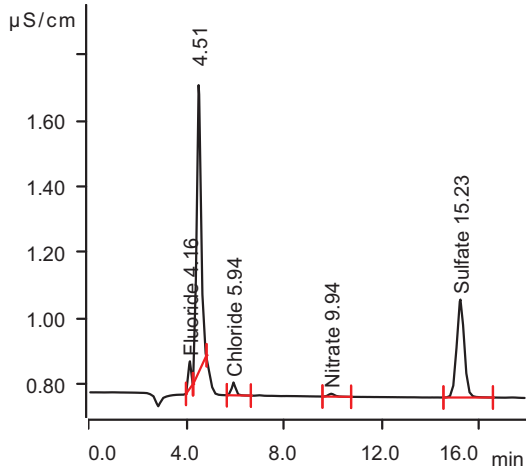


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0632	0.176	0.881
5.94	Chloride	3.1296	10.224	51.119
6.99	Nitrite	0.3166	0.505	2.525
8.66	Bromide	0.2032	1.678	8.391
9.86	Nitrate	0.3532	0.631	3.153
15.21	Sulfate	2.2987	10.510	52.551

**Sample data**

Ident. . . . . FC7148-23  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 05:20:27  
 Dilution factor . . . . . 5.00

**Anions**

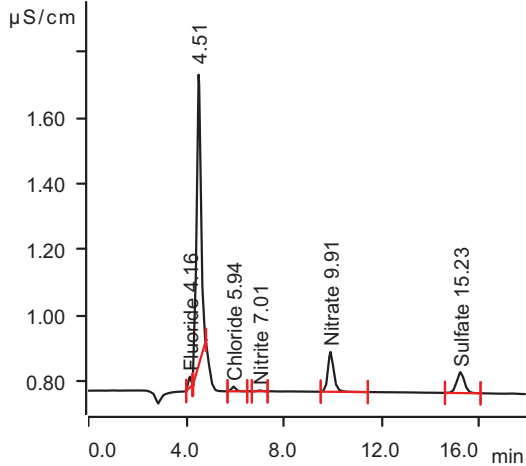


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0108	0.067	0.334
5.94	Chloride	0.0071	0.318	1.591
9.94	Nitrate	0.0025	0.176	0.882
15.23	Sulfate	0.1068	0.883	4.416

**Sample data**

Ident. . . . . FC7148-24  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 05:41:27  
 Dilution factor . . . . . 5.00

**Anions**

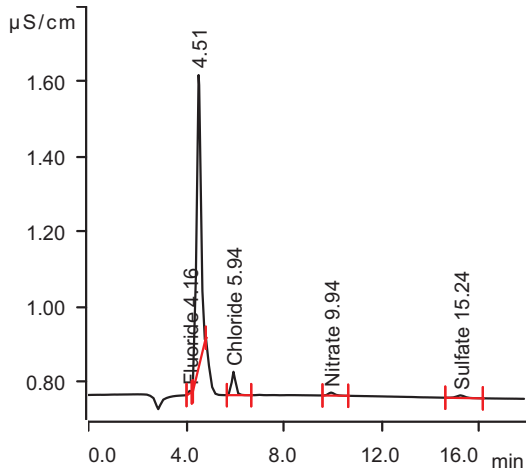


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0040	0.053	0.263
5.94	Chloride	0.0027	0.304	1.520
7.01	Nitrite	0.0005	0.045	0.223
9.91	Nitrate	0.0333	0.216	1.081
15.23	Sulfate	0.0233	0.516	2.580

**Sample data**

Ident. . . . . FC7148-25  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 06:02:31  
 Dilution factor . . . . . 5.00

**Anions**



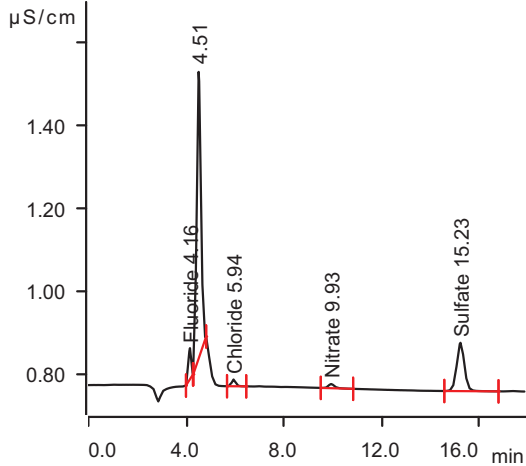
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0007	0.046	0.229
5.94	Chloride	0.0113	0.332	1.658
9.94	Nitrate	0.0023	0.176	0.881
15.24	Sulfate	0.0028	0.426	2.130

11.1  
11

**Sample data**

Ident. . . . . FC7148-26  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 06:23:31  
 Dilution factor . . . . . 5.00

**Anions**

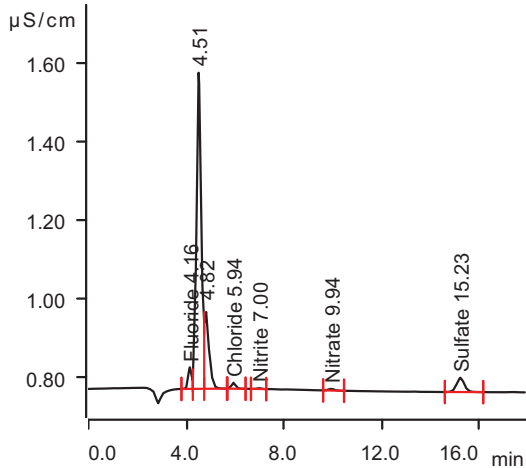


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0101	0.065	0.326
5.94	Chloride	0.0030	0.305	1.525
9.93	Nitrate	0.0030	0.177	0.885
15.23	Sulfate	0.0430	0.603	3.015

**Sample data**

Ident. . . . . FC7175-13  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 06:44:31  
 Dilution factor . . . . . 5.00

**Anions**

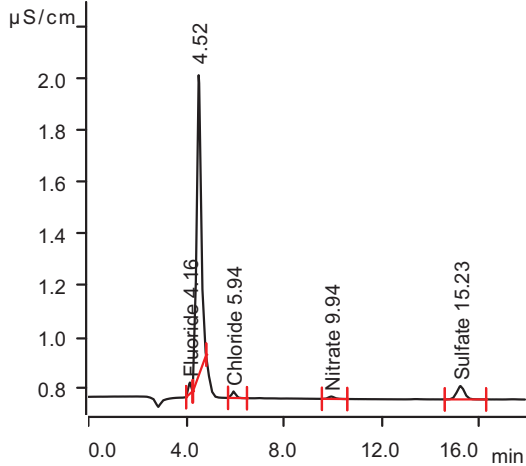


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0088	0.063	0.313
5.94	Chloride	0.0028	0.304	1.522
7.00	Nitrite	0.0004	0.045	0.223
9.94	Nitrate	0.0012	0.175	0.873
15.23	Sulfate	0.0136	0.474	2.368

**Sample data**

Ident. . . . . FC7175-16  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 07:05:31  
 Dilution factor . . . . . 5.00

**Anions**

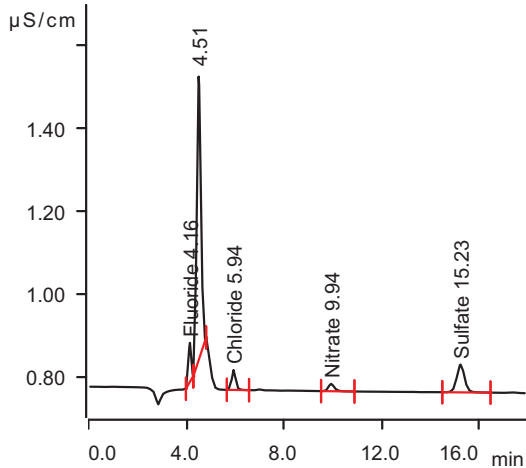


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0055	0.056	0.278
5.94	Chloride	0.0046	0.310	1.551
9.94	Nitrate	0.0027	0.177	0.883
15.23	Sulfate	0.0192	0.498	2.491

**Sample data**

Ident. . . . . FC7175-17  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 07:26:30  
 Dilution factor . . . . . 5.00

**Anions**

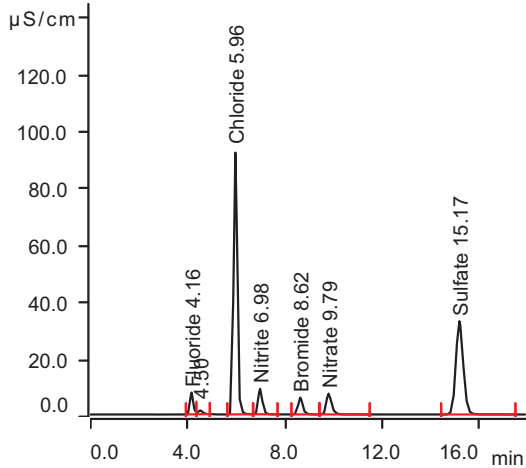


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0127	0.071	0.354
5.94	Chloride	0.0088	0.323	1.617
9.94	Nitrate	0.0051	0.180	0.898
15.23	Sulfate	0.0251	0.524	2.622

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 07:47:30  
 Dilution factor . . . . . 1.00

**Anions**

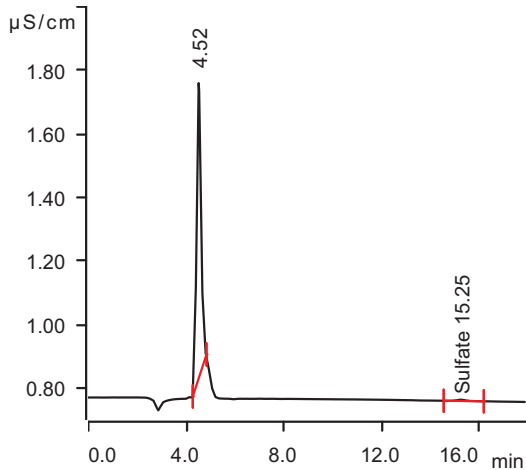


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.1956	2.541	2.541
5.96	Chloride	15.9378	50.857	50.857
6.98	Nitrite	1.7714	2.623	2.623
8.62	Bromide	1.3041	10.149	10.149
9.79	Nitrate	1.8384	2.554	2.554
15.17	Sulfate	11.6737	51.687	51.687

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 08:08:35  
 Dilution factor . . . . . 1.00

**Anions**

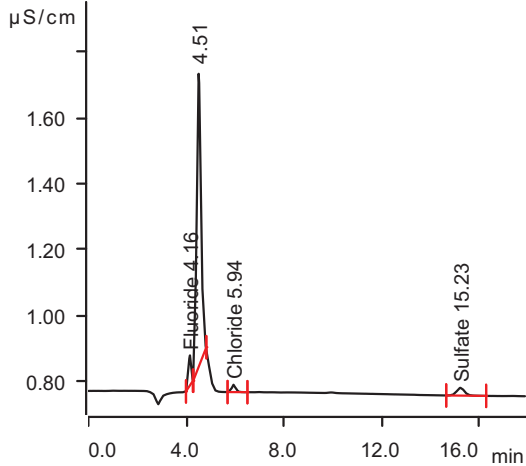


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.25	Sulfate	0.0018	0.422	0.422

**Sample data**

Ident. . . . . FC7175-18  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 08:29:35  
 Dilution factor . . . . . 5.00

**Anions**

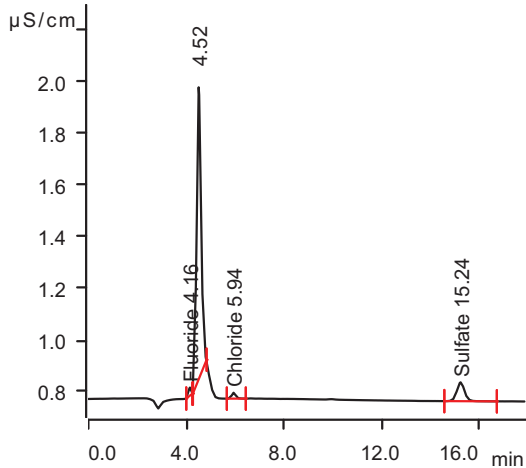


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0120	0.069	0.347
5.94	Chloride	0.0040	0.308	1.542
15.23	Sulfate	0.0090	0.453	2.267

**Sample data**

Ident. . . . . FC7175-19  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 08:50:38  
 Dilution factor . . . . . 5.00

**Anions**



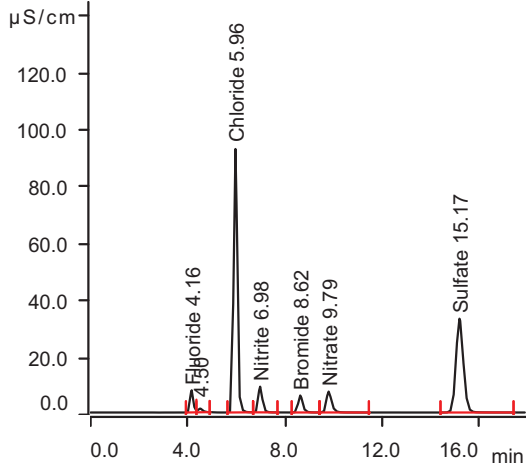
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0038	0.052	0.261
5.94	Chloride	0.0042	0.309	1.544
15.24	Sulfate	0.0271	0.533	2.664

11.1  
11

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 09:11:37  
 Dilution factor . . . . . 1.00

**Anions**

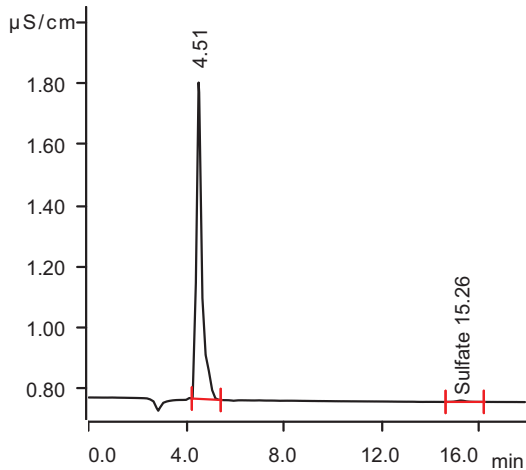


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.2040	2.558	2.558
5.96	Chloride	15.9519	50.901	50.901
6.98	Nitrite	1.7723	2.625	2.625
8.62	Bromide	1.3045	10.152	10.152
9.79	Nitrate	1.8394	2.556	2.556
15.17	Sulfate	11.7184	51.884	51.884

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 09:37:25  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.26	Sulfate	0.0019	0.422	0.422

TOC Analysis Logbook, Aqueous

Date: 7/10/2023  
 Analyst: F. N.  
 Instrument: TOC3  
 Instr. File name: c230710w2.txt  
 Filter Lot#: -

Methods: SM5310B SW8469060A  
 Method File: NPOC - met.  
 Cal. File: 7/7/2023  
 GN Batch: GN94706

pH paper Lot#: 230320  
 Pipette ID#: UUD9872  
 Pipette ID#: UJU07485  
 Pipette ID#: -

ICAL: List in comments  
 ICV: TOC4176  
 CCV: TOC4177  
 QC: WC2093

Autosampler Position	Sample ID	Bottle#	pH, sU	Injected Volume, ml	Manual Dilution	Instrument Dilution	GP Batch	Comments
1	BLANK	-	-	50 ul	1	1	-	
2	500	-	1.0'	50 ul	1	1	-	
3	CCV	-	1.5	50 ul	1	1	-	} TOC 4178
4	GP38942-MB1	-	-	50 ul	1	1	GP38942	
5	GP38942-B1	-	1.5	50 ul	1	1	GP38942	
6	FC7377-4	1	1.0*	50 ul	1	1	GP38942	
7	FC7377-5	1	1.0*	50 ul	1	1	GP38942	
8	FC7381-1	1	1.5	50 ul	1	1	GP38942	
9	GP38942-S1	2	1.5	50 ul	1	1	GP38942	
9	GP38942-S2	2	1.5	50 ul	1	1	GP38942	
10	FC7381-2	2	1.5	50 ul	1	1	GP38942	
11	FC7381-4	1	1.5	50 ul	1	1	GP38942	
12	FC7381-5	1	1.5	50 ul	1	1	GP38942	
13	CCV	-	1.5	50 ul	1	1	-	(* ) => Initial PH>= 2 , added drops
14	CCB	-	-	50 ul	1	1	-	conc. HCL to acidify.
15	FC7381-6	1	1.5	50 ul	1	1	GP38942	HCL lot # : 23040119
16	FC7417-1	1	1.0*	50 ul	1	1	GP38942	
17	FC7417-2	1	1.0*	50 ul	1	1	GP38942	
18	FC7417-3	1	1.0*	50 ul	1	1	GP38942	
19	FC7417-4	1	1.0*	50 ul	1	1	GP38942	
20	FC7472-1	1	1.5	50 ul	1	1	GP38942	
21	FC7472-2	1	1.5	50 ul	1	1	GP38942	
22	FC7507-1 (x)	1	1.0*	50 ul	50	1	GP38942	} DNR! Sample needs higher dilution
23	FC7510-7 (x)	1	1.0*	50 ul	100	1	GP38942	(x) => initial dilutions based on samples
24	CCV	-	1.5	50 ul	1	1	-	dark color, turbidity and viscosity
25	CCB	-	-	50 ul	1	1	-	
26	FC7513-1	1	1.0*	50 ul	1	1	GP38942	
27	GP38942-S3	2	1.0*	50 ul	1	1	GP38942	
27	GP38942-S4	2	1.0*	50 ul	1	1	GP38942	
28	FC7513-2	1	1.0*	50 ul	1	1	GP38942	
29	FC7513-3	1	1.0*	50 ul	1	1	GP38942	
30	FC7613-1	4	1.5	50 ul	1	1	GP38942	} DNR! Sample was mislabeled
31	FC7614-1	1	1.5	50 ul	1	1	GP38942	} DNR! Sample was mislabeled
32	CCV	-	1.5	50 ul	1	1	-	

SGS - Orlando



TOC Analysis Logbook, Aqueous

Date: 7/10/2023  
 Analyst: F. N.  
 Instrument: TOC3  
 Instr. File name: c230710w2.txt  
 Filter Lot#: -

Methods: SM5310B SW8469060A  
 Method File: NPOC - met.  
 Cal. File: 7/7/2023  
 GN Batch: GN94706

pH paper Lot#: 230320  
 Pipette ID#: UU09872  
 Pipette ID#: UU07485  
 Pipette ID#: -

ICAL: List in comments  
 ICV: TOC 4176  
 CCV: TOC 4177  
 QC: WC 2093

Autosampler Position	Sample ID	Bottle#	pH, sU	Injected Volume, ml	Manual Dilution	Instrument Dilution	GP Batch	Comments
33	CCB	1	-	50 ul	1	1	-	
3	CCV	1	1.5	50 ul	1	1	-	
4	MB1	1	-	50 ul	1	1	-	} MB1 = CCB in report
5	B1	-	1.5	50 ul	1	1	-	} DNR! For confirmation only
34	FC7507-1	1	1.0'	50 ul	100	1	GP38942	
35	FC7513-1	1	1.0'	50 ul	10	1	GP38942	
36	GP38942-S3	2	1.0'	50 ul	10	1	GP38942	
36	GP38942-S4	2	1.0'	50 ul	10	1	GP38942	
37	FC7513-3	1	1.0'	50 ul	2	1	GP38942	
32	CCV	-	1.5	50 ul	1	1	-	
33	CCB	-	-	50 ul	1	1	-	

	Type	Analysis	Sample Name	Origin	Manual Dilutio	Result	Comment	Status	Date / Time	Vial
1	Unknown	NPOC	BLANK	NPOC.met	1.000	NPOC:0.00338mg/L	SM310B SW846 9060A	Completed	7/10/2023 6:57:42 PM	1
2	Unknown	NPOC	500	NPOC.met	1.000	NPOC:499.5mg/L	SM310B SW846 9060A	Completed	7/10/2023 7:32:23 PM	2
3	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.16mg/L	SM310B SW846 9060A	Completed	7/10/2023 7:54:03 PM	3
4	Unknown	NPOC	GP38942-MB1	NPOC.met	1.000	NPOC:0.00943mg/L	SM310B SW846 9060A	Completed	7/10/2023 8:14:25 PM	4
5	Unknown	NPOC	GP38942-B1	NPOC.met	1.000	NPOC:14.90mg/L	SM310B SW846 9060A	Completed	7/10/2023 8:35:36 PM	5
6	Unknown	NPOC	FC7377-4	NPOC.met	1.000	NPOC:21.96mg/L	SM310B SW846 9060A	Completed	7/10/2023 8:56:34 PM	6
7	Unknown	NPOC	FC7377-5	NPOC.met	1.000	NPOC:23.24mg/L	SM310B SW846 9060A	Completed	7/10/2023 9:17:26 PM	7
8	Unknown	NPOC	FC7381-1	NPOC.met	1.000	NPOC:1.466mg/L	SM310B SW846 9060A	Completed	7/10/2023 9:38:37 PM	8
9	Unknown	NPOC	GP38942-S1	NPOC.met	1.000	NPOC:16.89mg/L	SM310B SW846 9060A	Completed	7/10/2023 10:00:00 PM	9
10	Unknown	NPOC	GP38942-S2	NPOC.met	1.000	NPOC:16.68mg/L	SM310B SW846 9060A	Completed	7/10/2023 10:20:34 PM	9
11	Unknown	NPOC	FC7381-2	NPOC.met	1.000	NPOC:1.185mg/L	SM310B SW846 9060A	Completed	7/10/2023 10:41:19 PM	10
12	Unknown	NPOC	FC7381-4	NPOC.met	1.000	NPOC:5.742mg/L	SM310B SW846 9060A	Completed	7/10/2023 11:04:31 PM	11
13	Unknown	NPOC	FC7381-5	NPOC.met	1.000	NPOC:4.831mg/L	SM310B SW846 9060A	Completed	7/10/2023 11:27:01 PM	12
14	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.19mg/L	SM310B SW846 9060A	Completed	7/10/2023 11:51:13 PM	13
15	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:0.09951mg/L	SM310B SW846 9060A	Completed	7/11/2023 12:11:28 AM	14
16	Unknown	NPOC	FC7381-6	NPOC.met	1.000	NPOC:25.53mg/L	SM310B SW846 9060A	Completed	7/11/2023 12:32:42 AM	15
17	Unknown	NPOC	FC7417-1	NPOC.met	1.000	NPOC:3.814mg/L	SM310B SW846 9060A	Completed	7/11/2023 12:54:52 AM	16
18	Unknown	NPOC	FC7417-2	NPOC.met	1.000	NPOC:6.487mg/L	SM310B SW846 9060A	Completed	7/11/2023 1:17:45 AM	17
19	Unknown	NPOC	FC7417-3	NPOC.met	1.000	NPOC:2.057mg/L	SM310B SW846 9060A	Completed	7/11/2023 1:39:15 AM	18
20	Unknown	NPOC	FC7417-4	NPOC.met	1.000	NPOC:1.719mg/L	SM310B SW846 9060A	Completed	7/11/2023 2:00:26 AM	19
21	Unknown	NPOC	FC7472-1	NPOC.met	1.000	NPOC:2.355mg/L	SM310B SW846 9060A	Completed	7/11/2023 2:21:33 AM	20
22	Unknown	NPOC	FC7472-2	NPOC.met	1.000	NPOC:4.839mg/L	SM310B SW846 9060A	Completed	7/11/2023 2:40:52 AM	21
23	Unknown	NPOC	FC7507-1	NPOC.met	50.00	NPOC:2739mg/L	SM310B SW846 9060A	Completed	7/11/2023 3:11:09 AM	22
24	Unknown	NPOC	FC7510-7	NPOC.met	100.0	NPOC:1326mg/L	SM310B SW846 9060A	Completed	7/11/2023 3:32:37 AM	23
25	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.13mg/L	SM310B SW846 9060A	Completed	7/11/2023 3:53:54 AM	24
26	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:0.02973mg/L	SM310B SW846 9060A	Completed	7/11/2023 4:14:15 AM	25
27	Unknown	NPOC	FC7513-1	NPOC.met	1.000	NPOC:279.3mg/L	SM310B SW846 9060A	Completed	7/11/2023 4:47:06 AM	26
28	Unknown	NPOC	GP38942-S3	NPOC.met	1.000	NPOC:290.4mg/L	SM310B SW846 9060A	Completed	7/11/2023 5:20:14 AM	27
29	Unknown	NPOC	GP38942-S4	NPOC.met	1.000	NPOC:285.6mg/L	SM310B SW846 9060A	Completed	7/11/2023 5:51:51 AM	27
30	Unknown	NPOC	FC7513-2	NPOC.met	1.000	NPOC:13.36mg/L	SM310B SW846 9060A	Completed	7/11/2023 6:12:04 AM	28
31	Unknown	NPOC	FC7513-3	NPOC.met	1.000	NPOC:40.64mg/L	SM310B SW846 9060A	Completed	7/11/2023 6:43:58 AM	29
32	Unknown	NPOC	FC7614-1	NPOC.met	1.000	NPOC:0.8722mg/L	SM310B SW846 9060A	Completed	7/11/2023 7:05:28 AM	30
33	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:0.8306mg/L	SM310B SW846 9060A	Completed	7/11/2023 7:25:56 AM	31
34	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:15.16mg/L	SM310B SW846 9060A	Completed	7/11/2023 7:47:25 AM	32
35	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:0.05684mg/L	SM310B SW846 9060A	Completed	7/11/2023 8:05:35 AM	33
36	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:14.90mg/L	SM310B SW846 9060A	Completed	7/12/2023 9:07:41 AM	3
37	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:0.1005mg/L	SM310B SW846 9060A	Completed	7/12/2023 9:41:55 AM	4
38	Unknown	NPOC	BT	NPOC.met	1.000	NPOC:14.95mg/L	SM310B SW846 9060A	Completed	7/12/2023 10:03:10 AM	5
39	Unknown	NPOC	FC7507-1	NPOC.met	100.0	NPOC:2763mg/L	SM310B SW846 9060A	Completed	7/12/2023 10:23:54 AM	34
40	Unknown	NPOC	FC7513-1	NPOC.met	10.00	NPOC:272.9mg/L	SM310B SW846 9060A	Completed	7/12/2023 10:44:17 AM	35

11.2 11



	Type	Analysis	Sample Name	Origin	Manual Dilutio	Result	Comment	Status	Date / Time	Vial
41	Unknown	NPOC	GF38942-S3	NPOC.met	10.00	NPOC:281.6mg/L	SM310B SW846 9060A	Completed	7/12/2023 11:04:36 AM	36
42	Unknown	NPOC	GF38942-S4	NPOC.met	10.00	NPOC:280.9mg/L	SM310B SW846 9060A	Completed	7/12/2023 11:23:54 AM	36
43	Unknown	NPOC	FC7513-3	NPOC.met	2.000	NPOC:50.31mg/L	SM310B SW846 9060A	Completed	7/12/2023 11:47:56 AM	37
44	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.18mg/L	SM310B SW846 9060A	Completed	7/12/2023 12:09:18 PM	32
45	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:-0.08798mg/L	SM310B SW846 9060A	Completed	7/12/2023 12:27:28 PM	33

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

**Instr. Information**

Instrument Options  
Catalyst

TOC/ASI/IC Unit/  
Regular Sensitivity

**Sample**

Sample Name: BLANK  
Sample ID: Unfiled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

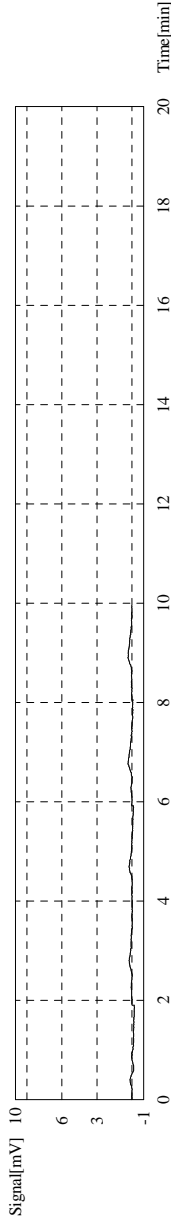
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00338mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2768	-0.1058mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 6:48:38 PM
2	0.7174	0.01919mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 6:50:47 PM
3	0.7792	0.03672mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 6:53:07 PM
4	1.324	0.1913mg/L	50ul	1.000	E	toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 6:55:33 PM
5	0.8733	0.06342mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 6:57:42 PM

Mean Area 0.6617  
Mean Conc. 0.00338mg/L



**Sample**

# TOC-Control L Report

toc3\_aq\_07-10-2023.tlx

Sample Name: 500  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

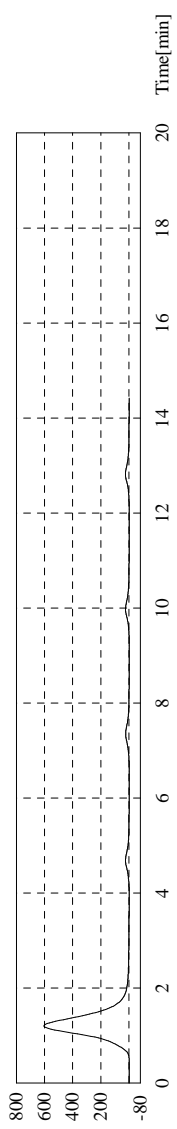
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:499.5mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1859	527.3mg/L	50ul	1.000	R	loc: 3 aq cal-curve 07-07-2023,2023.07.07_19_47_55.cal	7/10/2023 7:11:01 PM
2	78.83	499.9mg/L	40ul	18.00		loc: 3 aq cal-curve 07-07-2023,2023.07.07_19_47_55.cal	7/10/2023 7:23:23 PM
3	77.63	492.3mg/L	40ul	18.00		loc: 3 aq cal-curve 07-07-2023,2023.07.07_19_47_55.cal	7/10/2023 7:26:16 PM
4	78.72	499.2mg/L	40ul	18.00		loc: 3 aq cal-curve 07-07-2023,2023.07.07_19_47_55.cal	7/10/2023 7:29:21 PM
5	79.87	506.6mg/L	40ul	18.00		loc: 3 aq cal-curve 07-07-2023,2023.07.07_19_47_55.cal	7/10/2023 7:32:23 PM

Mean Area 78.76  
 Mean Conc. 499.5mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.16mg/L

1. Det

7/12/2023 5:35:37 PM

2.35

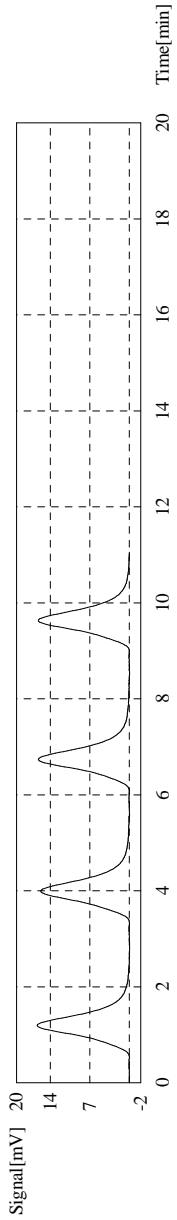
# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.11	15.17mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 7:45:05 PM
2	55.92	15.11mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 7:48:04 PM
3	54.28	15.22mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 7:51:15 PM
4	53.95	15.12mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 7:54:03 PM

Mean Area 54.06  
Mean Conc. 15.16mg/L



**Sample**

Sample Name: GP389-42-MBI  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.00943mg/L

1. Det

Anal.: NPOC

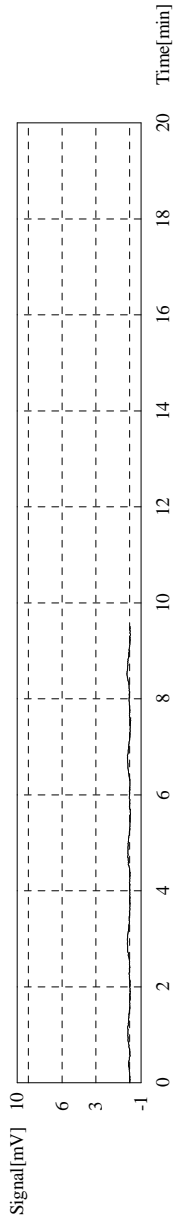
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6440	-0.00164mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 8:05:50 PM
2	0.8873	0.06740mg/L	50ul	1.000	E	toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 8:07:58 PM
3	0.6977	0.01360mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 8:10:06 PM
4	0.7522	0.02906mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 8:12:16 PM
5	0.6381	-0.00331mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 8:14:25 PM

# TOC-Control L Report

toc 3 aq 07-10-2023.tif

Mean Area  
Mean Conc.

0.6830  
0.00943mg/L



**Sample**

Sample Name: GP38942-B1  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.90mg/L

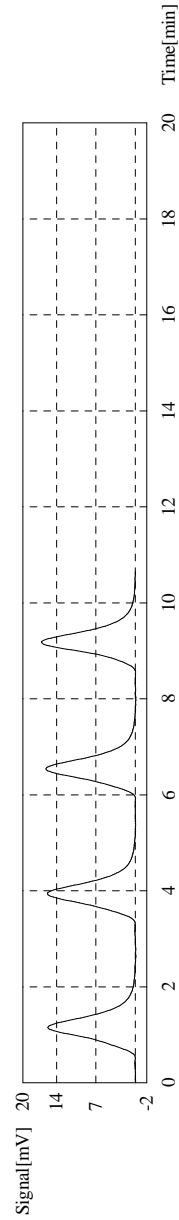
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.76	14.79mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 8:27:01 PM
2	53.26	14.93mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 8:29:51 PM
3	52.99	14.85mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 8:32:44 PM
4	53.70	15.05mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 8:35:36 PM

Mean Area  
Mean Conc.

53.18  
14.90mg/L



# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

**Sample**

Sample Name: FC7377-4  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

FC7377-4  
 Unfiled  
 NPOC.met  
 Completed

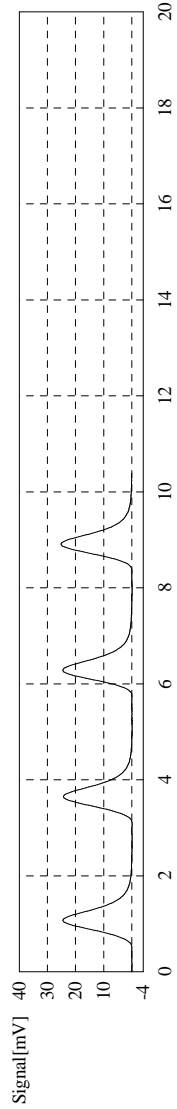
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.96mg/L

1. Det

**Anal.: NPOC**

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	78.17	21.99mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07_19_47_55.cal	7/10/2023 8:48:05 PM
2	77.25	21.73mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07_19_47_55.cal	7/10/2023 8:50:57 PM
3	77.72	21.87mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07_19_47_55.cal	7/10/2023 8:53:49 PM
4	79.08	22.25mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07_19_47_55.cal	7/10/2023 8:56:34 PM

Mean Area 78.06  
 Mean Conc. 21.96mg/L



**Sample**

Sample Name: FC7377-5  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

FC7377-5  
 Unfiled  
 NPOC.met  
 Completed

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.24mg/L

1. Det

5/35

7/12/2023 5:35:37 PM



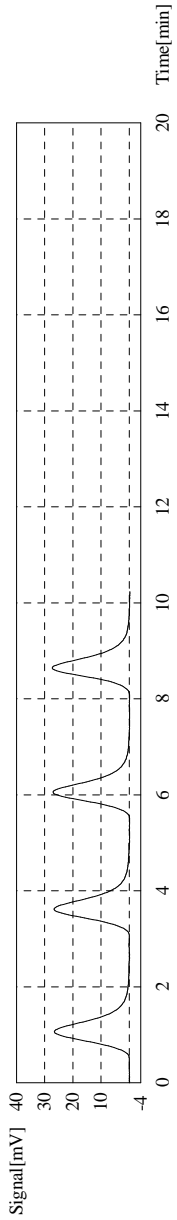
# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.48	23.50mg/L	50uL	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:09:00 PM
2	82.10	23.11mg/L	50uL	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:11:41 PM
3	82.13	23.12mg/L	50uL	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:14:31 PM
4	82.54	23.23mg/L	50uL	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:17:26 PM

Mean Area 82.56  
Mean Conc. 23.24mg/L



**Sample**

Sample Name: FC7381-1  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.466mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.688	2.281mg/L	50uL	1.000	E	loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:29:27 PM
2	6.471	1.652mg/L	50uL	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:31:52 PM
3	5.681	1.428mg/L	50uL	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:34:05 PM
4	5.513	1.380mg/L	50uL	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:36:18 PM
5	5.599	1.404mg/L	50uL	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:38:37 PM

6/35

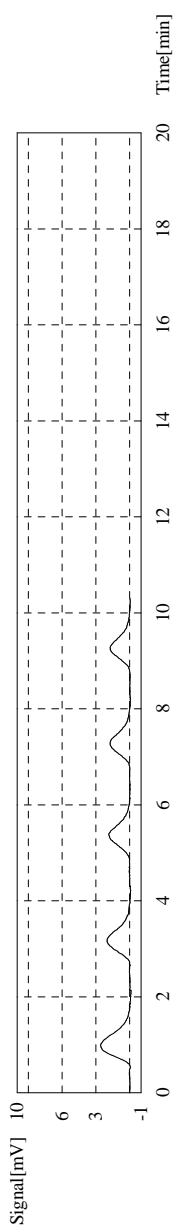
7/12/2023 5:35:37 PM

# TOC-Control L Report

toc 3 aq 07-10-2023.tif

Mean Area  
Mean Conc.

5.816  
1.466mg/L



**Sample**

Sample Name: GP38942-S1  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.89mg/L

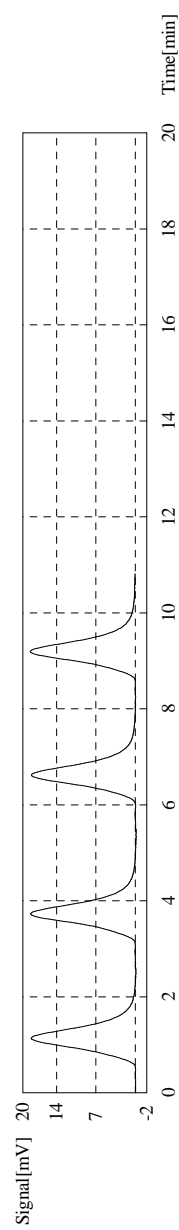
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	60.93	17.10mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:51:00 PM
2	59.90	16.81mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:54:09 PM
3	59.57	16.72mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 9:57:01 PM
4	60.25	16.91mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/10/2023 10:00:00 PM

Mean Area  
Mean Conc.

60.16  
16.89mg/L



# TOC-Control L Report

toc\_3\_aq\_07-10-2023.tlx

**Sample**

Sample Name: GP389-42-S2  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.68mg/L

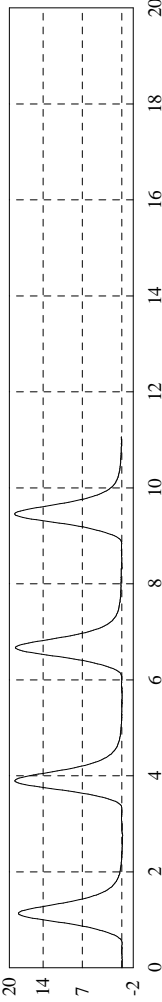
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	59.26	16.63mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/10/2023 10:11:35 PM
2	59.48	16.69mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/10/2023 10:14:34 PM
3	59.15	16.60mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/10/2023 10:17:34 PM
4	59.85	16.80mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/10/2023 10:20:34 PM

Mean Area 59.44  
 Mean Conc. 16.68mg/L

Signal[mV] 20



**Sample**

Sample Name: FC7381-2  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.185mg/L

1. Det

8/35

7/12/2023 5:35:37 PM

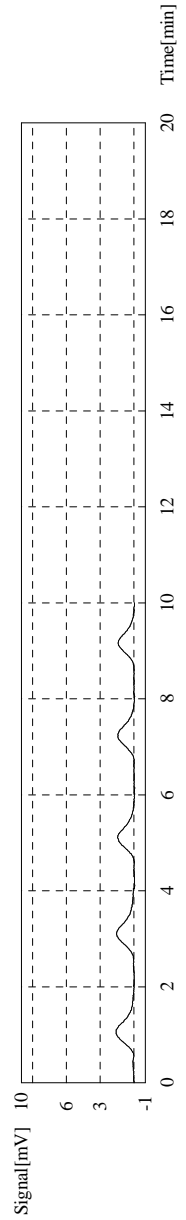
# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.989	1.231mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 10:32:28 PM
2	4.920	1.212mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 10:34:42 PM
3	4.755	1.165mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 10:37:03 PM
4	4.635	1.131mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 10:39:12 PM
5	4.315	1.040mg/L	50ul	1.000	E	roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 10:41:19 PM

Mean Area 4.825  
Mean Conc. 1.185mg/L



**Sample**

Sample Name: FC7381-4  
Sample ID: Uninitiated  
Origin: NPOC.met  
Status: Completed  
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.742mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.68	5.967mg/L	50ul	1.000	E	roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 10:53:25 PM
2	20.83	5.726mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 10:55:59 PM
3	20.84	5.729mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 10:58:41 PM
4	20.84	5.729mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 11:01:21 PM
5	21.04	5.785mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55,cal	7/10/2023 11:04:31 PM

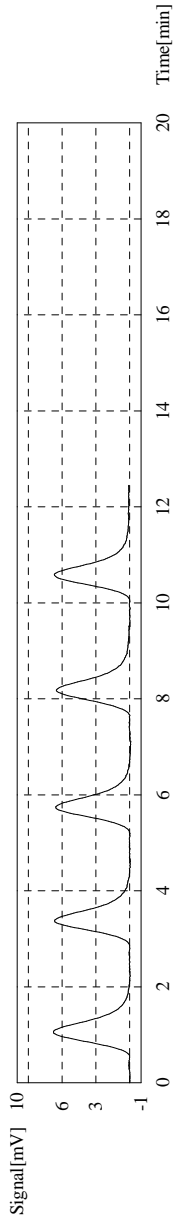
9/35

7/12/2023 5:35:37 PM

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Mean Area  
20.89  
Mean Conc.  
5.742mg/L



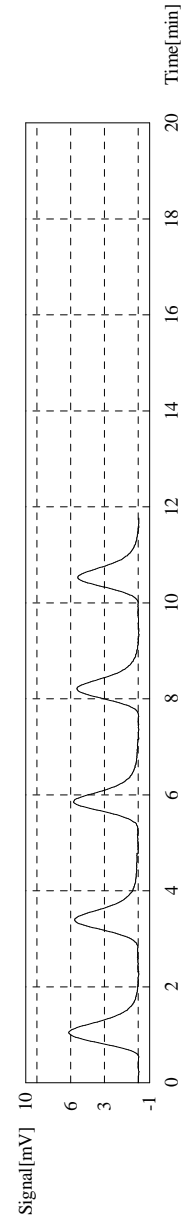
**Sample**  
Sample Name: FC7381-5  
Sample ID: Unlited  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.831mg/L

1. Det  
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.02	5.496mg/L	50ul	1.000	E	loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/10/2023 11:16:37 PM
2	18.09	4.948mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/10/2023 11:19:18 PM
3	17.94	4.906mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/10/2023 11:21:55 PM
4	17.49	4.778mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/10/2023 11:24:28 PM
5	17.19	4.693mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/10/2023 11:27:01 PM

Mean Area  
17.68  
Mean Conc.  
4.831mg/L



7/12/2023 5:35:37 PM

1035

# TOC-Control L Report

toc\_3\_aq\_07-10-2023.tlx

**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

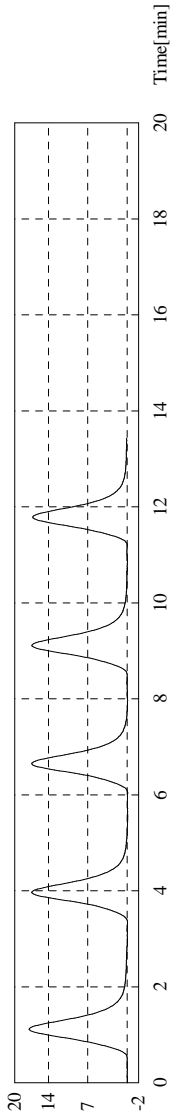
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.69	15.90mg/L	50ul	1.000	E	loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/10/2023 11:39:39 PM
2	54.51	15.28mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/10/2023 11:42:35 PM
3	55.72	15.06mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/10/2023 11:45:17 PM
4	54.51	15.28mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/10/2023 11:48:12 PM
5	54.02	15.14mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/10/2023 11:51:13 PM

Mean Area 54.19  
 Mean Conc. 15.19mg/L



**Sample**

Sample Name: CCB  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

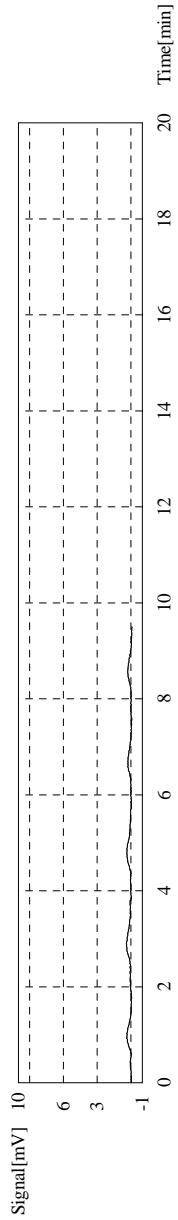
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09951mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.385	0.2086mg/L	50ul	1.000	E	toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 12:02:55 AM
2	1.204	0.1573mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 12:05:03 AM
3	1.018	0.1045mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 12:07:12 AM
4	0.8246	0.04961mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 12:09:20 AM
5	0.9553	0.08669mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 12:11:28 AM

Mean Area 1.000  
Mean Conc. 0.09951mg/L



**Sample**

Sample Name: FC7381-6  
 Sample ID: Unfilled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.53mg/L

1. Det

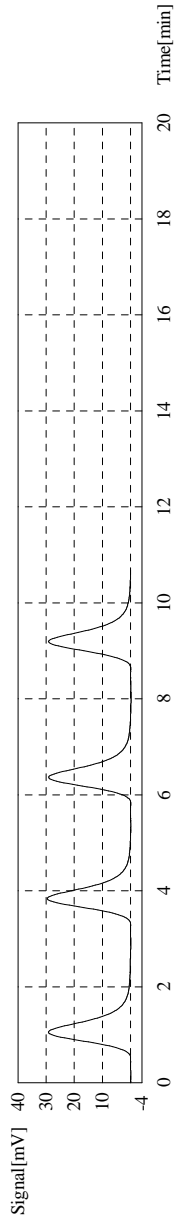
Anal.: NPOC

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	90.57	25.51mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 12:24:03 AM
2	90.52	25.50mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 12:26:51 AM
3	90.51	25.50mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 12:29:54 AM
4	90.88	25.60mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 12:32:42 AM

Mean Area: 90.62  
 Mean Conc.: 25.53mg/L



**Sample**

Sample Name: FC7417-1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.814mg/L

1. Det

Anal.: NPOC

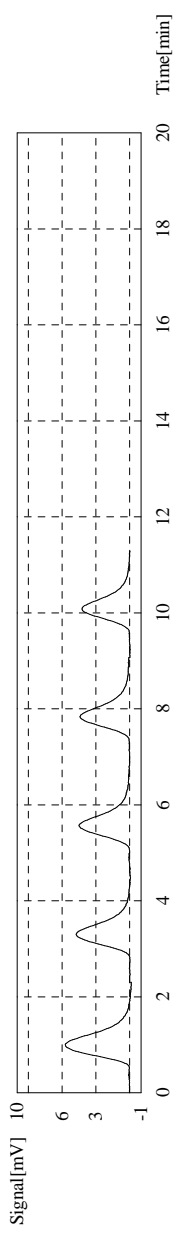
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.03	5.215mg/L	50ul	1.000	E	roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 12:44:52 AM
2	15.27	4.148mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 12:47:22 AM
3	14.23	3.853mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 12:49:54 AM
4	13.66	3.691mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 12:52:24 AM
5	13.21	3.564mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 12:54:52 AM



# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Mean Area  
14.09  
Mean Conc.  
3.814mg/L



**Sample**  
Sample Name: FC7417-2  
Sample ID: Untitled  
Origin: NPOC.net  
Status: Completed  
Chk. Result

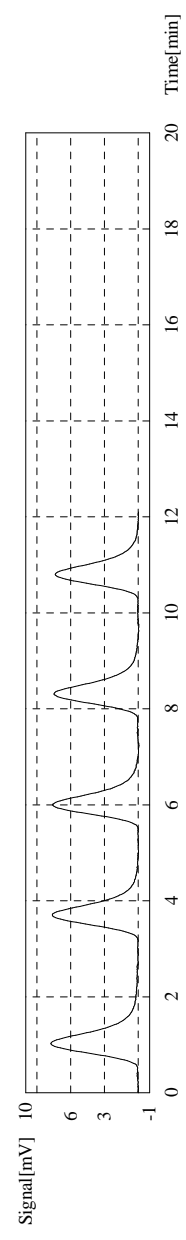
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC-6.487mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.12	6.943mg/L	50ul	1.000	E	loc: 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 1:07:20 AM
2	23.78	6.563mg/L	50ul	1.000		loc: 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 1:09:54 AM
3	23.42	6.461mg/L	50ul	1.000		loc: 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 1:12:26 AM
4	23.93	6.605mg/L	50ul	1.000		loc: 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 1:15:10 AM
5	22.92	6.319mg/L	50ul	1.000		loc: 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 1:17:45 AM

Mean Area  
23.51  
Mean Conc.  
6.487mg/L



# TOC-Control L Report

toc\_3\_aq\_07-10-2023.tlx

**Sample**

Sample Name: FC7417-3  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

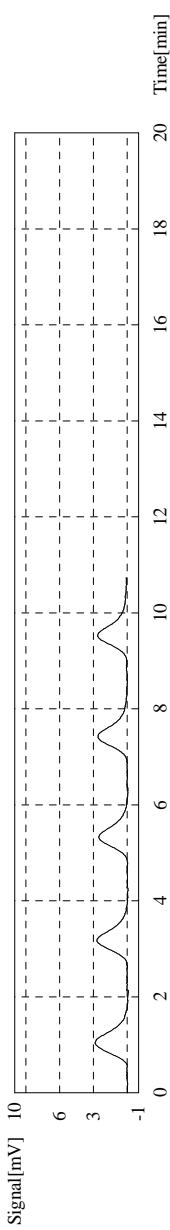
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.057mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.961	2.358mg/L	50ul	1.000	E	loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 1:29:41 AM
2	8.170	2.134mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 1:32:04 AM
3	7.740	2.012mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 1:34:25 AM
4	7.807	2.031mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 1:36:45 AM
5	7.880	2.051mg/L	50ul	1.000		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 1:39:15 AM

Mean Area 7.899  
 Mean Conc. 2.057mg/L



**Sample**

Sample Name: FC7417-4  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

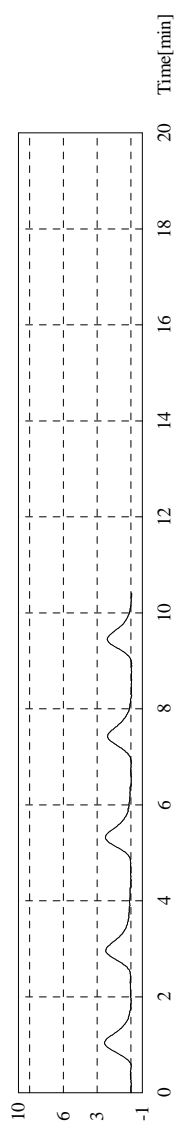
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.719mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.218	1.864mg/L	50ul	1.000	E	toc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 1:50:59 AM
2	6.893	1.771mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 1:53:33 AM
3	6.817	1.750mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 1:55:55 AM
4	6.546	1.673mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 1:58:12 AM
5	6.576	1.681mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:00:26 AM

Mean Area 6.708  
 Mean Conc. 1.719mg/L



**Sample**

Sample Name: FC7472-1  
 Sample ID: Uninitd  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.355mg/L

1. Det

Anal.: NPOC

7/12/2023 5:35:37 PM

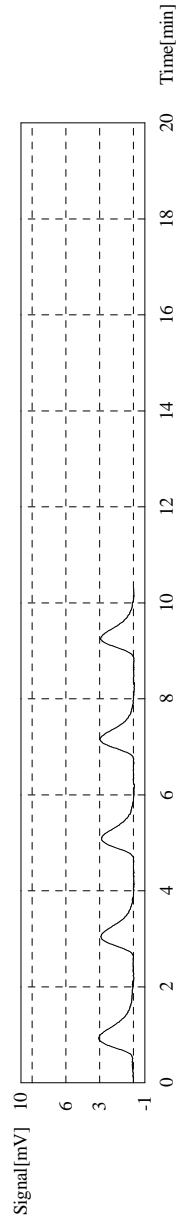
1635

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.760	2.585mg/L	50ul	1.000	E	loc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:12:21 AM
2	9.287	2.451mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:14:39 AM
3	8.808	2.315mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:16:57 AM
4	8.928	2.349mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:19:19 AM
5	8.781	2.307mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:21:33 AM

Mean Area 8.951  
 Mean Conc. 2.355mg/L



**Sample**

Sample Name: FC7472-2  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.839mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.02	4.928mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:33:30 AM
2	17.78	4.860mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:35:58 AM
3	17.38	4.747mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:38:17 AM
4	17.64	4.821mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 2:40:52 AM

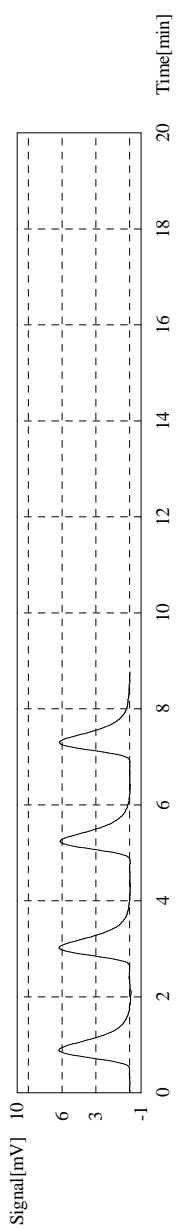
17/35

7/12/2023 5:35:37 PM

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Mean Area  
17.70  
Mean Conc.  
4.839mg/L



**Sample**

Sample Name: FC7507-1  
 Sample ID: Untitled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

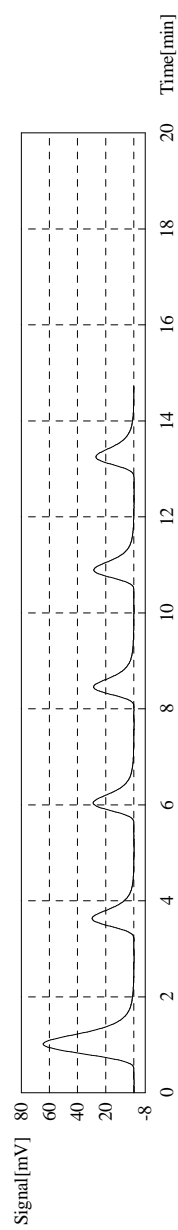
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	50.00	NPOC:27.9mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	206.4	29.19mg/L	50ul	1.000	R	loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 2:53:28 AM
2	81.93	2897mg/L	20ul	1.000	E	loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 2:56:07 AM
3	79.70	2817mg/L	20ul	1.000	E	loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 2:58:47 AM
4	77.61	2743mg/L	20ul	1.000	E	loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 3:01:27 AM
5	76.88	2717mg/L	20ul	1.000	E	loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 3:04:04 AM
6	75.80	2679mg/L	20ul	1.000	E	loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 3:11:09 AM

Mean Area  
77.50  
Mean Conc.  
27.9mg/L



# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

**Sample**

Sample Name: FC7510-7  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

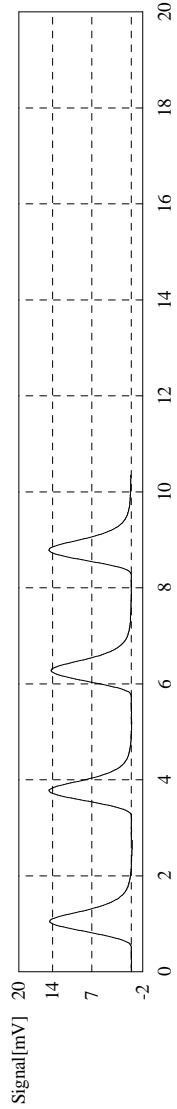
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100%	NPOC:1326mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.31	1324mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023.2023.07.07_19.47_55.cal	7/11/2023 3:24:17 AM
2	46.80	1309mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023.2023.07.07_19.47_55.cal	7/11/2023 3:27:02 AM
3	47.42	1327mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023.2023.07.07_19.47_55.cal	7/11/2023 3:29:48 AM
4	47.94	1342mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023.2023.07.07_19.47_55.cal	7/11/2023 3:32:37 AM

Mean Area 47.37  
 Mean Conc. 1326mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.13mg/L

7/12/2023 5:55:37 PM

19/35

# TOC-Control L Report

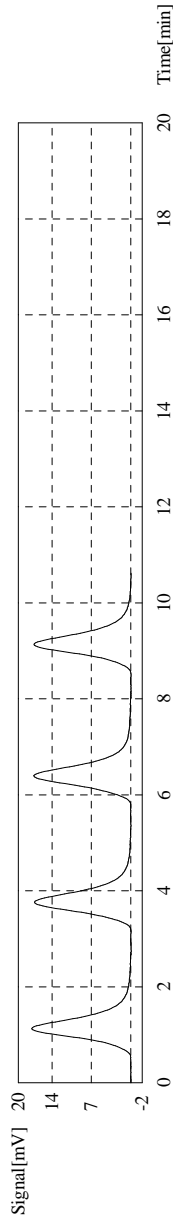
toc 3 aq 07-10-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.69	15.05mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 3:45:10 AM
2	53.82	15.09mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 3:48:02 AM
3	54.57	15.30mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 3:51:03 AM
4	53.89	15.11mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 3:53:54 AM

Mean Area 53.99  
Mean Conc. 15.13mg/L



### Sample

Sample Name: CCB  
Sample ID: Unlited  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.02973mg/L

1. Det

Anal.: NPOC

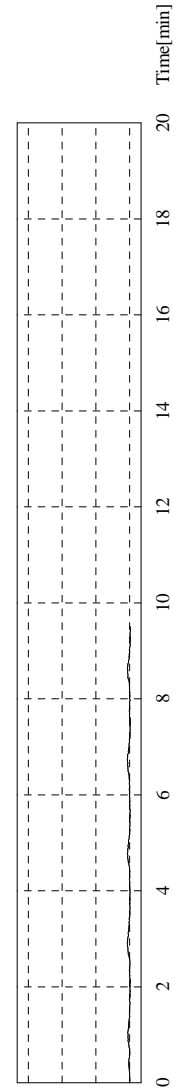
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4171	-0.06601mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 4:05:41 AM
2	0.7716	0.03457mg/L	50ul	1.000	E	loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 4:07:49 AM
3	0.5301	-0.03395mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 4:09:57 AM
4	0.5721	-0.02204mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 4:12:05 AM
5	0.6607	0.00310mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 4:14:15 AM

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Mean Area  
Mean Conc.

0.5450  
-0.02973mg/L



**Sample**

Sample Name: FC7513-1  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:279.3mg/L

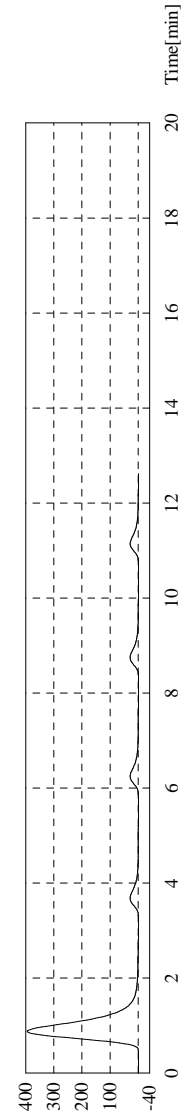
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1038	294.3mg/L	50ul	1.000	R	loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 4:26:51 AM
2	79.48	280.0mg/L	40ul	10.00		loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 4:39:06 AM
3	79.71	280.9mg/L	40ul	10.00		loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 4:41:52 AM
4	79.27	279.3mg/L	40ul	10.00		loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 4:44:31 AM
5	78.66	277.1mg/L	40ul	10.00		loc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/11/2023 4:47:06 AM

Mean Area  
Mean Conc.

79.28  
279.3mg/L





# TOC-Control L Report

toc\_3\_aq\_07-10-2023.tlx

**Sample**

Sample Name: GP38942-S3  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

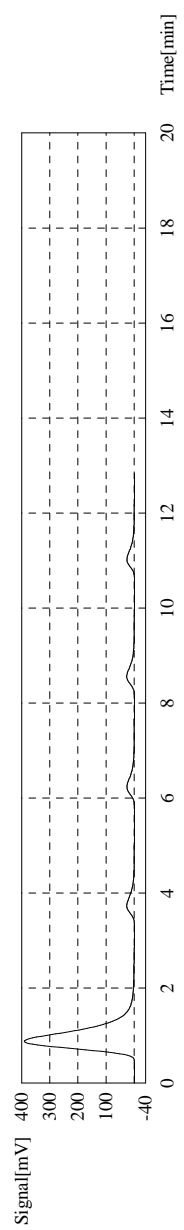
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:290.4mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	107.3	304.3mg/L	50ul	1.000	R	loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 4:59:51 AM
2	76.80	297.6mg/L	40ul	11.00		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 5:12:03 AM
3	74.13	287.2mg/L	40ul	11.00		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 5:14:35 AM
4	74.77	289.7mg/L	40ul	11.00		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 5:17:19 AM
5	74.16	287.3mg/L	40ul	11.00		loc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 5:20:14 AM

Mean Area 74.97  
 Mean Conc. 290.4mg/L



**Sample**

Sample Name: GP38942-S4  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

7/12/2023 5:55:37 PM

2235

# TOC-Control L Report

toc\_3\_aq\_07-10-2023.tlx

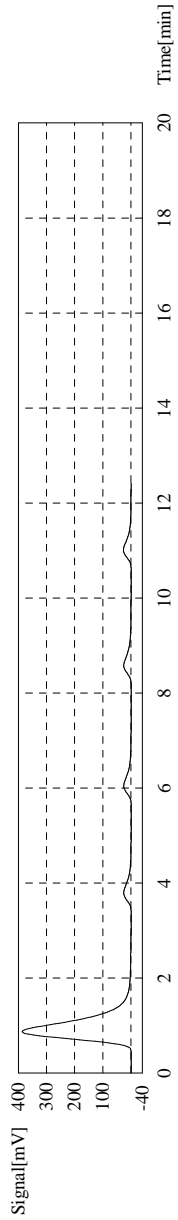
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:285.6mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1070	303.4mg/L	50ul	1.000	R	toc_3_aq_cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 5:31:56 AM
2	73.66	285.3mg/L	40ul	11.00		toc_3_aq_cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 5:43:53 AM
3	72.76	281.8mg/L	40ul	11.00		toc_3_aq_cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 5:46:40 AM
4	74.59	289.0mg/L	40ul	11.00		toc_3_aq_cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 5:49:18 AM
5	73.92	286.4mg/L	40ul	11.00		toc_3_aq_cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 5:51:31 AM

Mean Area 73.73  
 Mean Conc. 285.6mg/L



**Sample**

Sample Name: FC7513-2  
 Sample ID: Unfilled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.36mg/L

1. Det

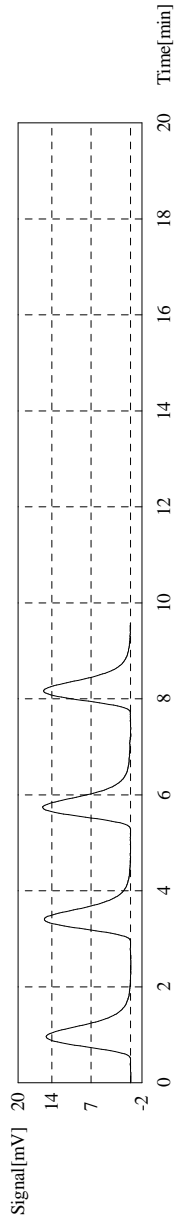
Anal.: NPOC

# TOC-Control L Report

toc\_3\_aq\_07-10-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	48.03	13.44mg/L	50uL	1.000		roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:04:11 AM
2	47.40	13.26mg/L	50uL	1.000		roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:06:45 AM
3	47.80	13.38mg/L	50uL	1.000		roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:09:27 AM
4	47.68	13.34mg/L	50uL	1.000		roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:12:04 AM

Mean Area  
Mean Conc. 47.73  
13.36mg/L



**Sample**

Sample Name: FC7513-3  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:40.64mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	145.9	41.21mg/L	50uL	1.000	R	roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:25:18 AM
2	84.65	11.23mg/L	29uL	1.000		roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:28:05 AM
3	82.16	40.01mg/L	29uL	1.000		roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:31:04 AM
4	82.52	40.18mg/L	29uL	1.000		roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:34:06 AM
5	80.49	39.19mg/L	29uL	1.000	E	roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:36:48 AM
6	84.46	41.13mg/L	29uL	1.000		roc_3_aq_cal-curve_07-07-2023,2023,07_07_19_47_55.cal	7/11/2023 6:43:58 AM

7/12/2023 5:55:37 PM

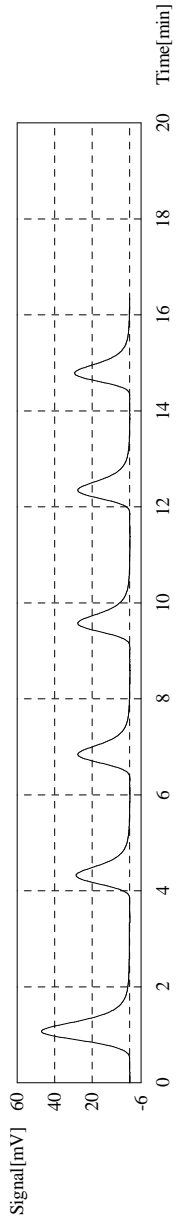
24/35

# TOC-Control L Report

toc 3 aq 07-10-2023.tif

Mean Area  
Mean Conc.

83.45  
40.64mg/L



**Sample**

Sample Name: FC7613-1  
 Sample ID: Untitled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8722mg/L

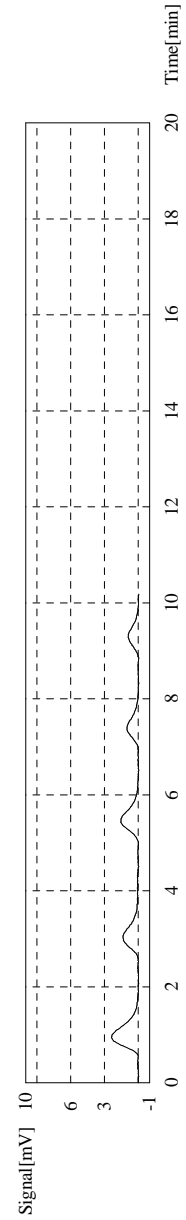
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Date / Time
1	7.090	1.827mg/L	50ul	1.000	E	7/11/2023 6:56:25 AM
2	4.586	1.117mg/L	50ul	1.000		7/11/2023 6:59:02 AM
3	4.757	1.165mg/L	50ul	1.000		7/11/2023 7:01:14 AM
4	2.931	0.6473mg/L	50ul	1.000		7/11/2023 7:08:21 AM
5	2.622	0.596mg/L	50ul	1.000		7/11/2023 7:06:28 AM

Mean Area  
Mean Conc.

3.724  
0.8722mg/L



# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

**Sample**

Sample Name: FC7614-1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

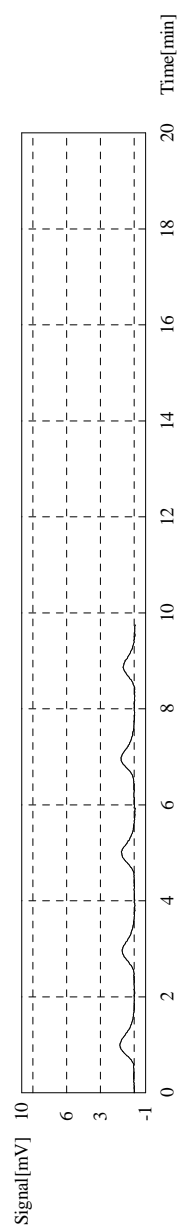
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8306mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.692	0.8632mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 7:17:12 AM
2	3.606	0.8388mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 7:19:27 AM
3	3.443	0.7925mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 7:21:39 AM
4	3.568	0.8280mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 7:23:49 AM
5	2.927	0.6461mg/L	50ul	1.000	E	loc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/11/2023 7:25:56 AM

Mean Area 3.577  
 Mean Conc. 0.8306mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

7/12/2023 5:55:37 PM

2635

# TOC-Control L Report

toc.3.aq.07-10-2023.tlx

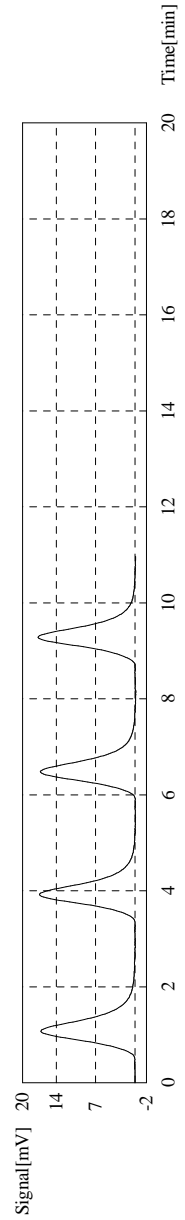
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.16mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.79	15.36mg/L	50ul	1.000		toc.3.aq.cal.curve.07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 7:38:34 AM
2	53.57	15.01mg/L	50ul	1.000		toc.3.aq.cal.curve.07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 7:41:22 AM
3	53.89	15.11mg/L	50ul	1.000		toc.3.aq.cal.curve.07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 7:44:22 AM
4	54.06	15.15mg/L	50ul	1.000		toc.3.aq.cal.curve.07-07-2023.2023.07.07_19.47.55.cal	7/11/2023 7:47:25 AM

Mean Area 54.08  
Mean Conc. 15.16mg/L



**Sample**

Sample Name: CCB  
Sample ID: Uninitd  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05684mg/L

1. Det

Anal.: NPOC

7/12/2023 5:55:37 PM

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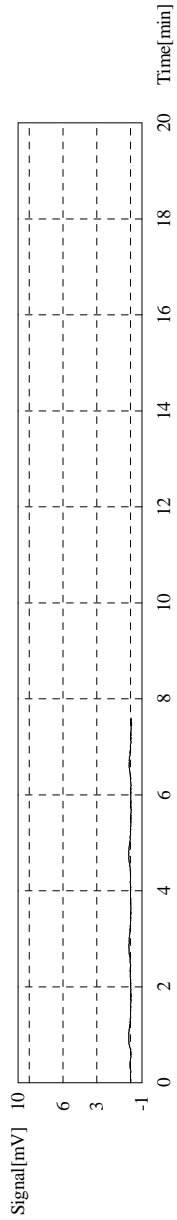
# TOC-Control L Report

toc\_3\_aq\_07-10-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4830	-0.04732mg/L	50ul	1.000		roc_3_aq_cal-curve_07-07-2023,2023_07_07_19_47_55.cal	7/11/2023 7:59:13 AM
2	0.4614	-0.05344mg/L	50ul	1.000		roc_3_aq_cal-curve_07-07-2023,2023_07_07_19_47_55.cal	7/11/2023 8:01:20 AM
3	0.4019	-0.07033mg/L	50ul	1.000		roc_3_aq_cal-curve_07-07-2023,2023_07_07_19_47_55.cal	7/11/2023 8:03:27 AM
4	0.4514	-0.05628mg/L	50ul	1.000		roc_3_aq_cal-curve_07-07-2023,2023_07_07_19_47_55.cal	7/11/2023 8:05:35 AM

Mean Area  
Mean Conc.

0.4494  
-0.05684mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.90mg/L

1. Det

Anal.: NPOC

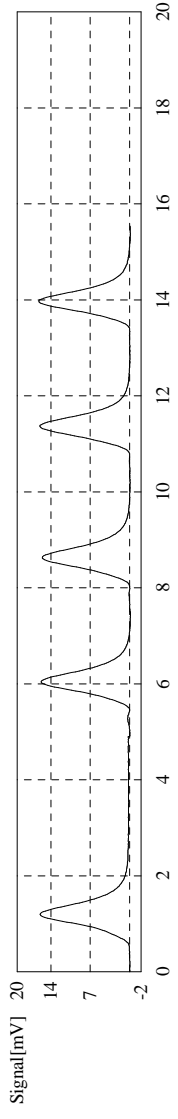
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.72	15.91mg/L	50ul	1.000	E	roc_3_aq_cal-curve_07-07-2023,2023_07_07_19_47_55.cal	7/12/2023 8:56:02 AM
2	53.07	14.87mg/L	50ul	1.000		roc_3_aq_cal-curve_07-07-2023,2023_07_07_19_47_55.cal	7/12/2023 8:58:53 AM
3	53.30	14.94mg/L	50ul	1.000		roc_3_aq_cal-curve_07-07-2023,2023_07_07_19_47_55.cal	7/12/2023 9:01:55 AM
4	53.47	14.99mg/L	50ul	1.000		roc_3_aq_cal-curve_07-07-2023,2023_07_07_19_47_55.cal	7/12/2023 9:04:46 AM
5	52.88	14.82mg/L	50ul	1.000		roc_3_aq_cal-curve_07-07-2023,2023_07_07_19_47_55.cal	7/12/2023 9:07:41 AM

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Mean Area  
Mean Conc.

53.18  
14.90mg/L



### Sample

Sample Name: CCB  
 Sample ID: Untitled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1005mg/L

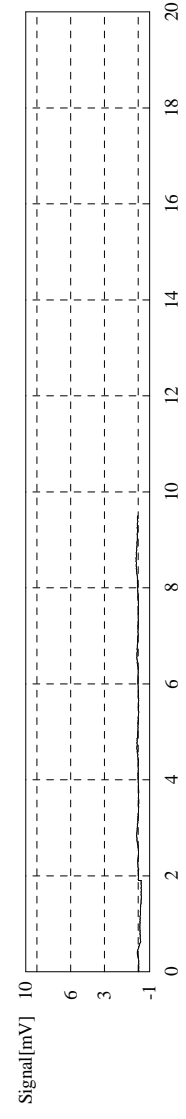
### 1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.08460	-0.1604mg/L	50ul	1.000	E	toc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/12/2023 9:33:22 AM
2	0.3922	-0.07308mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/12/2023 9:35:32 AM
3	0.1944	-0.1292mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/12/2023 9:37:40 AM
4	0.2860	-0.1032mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/12/2023 9:39:48 AM
5	0.3094	-0.09657mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023,2023,07,07,19,47,55.cal	7/12/2023 9:41:55 AM

Mean Area  
Mean Conc.

0.2955  
-0.1005mg/L



7/12/2023 5:35:37 PM

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# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

**Sample**

Sample Name: B1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

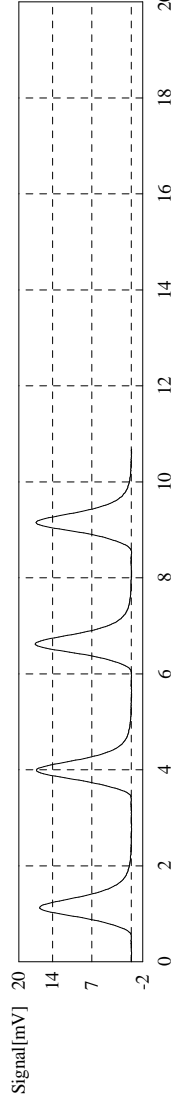
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.92	14.83mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023.2023.07.07_19.47_55.cal	7/12/2023 9:54:36 AM
2	53.23	14.92mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023.2023.07.07_19.47_55.cal	7/12/2023 9:57:27 AM
3	53.51	15.00mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023.2023.07.07_19.47_55.cal	7/12/2023 10:00:12 AM
4	53.66	15.04mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023.2023.07.07_19.47_55.cal	7/12/2023 10:03:10 AM

Mean Area 53.33  
 Mean Conc. 14.95mg/L



**Sample**

Sample Name: FC7507-1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	100.0	NPOC:27.63mg/L

# TOC-Control L Report

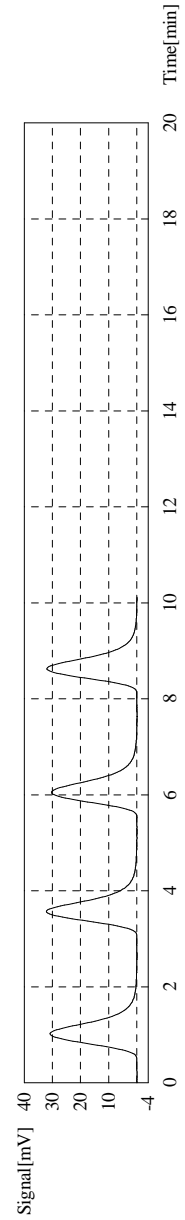
toc 3 aq 07-10-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	97.83	2757mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 10:15:39 AM
2	98.02	2763mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 10:18:22 AM
3	97.84	2758mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 10:21:10 AM
4	98.50	2776mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 10:23:54 AM

Mean Area 98.05  
Mean Conc. 2763mg/L



**Sample**

Sample Name: FC7513-1  
Sample ID: Unfiled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:272.9mg/L

1. Det

Anal.: NPOC

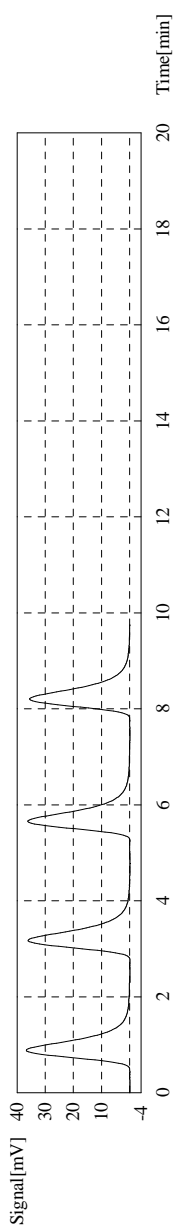
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	96.52	272.0mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 10:36:06 AM
2	96.95	273.2mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 10:38:49 AM
3	96.66	272.4mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 10:41:38 AM
4	97.16	273.8mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 10:44:17 AM

# TOC-Control L Report

toc 3 aq 07-10-2023.tif

Mean Area  
Mean Conc.

96.82  
272.9mg/L



**Sample**

Sample Name: GP38942-S3  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Manual Dilution  
 10.00

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:281.6mg/L

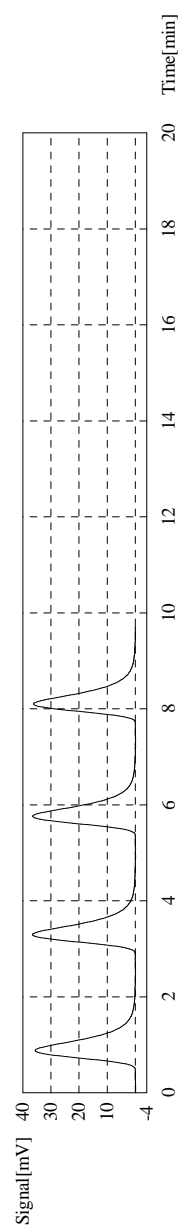
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	99.28	279.8mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023_07_07_19_47_55.cal	7/12/2023 10:56:36 AM
2	100.5	283.3mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023_07_07_19_47_55.cal	7/12/2023 10:59:18 AM
3	99.29	279.9mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023_07_07_19_47_55.cal	7/12/2023 11:01:53 AM
4	100.5	283.3mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023_07_07_19_47_55.cal	7/12/2023 11:04:36 AM

Mean Area  
Mean Conc.

99.89  
281.6mg/L



# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

**Sample**

Sample Name: GP38942.S4  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

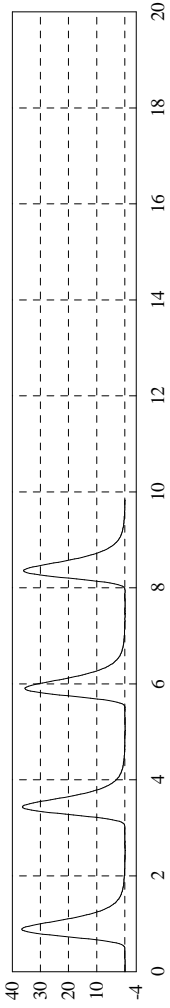
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	10.00	NPOC:280.9mg/L

1. Det

**Anal.: NPOC**

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	100.3	282.7mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07_19_47_55.cal	7/12/2023 11:15:55 AM
2	99.22	279.7mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07_19_47_55.cal	7/12/2023 11:18:37 AM
3	99.44	280.3mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07_19_47_55.cal	7/12/2023 11:21:19 AM
4	99.63	280.8mg/L	50ul	1.000		loc 3 aq cal-curve 07-07-2023,2023,07,07_19_47_55.cal	7/12/2023 11:23:54 AM

Mean Area 99.65  
 Mean Conc. 280.9mg/L



**Sample**

Sample Name: FC7513-3  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	2.00	NPOC:50.31mg/L

1. Det

7/12/2023 5:55:37 PM

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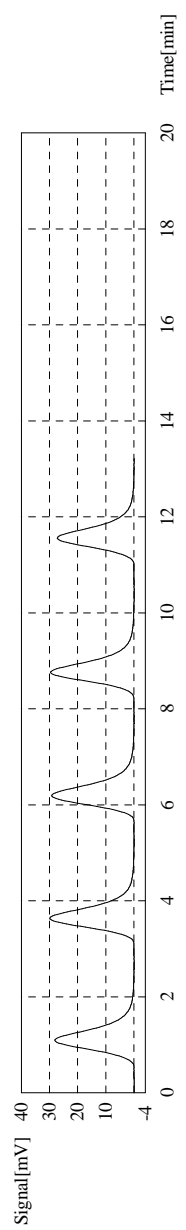
# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.84	48.91mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/12/2023 11:36:21 AM
2	90.92	51.22mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/12/2023 11:39:08 AM
3	90.33	50.89mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/12/2023 11:41:56 AM
4	89.17	50.23mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/12/2023 11:44:57 AM
5	83.95	47.27mg/L	50ul	1.000	E	roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/12/2023 11:47:56 AM

Mean Area 89.31  
 Mean Conc. 50.31mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Unitted  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.18mg/L

1. Det

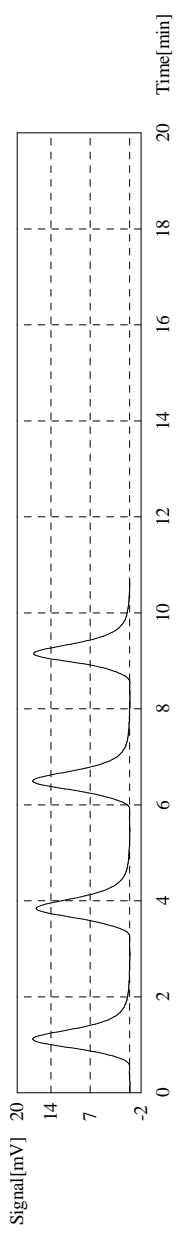
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.21	15.20mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/12/2023 12:00:40 PM
2	54.05	15.15mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/12/2023 12:03:32 PM
3	54.86	15.38mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/12/2023 12:06:25 PM
4	53.48	14.99mg/L	50ul	1.000		roc 3 aq cal-curve 07-07-2023,2023,07_07_19_47_55.cal	7/12/2023 12:09:18 PM

# TOC-Control L Report

toc 3 aq 07-10-2023.tlx

Mean Area  
54.15  
Mean Conc.  
15.18mg/L



**Sample**

Sample Name: CCB  
 Sample ID: Unfilled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

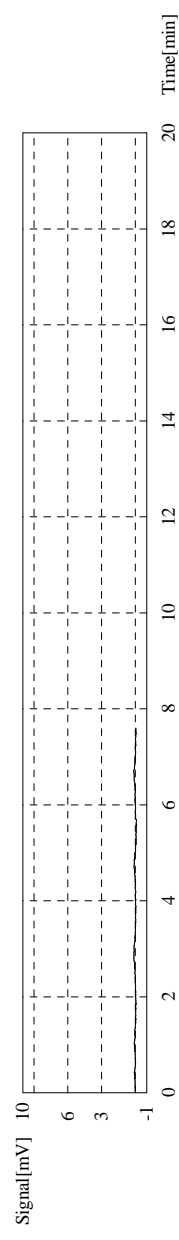
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:-0.08798mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.2546	-0.1121mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 12:21:05 PM
2	0.3875	-0.07441mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 12:23:12 PM
3	0.3967	-0.07180mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 12:25:19 PM
4	0.3199	-0.09359mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/12/2023 12:27:28 PM

Mean Area  
0.3397  
Mean Conc.  
-0.08798mg/L



# TOC-Control L Report

tc 3 - toc 3 sq Cal-Curves 07-07-2023.tlx

**Instr. Information**

Instrument Options  
Catalyst

TOC/ASI/IC Unit/  
Regular Sensitivity

**Cal. Curve**

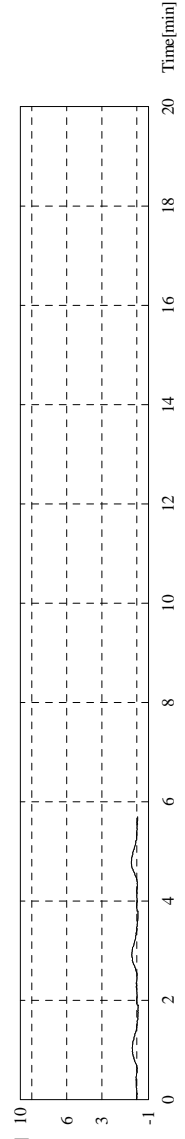
Sample Name: NPOC METHOD  
 Sample ID: Untitled  
 Cal. Curve: toc 3 sq cal-curve 07-07-2023.2023\_07\_07\_19\_47\_55.cal  
 Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.369	50ul	1.000	*****	E	7/7/2023 7:59:56 PM
2	1.529	50ul	1.000	*****		7/7/2023 8:02:04 PM
3	1.606	50ul	1.000	*****		7/7/2023 8:04:13 PM

Acid Add: 0.000%  
 Spurge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 1.568



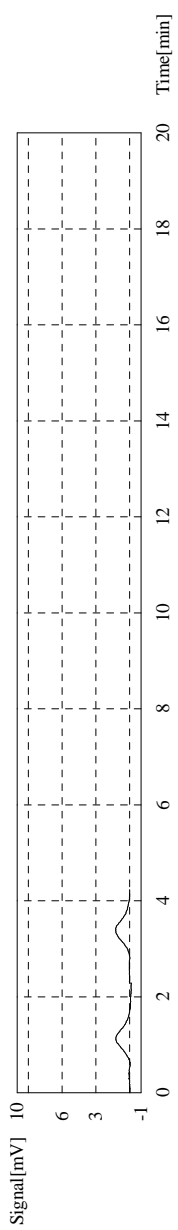
Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.068	50ul	1.000	*****		7/7/2023 8:16:21 PM
2	4.035	50ul	1.000	*****		7/7/2023 8:18:33 PM

# TOC-Control L Report

tc 3 - toc 3 ug Cal-Curves 07-07-2023.tlx

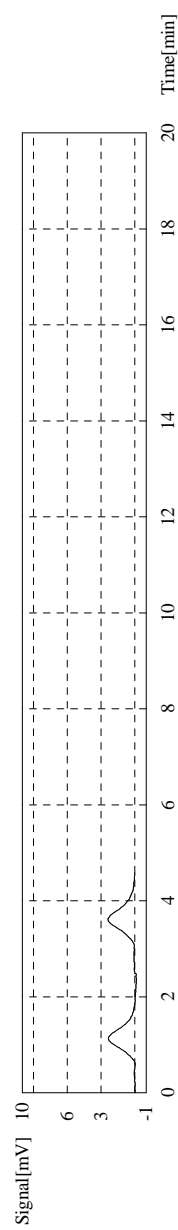
Acid Add: 0.000%  
 Sparge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 4.052



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.679	50ul	1.000	*****		7/7/2023 8:30:57 PM
2	7.481	50ul	1.000	*****		7/7/2023 8:33:18 PM

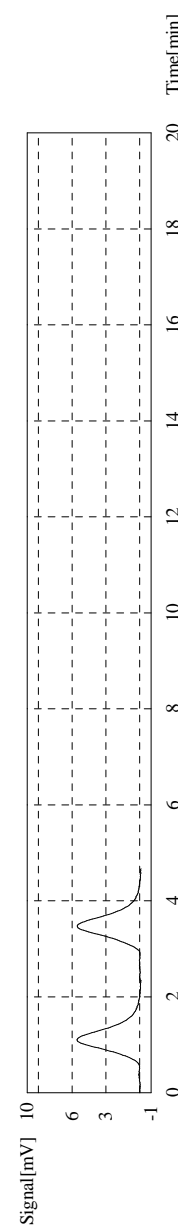
Acid Add: 0.000%  
 Sparge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 7.580



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	18.28	50ul	1.000	*****		7/7/2023 8:45:36 PM
2	17.94	50ul	1.000	*****		7/7/2023 8:48:10 PM

Acid Add: 0.000%  
 Sparge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 18.11



Conc: 10.00mg/L

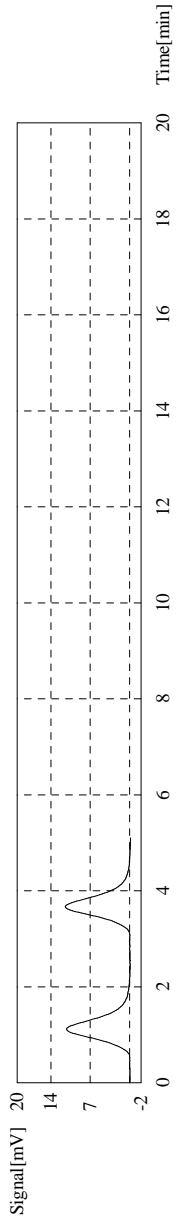
No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	34.64	50ul	1.000	*****		7/7/2023 9:00:39 PM
2	35.29	50ul	1.000	*****		7/7/2023 9:03:26 PM



# TOC-Control L Report

tc 3 - toc 3 ug Cal-Curves 07-07-2023.tlx

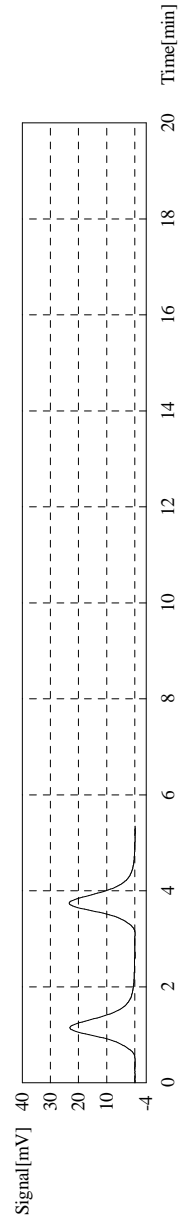
Acid Add: 0.000%  
 Spurge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 34.97



Conc: 20.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	71.39	50ul	1.000	*****		7/7/2023 9:15:58 PM
2	71.29	50ul	1.000	*****		7/7/2023 9:18:58 PM

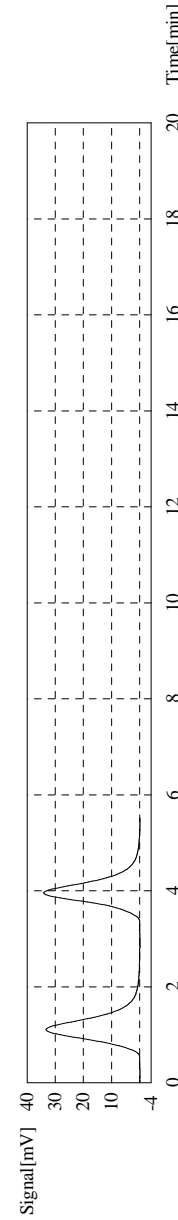
Acid Add: 0.000%  
 Spurge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 71.34



Conc: 30.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	107.3	50ul	1.000	*****		7/7/2023 9:31:43 PM
2	105.9	50ul	1.000	*****		7/7/2023 9:34:38 PM

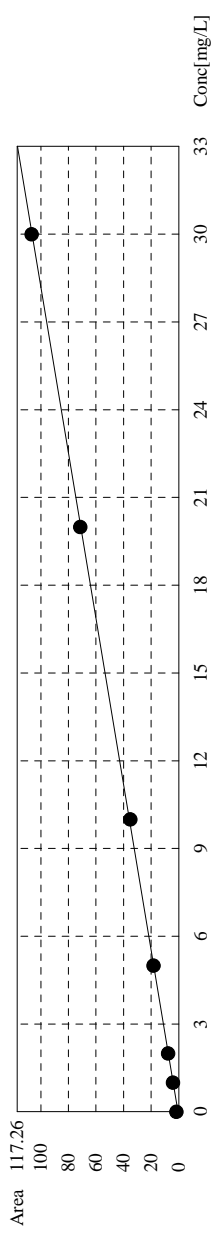
Acid Add: 0.000%  
 Spurge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 106.6



# TOC-Control L Report

tc 3 - toc 3 aq Cal-Curves 07-07-2023.tlx

Slope: 3.524  
 Intercept: 0.6498  
 r<sup>2</sup>: 0.9998  
 r: 0.9999  
 RSE (%): N/A  
 Zero Shift: No



**Sample**

Sample Name: ICV  
 Sample ID: Unfilled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result:

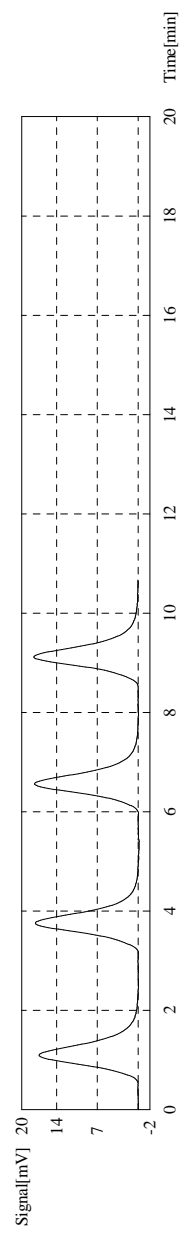
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.26mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.03	15.15mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/7/2023 9:47:07 PM
2	54.82	15.37mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/7/2023 9:50:10 PM
3	54.27	15.21mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/7/2023 9:52:59 PM
4	54.61	15.31mg/L	50ul	1.000		toc 3 aq cal-curve 07-07-2023.2023.07.07_19_47_55.cal	7/7/2023 9:55:56 PM

Mean Area: 54.43  
 Mean Conc.: 15.26mg/L



TOC	LOQ	WC	TOC	Aqua	Jun. 30	1000	2	-	UU	100	20	230320	Jun. 23	Jun. 30
4160	2 ppm	2026	STD	Solut.	2023	1000	ml	-	O9872	100			2023	2023
TOC	LOD	WC	TOC	Aqua	Jun. 30	1000	0.1	-	UU	100	1	230320	Jun. 25	Jun. 30
4161	1 ppm	2026	STD	Solut.	2023	1000	ml	-	O9872	100			2023	2023
TOC	LOQ	WC	TOC	Aqua	Jun. 30	1000	0.2	-	UU	100	2	230320	Jun. 25	Jun. 30
4162	2 ppm	2026	STD	Solut.	2023	1000	ml	-	O9872	100			2023	2023
TOC	MDL - 4	TOC	1' Stock	-	Sept. 16	200000	0.5	-	UU	100	1000	230320	Jun. 19	19-Jul
4163	1000 ppm	4143	Solution		2023	200000	ml	-	O9872	100			2023	2023
TOC	MDL - 5	TOC	1' Stock	-	Sept. 16	200000	0.5	-	UU	100	1000	230320	Jun. 19	19-Jul
4164	1000 ppm	4143	Solution		2023	200000	ml	-	O9872	100			2023	2023
TOC	MDL - 6	TOC	1' Stock	-	Sept. 16	200000	0.5	-	UU	100	1000	230320	Jun. 19	19-Jul
4165	1000 ppm	4143	Solution		2023	200000	ml	-	O9872	100			2023	2023
TOC	MDL - 7	TOC	1' Stock	-	Sept. 16	200000	0.5	-	UU	100	1000	230320	Jun. 19	19-Jul
4166	1000 ppm	4143	Solution		2023	200000	ml	-	O9872	100			2023	2023
TOC	500 STD	WC	TOC	Aqua	Nov. 30	1000	60	-	Volum.	120	500	230320	2-Jul	Aug. 2
4167	500 ppm	2093	STD	Solut.	2023	1000	ml	-	cylinder	250			2023	2023
TOC	CCV STD	WC	TOC	Aqua	Nov. 30	1000	3.75	-	UU	250	15	230320	2-Jul	Aug. 2
4168	15 ppm	2093	STD	Solut.	2023	1000	ml	-	O7485	250	15	230320	2-Jul	Aug. 2
TOC	ICV STD	WC	TOC	Aqua	Nov. 30	1000	3.75	-	UU	250	15	230320	2-Jul	Aug. 2
4169	15 ppm	2093	STD	Solut.	2023	1000	ml	-	O7485	250	15	230320	2-Jul	Aug. 2
TOC	Cal. Std #1	WC	TOC	Inorg.	31-May	1000	0.1	-	UU09872	100	1	230320	7-Jul	Aug. 7
4170	1 ppm	2090	KHP1	Vent.	2024	1000	ml	-	UU09872	100	2	230320	2023	2023
TOC	Cal. Std #2	WC	TOC	Inorg.	31-May	1000	0.2	-	UU09872	100	2	230320	7-Jul	Aug. 7
4171	2 ppm	2090	KHP1	Vent.	2024	1000	ml	-	UU09872	100	5	230320	2023	2023
TOC	Cal. Std #3	WC	TOC	Inorg.	31-May	1000	0.5	-	UU09872	100	5	230320	7-Jul	Aug. 7
4172	5 ppm	2090	KHP1	Vent.	2024	1000	ml	-	UU09872	100	10	230320	2023	2023
TOC	Cal. Std #4	WC	TOC	Inorg.	31-May	1000	1	-	UU09872	100	10	230320	7-Jul	Aug. 7
4173	10 ppm	2090	KHP1	Vent.	2024	1000	ml	-	UU09872	100	20	230320	2023	2023
TOC	Cal. Std #5	WC	TOC	Inorg.	31-May	1000	2	-	UU09872	100	20	230320	7-Jul	Aug. 7
4174	20 ppm	2090	KHP1	Vent.	2024	1000	ml	-	UU09872	100	30	230320	2023	2023
TOC	Cal. Std #6	WC	TOC	Inorg.	31-May	1000	3	-	UU09872	100	30	230320	7-Jul	Aug. 7
4175	30 ppm	2090	KHP1	Vent.	2024	1000	ml	-	UU09872	100	30	230320	2023	2023
TOC	ICV STD	WC	TOC	Aqua	Nov. 30	1000	3.75	-	UU07485	250	15	230320	7-Jul	Aug. 7
4176	15 ppm	2093	STD	Solut.	2023	1000	ml	-	UU07485	250	15	230320	2023	2023
TOC	CCV STD	WC	TOC	Aqua	Nov. 30	1000	3.75	-	UU07485	250	15	230320	7-Jul	Aug. 7
4177	15 ppm	2090	STD	Solut.	2023	1000	ml	-	UU07485	250	15	230320	2023	2023
TOC	500 STD	WC	TOC	Aqua	Nov. 30	1000	60	-	Volum.	120	500	230320	7-Jul	Aug. 7
4178	500 ppm	2093	STD	Solut.	2023	1000	ml	-	cylinder	250			2023	2023

The results set forth herein are provided by SGS North America Inc.

*e-Hardcopy 2.0*  
*Automated Report*

## Technical Report for

EA Engineering

Former Seneca Army Depot; NY

SGS Job Number: FC7413

Sampling Date: 06/29/23

Report to:

EA Science and Technology  
269 W Jefferson St  
Syracuse, NY 13202  
fdesantis@eaest.com; mwright@eaest.com

ATTN: Frank DeSantis

Total number of pages in report: **580**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

A handwritten signature in black ink that reads "Norm Farmer".

Norm Farmer  
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001)

DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),

AL, AK, AR, CT, IA, KY, MA, MI, MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Test results relate only to samples analyzed.

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## Sample Summary

EA Engineering

Job No: FC7413

Former Seneca Army Depot; NY

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FC7413-1	06/29/23	08:50	NWTR06/30/23	AQ	Ground Water	SEAD-MWT-28-20230629
FC7413-2	06/29/23	00:00	NWTR06/30/23	AQ	Trip Blank Water	TB

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** EA Engineering

**Job No:** FC7413

**Site:** Former Seneca Army Depot; NY

**Report Date:** 7/13/2023 2:21:34 PM

On 06/30/2023, 1 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc - Orlando. at a maximum corrected temperature of 1.8 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC7413 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### MS Volatiles By Method SW846 8260D

**Matrix:** AQ

**Batch ID:** V2O3017

Sample(s) FC7382-1MS, FC7382-1MSD were used as the QC samples indicated.

Sample(s) FC7413-1 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Matrix Spike Recovery(s) for Freon 113 are outside control limits due to possible matrix interference.

Matrix Spike Recovery(s) for o-Xylene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

RPD(s) for MSD for 1,1,1-Trichloroethane, Bromochloromethane, Chloroform, Methylene Chloride are outside control limits for sample FC7382-1MSD. Probable cause is due to sample non-homogeneity.

V2O3017-MB: Sample was treated with an anti-foaming agent.

FC7413-1: Sample was treated with an anti-foaming agent.

FC7413-1 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

FC7413-1 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7413-2 for Trichlorofluoromethane: Associated CCV outside of DOD QSM control limits high, sample is ND.

FC7413-2 for Dichlorodifluoromethane: Associated ICV outside DOD QSM control limits high, sample is ND.

**Matrix:** AQ

**Batch ID:** VI2963

Sample(s) FC7493-1MS, FC7493-1MSD were used as the QC samples indicated.

VI2963-MB: Sample was treated with an anti-foaming agent.

### GC Volatiles By Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GLL2901

Sample(s) FC7589-7DUP, FC7589-7MS were used as the QC samples indicated.

**Matrix:** AQ

**Batch ID:** GLL2902

Sample(s) FC7589-17MS were used as the QC samples indicated.

### General Chemistry By Method EPA 300/SW846 9056A

**Matrix:** AQ

**Batch ID:** GP38913

Sample(s) FC7409-1MS, FC7409-1MSD were used as the QC samples for Chloride, Nitrogen, Nitrate, Sulfate.

FC7413-1 for Nitrogen, Nitrate: Dilution required based on initial conductivity reading.

FC7413-1 for Chloride: Dilution required based on initial conductivity reading.

FC7413-1 for Sulfate: Dilution required based on initial conductivity reading.

### General Chemistry By Method SM5310 B-14/SW9060A

**Matrix:** AQ

**Batch ID:** GP38919

Sample(s) FC7322-1MS, FC7322-1MSD were used as the QC samples for Total Organic Carbon.

FC7413-1 for Total Organic Carbon: Sample was not preserved to a pH < 2.



SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

---

Kim Benham, Client Services (*Signature on File*)

# Summary of Hits

**Job Number:** FC7413  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/29/23



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
---------------	------------------	-----------------	-----	-----	-------	--------

**FC7413-1 SEAD-MWT-28-20230629**

Acetone <sup>a</sup>		11.6 JB	25	20	ug/l	SW846 8260D
Methane		9120	5.0	2.5	ug/l	RSKSOP-147/175
Ethane		7.8	1.0	0.50	ug/l	RSKSOP-147/175
Ethene		5.6	1.0	0.50	ug/l	RSKSOP-147/175
Chloride <sup>b</sup>		11.7 J	20	10	mg/l	EPA 300/SW846 9056A
Total Organic Carbon <sup>c</sup>		21.5	2.0	1.0	mg/l	SM5310 B-14/SW9060A

**FC7413-2 TB**

Benzene		0.86 J	1.0	0.50	ug/l	SW846 8260D
Chloroform		16.0	1.0	0.50	ug/l	SW846 8260D
m,p-Xylene		0.76 J	2.0	1.0	ug/l	SW846 8260D

- (a) Sample was treated with an anti-foaming agent.
- (b) Dilution required based on initial conductivity reading.
- (c) Sample was not preserved to a pH < 2.

Sample Results

---

Report of Analysis

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SGS North America Inc.

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	SEAD-MWT-28-20230629		
<b>Lab Sample ID:</b>	FC7413-1	<b>Date Sampled:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/30/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2077424.D	1	07/05/23 13:41	JW	n/a	n/a	V203017
Run #2	I757720.D	1	07/06/23 16:53	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	11.6	25	20	10	ug/l	JB
71-43-2	Benzene	0.50 U	1.0	0.50	0.31	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>b</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>c</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

# Report of Analysis

<b>Client Sample ID:</b>	SEAD-MWT-28-20230629	<b>Date Sampled:</b>	06/29/23
<b>Lab Sample ID:</b>	FC7413-1	<b>Date Received:</b>	06/30/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260D		
<b>Project:</b>	Former Seneca Army Depot; NY		

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>b</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>d</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	1.0 U	2.0	1.0	0.47	ug/l	
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	98%	103%	79-125%
2037-26-5	Toluene-D8	96%	99%	85-112%
460-00-4	4-Bromofluorobenzene	108%	98%	83-118%

- (a) Sample was treated with an anti-foaming agent.
- (b) Result is from Run# 2
- (c) Associated ICV outside DOD QSM control limits high, sample is ND.
- (d) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

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<b>Client Sample ID:</b>	SEAD-MWT-28-20230629		
<b>Lab Sample ID:</b>	FC7413-1	<b>Date Sampled:</b>	06/29/23
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b>	06/30/23
<b>Method:</b>	RSKSOP-147/175	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83571.D	1	07/10/23 12:36	SS	n/a	n/a	GLL2901
Run #2	LL83599.D	10	07/11/23 10:14	SS	n/a	n/a	GLL2902

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2	38.0 ml	5.0 ml	500 ul	20 Deg. C

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	9120 <sup>a</sup>	5.0	2.5	1.6	ug/l	
74-84-0	Ethane	7.8	1.0	0.50	0.32	ug/l	
74-85-1	Ethene	5.6	1.0	0.50	0.43	ug/l	

(a) Result is from Run# 2

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

<b>Client Sample ID:</b>	SEAD-MWT-28-20230629	<b>Date Sampled:</b>	06/29/23
<b>Lab Sample ID:</b>	FC7413-1	<b>Date Received:</b>	06/30/23
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

## General Chemistry

Analyte	Result	LOQ	LOD	DL	Units	DF	Analyzed	By Method
Chloride <sup>a</sup>	11.7 J	20	10	8.0	mg/l	10	06/30/23 14:36	JB EPA 300/SW846 9056A
Nitrogen, Nitrate <sup>a</sup>	0.50 U	1.0	0.50	0.40	mg/l	10	06/30/23 14:36	JB EPA 300/SW846 9056A
Sulfate <sup>a</sup>	10 U	20	10	6.0	mg/l	10	06/30/23 14:36	JB EPA 300/SW846 9056A
Total Organic Carbon <sup>b</sup>	21.5	2.0	1.0	0.54	mg/l	1	07/04/23 07:16	FN SM5310 B-14/SW9060A

(a) Dilution required based on initial conductivity reading.

(b) Sample was not preserved to a pH < 2.

LOQ = Limit of Quantitation    DL = Detection Limit    U = Indicates a result < LOD  
 LOD = Limit of Detection    B = Analyte found in associated blank    J = Indicates a result > = DL (MDL) but < LOQ

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SGS North America Inc.

## Report of Analysis

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<b>Client Sample ID:</b>	TB		
<b>Lab Sample ID:</b>	FC7413-2	<b>Date Sampled:</b>	06/29/23
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Date Received:</b>	06/30/23
<b>Method:</b>	SW846 8260D	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Former Seneca Army Depot; NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2077425.D	1	07/05/23 14:07	JW	n/a	n/a	V203017
Run #2	I757709.D	1	07/06/23 11:42	JW	n/a	n/a	VI2963

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List (SOM02.0)

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	20 U	25	20	10	ug/l	
71-43-2	Benzene	0.86	1.0	0.50	0.31	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.45	ug/l	
75-27-4	Bromodichloromethane	0.50 U	1.0	0.50	0.24	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.41	ug/l	
78-93-3	2-Butanone (MEK)	3.5 U	5.0	3.5	2.0	ug/l	
75-15-0	Carbon Disulfide	1.0 U	2.0	1.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	0.50 U	1.0	0.50	0.36	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.20	ug/l	
75-00-3	Chloroethane	1.0 U <sup>a</sup>	2.0	1.0	0.67	ug/l	
67-66-3	Chloroform	16.0	1.0	0.50	0.30	ug/l	
110-82-7	Cyclohexane	0.50 U	1.0	0.50	0.39	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U	5.0	2.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	1.0 U	2.0	1.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane <sup>b</sup>	1.0 U	2.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.26	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.34	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	0.50 U	1.0	0.50	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.21	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.36	ug/l	
76-13-1	Freon 113	0.50 U	1.0	0.50	0.48	ug/l	
591-78-6	2-Hexanone	5.0 U	10	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
79-20-9	Methyl Acetate	10 U	20	10	5.0	ug/l	

U = Not detected

LOD = Limit of Detection

J = Indicates an estimated value

LOQ = Limit of Quantitation

DL = Detection Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



# Report of Analysis

<b>Client Sample ID:</b> TB		
<b>Lab Sample ID:</b> FC7413-2		<b>Date Sampled:</b> 06/29/23
<b>Matrix:</b> AQ - Trip Blank Water		<b>Date Received:</b> 06/30/23
<b>Method:</b> SW846 8260D		<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY		

**VOA TCL List (SOM02.0)**

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-83-9	Methyl Bromide	4.0 U	5.0	4.0	2.0	ug/l	
74-87-3	Methyl Chloride	1.0 U	2.0	1.0	0.50	ug/l	
108-87-2	Methylcyclohexane	0.50 U	1.0	0.50	0.44	ug/l	
75-09-2	Methylene Chloride	4.0 U	5.0	4.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	2.0 U	5.0	2.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.23	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.30	ug/l	
127-18-4	Tetrachloroethylene	0.50 U	1.0	0.50	0.22	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	1.0 U	2.0	1.0	0.61	ug/l	
120-82-1	1,2,4-Trichlorobenzene	1.0 U <sup>a</sup>	2.0	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.47	ug/l	
79-01-6	Trichloroethylene	0.50 U	1.0	0.50	0.35	ug/l	
75-69-4	Trichlorofluoromethane <sup>c</sup>	1.0 U	2.0	1.0	0.50	ug/l	
75-01-4	Vinyl Chloride	0.50 U	1.0	0.50	0.41	ug/l	
	m,p-Xylene	0.76	2.0	1.0	0.47	ug/l	J
95-47-6	o-Xylene	0.50 U	1.0	0.50	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	106%	105%	79-125%
2037-26-5	Toluene-D8	97%	95%	85-112%
460-00-4	4-Bromofluorobenzene	96%	99%	83-118%

- (a) Result is from Run# 2
- (b) Associated ICV outside DOD QSM control limits high, sample is ND.
- (c) Associated CCV outside of DOD QSM control limits high, sample is ND.

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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# Report of Analysis

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<b>Client Sample ID:</b> TB	
<b>Lab Sample ID:</b> FC7413-2	<b>Date Sampled:</b> 06/29/23
<b>Matrix:</b> AQ - Trip Blank Water	<b>Date Received:</b> 06/30/23
<b>Method:</b> RSKSOP-147/175	<b>Percent Solids:</b> n/a
<b>Project:</b> Former Seneca Army Depot; NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL83572.D	1	07/10/23 12:44	SS	n/a	n/a	GLL2901
Run #2							

	Initial Volume	Headspace Volume	Volume Injected	Temperature
Run #1	38.0 ml	5.0 ml	500 ul	20 Deg. C
Run #2				

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
74-82-8	Methane	0.25 U	0.50	0.25	0.16	ug/l	
74-84-0	Ethane	0.50 U	1.0	0.50	0.32	ug/l	
74-85-1	Ethene	0.50 U	1.0	0.50	0.43	ug/l	

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 LOQ = Limit of Quantitation      DL = Detection Limit      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- QC Evaluation: DOD QSM5.x Limits



SGS North America Inc - Orlando

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
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SGS - ORLANDO JOB # :

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SGS - ORLANDO Quote #

SKIFF #

FC7413

Client / Reporting Information				Project Information				Analytical Information										Matrix Codes										
Company Name: EA Engineering				Project Name: Seneca Army Depot														DW - Drinking Water										
Address: 269 W Jefferson St				Street: Patrol Rd														GW - Ground Water										
City: Syracuse State: NY Zip: 13204				City: Ramoth State: NY														WW - Water										
Project Contact: Mike Wright				Project #														SW - Surface Water										
Phone #: 315 441 2450				Fax #														SO - Soil										
Sampler(s) Name(s) (Printed)				Client Purchase Order #														SL - Sludge										
Sampler 1: MW																		OI - Oil										
Sampler 2: TR																		LIQ - Other Liquid										
SGS Orlando Sample #		Field ID / Point of Collection		COLLECTION		CONTAINER INFORMATION										LAB USE ONLY												
1		SEAD-MWT-28-20230629		DATE: 6/29/23 TIME: 0850		SAMPLED BY: MW		MATRIX: GU 9		TOTAL # OF BOTTLES: 9		OTHER: H		NONE: X		HCl: X		H2SO4: X		HNO3: X		H2O2: X		DI WATER: X		MECH: X		
2		TB																										
Turnaround Time ( Business days)				Data Deliverable Information				Comments / Remarks																				
<input checked="" type="checkbox"/> 10 Day (Business) <input type="checkbox"/> 7 Day <input type="checkbox"/> 5 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input type="checkbox"/> Other				Approved By: / Date: _____ <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input checked="" type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input checked="" type="checkbox"/> EDD'S NYSD DEC				INITIAL ASSESSMENT: _____ LABEL VERIFICATION: _____																				
Rush T/A Data Available VIA Email or Lablink				Sample Custody must be documented below each time samples change possession, including courier delivery.																								
Relinquished by/Sampler/Affiliation		Date Time:		Received By/Affiliation		Relinquished By/Affiliation		Date Time:		Received By/Affiliation		Date Time:		Received By/Affiliation														
1		6/29/23 15:00		Fed Ex		3		Fed Ex		06/30/23		0930																
5				6		7				8																		
Lab Use Only : Cooler Temperature (s) Celsius (corrected): 2.0 FH-H/								http://www.sgs.com/en/terms-and-conditions																				

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FC7413: Chain of Custody

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## SGS Sample Receipt Summary

Job Number: FC7413

Client: EA ENGINEERING

Project: SENECA ARMY DEPOT

Date / Time Received: 6/30/2023 9:30:00 AM

Delivery Method: FED EX

Airbill #'s: 6134 6609 2610

Therm ID: IR 1;	Therm CF: -0.2;	# of Coolers: 1
Cooler Temps (Raw Measured) °C: Cooler 1: (2.0);		
Cooler Temps (Corrected) °C: Cooler 1: (1.8);		

<u>Cooler Information</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Temp criteria achieved	<input checked="" type="checkbox"/>		<input type="checkbox"/>
4. Cooler temp verification	<u>IR Gun</u>		
5. Cooler media	<u>Ice (Bag)</u>		

<u>Sample Information</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Sample labels present on bottles	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Samples preserved properly	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
3. Sufficient volume/containers recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Condition of sample	<u>Intact</u>			
5. Sample recvd within HT	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
6. Dates/Times/IDs on COC match Sample Label	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
7. VOCs have headspace	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
9. Compositing instructions clear	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Voa Soil Kits/Jars received past 48hrs?	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
11. % Solids Jar received?	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
12. Residual Chlorine Present?	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Trip Blank Information</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<u>W</u>	<u>or</u>	<u>S</u>	<u>N/A</u>
3. Type Of TB Received	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

<u>Misc. Information</u>			
Number of Encores: 25-Gram _____	5-Gram _____	Number of 5035 Field Kits: _____	Number of Lab Filtered Metals: _____
Test Strip Lot #s: pH 0-3 _____	230320 _____	pH 10-12 _____	Other: (Specify) pH 1.0 - 12.0 _____
Residual Chlorine Test Strip Lot #: _____			

Comments

SM001  
Rev. Date 05/24/17

Technician: SHAYLAP

Date: 6/30/2023 9:30:00 AM

Reviewer: \_\_\_\_\_

Date: \_\_\_\_\_

**FC7413: Chain of Custody**

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7413  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/29/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V2O3017	SW846 8260D						
V2O3017-BS	67-64-1	Acetone	BSP	REC	122	%	39-160
V2O3017-BS	71-43-2	Benzene	BSP	REC	103	%	79-120
V2O3017-BS	74-97-5	Bromochloromethane	BSP	REC	99	%	78-123
V2O3017-BS	75-27-4	Bromodichloromethane	BSP	REC	102	%	79-125
V2O3017-BS	75-25-2	Bromoform	BSP	REC	108	%	66-130
V2O3017-BS	78-93-3	2-Butanone (MEK)	BSP	REC	101	%	56-143
V2O3017-BS	75-15-0	Carbon Disulfide	BSP	REC	110	%	64-133
V2O3017-BS	56-23-5	Carbon Tetrachloride	BSP	REC	102	%	72-136
V2O3017-BS	108-90-7	Chlorobenzene	BSP	REC	97	%	82-118
V2O3017-BS	67-66-3	Chloroform	BSP	REC	99	%	79-124
V2O3017-BS	110-82-7	Cyclohexane	BSP	REC	91	%	71-130
V2O3017-BS	124-48-1	Dibromochloromethane	BSP	REC	110	%	74-126
V2O3017-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	104	%	62-128
V2O3017-BS	106-93-4	1,2-Dibromoethane	BSP	REC	95	%	77-121
V2O3017-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	127	%	32-152
V2O3017-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	94	%	80-119
V2O3017-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	95	%	80-119
V2O3017-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	99	%	79-118
V2O3017-BS	75-34-3	1,1-Dichloroethane	BSP	REC	95	%	77-125
V2O3017-BS	107-06-2	1,2-Dichloroethane	BSP	REC	98	%	73-128
V2O3017-BS	75-35-4	1,1-Dichloroethylene	BSP	REC	99	%	71-131
V2O3017-BS	156-59-2	cis-1,2-Dichloroethylene	BSP	REC	90	%	78-123
V2O3017-BS	156-60-5	trans-1,2-Dichloroethylene	BSP	REC	95	%	75-124
V2O3017-BS	78-87-5	1,2-Dichloropropane	BSP	REC	104	%	78-122
V2O3017-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	106	%	75-124
V2O3017-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	103	%	73-127
V2O3017-BS	100-41-4	Ethylbenzene	BSP	REC	96	%	79-121
V2O3017-BS	76-13-1	Freon 113	BSP	REC	106	%	70-136
V2O3017-BS	591-78-6	2-Hexanone	BSP	REC	110	%	57-139
V2O3017-BS	98-82-8	Isopropylbenzene	BSP	REC	87	%	72-131
V2O3017-BS	79-20-9	Methyl Acetate	BSP	REC	93	%	56-136
V2O3017-BS	74-83-9	Methyl Bromide	BSP	REC	99	%	53-141
V2O3017-BS	74-87-3	Methyl Chloride	BSP	REC	109	%	50-139
V2O3017-BS	108-87-2	Methylcyclohexane	BSP	REC	91	%	72-132
V2O3017-BS	75-09-2	Methylene Chloride	BSP	REC	104	%	74-124
V2O3017-BS	108-10-1	4-Methyl-2-pentanone (MIBK)	BSP	REC	108	%	67-130
V2O3017-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	100	%	71-124
V2O3017-BS	100-42-5	Styrene	BSP	REC	96	%	78-123
V2O3017-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	104	%	71-121
V2O3017-BS	127-18-4	Tetrachloroethylene	BSP	REC	98	%	74-129
V2O3017-BS	108-88-3	Toluene	BSP	REC	100	%	80-121
V2O3017-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	90	%	69-129

\* Sample used for QC is not from job FC7413

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7413  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/29/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V203017-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	98	%	74-131
V203017-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	103	%	80-119
V203017-BS	79-01-6	Trichloroethylene	BSP	REC	96	%	79-123
V203017-BS	75-69-4	Trichlorofluoromethane	BSP	REC	124	%	65-141
V203017-BS	75-01-4	Vinyl Chloride	BSP	REC	116	%	58-137
V203017-BS		m,p-Xylene	BSP	REC	98	%	80-121
V203017-BS	95-47-6	o-Xylene	BSP	REC	88	%	78-122
V203017-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	100	%	80-119
V203017-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	104	%	81-118
V203017-BS	2037-26-5	Toluene-D8	BSP	SURR	100	%	89-112
V203017-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	97	%	85-114
FC7382-1MS*	67-64-1	Acetone	MS	REC	92	%	39-160
FC7382-1MS*	71-43-2	Benzene	MS	REC	116	%	79-120
FC7382-1MS*	74-97-5	Bromochloromethane	MS	REC	109	%	78-123
FC7382-1MS*	75-27-4	Bromodichloromethane	MS	REC	104	%	79-125
FC7382-1MS*	75-25-2	Bromoform	MS	REC	97	%	66-130
FC7382-1MS*	78-93-3	2-Butanone (MEK)	MS	REC	94	%	56-143
FC7382-1MS*	75-15-0	Carbon Disulfide	MS	REC	133	%	64-133
FC7382-1MS*	56-23-5	Carbon Tetrachloride	MS	REC	125	%	72-136
FC7382-1MS*	108-90-7	Chlorobenzene	MS	REC	102	%	82-118
FC7382-1MS*	67-66-3	Chloroform	MS	REC	112	%	79-124
FC7382-1MS*	110-82-7	Cyclohexane	MS	REC	117	%	71-130
FC7382-1MS*	124-48-1	Dibromochloromethane	MS	REC	110	%	74-126
FC7382-1MS*	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	98	%	62-128
FC7382-1MS*	106-93-4	1,2-Dibromoethane	MS	REC	95	%	77-121
FC7382-1MS*	75-71-8	Dichlorodifluoromethane	MS	REC	152	%	32-152
FC7382-1MS*	95-50-1	1,2-Dichlorobenzene	MS	REC	95	%	80-119
FC7382-1MS*	541-73-1	1,3-Dichlorobenzene	MS	REC	97	%	80-119
FC7382-1MS*	106-46-7	1,4-Dichlorobenzene	MS	REC	103	%	79-118
FC7382-1MS*	75-34-3	1,1-Dichloroethane	MS	REC	113	%	77-125
FC7382-1MS*	107-06-2	1,2-Dichloroethane	MS	REC	102	%	73-128
FC7382-1MS*	75-35-4	1,1-Dichloroethylene	MS	REC	114	%	71-131
FC7382-1MS*	156-59-2	cis-1,2-Dichloroethylene	MS	REC	100	%	78-123
FC7382-1MS*	156-60-5	trans-1,2-Dichloroethylene	MS	REC	112	%	75-124
FC7382-1MS*	78-87-5	1,2-Dichloropropane	MS	REC	112	%	78-122
FC7382-1MS*	10061-01-5	cis-1,3-Dichloropropene	MS	REC	97	%	75-124
FC7382-1MS*	10061-02-6	trans-1,3-Dichloropropene	MS	REC	101	%	73-127
FC7382-1MS*	100-41-4	Ethylbenzene	MS	REC	104	%	79-121
FC7382-1MS*	76-13-1	Freon 113	MS	REC	139	%	70-136
FC7382-1MS*	591-78-6	2-Hexanone	MS	REC	109	%	57-139
FC7382-1MS*	98-82-8	Isopropylbenzene	MS	REC	90	%	72-131
FC7382-1MS*	79-20-9	Methyl Acetate	MS	REC	86	%	56-136
FC7382-1MS*	74-83-9	Methyl Bromide	MS	REC	78	%	53-141
FC7382-1MS*	74-87-3	Methyl Chloride	MS	REC	126	%	50-139
FC7382-1MS*	108-87-2	Methylcyclohexane	MS	REC	110	%	72-132

\* Sample used for QC is not from job FC7413

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7413  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/29/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-1MS*	75-09-2	Methylene Chloride	MS	REC	114	%	74-124
FC7382-1MS*	108-10-1	4-Methyl-2-pentanone (MIBK)	MS	REC	104	%	67-130
FC7382-1MS*	1634-04-4	Methyl Tert Butyl Ether	MS	REC	100	%	71-124
FC7382-1MS*	100-42-5	Styrene	MS	REC	96	%	78-123
FC7382-1MS*	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	104	%	71-121
FC7382-1MS*	127-18-4	Tetrachloroethylene	MS	REC	111	%	74-129
FC7382-1MS*	108-88-3	Toluene	MS	REC	100	%	80-121
FC7382-1MS*	87-61-6	1,2,3-Trichlorobenzene	MS	REC	92	%	69-129
FC7382-1MS*	71-55-6	1,1,1-Trichloroethane	MS	REC	119	%	74-131
FC7382-1MS*	79-00-5	1,1,2-Trichloroethane	MS	REC	108	%	80-119
FC7382-1MS*	79-01-6	Trichloroethylene	MS	REC	107	%	79-123
FC7382-1MS*	75-69-4	Trichlorofluoromethane	MS	REC	143	%	65-141
FC7382-1MS*	75-01-4	Vinyl Chloride	MS	REC	135	%	58-137
FC7382-1MS*		m,p-Xylene	MS	REC	102	%	80-121
FC7382-1MS*	95-47-6	o-Xylene	MS	REC	77 <sup>a</sup>	%	78-122
FC7382-1MS*	1868-53-7	Dibromofluoromethane	MS	SURR	107	%	80-119
FC7382-1MS*	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	103	%	81-118
FC7382-1MS*	2037-26-5	Toluene-D8	MS	SURR	92	%	89-112
FC7382-1MS*	460-00-4	4-Bromofluorobenzene	MS	SURR	95	%	85-114
FC7382-1MSD*	67-64-1	Acetone	MSD	REC	86	%	39-160
FC7382-1MSD*	67-64-1	Acetone	MSD	RPD	6	%	20
FC7382-1MSD*	71-43-2	Benzene	MSD	REC	110	%	79-120
FC7382-1MSD*	71-43-2	Benzene	MSD	RPD	4	%	20
FC7382-1MSD*	74-97-5	Bromochloromethane	MSD	REC	92	%	78-123
FC7382-1MSD*	74-97-5	Bromochloromethane	MSD	RPD	17	%	20
FC7382-1MSD*	75-27-4	Bromodichloromethane	MSD	REC	97	%	79-125
FC7382-1MSD*	75-27-4	Bromodichloromethane	MSD	RPD	7	%	20
FC7382-1MSD*	75-25-2	Bromoform	MSD	REC	95	%	66-130
FC7382-1MSD*	75-25-2	Bromoform	MSD	RPD	2	%	20
FC7382-1MSD*	78-93-3	2-Butanone (MEK)	MSD	REC	86	%	56-143
FC7382-1MSD*	78-93-3	2-Butanone (MEK)	MSD	RPD	10	%	20
FC7382-1MSD*	75-15-0	Carbon Disulfide	MSD	REC	113	%	64-133
FC7382-1MSD*	75-15-0	Carbon Disulfide	MSD	RPD	16	%	20
FC7382-1MSD*	56-23-5	Carbon Tetrachloride	MSD	REC	104	%	72-136
FC7382-1MSD*	56-23-5	Carbon Tetrachloride	MSD	RPD	18	%	20
FC7382-1MSD*	108-90-7	Chlorobenzene	MSD	REC	96	%	82-118
FC7382-1MSD*	108-90-7	Chlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD*	67-66-3	Chloroform	MSD	REC	95	%	79-124
FC7382-1MSD*	67-66-3	Chloroform	MSD	RPD	17	%	20
FC7382-1MSD*	110-82-7	Cyclohexane	MSD	REC	100	%	71-130
FC7382-1MSD*	110-82-7	Cyclohexane	MSD	RPD	15	%	20
FC7382-1MSD*	124-48-1	Dibromochloromethane	MSD	REC	96	%	74-126
FC7382-1MSD*	124-48-1	Dibromochloromethane	MSD	RPD	14	%	20
FC7382-1MSD*	96-12-8	1,2-Dibromo-3-chloropropane	MSD	REC	97	%	62-128
FC7382-1MSD*	96-12-8	1,2-Dibromo-3-chloropropane	MSD	RPD	1	%	20

\* Sample used for QC is not from job FC7413

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7413  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/29/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-1MSD*	106-93-4	1,2-Dibromoethane	MSD	REC	88	%	77-121
FC7382-1MSD*	106-93-4	1,2-Dibromoethane	MSD	RPD	7	%	20
FC7382-1MSD*	75-71-8	Dichlorodifluoromethane	MSD	REC	146	%	32-152
FC7382-1MSD*	75-71-8	Dichlorodifluoromethane	MSD	RPD	4	%	20
FC7382-1MSD*	95-50-1	1,2-Dichlorobenzene	MSD	REC	90	%	80-119
FC7382-1MSD*	95-50-1	1,2-Dichlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD*	541-73-1	1,3-Dichlorobenzene	MSD	REC	91	%	80-119
FC7382-1MSD*	541-73-1	1,3-Dichlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD*	106-46-7	1,4-Dichlorobenzene	MSD	REC	96	%	79-118
FC7382-1MSD*	106-46-7	1,4-Dichlorobenzene	MSD	RPD	7	%	20
FC7382-1MSD*	75-34-3	1,1-Dichloroethane	MSD	REC	98	%	77-125
FC7382-1MSD*	75-34-3	1,1-Dichloroethane	MSD	RPD	14	%	20
FC7382-1MSD*	107-06-2	1,2-Dichloroethane	MSD	REC	98	%	73-128
FC7382-1MSD*	107-06-2	1,2-Dichloroethane	MSD	RPD	4	%	20
FC7382-1MSD*	75-35-4	1,1-Dichloroethylene	MSD	REC	98	%	71-131
FC7382-1MSD*	75-35-4	1,1-Dichloroethylene	MSD	RPD	15	%	20
FC7382-1MSD*	156-59-2	cis-1,2-Dichloroethylene	MSD	REC	83	%	78-123
FC7382-1MSD*	156-59-2	cis-1,2-Dichloroethylene	MSD	RPD	15	%	20
FC7382-1MSD*	156-60-5	trans-1,2-Dichloroethylene	MSD	REC	97	%	75-124
FC7382-1MSD*	156-60-5	trans-1,2-Dichloroethylene	MSD	RPD	15	%	20
FC7382-1MSD*	78-87-5	1,2-Dichloropropane	MSD	REC	105	%	78-122
FC7382-1MSD*	78-87-5	1,2-Dichloropropane	MSD	RPD	7	%	20
FC7382-1MSD*	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	89	%	75-124
FC7382-1MSD*	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	9	%	20
FC7382-1MSD*	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	93	%	73-127
FC7382-1MSD*	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	9	%	20
FC7382-1MSD*	100-41-4	Ethylbenzene	MSD	REC	101	%	79-121
FC7382-1MSD*	100-41-4	Ethylbenzene	MSD	RPD	3	%	20
FC7382-1MSD*	76-13-1	Freon 113	MSD	REC	117	%	70-136
FC7382-1MSD*	76-13-1	Freon 113	MSD	RPD	18	%	20
FC7382-1MSD*	591-78-6	2-Hexanone	MSD	REC	111	%	57-139
FC7382-1MSD*	591-78-6	2-Hexanone	MSD	RPD	2	%	20
FC7382-1MSD*	98-82-8	Isopropylbenzene	MSD	REC	92	%	72-131
FC7382-1MSD*	98-82-8	Isopropylbenzene	MSD	RPD	3	%	20
FC7382-1MSD*	79-20-9	Methyl Acetate	MSD	REC	75	%	56-136
FC7382-1MSD*	79-20-9	Methyl Acetate	MSD	RPD	14	%	20
FC7382-1MSD*	74-83-9	Methyl Bromide	MSD	REC	87	%	53-141
FC7382-1MSD*	74-83-9	Methyl Bromide	MSD	RPD	11	%	20
FC7382-1MSD*	74-87-3	Methyl Chloride	MSD	REC	122	%	50-139
FC7382-1MSD*	74-87-3	Methyl Chloride	MSD	RPD	3	%	20
FC7382-1MSD*	108-87-2	Methylcyclohexane	MSD	REC	108	%	72-132
FC7382-1MSD*	108-87-2	Methylcyclohexane	MSD	RPD	2	%	20
FC7382-1MSD*	75-09-2	Methylene Chloride	MSD	REC	96	%	74-124
FC7382-1MSD*	75-09-2	Methylene Chloride	MSD	RPD	18	%	20
FC7382-1MSD*	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	REC	101	%	67-130

\* Sample used for QC is not from job FC7413

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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7413  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/29/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
FC7382-1MSD*	108-10-1	4-Methyl-2-pentanone (MIBK)	MSD	RPD	3	%	20
FC7382-1MSD*	1634-04-4	Methyl Tert Butyl Ether	MSD	REC	88	%	71-124
FC7382-1MSD*	1634-04-4	Methyl Tert Butyl Ether	MSD	RPD	13	%	20
FC7382-1MSD*	100-42-5	Styrene	MSD	REC	96	%	78-123
FC7382-1MSD*	100-42-5	Styrene	MSD	RPD	0	%	20
FC7382-1MSD*	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	97	%	71-121
FC7382-1MSD*	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	7	%	20
FC7382-1MSD*	127-18-4	Tetrachloroethylene	MSD	REC	98	%	74-129
FC7382-1MSD*	127-18-4	Tetrachloroethylene	MSD	RPD	12	%	20
FC7382-1MSD*	108-88-3	Toluene	MSD	REC	98	%	80-121
FC7382-1MSD*	108-88-3	Toluene	MSD	RPD	2	%	20
FC7382-1MSD*	87-61-6	1,2,3-Trichlorobenzene	MSD	REC	86	%	69-129
FC7382-1MSD*	87-61-6	1,2,3-Trichlorobenzene	MSD	RPD	6	%	20
FC7382-1MSD*	71-55-6	1,1,1-Trichloroethane	MSD	REC	100	%	74-131
FC7382-1MSD*	71-55-6	1,1,1-Trichloroethane	MSD	RPD	18	%	20
FC7382-1MSD*	79-00-5	1,1,2-Trichloroethane	MSD	REC	95	%	80-119
FC7382-1MSD*	79-00-5	1,1,2-Trichloroethane	MSD	RPD	13	%	20
FC7382-1MSD*	79-01-6	Trichloroethylene	MSD	REC	103	%	79-123
FC7382-1MSD*	79-01-6	Trichloroethylene	MSD	RPD	3	%	20
FC7382-1MSD*	75-69-4	Trichlorofluoromethane	MSD	REC	137	%	65-141
FC7382-1MSD*	75-69-4	Trichlorofluoromethane	MSD	RPD	4	%	20
FC7382-1MSD*	75-01-4	Vinyl Chloride	MSD	REC	132	%	58-137
FC7382-1MSD*	75-01-4	Vinyl Chloride	MSD	RPD	2	%	20
FC7382-1MSD*		m,p-Xylene	MSD	REC	118	%	80-121
FC7382-1MSD*		m,p-Xylene	MSD	RPD	7	%	20
FC7382-1MSD*	95-47-6	o-Xylene	MSD	REC	121	%	78-122
FC7382-1MSD*	95-47-6	o-Xylene	MSD	RPD	9	%	20
FC7382-1MSD*	1868-53-7	Dibromofluoromethane	MSD	SURR	92	%	80-119
FC7382-1MSD*	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	107	%	81-118
FC7382-1MSD*	2037-26-5	Toluene-D8	MSD	SURR	96	%	89-112
FC7382-1MSD*	460-00-4	4-Bromofluorobenzene	MSD	SURR	93	%	85-114
V203017-MB	1868-53-7	Dibromofluoromethane	MB	SURR	106	%	80-119
V203017-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	102	%	81-118
V203017-MB	2037-26-5	Toluene-D8	MB	SURR	103	%	89-112
V203017-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	110	%	85-114
FC7413-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	105	%	80-119
FC7413-1	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	98	%	81-118
FC7413-1	2037-26-5	Toluene-D8	SAMP	SURR	96	%	89-112
FC7413-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	85-114
FC7413-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	112	%	80-119
FC7413-2	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	106	%	81-118
FC7413-2	2037-26-5	Toluene-D8	SAMP	SURR	97	%	89-112
FC7413-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	96	%	85-114

\* Sample used for QC is not from job FC7413

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7413  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/29/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
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VI2963 SW846 8260D

VI2963-BS	75-00-3	Chloroethane	BSP	REC	87	%	60-138
VI2963-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	93	%	69-130
VI2963-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	101	%	80-119
VI2963-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	105	%	81-118
VI2963-BS	2037-26-5	Toluene-D8	BSP	SURR	102	%	89-112
VI2963-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	100	%	85-114
FC7493-1MS*	75-00-3	Chloroethane	MS	REC	144	%	60-138
FC7493-1MS*	120-82-1	1,2,4-Trichlorobenzene	MS	REC	93	%	69-130
FC7493-1MS*	1868-53-7	Dibromofluoromethane	MS	SURR	101	%	80-119
FC7493-1MS*	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	107	%	81-118
FC7493-1MS*	2037-26-5	Toluene-D8	MS	SURR	103	%	89-112
FC7493-1MS*	460-00-4	4-Bromofluorobenzene	MS	SURR	98	%	85-114
FC7493-1MSD*	75-00-3	Chloroethane	MSD	REC	127	%	60-138
FC7493-1MSD*	75-00-3	Chloroethane	MSD	RPD	12	%	20
FC7493-1MSD*	120-82-1	1,2,4-Trichlorobenzene	MSD	REC	86	%	69-130
FC7493-1MSD*	120-82-1	1,2,4-Trichlorobenzene	MSD	RPD	7	%	20
FC7493-1MSD*	1868-53-7	Dibromofluoromethane	MSD	SURR	101	%	80-119
FC7493-1MSD*	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	107	%	81-118
FC7493-1MSD*	2037-26-5	Toluene-D8	MSD	SURR	102	%	89-112
FC7493-1MSD*	460-00-4	4-Bromofluorobenzene	MSD	SURR	100	%	85-114
VI2963-MB	1868-53-7	Dibromofluoromethane	MB	SURR	97	%	80-119
VI2963-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	100	%	81-118
VI2963-MB	2037-26-5	Toluene-D8	MB	SURR	97	%	89-112
VI2963-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	99	%	85-114
FC7413-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	97	%	80-119
FC7413-1	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	81-118
FC7413-1	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
FC7413-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	98	%	85-114
FC7413-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	100	%	80-119
FC7413-2	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	105	%	81-118
FC7413-2	2037-26-5	Toluene-D8	SAMP	SURR	95	%	89-112
FC7413-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	99	%	85-114

GLL2901 RSKSOP-147/175

GLL2901-BS	74-82-8	Methane	BSP	REC	97	%	73-125
GLL2901-BS	74-84-0	Ethane	BSP	REC	85	%	74-131
GLL2901-BS	74-85-1	Ethene	BSP	REC	81	%	72-133
GLL2901-BSD	74-82-8	Methane	BSD	REC	109	%	73-125
GLL2901-BSD	74-82-8	Methane	BSD	RPD	12	%	30
GLL2901-BSD	74-84-0	Ethane	BSD	REC	95	%	74-131
GLL2901-BSD	74-84-0	Ethane	BSD	RPD	10	%	30

\* Sample used for QC is not from job FC7413

5.2  
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# QC Evaluation: DOD QSM5.x Limits

**Job Number:** FC7413  
**Account:** EA Engineering  
**Project:** Former Seneca Army Depot; NY  
**Collected:** 06/29/23

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
GLL2901-BSD	74-85-1	Ethene	BSD	REC	92	%	72-133
GLL2901-BSD	74-85-1	Ethene	BSD	RPD	13	%	30
FC7589-7MS*	74-82-8	Methane	MS	REC	109	%	73-125
FC7589-7MS*	74-84-0	Ethane	MS	REC	103	%	74-131
FC7589-7MS*	74-85-1	Ethene	MS	REC	102	%	72-133
FC7589-7DUP*	74-82-8	Methane	DUP	RPD	0	%	30
FC7589-7DUP*	74-84-0	Ethane	DUP	RPD	0	%	30
FC7589-7DUP*	74-85-1	Ethene	DUP	RPD	0	%	30
<b>GLL2902 RSKSOP-147/175</b>							
GLL2902-BS	74-82-8	Methane	BSP	REC	115	%	73-125
GLL2902-BSD	74-82-8	Methane	BSD	REC	109	%	73-125
GLL2902-BSD	74-82-8	Methane	BSD	RPD	5	%	30
FC7589-17MS*	74-82-8	Methane	MS	REC	106	%	73-125
<b>GP38913 EPA 300/SW846 9056A</b>							
GP38913-B1	16887-00-6	Chloride	BSP	REC	98.2	%	87-111
GP38913-B1	14797-55-8	Nitrogen, Nitrate	BSP	REC	106	%	88-111
GP38913-B1	14808-79-8	Sulfate	BSP	REC	101.4	%	87-112
GP38913-S1*	16887-00-6	Chloride	MS	REC	98.8	%	87-111
GP38913-S1*	14797-55-8	Nitrogen, Nitrate	MS	REC	101.2	%	88-111
GP38913-S1*	14808-79-8	Sulfate	MS	REC	100.2	%	87-112
GP38913-S2*	16887-00-6	Chloride	MSD	RPD	1.2	%	15
GP38913-S2*	16887-00-6	Chloride	MSD	REC	100	%	87-111
GP38913-S2*	14797-55-8	Nitrogen, Nitrate	MSD	RPD	3	%	15
GP38913-S2*	14797-55-8	Nitrogen, Nitrate	MSD	REC	105.2	%	88-111
GP38913-S2*	14808-79-8	Sulfate	MSD	RPD	1.5	%	15
GP38913-S2*	14808-79-8	Sulfate	MSD	REC	101.8	%	87-112

(a) Outside control limits due to high level in sample relative to spike amount.

\* Sample used for QC is not from job FC7413

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## MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

**Method Blank Summary**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-MB <sup>a</sup>	2077415.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7413-1, FC7413-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	26.4	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.31	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.45	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.41	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.0	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.53	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.36	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.39	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.28	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.22	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.34	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.31	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.32	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.28	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.22	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.43	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.29	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.36	ug/l	
76-13-1	Freon 113	ND	1.0	0.48	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.22	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	5.0	2.0	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.44	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.0	ug/l	

## Method Blank Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-MB <sup>a</sup>	2077415.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7413-1, FC7413-2

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.23	ug/l	
100-42-5	Styrene	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.22	ug/l	
108-88-3	Toluene	ND	1.0	0.30	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.61	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.47	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.35	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.41	ug/l	
	m,p-Xylene	ND	2.0	0.47	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	106% 83-118%
17060-07-0	1,2-Dichloroethane-D4	102% 79-125%
2037-26-5	Toluene-D8	103% 85-112%
460-00-4	4-Bromofluorobenzene	110% 83-118%

(a) Sample was treated with an anti-foaming agent.

**Method Blank Summary**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2963-MB <sup>a</sup>	I757706.D	1	07/06/23	JW	n/a	n/a	VI2963

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7413-1, FC7413-2

CAS No.	Compound	Result	RL	MDL	Units	Q
75-00-3	Chloroethane	ND	2.0	0.67	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	100%	79-125%
2037-26-5	Toluene-D8	97%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

(a) Sample was treated with an anti-foaming agent.



**Blank Spike Summary**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-BS	2077413.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7413-1, FC7413-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	153	122	50-147
71-43-2	Benzene	25	25.7	103	81-122
74-97-5	Bromochloromethane	25	24.8	99	76-123
75-27-4	Bromodichloromethane	25	25.4	102	79-123
75-25-2	Bromoform	25	26.9	108	66-123
78-93-3	2-Butanone (MEK)	125	126	101	56-143
75-15-0	Carbon Disulfide	25	27.6	110	66-148
56-23-5	Carbon Tetrachloride	25	25.6	102	76-136
108-90-7	Chlorobenzene	25	24.3	97	82-124
67-66-3	Chloroform	25	24.7	99	80-124
110-82-7	Cyclohexane	25	22.7	91	73-138
124-48-1	Dibromochloromethane	25	27.5	110	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	25.9	104	64-123
106-93-4	1,2-Dibromoethane	25	23.8	95	75-120
75-71-8	Dichlorodifluoromethane	25	31.7	127	42-167
95-50-1	1,2-Dichlorobenzene	25	23.6	94	82-124
541-73-1	1,3-Dichlorobenzene	25	23.7	95	84-125
106-46-7	1,4-Dichlorobenzene	25	24.8	99	78-120
75-34-3	1,1-Dichloroethane	25	23.7	95	81-122
107-06-2	1,2-Dichloroethane	25	24.4	98	75-125
75-35-4	1,1-Dichloroethylene	25	24.8	99	78-137
156-59-2	cis-1,2-Dichloroethylene	25	22.6	90	78-120
156-60-5	trans-1,2-Dichloroethylene	25	23.8	95	76-127
78-87-5	1,2-Dichloropropane	25	26.0	104	76-124
10061-01-5	cis-1,3-Dichloropropene	25	26.5	106	75-118
10061-02-6	trans-1,3-Dichloropropene	25	25.8	103	80-120
100-41-4	Ethylbenzene	25	24.1	96	81-121
76-13-1	Freon 113	25	26.4	106	72-134
591-78-6	2-Hexanone	125	137	110	61-129
98-82-8	Isopropylbenzene	25	21.8	87	83-132
79-20-9	Methyl Acetate	125	116	93	65-126
74-83-9	Methyl Bromide	25	24.7	99	59-143
74-87-3	Methyl Chloride	25	27.3	109	50-159
108-87-2	Methylcyclohexane	25	22.8	91	76-129
75-09-2	Methylene Chloride	25	26.1	104	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	135	108	66-122

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2O3017-BS	2O77413.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7413-1, FC7413-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	25	24.9	100	72-117
100-42-5	Styrene	25	24.0	96	78-119
79-34-5	1,1,2,2-Tetrachloroethane	25	26.1	104	72-120
127-18-4	Tetrachloroethylene	25	24.6	98	76-135
108-88-3	Toluene	25	24.9	100	80-120
87-61-6	1,2,3-Trichlorobenzene	25	22.4	90	68-131
71-55-6	1,1,1-Trichloroethane	25	24.5	98	75-130
79-00-5	1,1,2-Trichloroethane	25	25.8	103	76-119
79-01-6	Trichloroethylene	25	24.0	96	81-126
75-69-4	Trichlorofluoromethane	25	31.0	124	71-156
75-01-4	Vinyl Chloride	25	29.0	116	69-159
	m,p-Xylene	50	48.9	98	79-126
95-47-6	o-Xylene	25	21.9	88	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	97%	83-118%

\* = Outside of Control Limits.

**Blank Spike Summary**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VI2963-BS	I757704.D	1	07/06/23	JW	n/a	n/a	VI2963

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7413-1, FC7413-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
75-00-3	Chloroethane	25	21.8	87	62-144
120-82-1	1,2,4-Trichlorobenzene	25	23.2	93	73-129

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	105%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	100%	83-118%

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7382-1MS	2077436.D	1	07/05/23	JW	n/a	n/a	V2O3017
FC7382-1MSD	2077437.D	1	07/05/23	JW	n/a	n/a	V2O3017
FC7382-1	2077418.D	1	07/05/23	JW	n/a	n/a	V2O3017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7413-1, FC7413-2

CAS No.	Compound	FC7382-1		MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD	
		ug/l	Q								
67-64-1	Acetone	25 U		125	115	92	125	108	86	6	50-147/21
71-43-2	Benzene	4.9		25	33.8	116	25	32.5	110	4	81-122/14
74-97-5	Bromochloromethane	1.0 U		25	27.3	109	25	23.0	92	17*	76-123/14
75-27-4	Bromodichloromethane	1.0 U		25	26.0	104	25	24.3	97	7	79-123/19
75-25-2	Bromoform	1.0 U		25	24.2	97	25	23.8	95	2	66-123/21
78-93-3	2-Butanone (MEK)	5.0 U		125	118	94	125	107	86	10	56-143/18
75-15-0	Carbon Disulfide	2.0 U		25	33.2	133	25	28.2	113	16	66-148/23
56-23-5	Carbon Tetrachloride	1.0 U		25	31.2	125	25	26.0	104	18	76-136/23
108-90-7	Chlorobenzene	1.0 U		25	25.5	102	25	23.9	96	6	82-124/14
67-66-3	Chloroform	1.0 U		25	28.1	112	25	23.7	95	17*	80-124/15
110-82-7	Cyclohexane	1.0 U		25	29.2	117	25	25.0	100	15	73-138/18
124-48-1	Dibromochloromethane	1.0 U		25	27.5	110	25	24.0	96	14	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	5.0 U		25	24.4	98	25	24.2	97	1	64-123/18
106-93-4	1,2-Dibromoethane	2.0 U		25	23.8	95	25	22.1	88	7	75-120/13
75-71-8	Dichlorodifluoromethane	2.0 U		25	37.9	152	25	36.5	146	4	42-167/19
95-50-1	1,2-Dichlorobenzene	1.0 U		25	23.8	95	25	22.4	90	6	82-124/14
541-73-1	1,3-Dichlorobenzene	1.0 U		25	24.3	97	25	22.8	91	6	84-125/14
106-46-7	1,4-Dichlorobenzene	1.0 U		25	25.8	103	25	24.0	96	7	78-120/15
75-34-3	1,1-Dichloroethane	1.0 U		25	28.3	113	25	24.5	98	14	81-122/15
107-06-2	1,2-Dichloroethane	1.0 U		25	25.6	102	25	24.5	98	4	75-125/14
75-35-4	1,1-Dichloroethylene	1.0 U		25	28.6	114	25	24.6	98	15	78-137/18
156-59-2	cis-1,2-Dichloroethylene	4.9		25	29.8	100	25	25.6	83	15	78-120/15
156-60-5	trans-1,2-Dichloroethylene	1.0 U		25	28.0	112	25	24.2	97	15	76-127/17
78-87-5	1,2-Dichloropropane	1.0 U		25	28.0	112	25	26.2	105	7	76-124/14
10061-01-5	cis-1,3-Dichloropropene	1.0 U		25	24.3	97	25	22.3	89	9	75-118/23
10061-02-6	trans-1,3-Dichloropropene	1.0 U		25	25.3	101	25	23.2	93	9	80-120/22
100-41-4	Ethylbenzene	1.5		25	27.5	104	25	26.8	101	3	81-121/14
76-13-1	Freon 113	1.0 U		25	34.8	139*	25	29.2	117	18	72-134/20
591-78-6	2-Hexanone	10 U		125	136	109	125	139	111	2	61-129/18
98-82-8	Isopropylbenzene	1.0 U		25	22.4	90	25	23.1	92	3	83-132/15
79-20-9	Methyl Acetate	20 U		125	108	86	125	94.1	75	14	65-126/18
74-83-9	Methyl Bromide	5.0 U		25	19.5	78	25	21.8	87	11	59-143/19
74-87-3	Methyl Chloride	2.0 U		25	31.5	126	25	30.6	122	3	50-159/19
108-87-2	Methylcyclohexane	1.0 U		25	27.6	110	25	27.0	108	2	76-129/17
75-09-2	Methylene Chloride	5.0 U		25	28.5	114	25	23.9	96	18*	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0 U		125	130	104	125	126	101	3	66-122/16

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7382-1MS	2077436.D	1	07/05/23	JW	n/a	n/a	V203017
FC7382-1MSD	2077437.D	1	07/05/23	JW	n/a	n/a	V203017
FC7382-1	2077418.D	1	07/05/23	JW	n/a	n/a	V203017

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7413-1, FC7413-2

CAS No.	Compound	FC7382-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	1.0 U	25	25.0	100	25	21.9	88	13	72-117/14
100-42-5	Styrene	1.0 U	25	24.0	96	25	24.0	96	0	78-119/23
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U	25	26.0	104	25	24.3	97	7	72-120/14
127-18-4	Tetrachloroethylene	1.0 U	25	27.7	111	25	24.6	98	12	76-135/16
108-88-3	Toluene	2.2	25	27.2	100	25	26.7	98	2	80-120/14
87-61-6	1,2,3-Trichlorobenzene	2.0 U	25	22.9	92	25	21.6	86	6	68-131/25
71-55-6	1,1,1-Trichloroethane	1.0 U	25	29.7	119	25	24.9	100	18*	75-130/16
79-00-5	1,1,2-Trichloroethane	1.0 U	25	27.0	108	25	23.8	95	13	76-119/14
79-01-6	Trichloroethylene	3.2	25	29.9	107	25	29.0	103	3	81-126/15
75-69-4	Trichlorofluoromethane	2.0 U	25	35.7	143	25	34.3	137	4	71-156/21
75-01-4	Vinyl Chloride	1.0 U	25	33.7	135	25	33.0	132	2	69-159/18
	m,p-Xylene	60.8	50	112	102	50	120	118	7	79-126/15
95-47-6	o-Xylene	94.7	25	114	77* a	25	125	121	9	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FC7382-1	Limits
1868-53-7	Dibromofluoromethane	107%	92%	109%	83-118%
17060-07-0	1,2-Dichloroethane-D4	103%	107%	103%	79-125%
2037-26-5	Toluene-D8	92%	96%	101%	85-112%
460-00-4	4-Bromofluorobenzene	95%	93%	97%	83-118%

(a) Outside control limits due to high level in sample relative to spike amount.

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7493-1MS	I757724.D	5	07/06/23	JW	n/a	n/a	VI2963
FC7493-1MSD	I757725.D	5	07/06/23	JW	n/a	n/a	VI2963
FC7493-1	I757710.D	1	07/06/23	JW	n/a	n/a	VI2963

The QC reported here applies to the following samples:

Method: SW846 8260D

FC7413-1, FC7413-2

CAS No.	Compound	FC7493-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
75-00-3	Chloroethane	2.0 U	125	180	144	125	159	127	12	62-144/20
120-82-1	1,2,4-Trichlorobenzene	2.0 U	125	116	93	125	108	86	7	73-129/20

CAS No.	Surrogate Recoveries	MS	MSD	FC7493-1	Limits
1868-53-7	Dibromofluoromethane	101%	101%	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	107%	107%	102%	79-125%
2037-26-5	Toluene-D8	103%	102%	97%	85-112%
460-00-4	4-Bromofluorobenzene	98%	100%	99%	83-118%

\* = Outside of Control Limits.

**Instrument Performance Check (BFB)**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V202981-BFB	<b>Injection Date:</b> 06/07/23
<b>Lab File ID:</b> 2076618.D	<b>Injection Time:</b> 09:26
<b>Instrument ID:</b> GCMS20	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	15441	17.4	Pass
75	30.0 - 60.0% of mass 95	44797	50.5	Pass
95	Base peak, 100% relative abundance	88696	100.0	Pass
96	5.0 - 9.0% of mass 95	6368	7.18	Pass
173	Less than 2.0% of mass 174	520	0.59 (0.77) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	67133	75.7	Pass
175	5.0 - 9.0% of mass 174	5047	5.69 (7.52) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	64680	72.9 (96.3) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	4269	4.81 (6.60) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V202981-IC2981	2076622.D	06/07/23	11:22	01:56	Initial cal 4
V202981-ICC2981	2076623.D	06/07/23	11:47	02:21	Initial cal 5
V202981-IC2981	2076624.D	06/07/23	12:13	02:47	Initial cal 6
V202981-IC2981	2076625.D	06/07/23	12:38	03:12	Initial cal 7
V202981-IC2981	2076627.D	06/07/23	13:55	04:29	Initial cal 1
V202981-IC2981	2076628.D	06/07/23	14:20	04:54	Initial cal 2
V202981-IC2981	2076629.D	06/07/23	14:46	05:20	Initial cal 3
V202981-ICV2981	2076631.D	06/07/23	15:37	06:11	Initial cal verification 5
V202981-ICV2981	2076632.D	06/07/23	16:02	06:36	Initial cal verification 4

**Instrument Performance Check (BFB)**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V2O3017-BFB	<b>Injection Date:</b> 07/05/23
<b>Lab File ID:</b> 2077411.D	<b>Injection Time:</b> 08:10
<b>Instrument ID:</b> GCMS20	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	12065	17.5	Pass
75	30.0 - 60.0% of mass 95	34259	49.7	Pass
95	Base peak, 100% relative abundance	68939	100.0	Pass
96	5.0 - 9.0% of mass 95	4613	6.69	Pass
173	Less than 2.0% of mass 174	233	0.34 (0.44) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	52733	76.5	Pass
175	5.0 - 9.0% of mass 174	3978	5.77 (7.54) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	51037	74.0 (96.8) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	3462	5.02 (6.78) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2O3017-CC2981	2077412.D	07/05/23	08:36	00:26	Continuing cal 4
V2O3017-BS	2077413.D	07/05/23	09:01	00:51	Blank Spike
V2O3017-MB	2077415.D	07/05/23	09:52	01:42	Method Blank
ZZZZZZ	2077416.D	07/05/23	10:17	02:07	(unrelated sample)
ZZZZZZ	2077417.D	07/05/23	10:43	02:33	(unrelated sample)
FC7382-1	2077418.D	07/05/23	11:08	02:58	(used for QC only; not part of job FC7413)
ZZZZZZ	2077419.D	07/05/23	11:34	03:24	(unrelated sample)
ZZZZZZ	2077420.D	07/05/23	11:59	03:49	(unrelated sample)
ZZZZZZ	2077421.D	07/05/23	12:25	04:15	(unrelated sample)
ZZZZZZ	2077422.D	07/05/23	12:50	04:40	(unrelated sample)
ZZZZZZ	2077423.D	07/05/23	13:16	05:06	(unrelated sample)
FC7413-1	2077424.D	07/05/23	13:41	05:31	SEAD-MWT-28-20230629
FC7413-2	2077425.D	07/05/23	14:07	05:57	TB
ZZZZZZ	2077426.D	07/05/23	14:32	06:22	(unrelated sample)
ZZZZZZ	2077427.D	07/05/23	14:58	06:48	(unrelated sample)
ZZZZZZ	2077428.D	07/05/23	15:23	07:13	(unrelated sample)
ZZZZZZ	2077429.D	07/05/23	15:49	07:39	(unrelated sample)
ZZZZZZ	2077430.D	07/05/23	16:14	08:04	(unrelated sample)
ZZZZZZ	2077431.D	07/05/23	16:40	08:30	(unrelated sample)
ZZZZZZ	2077432.D	07/05/23	17:05	08:55	(unrelated sample)
ZZZZZZ	2077433.D	07/05/23	17:30	09:20	(unrelated sample)
ZZZZZZ	2077434.D	07/05/23	17:56	09:46	(unrelated sample)
ZZZZZZ	2077435.D	07/05/23	18:21	10:11	(unrelated sample)
FC7382-1MS	2077436.D	07/05/23	18:47	10:37	Matrix Spike



# Instrument Performance Check (BFB)

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> V2O3017-BFB	<b>Injection Date:</b> 07/05/23
<b>Lab File ID:</b> 2O77411.D	<b>Injection Time:</b> 08:10
<b>Instrument ID:</b> GCMS20	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FC7382-1MSD	2O77437.D	07/05/23	19:12	11:02	Matrix Spike Duplicate
V2O3017-ECC2981	2O77438.D	07/05/23	19:38	11:28	Ending cal 4

6.4.2

6

**Instrument Performance Check (BFB)**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2948-BFB	<b>Injection Date:</b> 06/15/23
<b>Lab File ID:</b> I757260.D	<b>Injection Time:</b> 10:08
<b>Instrument ID:</b> GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	37549	17.4	Pass
75	30.0 - 60.0% of mass 95	102373	47.6	Pass
95	Base peak, 100% relative abundance	215275	100.0	Pass
96	5.0 - 9.0% of mass 95	14176	6.59	Pass
173	Less than 2.0% of mass 174	1477	0.69 (0.72) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	205205	95.3	Pass
175	5.0 - 9.0% of mass 174	15382	7.15 (7.50) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	207019	96.2 (100.9) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	13947	6.48 (6.74) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VI2948-IC2948	I757261.D	06/15/23	10:43	00:35	Initial cal 1
VI2948-IC2948	I757262.D	06/15/23	11:16	01:08	Initial cal 2
VI2948-IC2948	I757263.D	06/15/23	11:40	01:32	Initial cal 3
VI2948-IC2948	I757264.D	06/15/23	12:04	01:56	Initial cal 4
VI2948-ICC2948	I757265.D	06/15/23	12:28	02:20	Initial cal 5
VI2948-IC2948	I757266.D	06/15/23	12:52	02:44	Initial cal 6
VI2948-IC2948	I757267.D	06/15/23	13:15	03:07	Initial cal 7
VI2948-CC2948	I757269A.D	06/15/23	14:04	03:56	Continuing cal 5
VI2948-ICV2948	I757269.D	06/15/23	14:04	03:56	Initial cal verification 5
VI2948-BS	I757270A.D	06/15/23	14:27	04:19	Blank Spike
VI2948-ICV2948	I757270.D	06/15/23	14:27	04:19	Initial cal verification 4
VI2948-BSD	I757271.D	06/15/23	14:51	04:43	Blank Spike Duplicate
VI2948-MB	I757273.D	06/15/23	15:39	05:31	Method Blank
ZZZZZZ	I757274.D	06/15/23	16:03	05:55	(unrelated sample)
ZZZZZZ	I757275.D	06/15/23	16:27	06:19	(unrelated sample)
ZZZZZZ	I757276.D	06/15/23	16:51	06:43	(unrelated sample)
ZZZZZZ	I757277.D	06/15/23	17:15	07:07	(unrelated sample)
ZZZZZZ	I757278.D	06/15/23	17:39	07:31	(unrelated sample)
ZZZZZZ	I757279.D	06/15/23	18:03	07:55	(unrelated sample)
ZZZZZZ	I757280.D	06/15/23	18:27	08:19	(unrelated sample)
ZZZZZZ	I757281.D	06/15/23	18:51	08:43	(unrelated sample)
ZZZZZZ	I757282.D	06/15/23	19:15	09:07	(unrelated sample)
ZZZZZZ	I757283.D	06/15/23	19:39	09:31	(unrelated sample)
ZZZZZZ	I757284.D	06/15/23	20:03	09:55	(unrelated sample)

# Instrument Performance Check (BFB)

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2948-BFB	<b>Injection Date:</b> 06/15/23
<b>Lab File ID:</b> I757260.D	<b>Injection Time:</b> 10:08
<b>Instrument ID:</b> GCMSI	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	I757285.D	06/15/23	20:27	10:19	(unrelated sample)
VI2948-ECC2948	I757286.D	06/15/23	20:51	10:43	Ending cal 5

**Instrument Performance Check (BFB)**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2963-BFB	<b>Injection Date:</b> 07/06/23
<b>Lab File ID:</b> I757702.D	<b>Injection Time:</b> 08:41
<b>Instrument ID:</b> GCMSI	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	15.0 - 40.0% of mass 95	30253	18.0	Pass
75	30.0 - 60.0% of mass 95	80371	47.8	Pass
95	Base peak, 100% relative abundance	168107	100.0	Pass
96	5.0 - 9.0% of mass 95	11934	7.10	Pass
173	Less than 2.0% of mass 174	1301	0.77 (0.78) <sup>a</sup>	Pass
174	50.0 - 100.0% of mass 95	167299	99.5	Pass
175	5.0 - 9.0% of mass 174	12607	7.50 (7.54) <sup>a</sup>	Pass
176	95.0 - 101.0% of mass 174	162133	96.4 (96.9) <sup>a</sup>	Pass
177	5.0 - 9.0% of mass 176	10891	6.48 (6.72) <sup>b</sup>	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VI2963-CC2948	I757703.D	07/06/23	09:12	00:31	Continuing cal 5
VI2963-BS	I757704.D	07/06/23	09:43	01:02	Blank Spike
VI2963-MB	I757706.D	07/06/23	10:31	01:50	Method Blank
ZZZZZZ	I757707.D	07/06/23	10:55	02:14	(unrelated sample)
ZZZZZZ	I757708.D	07/06/23	11:19	02:38	(unrelated sample)
FC7413-2	I757709.D	07/06/23	11:42	03:01	TB
FC7493-1	I757710.D	07/06/23	12:06	03:25	(used for QC only; not part of job FC7413)
ZZZZZZ	I757711.D	07/06/23	12:30	03:49	(unrelated sample)
ZZZZZZ	I757712.D	07/06/23	12:54	04:13	(unrelated sample)
ZZZZZZ	I757713.D	07/06/23	13:18	04:37	(unrelated sample)
ZZZZZZ	I757716.D	07/06/23	15:41	07:00	(unrelated sample)
ZZZZZZ	I757717.D	07/06/23	16:05	07:24	(unrelated sample)
ZZZZZZ	I757718.D	07/06/23	16:29	07:48	(unrelated sample)
FC7413-1	I757720.D	07/06/23	16:53	08:12	SEAD-MWT-28-20230629
ZZZZZZ	I757721.D	07/06/23	17:36	08:55	(unrelated sample)
ZZZZZZ	I757722.D	07/06/23	18:00	09:19	(unrelated sample)
ZZZZZZ	I757723.D	07/06/23	18:24	09:43	(unrelated sample)
FC7493-1MS	I757724.D	07/06/23	18:48	10:07	Matrix Spike
FC7493-1MSD	I757725.D	07/06/23	19:12	10:31	Matrix Spike Duplicate
VI2963-ECC2948	I757726.D	07/06/23	19:35	10:54	Ending cal 5
VI2964-CC2948	I757728.D	07/06/23	20:23	11:42	Continuing cal 5
VI2964-BS	I757729.D	07/06/23	20:47	12:06	Blank Spike
FC7465-35MS	I757731.D	07/06/23	21:34	12:53	Matrix Spike
FC7465-35MSD	I757732.D	07/06/23	21:58	13:17	Matrix Spike Duplicate

# Instrument Performance Check (BFB)

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Sample:</b> VI2963-BFB	<b>Injection Date:</b> 07/06/23
<b>Lab File ID:</b> I757702.D	<b>Injection Time:</b> 08:41
<b>Instrument ID:</b> GCMSI	

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VI2964-MB	I757733.D	07/06/23	22:22	13:41	Method Blank
FC7465-35	I757734.D	07/06/23	22:46	14:05	(used for QC only; not part of job FC7413)
ZZZZZZ	I757735.D	07/06/23	23:10	14:29	(unrelated sample)
ZZZZZZ	I757736.D	07/06/23	23:34	14:53	(unrelated sample)
ZZZZZZ	I757737.D	07/06/23	23:57	15:16	(unrelated sample)
ZZZZZZ	I757738.D	07/07/23	00:21	15:40	(unrelated sample)
ZZZZZZ	I757739.D	07/07/23	00:45	16:04	(unrelated sample)
ZZZZZZ	I757740.D	07/07/23	01:09	16:28	(unrelated sample)
ZZZZZZ	I757741.D	07/07/23	01:33	16:52	(unrelated sample)
ZZZZZZ	I757742.D	07/07/23	01:56	17:15	(unrelated sample)
ZZZZZZ	I757743.D	07/07/23	02:20	17:39	(unrelated sample)
ZZZZZZ	I757744.D	07/07/23	02:44	18:03	(unrelated sample)
ZZZZZZ	I757745.D	07/07/23	03:08	18:27	(unrelated sample)
ZZZZZZ	I757746.D	07/07/23	03:32	18:51	(unrelated sample)
ZZZZZZ	I757747.D	07/07/23	03:56	19:15	(unrelated sample)
ZZZZZZ	I757748.D	07/07/23	04:19	19:38	(unrelated sample)
VI2964-ECC2948	I757749.D	07/07/23	04:43	20:02	Ending cal 5

# Internal Standard Area Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b> V2O3017-CC2981	<b>Injection Date:</b> 07/05/23
<b>Lab File ID:</b> 2077412.D	<b>Injection Time:</b> 08:36
<b>Instrument ID:</b> GCMS20	<b>Method:</b> SW846 8260D

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Initial Cal <sup>a</sup>	426373	4.01	320814	6.02	169764	7.78
Check Std <sup>b</sup>	359075	4.01	259734	6.02	128361	7.77
Upper Limit <sup>c</sup>	718150	4.18	519468	6.19	256722	7.94
Lower Limit <sup>d</sup>	179538	3.84	129867	5.85	64181	7.60

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V2O3017-BS	375787	4.01	268562	6.02	130962	7.77
V2O3017-MB <sup>e</sup>	305171	4.01	212296	6.02	106160	7.77
ZZZZZZ	307795	4.01	207791	6.02	102460	7.77
ZZZZZZ	295871	4.01	202621	6.02	100594	7.77
FC7382-1	287082	4.01	203554	6.02	107311	7.77
ZZZZZZ	293485	4.01	208261	6.02	109256	7.77
ZZZZZZ	298800	4.01	206484	6.02	101616	7.77
ZZZZZZ	288193	4.01	200565	6.02	101494	7.77
ZZZZZZ	289053	4.01	200590	6.02	100630	7.77
ZZZZZZ	276019	4.01	188682	6.02	95947	7.77
FC7413-1 <sup>e</sup>	306458	4.01	218049	6.02	98605	7.77
FC7413-2	290311	4.01	210115	6.02	99698	7.77
ZZZZZZ	283394	4.01	199620	6.02	96494	7.77
ZZZZZZ	286100	4.01	194122	6.02	97409	7.77
ZZZZZZ	277881	4.01	192893	6.02	100044	7.77
ZZZZZZ	280453	4.01	203470	6.02	99642	7.77
ZZZZZZ	275927	4.01	210916	6.02	96845	7.77
ZZZZZZ	271508	4.01	197292	6.02	94862	7.77
ZZZZZZ	280005	4.01	198038	6.02	99912	7.77
ZZZZZZ	275653	4.01	205001	6.02	94959	7.77
ZZZZZZ	273621	4.01	192311	6.02	94927	7.77
ZZZZZZ	273377	4.01	204421	6.02	92519	7.77

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

- (a) Initial Cal is: V2O2981-ICC2981 2076623.D 06/07/23 11:47
- (b) Check Std Limit = -50 to + 100% of initial cal area.
- (c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
- (d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
- (e) Sample was treated with an anti-foaming agent.

6.5.1  
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# Internal Standard Area Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Check Std:</b>	VI2963-CC2948	<b>Injection Date:</b>	07/06/23
<b>Lab File ID:</b>	I757703.D	<b>Injection Time:</b>	09:12
<b>Instrument ID:</b>	GCMSI	<b>Method:</b>	SW846 8260D

	<b>IS 1</b>		<b>IS 2</b>		<b>IS 3</b>	
	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>
Initial Cal <sup>a</sup>	1166537	7.85	854326	11.01	520019	13.37
Check Std <sup>b</sup>	1008433	7.85	708930	11.01	426284	13.37
Upper Limit <sup>c</sup>	2016866	8.02	1417860	11.18	852568	13.54
Lower Limit <sup>d</sup>	504217	7.68	354465	10.84	213142	13.20

<b>Lab</b>	<b>IS 1</b>		<b>IS 2</b>		<b>IS 3</b>	
<b>Sample ID</b>	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>	<b>AREA</b>	<b>RT</b>
VI2963-BS	1010121	7.85	711222	11.01	434708	13.37
VI2963-MB <sup>e</sup>	999716	7.86	726062	11.01	408938	13.37
ZZZZZZ	984662	7.85	712109	11.01	402091	13.37
ZZZZZZ	994618	7.85	713341	11.01	402073	13.37
FC7413-2	988961	7.85	727616	11.01	409494	13.37
FC7493-1	990994	7.85	719769	11.01	406831	13.37
ZZZZZZ	996407	7.85	720604	11.01	410778	13.37
ZZZZZZ	974708	7.85	699585	11.01	395276	13.37
ZZZZZZ	961151	7.86	700073	11.01	395687	13.37
ZZZZZZ	788833	7.85	570982	11.01	314511	13.37
ZZZZZZ	804929	7.86	586014	11.01	328099	13.37
ZZZZZZ	830537	7.85	609896	11.01	351405	13.37
FC7413-1	804783	7.85	578173	11.01	320890	13.37
ZZZZZZ	852030	7.85	607371	11.01	349193	13.37
ZZZZZZ	862581	7.85	620681	11.01	349831	13.37
ZZZZZZ	861541	7.85	625358	11.01	348540	13.37

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

- (a) Initial Cal is: VI2948-ICC2948 I757265.D 06/15/23 12:28
- (b) Check Std Limit = -50 to + 100% of initial cal area.
- (c) Upper Limit = + 100% of check standard area; Retention time + 0.167 minutes.
- (d) Lower Limit = -50% of check standard area; Retention time -0.167 minutes.
- (e) Sample was treated with an anti-foaming agent.

# Surrogate Recovery Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Method:</b> SW846 8260D	<b>Matrix:</b> AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FC7413-1	I757720.D	97	103	99	98
FC7413-1	2O77424.D	105	98	96	108
FC7413-2	I757709.D	100	105	95	99
FC7413-2	2O77425.D	112	106	97	96
FC7382-1MS	2O77436.D	107	103	92	95
FC7382-1MSD	2O77437.D	92	107	96	93
FC7493-1MS	I757724.D	101	107	103	98
FC7493-1MSD	I757725.D	101	107	102	100
V2O3017-BS	2O77413.D	100	104	100	97
V2O3017-MB	2O77415.D	106	102	103	110
VI2963-BS	I757704.D	101	105	102	100
VI2963-MB	I757706.D	97	100	97	99

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	83-118%
S2 = 1,2-Dichloroethane-D4	79-125%
S3 = Toluene-D8	85-112%
S4 = 4-Bromofluorobenzene	83-118%



# Initial Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICC2981  
 Lab FileID: 2076623.D

## Response Factor Report MSVOA12

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

### Calibration Files

1 =2076627.D 2 =2076628.D 3 =2076629.D 4 =2076622.D  
 5 =2076623.D 6 =2076624.D 7 =2076625.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
-----									
1) I Fluorobenzene	-----ISTD-----								
2) Dichlorodifluorom	0.199	0.193	0.169	0.190	0.193	0.170	0.179	0.185	6.50
3)P Chloromethane	0.242	0.184	0.170	0.181	0.183	0.175	0.182	0.188	12.81
4) 1,3-butadiene	0.184	0.219	0.262	0.220	0.202	0.170	0.176	0.205	15.75
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9941								
	Response Ratio = 0.00000 + 0.22857 *A + -0.03029 *A^2								
5)C Vinyl Chloride	0.224	0.193	0.177	0.194	0.202	0.183	0.186	0.194	7.89
6) Bromomethane	0.216	0.145	0.152	0.146	0.158	0.150	0.160	0.161	15.43
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9990								
	Response Ratio = 0.00000 + 0.14854 *A + 0.00475 *A^2								
7) Chloroethane	0.181	0.147	0.137	0.137	0.109	0.049		0.127	35.18
	---- Quadratic regression ---- Coefficient = 0.9957								
	Response Ratio = -0.00294 + 0.19150 *A + -0.10024 *A^2								
8) Trichlorofluorome	0.387	0.389	0.344	0.382	0.397	0.348	0.315	0.366	8.33
9) Ethyl Ether	0.199	0.149	0.169	0.168	0.182	0.170	0.171	0.173	8.72
10) Ethanol		0.004	0.004	0.004	0.003	0.004	0.004	0.004	8.47
11) 1,2-Dichlorotrifl	0.260	0.218	0.254	0.243	0.269	0.227	0.242	0.245	7.39
12)C 1,1-Dichloroethen	0.341	0.268	0.305	0.307	0.341	0.282	0.308	0.307	8.84
13) Freon 113	0.218	0.196	0.217	0.222	0.246	0.195	0.217	0.216	7.93
14) Carbon Disulfide	0.839	0.488	0.554	0.559	0.629	0.531	0.584	0.598	19.24
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9950								
	Response Ratio = 0.00000 + 0.57110 *A + 0.00043 *A^2								
15) Iodomethane	0.186	0.130	0.141	0.186	0.225	0.214	0.224	0.186	20.67
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9944								
	Response Ratio = 0.00000 + 0.17722 *A + 0.02549 *A^2								
16) Acrolein	0.038	0.067	0.052	0.055	0.056	0.058	0.058	0.055	16.38
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9983								
	Response Ratio = 0.00000 + 0.05486 *A + 0.00033 *A^2								
17) Allyl chloride	0.170	0.221	0.277	0.231	0.227	0.215	0.226	0.224	13.96
18) Methylene Chlorid	0.495	0.287	0.279	0.271	0.289	0.264	0.267	0.307	27.05
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9990								
	Response Ratio = 0.00000 + 0.28145 *A + -0.00783 *A^2								
19) Acetone	0.149	0.117	0.096	0.111	0.110	0.113	0.113	0.115	13.91
20) Methyl acetate	0.338	0.244	0.254	0.264	0.273	0.267	0.266	0.272	11.24
21) trans-1,2-Dichlor	0.368	0.280	0.297	0.304	0.332	0.287	0.306	0.310	9.75
22) Hexane	0.177	0.152	0.155	0.157	0.170	0.142	0.152	0.158	7.45
23) Methyl Tert Butyl	0.681	0.546	0.581	0.602	0.672	0.639	0.650	0.624	7.96
24) Tert Butyl Alcoho	0.037	0.031	0.034	0.039	0.040	0.044	0.046	0.039	13.65
25) Acetonitrile	0.050	0.049	0.055	0.042	0.039	0.041	0.040	0.045	13.89

6.7.1  
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# Initial Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

26)	Di-isopropyl ethe	0.677	0.525	0.593	0.601	0.659	0.617	0.628	0.614	8.07
27)	Chloroprene	0.185	0.280	0.363	0.312	0.300	0.272	0.290	0.286	18.76
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9961
										Response Ratio = 0.00000 + 0.31146 *A + -0.01485 *A^2
28)P	1,1-Dichloroethan	0.456	0.359	0.396	0.393	0.432	0.384	0.403	0.403	7.90
29)	Acrylonitrile	0.137	0.109	0.099	0.116	0.105	0.106	0.109	0.111	10.94
30)	ETBE	0.605	0.487	0.543	0.576	0.649	0.606	0.624	0.584	9.36
31)	Vinyl acetate	0.390	0.406	0.394	0.491	0.461	0.452	0.470	0.438	9.25
32)	cis-1,2-Dichloroe	0.330	0.234	0.257	0.250	0.275	0.248	0.256	0.264	11.97
33)	2,2-Dichloropropa	0.290	0.221	0.256	0.263	0.302	0.266	0.289	0.270	10.04
34)	Bromochloromethan	0.148	0.121	0.130	0.131	0.134	0.117	0.119	0.129	8.45
35)	Cyclohexane	0.289	0.276	0.319	0.318	0.346	0.292	0.315	0.308	7.68
36)C	Chloroform	0.518	0.407	0.442	0.452	0.487	0.435	0.448	0.456	7.99
37)	Ethyl acetate	0.321	0.318	0.293	0.363	0.328	0.331	0.340	0.328	6.60
38)	Tetrahydrofuran	0.134	0.110	0.113	0.113	0.116	0.123	0.114	0.117	7.06
39)S	Dibromofluorometh	0.271	0.272	0.268	0.273	0.273	0.275	0.273	0.272	0.82
40)	Carbon Tetrachlor	0.302	0.231	0.279	0.296	0.342	0.291	0.314	0.294	11.62
41)	1,1,1-Trichloroet	0.371	0.308	0.342	0.366	0.405	0.351	0.374	0.360	8.45
42)	2-Butanone	0.213	0.178	0.141	0.178	0.176	0.183	0.181	0.178	11.74
43)	1,1-Dichloroprope	0.315	0.265	0.301	0.301	0.335	0.287	0.304	0.301	7.25
44)	tert-Butyl format	0.054	0.061	0.065	0.072	0.089	0.089	0.089	0.074	20.04
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9963
										Response Ratio = 0.00000 + 0.07340 *A + 0.00178 *A^2
45)	Propionitrile	0.044	0.057	0.065	0.056	0.052	0.056	0.056	0.055	11.67
46)	Methacrylonitrile	0.148	0.194	0.235	0.198	0.187	0.193	0.190	0.192	13.12
47)	Benzene	1.049	0.798	0.880	0.890	0.983	0.871	0.897	0.910	9.00
48)	TAME	0.546	0.456	0.509	0.540	0.625	0.594	0.608	0.554	10.76
49)	Isobutyl alcohol	0.008	0.014	0.017	0.017	0.016	0.018	0.018	0.016	22.24
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9981
										Response Ratio = 0.00000 + 0.01574 *A + 0.00006 *A^2
50)S	1,2-Dichloroethan	0.307	0.327	0.296	0.319	0.331	0.336	0.344	0.323	5.21
51)	1,2-Dichloroethan	0.479	0.333	0.354	0.361	0.387	0.353	0.353	0.374	13.09
52)	Tert Amyl Alcohol	0.026	0.021	0.024	0.028	0.031	0.034	0.035	0.028	18.39
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9995
										Response Ratio = 0.00000 + 0.02749 *A + 0.00040 *A^2
53)	Trichloroethene	0.314	0.233	0.258	0.259	0.281	0.245	0.256	0.264	10.11
54)	Methylcyclohexane	0.334	0.282	0.318	0.332	0.368	0.306	0.328	0.324	8.20
55)	Dibromomethane	0.233	0.156	0.169	0.173	0.184	0.171	0.172	0.180	13.82
56)C	1,2-Dichloropropa	0.245	0.185	0.216	0.211	0.233	0.215	0.219	0.218	8.66
57)	Bromodichlorometh	0.327	0.246	0.280	0.304	0.340	0.315	0.322	0.305	10.54
58)	Methyl methacryla	0.137	0.197	0.273	0.229	0.228	0.242	0.246	0.222	19.64
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9978
										Response Ratio = 0.00000 + 0.22704 *A + 0.00940 *A^2
59)	1,4-Dioxane	0.006	0.004	0.004	0.004	0.004	0.005	0.005	0.005	16.01
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9989
										Response Ratio = 0.00000 + 0.00413 *A + 0.00002 *A^2
60)	2-Chloroethyl vin	0.153	0.174	0.175	0.178	0.197	0.190	0.178	0.178	7.82
61)	cis-1,3-Dichlorop	0.311	0.267	0.303	0.328	0.380	0.355	0.364	0.329	11.94
62) I	Chlorobenzene-d5									-----ISTD-----
63)S	Toluene-d8	1.354	1.343	1.371	1.315	1.306	1.318	1.323	1.333	1.77
64)C	Toluene	1.589	1.201	1.315	1.295	1.397	1.255	1.299	1.336	9.48
65)	2-Nitropropane	0.073	0.058	0.068	0.096	0.109	0.114	0.117	0.091	26.68
	---- Quadratic regr., Force(0,0) ----									Coefficient = 0.9955

# Initial Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

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Response Ratio = 0.00000 + 0.08537 \*A + 0.00351 \*A^2

66)	4-Methyl-2-pentan	0.434	0.405	0.345	0.428	0.427	0.433	0.433	0.415	7.83
67)	trans-1,3-Dichlor	0.471	0.357	0.407	0.448	0.503	0.479	0.490	0.451	11.50
68)	Tetrachloroethene	0.383	0.310	0.351	0.344	0.372	0.324	0.346	0.347	7.29
69)	Ethyl methacrylat	0.166	0.341	0.440	0.390	0.381	0.404	0.414	0.363	25.30
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9983								
		Response Ratio = 0.00000 + 0.37690 *A + 0.01862 *A^2								
70)	1,1,2-Trichloroet	0.309	0.253	0.283	0.279	0.293	0.273	0.273	0.281	6.28
71)	Dibromochlorometh	0.282	0.250	0.290	0.321	0.363	0.349	0.356	0.316	13.59
72)	1,3-Dichloropropa	0.645	0.486	0.514	0.518	0.556	0.517	0.513	0.536	9.77
73)	1,2-Dibromoethane	0.463	0.304	0.347	0.348	0.379	0.358	0.362	0.366	13.25
74)	3,3-dimethyl-1-bu	0.039	0.049	0.051	0.057	0.060	0.067	0.066	0.055	17.95
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9987								
		Response Ratio = 0.00000 + 0.05396 *A + 0.00013 *A^2								
75)	2-hexanone	0.405	0.410	0.369	0.431	0.429	0.445	0.443	0.419	6.34
76)	1-Chlorohexane	0.504	0.356	0.403	0.395	0.433	0.375	0.397	0.409	11.78
77)C	Ethylbenzene	1.690	1.287	1.457	1.435	1.536	1.386	1.427	1.460	8.66
78)P	Chlorobenzene	1.125	0.831	0.910	0.897	0.961	0.874	0.901	0.929	10.24
79)	1,1,1,2-Tetrachlo	0.272	0.243	0.291	0.305	0.333	0.312	0.325	0.297	10.60
80)	m,p-Xylene	1.289	1.004	1.147	1.142	1.233	1.109	1.147	1.153	7.85
81)	o-Xylene	1.278	0.979	1.132	1.153	1.245	1.137	1.186	1.159	8.34
82)	Styrene	0.836	0.730	0.859	0.889	0.988	0.928	0.954	0.883	9.74
83)P	Bromoform	0.174	0.131	0.162	0.190	0.217	0.221	0.230	0.189	18.98
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9974								
		Response Ratio = 0.00000 + 0.17818 *A + 0.02789 *A^2								
84)	Isopropylbenzene	1.370	1.142	1.311	1.340	1.465	1.316	1.393	1.334	7.48
85) I	1,4-Dichlorobenzene-d	-----ISTD-----								
86)S	4-Bromofluorobenz	0.734	0.732	0.744	0.722	0.723	0.725	0.734	0.731	1.05
87)	cis-1,4-Dichloro-	0.162	0.231	0.180	0.182	0.200	0.217	0.195		13.22
88)	n-Propylbenzene	3.526	2.613	3.159	3.009	3.236	2.904	3.049	3.071	9.24
89)	Bromobenzene	0.840	0.595	0.700	0.654	0.712	0.660	0.662	0.689	11.11
90)P	1,1,2,2-Tetrachlo	1.164	0.841	1.013	0.970	1.024	0.976	0.985	0.996	9.57
91)	1,3,5-Trimethylbe	2.352	1.834	2.275	2.154	2.359	2.159	2.231	2.195	8.16
92)	2-Chlorotoluene	2.369	1.941	2.231	2.122	2.243	2.048	2.102	2.151	6.58
93)	trans-1,4-Dichlor	0.135	0.183	0.172	0.191	0.194	0.204	0.180		13.56
94)	1,2,3-Trichloropr	0.387	0.280	0.320	0.302	0.328	0.311	0.307	0.319	10.44
95)	Cyclohexanone	0.028	0.028	0.037	0.033	0.037	0.040	0.034		14.46
96)	4-Chlorotoluene	2.448	1.737	2.111	1.957	2.125	1.940	2.005	2.046	10.71
97)	tert-Butylbenzene	1.314	1.027	1.204	1.162	1.273	1.149	1.214	1.192	7.81
98)	a-Methyl styrene							0.000		-1.00
99)	1,2,4-Trimethylbe	2.319	1.797	2.292	2.156	2.374	2.191	2.258	2.198	8.72
100)	Pentachloroethane	0.123	0.256	0.367	0.314	0.316	0.327	0.347	0.293	28.20
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9976								
		Response Ratio = 0.00000 + 0.30147 *A + 0.02163 *A^2								
101)	sec-Butylbenzene	2.742	2.152	2.584	2.498	2.686	2.408	2.546	2.516	7.79
102)	4-Isopropyltoluen	2.178	1.762	2.198	2.130	2.339	2.173	2.262	2.149	8.56
103)	1,3-Dichlorobenze	1.666	1.184	1.393	1.304	1.396	1.308	1.329	1.369	10.91
104)	1,2,3-Trimethylbe	2.609	1.981	2.416	2.229	2.457	2.311	2.347	2.336	8.46
105)	1,4-Dichlorobenze	1.896	1.251	1.424	1.317	1.419	1.307	1.348	1.423	15.28
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9986								
		Response Ratio = 0.00000 + 1.37713 *A + -0.02106 *A^2								
106)	n-Butylbenzene	1.229	0.878	1.103	1.082	1.167	1.098	1.151	1.101	10.06
107)	Benzyl Chloride	0.175	0.137	0.182	0.221	0.269	0.284	0.306	0.225	28.33

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6.7.1  
6

# Initial Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICC2981  
**Lab FileID:** 2076623.D

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		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9969
		Response Ratio = 0.00000 + 0.19871 *A + 0.05689 *A^2	
108)	1,2-Dichlorobenze	1.554 1.186 1.342 1.238 1.329 1.252 1.270 1.310	9.17
109)	1,2-Dibromo-3-Chl	0.158 0.154 0.175 0.199 0.213 0.225 0.231 0.194	16.31
		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9989
		Response Ratio = 0.00000 + 0.18574 *A + 0.02424 *A^2	
110)	Hexachlorobutadie	0.520 0.232 0.259 0.239 0.250 0.227 0.243 0.281	37.55
		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9966
		Response Ratio = 0.00000 + 0.24940 *A + -0.00637 *A^2	
111)	1,2,4-Trichlorobe	1.101 0.645 0.751 0.730 0.772 0.744 0.750 0.785	18.55
		---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9987
		Response Ratio = 0.00000 + 0.74777 *A + 0.00083 *A^2	
112)	Naphthalene	2.978 2.093 2.574 2.649 2.954 2.902 2.930 2.726	11.77
113)	1,2,3-Trichlorobe	0.959 0.646 0.727 0.695 0.748 0.712 0.718 0.744	13.50

-----  
(#) = Out of Range

V20\_06-07-2023.M

Thu Jun 08 09:33:23 2023

6.7.1  
6

## Initial Calibration Verification

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076631.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-07\2076631.D Vial: 14  
 Acq On : 7 Jun 2023 3:37 pm Operator: joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	97	0.00	4.01
2	Dichlorodifluoromethane			NA			
3 P	Chloromethane			NA			
	----- Amount		Calc.	%Drift			
4	1,3-butadiene			NA			
	----- AvgRF		CCRF	%Dev			
5 C	Vinyl Chloride			NA			
	----- Amount		Calc.	%Drift			
6	Bromomethane			NA			
7	Chloroethane			NA			
	----- AvgRF		CCRF	%Dev			
8	Trichlorofluoromethane			NA			
9	Ethyl Ether			NA			
10	Ethanol	0.004	0.004	0.0	104	0.00	2.16
11	1,2-Dichlorotrifluoroetha			NA			
12 C	1,1-Dichloroethene			NA			
13	Freon 113			NA			
	----- Amount		Calc.	%Drift			
14	Carbon Disulfide			NA			
15	Iodomethane			NA			
16	Acrolein			NA			
	----- AvgRF		CCRF	%Dev			
17	Allyl chloride	0.224	0.266	-18.8	114	0.00	2.47
	----- Amount		Calc.	%Drift			
18	Methylene Chloride			NA			
	----- AvgRF		CCRF	%Dev			
19	Acetone			NA			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert Butyl Alcohol			NA			
25	Acetonitrile			NA			
26	Di-isopropyl ether			NA			

# Initial Calibration Verification

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076631.D

		Amount	Calc.	%Drift			
27	Chloroprene			NA			
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane			NA			
29	Acrylonitrile			NA			
30	ETBE			NA			
31	Vinyl acetate			NA			
32	cis-1,2-Dichloroethene			NA			
33	2,2-Dichloropropane			NA			
34	Bromochloromethane			NA			
35	Cyclohexane			NA			
36 C	Chloroform			NA			
37	Ethyl acetate			NA			
38	Tetrahydrofuran			NA			
39 S	Dibromofluoromethane	0.272	0.273	-0.4	97	0.00	3.54
40	Carbon Tetrachloride			NA			
41	1,1,1-Trichloroethane			NA			
42	2-Butanone			NA			
43	1,1-Dichloropropene			NA			
		Amount	Calc.	%Drift			
44	tert-Butyl formate			NA			
		AvgRF	CCRF	%Dev			
45	Propionitrile			NA			
46	Methacrylonitrile			NA			
47	Benzene			NA			
48	TAME			NA			
		Amount	Calc.	%Drift			
49	Isobutyl alcohol			NA			
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.329	-1.9	97	0.00	3.85
51	1,2-Dichloroethane			NA			
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol			NA			
		AvgRF	CCRF	%Dev			
53	Trichloroethene			NA			
54	Methylcyclohexane			NA			
55	Dibromomethane			NA			
56 C	1,2-Dichloropropane			NA			
57	Bromodichloromethane			NA			
		Amount	Calc.	%Drift			
58	Methyl methacrylate			NA			
59	1,4-Dioxane			NA			
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether			NA			
61	cis-1,3-Dichloropropene			NA			
62 I	Chlorobenzene-d5	1.000	1.000	0.0	95	0.00	6.02
63 S	Toluene-d8	1.333	1.340	-0.5	98	0.00	4.98
64 C	Toluene			NA			

6.7.2  
6

# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076631.D

	Amount	Calc.	%Drift				
65	2-Nitropropane		NA				
	AvgRF	CCRF	%Dev				
66	4-Methyl-2-pentanone		NA				
67	trans-1,3-Dichloropropene		NA				
68	Tetrachloroethene		NA				
	Amount	Calc.	%Drift				
69	Ethyl methacrylate		NA				
	AvgRF	CCRF	%Dev				
70	1,1,2-Trichloroethane		NA				
71	Dibromochloromethane		NA				
72	1,3-Dichloropropane		NA				
73	1,2-Dibromoethane		NA				
	Amount	Calc.	%Drift				
74	3,3-dimethyl-1-butanol		NA				
	AvgRF	CCRF	%Dev				
75	2-hexanone		NA				
76	1-Chlorohexane		NA				
77 C	Ethylbenzene		NA				
78 P	Chlorobenzene		NA				
79	1,1,1,2-Tetrachloroethane		NA				
80	m,p-Xylene		NA				
81	o-Xylene		NA				
82	Styrene		NA				
	Amount	Calc.	%Drift				
83 P	Bromoform		NA				
	AvgRF	CCRF	%Dev				
84	Isopropylbenzene		NA				
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	7.78
86 S	4-Bromofluorobenzene	0.731	0.729	0.3	94	0.00	6.92
87	cis-1,4-Dichloro-2-butene		NA				
88	n-Propylbenzene		NA				
89	Bromobenzene		NA				
90 P	1,1,2,2-Tetrachloroethane		NA				
91	1,3,5-Trimethylbenzene		NA				
92	2-Chlorotoluene		NA				
93	trans-1,4-Dichloro-2-Bute		NA				
94	1,2,3-Trichloropropane		NA				
95	Cyclohexanone		NA				
96	4-Chlorotoluene		NA				
97	tert-Butylbenzene		NA				
98	a-Methyl styrene		NA				
99	1,2,4-Trimethylbenzene		NA				
	Amount	Calc.	%Drift				
100	Pentachloroethane		NA				
	AvgRF	CCRF	%Dev				
101	sec-Butylbenzene		NA				
102	4-Isopropyltoluene		NA				
103	1,3-Dichlorobenzene		NA				
104	1,2,3-Trimethylbenzene		NA				

6.7.2  
6

# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076631.D

	Amount	Calc.	%Drift
105	1,4-Dichlorobenzene		NA
	AvgRF	CCRF	%Dev
106	n-Butylbenzene		NA
	Amount	Calc.	%Drift
107	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
108	1,2-Dichlorobenzene		NA
	Amount	Calc.	%Drift
109	1,2-Dibromo-3-Chloropropa		NA
110	Hexachlorobutadiene		NA
111	1,2,4-Trichlorobenzene		NA
	AvgRF	CCRF	%Dev
112	Naphthalene		NA
113	1,2,3-Trichlorobenzene		NA

(#) = Out of Range                      SPCC's out = 4    CCC's out = 6  
 2076623.D V20\_06-07-2023.M            Thu Jun 08 09:32:40 2023

6.7.2  
6



## Initial Calibration Verification

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V202981-ICV2981  
 Lab FileID: 2076632.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-06-07\2076632.D Vial: 15  
 Acq On : 7 Jun 2023 4:02 pm Operator: joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:12:55 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	106	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.239	-29.2#	133	0.00	1.22
3 P	Chloromethane	0.188	0.199	-5.9	116	0.00	1.37
	----- Amount Calc. %Drift -----						
4	1,3-butadiene	25.000	21.916	12.3	91	0.00	1.45
	----- AvgRF CCRF %Dev -----						
5 C	Vinyl Chloride	0.194	0.207	-6.7	112	0.00	1.43
	----- Amount Calc. %Drift -----						
6	Bromomethane	25.000	27.914	-11.7	122	0.00	1.67
7	Chloroethane	25.000	24.999	0.0	104	0.00	1.75
	----- AvgRF CCRF %Dev -----						
8	Trichlorofluoromethane	0.366	0.376	-2.7	104	0.00	1.85
9	Ethyl Ether	0.173	0.177	-2.3	111	0.00	2.06
10	Ethanol			-----NA-----			
11	1,2-Dichlorotrifluoroetha	0.245	0.252	-2.9	109	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.291	5.2	100	0.00	2.18
13	Freon 113	0.216	0.219	-1.4	104	0.00	2.21
	----- Amount Calc. %Drift -----						
14	Carbon Disulfide	25.000	23.805	4.8	103	0.00	2.20
15	Iodomethane	25.000	26.121	-4.5	113	0.00	2.27
16	Acrolein	125.000	134.322	-7.5	116	0.00	2.39
	----- AvgRF CCRF %Dev -----						
17	Allyl chloride			-----NA-----			
	----- Amount Calc. %Drift -----						
18	Methylene Chloride	25.000	24.748	1.0	107	0.00	2.53
	----- AvgRF CCRF %Dev -----						
19	Acetone	0.115	0.099	13.9	94	0.00	2.56
20	Methyl acetate	0.272	0.239	12.1	95	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.297	4.2	103	0.00	2.63
22	Hexane	0.158	0.152	3.8	102	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.624	0.0	109	0.00	2.69
24	Tert Butyl Alcohol	0.039	0.040	-2.6	110	0.00	2.74
25	Acetonitrile	0.045	0.050	-11.1	127	0.00	2.83
26	Di-isopropyl ether	0.614	0.605	1.5	106	0.00	2.91

# Initial Calibration Verification

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V2O2981-ICV2981  
 Lab FileID: 2076632.D

		Amount	Calc.	%Drift			
27	Chloroprene	25.000	23.540	5.8	97	0.00	2.97
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane	0.403	0.384	4.7	103	0.00	2.98
29	Acrylonitrile	0.111	0.103	7.2	94	0.00	3.01
30	ETBE	0.584	0.598	-2.4	110	0.00	3.12
31	Vinyl acetate	0.438	0.463	-5.7	100	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.243	8.0	103	0.00	3.29
33	2,2-Dichloropropane	0.270	0.283	-4.8	113	0.00	3.35
34	Bromochloromethane	0.129	0.128	0.8	103	0.00	3.40
35	Cyclohexane	0.308	0.297	3.6	99	0.00	3.41
36 C	Chloroform	0.456	0.448	1.8	105	0.00	3.44
37	Ethyl acetate	0.328	0.315	4.0	91	0.00	3.50
38	Tetrahydrofuran	0.117	0.117	0.0	109	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.270	0.7	105	0.00	3.54
40	Carbon Tetrachloride	0.294	0.285	3.1	101	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.350	2.8	101	0.00	3.57
42	2-Butanone	0.178	0.160	10.1	95	0.00	3.61
43	1,1-Dichloropropene	0.301	0.298	1.0	104	0.00	3.64
		Amount	Calc.	%Drift			
44	tert-Butyl formate	125.000	156.333	-25.1#	144	0.00	3.70
		AvgRF	CCRF	%Dev			
45	Propionitrile	0.055	0.063	-14.5	118	0.00	3.78
46	Methacrylonitrile	0.192	0.216	-12.5	115	0.00	3.79
47	Benzene	0.910	0.907	0.3	108	0.00	3.78
48	TAME	0.554	0.561	-1.3	110	0.00	3.84
		Amount	Calc.	%Drift			
49	Isobutyl alcohol	500.000	579.850	-16.0	122	0.00	3.87
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.321	0.6	106	0.00	3.85
51	1,2-Dichloroethane	0.374	0.355	5.1	104	0.00	3.89
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol	250.000	254.654	-1.9	112	0.00	3.93
		AvgRF	CCRF	%Dev			
53	Trichloroethene	0.264	0.254	3.8	103	0.00	4.12
54	Methylcyclohexane	0.324	0.305	5.9	97	0.00	4.12
55	Dibromomethane	0.180	0.175	2.8	107	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.226	-3.7	113	0.00	4.43
57	Bromodichloromethane	0.305	0.290	4.9	101	0.00	4.46
		Amount	Calc.	%Drift			
58	Methyl methacrylate	25.000	26.725	-6.9	114	0.00	4.54
59	1,4-Dioxane	500.000	523.964	-4.8	114	0.00	4.59
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether	0.178	0.173	2.8	102	0.00	4.81
61	cis-1,3-Dichloropropene	0.329	0.330	-0.3	106	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	103	0.00	6.02
63 S	Toluene-d8	1.333	1.346	-1.0	106	0.00	4.98
64 C	Toluene	1.336	1.330	0.4	106	0.00	5.01

# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V202981-ICV2981  
**Lab FileID:** 2076632.D

	Amount	Calc.	%Drift			
65	2-Nitropropane	125.000	117.093	6.3	94	0.00 5.15
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.415	0.385	7.2	93	0.00 5.24
67	trans-1,3-Dichloropropene	0.451	0.430	4.7	99	0.00 5.27
68	Tetrachloroethene	0.347	0.351	-1.2	106	0.00 5.26
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	25.000	29.496	-18.0	121	0.00 5.37
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.281	0.273	2.8	101	0.00 5.38
71	Dibromochloromethane	0.316	0.336	-6.3	108	0.00 5.51
72	1,3-Dichloropropane	0.536	0.559	-4.3	111	0.00 5.57
73	1,2-Dibromoethane	0.366	0.363	0.8	108	0.00 5.67
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	1250.000	1246.189	0.3	104	0.00 5.78
	AvgRF	CCRF	%Dev			
75	2-hexanone	0.419	0.406	3.1	97	0.00 5.81
76	1-Chlorohexane	0.409	0.388	5.1	101	0.00 6.01
77 C	Ethylbenzene	1.460	1.458	0.1	105	0.00 6.05
78 P	Chlorobenzene	0.929	0.912	1.8	105	0.00 6.04
79	1,1,1,2-Tetrachloroethane	0.297	0.307	-3.4	104	0.00 6.08
80	m,p-Xylene	1.153	1.175	-1.9	106	0.00 6.15
81	o-Xylene	1.159	1.154	0.4	104	0.00 6.47
82	Styrene	0.883	0.921	-4.3	107	0.00 6.51
	Amount	Calc.	%Drift			
83 P	Bromoform	25.000	24.139	3.4	101	0.00 6.53
	AvgRF	CCRF	%Dev			
84	Isopropylbenzene	1.334	1.350	-1.2	104	0.00 6.71
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00 7.78
86 S	4-Bromofluorobenzene	0.731	0.734	-0.4	104	0.00 6.92
87	cis-1,4-Dichloro-2-butene	0.195	0.238	-22.1#	135	0.00 6.96
88	n-Propylbenzene	3.071	3.058	0.4	104	0.00 7.02
89	Bromobenzene	0.689	0.705	-2.3	110	0.00 7.00
90 P	1,1,2,2-Tetrachloroethane	0.996	0.995	0.1	105	0.00 7.07
91	1,3,5-Trimethylbenzene	2.195	2.284	-4.1	108	0.00 7.18
92	2-Chlorotoluene	2.151	2.176	-1.2	105	0.00 7.14
93	trans-1,4-Dichloro-2-Bute	0.180	0.171	5.0	102	0.00 7.21
94	1,2,3-Trichloropropane	0.319	0.329	-3.1	111	0.00 7.18
95	Cyclohexanone	0.034	0.043	-26.5#	118	0.00 7.21
96	4-Chlorotoluene	2.046	2.027	0.9	106	0.00 7.27
97	tert-Butylbenzene	1.192	1.194	-0.2	105	0.00 7.42
98	a-Methyl styrene			NA		
99	1,2,4-Trimethylbenzene	2.198	2.261	-2.9	107	0.00 7.48
	Amount	Calc.	%Drift			
100	Pentachloroethane	25.000	28.469	-13.9	117	0.00 7.44
	AvgRF	CCRF	%Dev			
101	sec-Butylbenzene	2.516	2.390	5.0	98	0.00 7.56
102	4-Isopropyltoluene	2.149	2.158	-0.4	104	0.00 7.67
103	1,3-Dichlorobenzene	1.369	1.300	5.0	102	0.00 7.73
104	1,2,3-Trimethylbenzene	2.336	2.275	2.6	104	0.00 7.81

6.7.3  
6

# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V2O2981-ICV2981  
**Lab FileID:** 2076632.D

	Amount	Calc.	%Drift			
105	1,4-Dichlorobenzene	25.000	25.028	-0.1	106	0.00 7.79
	AvgRF	CCRF	%Dev			
106	n-Butylbenzene	1.101	1.149	-4.4	109	0.00 7.99
	Amount	Calc.	%Drift			
107	Benzyl Chloride	25.000	24.864	0.5	104	0.00 7.98
	AvgRF	CCRF	%Dev			
108	1,2-Dichlorobenzene	1.310	1.251	4.5	103	0.00 8.10
	Amount	Calc.	%Drift			
109	1,2-Dibromo-3-Chloropropa	25.000	25.422	-1.7	104	0.00 8.68
110	Hexachlorobutadiene	25.000	23.736	5.1	100	0.00 9.13
111	1,2,4-Trichlorobenzene	25.000	24.530	1.9	103	0.00 9.15
	AvgRF	CCRF	%Dev			
112	Naphthalene	2.726	2.735	-0.3	106	0.00 9.37
113	1,2,3-Trichlorobenzene	0.744	0.708	4.8	104	0.00 9.50

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
 2076622.D V2O\_06-07-2023.M            Thu Jun 08 09:33:10 2023

6.7.3  
6

## Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-CC2981  
 Lab FileID: 2077412.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\2\data\2023-07-05\2077412.D Vial: 2  
 Acq On : 5 Jul 2023 8:36 am Operator: jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:01:58 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	87	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.205	-10.8	94	0.00	1.23
3 P	Chloromethane	0.188	0.191	-1.6	92	0.00	1.38
----- Amount Calc. %Drift -----							
4	1,3-butadiene	25.000	22.143	11.4	76	0.00	1.45
----- AvgRF CCRF %Dev -----							
5 C	Vinyl Chloride	0.194	0.211	-8.8	95	0.00	1.43
----- Amount Calc. %Drift -----							
6	Bromomethane	25.000	21.721	13.1	78	0.00	1.67
7	Chloroethane	25.000	41.988	-68.0#	111	0.00	1.75
----- AvgRF CCRF %Dev -----							
8	Trichlorofluoromethane	0.366	0.444	-21.3#	102	0.00	1.85
9	Ethyl Ether	0.173	0.151	12.7	78	0.00	2.06
10	Ethanol	0.004	0.004	0.0	84	0.00	2.15
11	1,2-Dichlorotrifluoroetha	0.245	0.248	-1.2	89	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.297	3.3	84	0.00	2.18
13	Freon 113	0.216	0.217	-0.5	85	0.00	2.21
----- Amount Calc. %Drift -----							
14	Carbon Disulfide	25.000	25.599	-2.4	91	0.00	2.20
15	Iodomethane	25.000	21.449	14.2	76	0.00	2.27
16	Acrolein	125.000	98.324	21.3#	70	0.00	2.38
----- AvgRF CCRF %Dev -----							
17	Allyl chloride	0.224	0.224	0.0	84	0.00	2.47
----- Amount Calc. %Drift -----							
18	Methylene Chloride	25.000	24.219	3.1	86	0.00	2.53
----- AvgRF CCRF %Dev -----							
19	Acetone	0.115	0.134	-16.5	106	0.00	2.56
20	Methyl acetate	0.272	0.263	3.3	87	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.285	8.1	82	0.00	2.63
22	Hexane	0.158	0.149	5.7	83	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.552	11.5	80	0.00	2.69
24	Tert Butyl Alcohol	0.039	0.036	7.7	81	0.00	2.73
25	Acetonitrile	0.045	0.045	0.0	95	0.00	2.82
26	Di-isopropyl ether	0.614	0.531	13.5	77	0.00	2.90

# Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-CC2981  
 Lab FileID: 2077412.D

		Amount	Calc.	%Drift			
27	Chloroprene	25.000	20.213	19.1	69	0.00	2.97
		AvgRF	CCRF	%Dev			
28 P	1,1-Dichloroethane	0.403	0.385	4.5	85	0.00	2.98
29	Acrylonitrile	0.111	0.099	10.8	74	0.00	3.00
30	ETBE	0.584	0.544	6.8	82	0.00	3.11
31	Vinyl acetate	0.438	0.412	5.9	73	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.228	13.6	80	0.00	3.29
33	2,2-Dichloropropane	0.270	0.273	-1.1	91	0.00	3.35
34	Bromochloromethane	0.129	0.128	0.8	85	0.00	3.40
35	Cyclohexane	0.308	0.275	10.7	75	0.00	3.41
36 C	Chloroform	0.456	0.429	5.9	83	0.00	3.43
37	Ethyl acetate	0.328	0.299	8.8	72	0.00	3.49
38	Tetrahydrofuran	0.117	0.106	9.4	81	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.281	-3.3	90	0.00	3.54
40	Carbon Tetrachloride	0.294	0.305	-3.7	90	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.346	3.9	83	0.00	3.56
42	2-Butanone	0.178	0.166	6.7	81	0.00	3.60
43	1,1-Dichloropropene	0.301	0.285	5.3	83	0.00	3.63
		Amount	Calc.	%Drift			
44	tert-Butyl formate	125.000	147.105	-17.7	112	0.00	3.69
		AvgRF	CCRF	%Dev			
45	Propionitrile	0.055	0.057	-3.6	89	0.00	3.78
46	Methacrylonitrile	0.192	0.200	-4.2	88	0.00	3.79
47	Benzene	0.910	0.884	2.9	87	0.00	3.78
48	TAME	0.554	0.538	2.9	87	0.00	3.83
		Amount	Calc.	%Drift			
49	Isobutyl alcohol	500.000	510.021	-2.0	88	0.00	3.87
		AvgRF	CCRF	%Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.336	-4.0	92	0.00	3.85
51	1,2-Dichloroethane	0.374	0.342	8.6	83	0.00	3.89
		Amount	Calc.	%Drift			
52	Tert Amyl Alcohol	250.000	242.602	3.0	88	0.00	3.93
		AvgRF	CCRF	%Dev			
53	Trichloroethene	0.264	0.248	6.1	84	0.00	4.11
54	Methylcyclohexane	0.324	0.293	9.6	77	0.00	4.12
55	Dibromomethane	0.180	0.161	10.6	81	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.207	5.0	86	0.00	4.42
57	Bromodichloromethane	0.305	0.309	-1.3	89	0.00	4.46
		Amount	Calc.	%Drift			
58	Methyl methacrylate	25.000	21.475	14.1	76	0.00	4.54
59	1,4-Dioxane	500.000	410.808	17.8	73	0.00	4.58
		AvgRF	CCRF	%Dev			
60	2-Chloroethyl vinyl ether	0.178	0.161	9.6	79	0.00	4.80
61	cis-1,3-Dichloropropene	0.329	0.326	0.9	87	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	86	0.00	6.02
63 S	Toluene-d8	1.333	1.314	1.4	85	0.00	4.97
64 C	Toluene	1.336	1.248	6.6	82	0.00	5.00

6.7.4

6

# Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-CC2981  
 Lab FileID: 2077412.D

	Amount	Calc.	%Drift			
65	2-Nitropropane	125.000	135.487	-8.4	92	0.00 5.15
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.415	0.407	1.9	81	0.00 5.24
67	trans-1,3-Dichloropropene	0.451	0.466	-3.3	89	0.00 5.26
68	Tetrachloroethene	0.347	0.318	8.4	79	0.00 5.26
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	25.000	21.707	13.2	73	0.00 5.36
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.281	0.279	0.7	85	0.00 5.37
71	Dibromochloromethane	0.316	0.319	-0.9	85	0.00 5.49
72	1,3-Dichloropropane	0.536	0.486	9.3	80	0.00 5.56
73	1,2-Dibromoethane	0.366	0.324	11.5	80	0.00 5.67
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	1250.000	1196.776	4.3	82	0.00 5.77
	AvgRF	CCRF	%Dev			
75	2-hexanone	0.419	0.418	0.2	83	0.00 5.80
76	1-Chlorohexane	0.409	0.345	15.6	75	0.00 6.01
77 C	Ethylbenzene	1.460	1.342	8.1	80	0.00 6.04
78 P	Chlorobenzene	0.929	0.864	7.0	82	0.00 6.03
79	1,1,1,2-Tetrachloroethane	0.297	0.309	-4.0	87	0.00 6.07
80	m,p-Xylene	1.153	1.049	9.0	79	0.00 6.15
81	o-Xylene	1.159	0.960	17.2	71	0.00 6.46
82	Styrene	0.883	0.782	11.4	75	0.00 6.50
	Amount	Calc.	%Drift			
83 P	Bromoform	25.000	25.379	-1.5	88	0.00 6.52
	AvgRF	CCRF	%Dev			
84	Isopropylbenzene	1.334	1.107	17.0	71	0.00 6.70
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	80	-0.01 7.77
86 S	4-Bromofluorobenzene	0.731	0.702	4.0	78	0.00 6.91
87	cis-1,4-Dichloro-2-butene	0.195	0.170	12.8	76	0.00 6.96
88	n-Propylbenzene	3.071	2.759	10.2	73	0.00 7.01
89	Bromobenzene	0.689	0.625	9.3	77	0.00 6.99
90 P	1,1,2,2-Tetrachloroethane	0.996	0.963	3.3	79	0.00 7.06
91	1,3,5-Trimethylbenzene	2.195	1.956	10.9	73	0.00 7.16
92	2-Chlorotoluene	2.151	1.911	11.2	72	0.00 7.13
93	trans-1,4-Dichloro-2-Bute	0.180	0.154	14.4	72	-0.01 7.20
94	1,2,3-Trichloropropane	0.319	0.302	5.3	80	0.00 7.17
95	Cyclohexanone	0.034	0.030	11.8	64	-0.01 7.20
96	4-Chlorotoluene	2.046	1.810	11.5	74	-0.01 7.26
97	tert-Butylbenzene	1.192	1.006	15.6	69	0.00 7.41
98	a-Methyl styrene			NA		
99	1,2,4-Trimethylbenzene	2.198	1.947	11.4	72	0.00 7.47
	Amount	Calc.	%Drift			
100	Pentachloroethane	25.000	27.047	-8.2	86	0.00 7.43
	AvgRF	CCRF	%Dev			
101	sec-Butylbenzene	2.516	2.163	14.0	69	0.00 7.56
102	4-Isopropyltoluene	2.149	1.812	15.7	68	0.00 7.66
103	1,3-Dichlorobenzene	1.369	1.235	9.8	76	0.00 7.72
104	1,2,3-Trimethylbenzene	2.336	2.071	11.3	74	-0.01 7.80

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203017-CC2981  
**Lab FileID:** 2077412.D

	Amount	Calc.	%Drift				
105	1,4-Dichlorobenzene	25.000	23.202	7.2	77	-0.01	7.78
		AvgRF	CCRF	%Dev			
106	n-Butylbenzene	1.101	0.965	12.4	71	0.00	7.98
		Amount	Calc.	%Drift			
107	Benzyl Chloride	25.000	28.811	-15.2	97	0.00	7.97
		AvgRF	CCRF	%Dev			
108	1,2-Dichlorobenzene	1.310	1.156	11.8	75	-0.01	8.09
		Amount	Calc.	%Drift			
109	1,2-Dibromo-3-Chloropropa	25.000	23.998	4.0	76	-0.01	8.66
110	Hexachlorobutadiene	25.000	22.357	10.6	74	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	19.913	20.3#	65	-0.01	9.14
		AvgRF	CCRF	%Dev			
112	Naphthalene	2.726	2.109	22.6#	64	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.613	17.6	71	-0.01	9.49

(#) = Out of Range  
 2076622.D V20\_06-07-2023.M

SPCC's out = 0 CCC's out = 0  
 Wed Jul 05 09:17:00 2023

6.7.4

6



## Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-ECC2981  
 Lab FileID: 2077438.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ce...023\V203017\2077438.d Vial: 28  
 Acq On : 5 Jul 2023 7:38 pm Operator: jeniferw  
 Sample : ECC2981-4 Inst : MSVOA12  
 Misc : MS54357,V203017,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\1\met...V20\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 08 09:01:58 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	84	0.00	4.01
2	Dichlorodifluoromethane	0.185	0.217	-17.3	97	0.00	1.22
3 P	Chloromethane	0.188	0.217	-15.4	101	0.00	1.37
	----- True Calc. % Drift -----						
4	1,3-butadiene	25.000	23.781	4.9	78	0.00	1.44
	----- AvgRF CCRF % Dev -----						
5 C	Vinyl Chloride	0.194	0.238	-22.7#	103	0.00	1.43
	----- True Calc. % Drift -----						
6	Bromomethane	25.000	24.004	4.0	84	0.00	1.67
7	Chloroethane	25.000	-50.000	300.0#	117	0.00	1.75
	----- AvgRF CCRF % Dev -----						
8	Trichlorofluoromethane	0.366	0.484	-32.2	107	0.00	1.85
9	Ethyl Ether	0.173	0.151	12.7	76	0.00	2.05
10	Ethanol	0.004	0.004	0.0	81	0.00	2.15
11	1,2-Dichlorotrifluoroetha	0.245	0.245	0.0	85	0.00	2.18
12 C	1,1-Dichloroethene	0.307	0.285	7.2	78	0.00	2.18
13	Freon 113	0.216	0.207	4.2	78	0.00	2.20
	----- True Calc. % Drift -----						
14	Carbon Disulfide	25.000	24.135	3.5	83	0.00	2.20
15	Iodomethane	25.000	25.017	-0.1	86	0.00	2.27
16	Acrolein	125.000	103.707	17.0	71	0.00	2.38
	----- AvgRF CCRF % Dev -----						
17	Allyl chloride	0.224	0.224	0.0	82	0.00	2.46
	----- True Calc. % Drift -----						
18	Methylene Chloride	25.000	24.895	0.4	86	0.00	2.53
	----- AvgRF CCRF % Dev -----						
19	Acetone	0.115	0.116	-0.9	89	0.00	2.55
20	Methyl acetate	0.272	0.286	-5.1	91	0.00	2.63
21	trans-1,2-Dichloroethene	0.310	0.292	5.8	81	0.00	2.62
22	Hexane	0.158	0.142	10.1	76	0.00	2.68
23	Methyl Tert Butyl Ether	0.624	0.553	11.4	77	0.00	2.68
24	Tert Butyl Alcohol	0.039	0.035	10.3	77	0.00	2.73
25	Acetonitrile	0.045	0.042	6.7	86	0.00	2.82
26	Di-isopropyl ether	0.614	0.544	11.4	76	0.00	2.90

# Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: V203017-ECC2981  
 Lab FileID: 2077438.D

		True	Calc.	% Drift			
27	Chloroprene	25.000	21.632	13.5	71	0.00	2.97
		AvgRF	CCRF	% Dev			
28 P	1,1-Dichloroethane	0.403	0.399	1.0	86	0.00	2.98
29	Acrylonitrile	0.111	0.108	2.7	79	0.00	3.00
30	ETBE	0.584	0.536	8.2	78	0.00	3.11
31	Vinyl acetate	0.438	0.375	14.4	64	0.00	3.12
32	cis-1,2-Dichloroethene	0.264	0.233	11.7	79	0.00	3.29
33	2,2-Dichloropropane	0.270	0.252	6.7	81	0.00	3.35
34	Bromochloromethane	0.129	0.122	5.4	78	0.00	3.40
35	Cyclohexane	0.308	0.285	7.5	75	0.00	3.41
36 C	Chloroform	0.456	0.429	5.9	80	0.00	3.43
37	Ethyl acetate	0.328	0.306	6.7	71	0.00	3.49
38	Tetrahydrofuran	0.117	0.105	10.3	78	0.00	3.53
39 S	Dibromofluoromethane	0.272	0.274	-0.7	85	0.00	3.54
40	Carbon Tetrachloride	0.294	0.299	-1.7	85	0.00	3.53
41	1,1,1-Trichloroethane	0.360	0.353	1.9	81	0.00	3.56
42	2-Butanone	0.178	0.177	0.6	84	0.00	3.60
43	1,1-Dichloropropene	0.301	0.294	2.3	82	0.00	3.63
		True	Calc.	% Drift			
44	tert-Butyl formate	125.000	149.736	-19.8	110	0.00	3.69
		AvgRF	CCRF	% Dev			
45	Propionitrile	0.055	0.058	-5.5	86	0.00	3.78
46	Methacrylonitrile	0.192	0.206	-7.3	88	0.00	3.79
47	Benzene	0.910	0.889	2.3	84	0.00	3.78
48	TAME	0.554	0.521	6.0	81	0.00	3.83
		True	Calc.	% Drift			
49	Isobutyl alcohol	500.000	497.354	0.5	83	0.00	3.87
		AvgRF	CCRF	% Dev			
50 S	1,2-Dichloroethane-d4	0.323	0.330	-2.2	87	0.00	3.85
51	1,2-Dichloroethane	0.374	0.342	8.6	80	0.00	3.89
		True	Calc.	% Drift			
52	Tert Amyl Alcohol	250.000	224.537	10.2	78	0.00	3.93
		AvgRF	CCRF	% Dev			
53	Trichloroethene	0.264	0.250	5.3	81	0.00	4.11
54	Methylcyclohexane	0.324	0.296	8.6	75	0.00	4.12
55	Dibromomethane	0.180	0.165	8.3	81	0.00	4.37
56 C	1,2-Dichloropropane	0.218	0.212	2.8	85	0.00	4.42
57	Bromodichloromethane	0.305	0.297	2.6	82	0.00	4.46
		True	Calc.	% Drift			
58	Methyl methacrylate	25.000	23.711	5.2	81	0.00	4.54
59	1,4-Dioxane	500.000	434.217	13.2	75	0.00	4.58
		AvgRF	CCRF	% Dev			
60	2-Chloroethyl vinyl ether	0.178	0.170	4.5	81	0.00	4.80
61	cis-1,3-Dichloropropene	0.329	0.318	3.3	82	0.00	4.85
62 I	Chlorobenzene-d5	1.000	1.000	0.0	83	0.00	6.02
63 S	Toluene-d8	1.333	1.309	1.8	83	0.00	4.97
64 C	Toluene	1.336	1.300	2.7	83	0.00	5.01

6.7.5  
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# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203017-ECC2981  
**Lab FileID:** 2077438.D

		True	Calc.	% Drift			
65	2-Nitropropane	125.000	124.910	0.1	81	0.00	5.15
		AvgRF	CCRF	% Dev			
66	4-Methyl-2-pentanone	0.415	0.456	-9.9	89	0.00	5.24
67	trans-1,3-Dichloropropene	0.451	0.458	-1.6	85	0.00	5.27
68	Tetrachloroethene	0.347	0.347	0.0	84	0.00	5.26
		True	Calc.	% Drift			
69	Ethyl methacrylate	25.000	22.664	9.3	74	0.00	5.37
		AvgRF	CCRF	% Dev			
70	1,1,2-Trichloroethane	0.281	0.274	2.5	81	0.00	5.37
71	Dibromochloromethane	0.316	0.302	4.4	78	0.00	5.50
72	1,3-Dichloropropane	0.536	0.484	9.7	78	0.00	5.56
73	1,2-Dibromoethane	0.366	0.320	12.6	76	0.00	5.67
		True	Calc.	% Drift			
74	3,3-dimethyl-1-butanol	1250.000	1292.659	-3.4	87	0.00	5.78
		AvgRF	CCRF	% Dev			
75	2-hexanone	0.419	0.463	-10.5	89	0.00	5.81
76	1-Chlorohexane	0.409	0.352	13.9	74	0.00	6.01
77 C	Ethylbenzene	1.460	1.372	6.0	79	0.00	6.05
78 P	Chlorobenzene	0.929	0.872	6.1	81	0.00	6.03
79	1,1,1,2-Tetrachloroethane	0.297	0.299	-0.7	82	0.00	6.07
80	m,p-Xylene	1.153	1.088	5.6	79	0.00	6.15
81	o-Xylene	1.159	1.001	13.6	72	0.00	6.46
82	Styrene	0.883	0.793	10.2	74	0.00	6.50
		True	Calc.	% Drift			
83 P	Bromoform	25.000	23.522	5.9	79	0.00	6.52
		AvgRF	CCRF	% Dev			
84	Isopropylbenzene	1.334	1.162	12.9	72	0.00	6.70
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	78	0.00	7.77
86 S	4-Bromofluorobenzene	0.731	0.709	3.0	77	0.00	6.92
87	cis-1,4-Dichloro-2-butene	0.195	0.150	23.1	65	0.00	6.96
88	n-Propylbenzene	3.071	2.899	5.6	75	0.00	7.02
89	Bromobenzene	0.689	0.628	8.9	75	0.00	6.99
90 P	1,1,2,2-Tetrachloroethane	0.996	0.966	3.0	78	0.00	7.06
91	1,3,5-Trimethylbenzene	2.195	2.056	6.3	75	0.00	7.17
92	2-Chlorotoluene	2.151	2.011	6.5	74	0.00	7.14
93	trans-1,4-Dichloro-2-Bute	0.180	0.137	23.9	62	0.00	7.20
94	1,2,3-Trichloropropane	0.319	0.304	4.7	79	0.00	7.17
95	Cyclohexanone	0.034	0.033	2.9	69	0.00	7.21
96	4-Chlorotoluene	2.046	1.885	7.9	75	0.00	7.27
97	tert-Butylbenzene	1.192	1.067	10.5	72	0.00	7.42
98	a-Methyl styrene			NA			
99	1,2,4-Trimethylbenzene	2.198	2.006	8.7	73	0.00	7.47
		True	Calc.	% Drift			
100	Pentachloroethane	25.000	25.532	-2.1	79	0.00	7.43
		AvgRF	CCRF	% Dev			
101	sec-Butylbenzene	2.516	2.285	9.2	71	0.00	7.56
102	4-Isopropyltoluene	2.149	1.912	11.0	70	0.00	7.66
103	1,3-Dichlorobenzene	1.369	1.268	7.4	76	0.00	7.72
104	1,2,3-Trimethylbenzene	2.336	2.153	7.8	75	0.00	7.81

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** V203017-ECC2981  
**Lab FileID:** 2077438.D

	----- True	Calc.	% Drift	-----			
105	1,4-Dichlorobenzene	25.000	23.794	4.8	77	0.00	7.79
	----- AvgRF	CCRF	% Dev	-----			
106	n-Butylbenzene	1.101	0.993	9.8	72	0.00	7.98
	----- True	Calc.	% Drift	-----			
107	Benzyl Chloride	25.000	23.837	4.7	76	0.00	7.97
	----- AvgRF	CCRF	% Dev	-----			
108	1,2-Dichlorobenzene	1.310	1.182	9.8	75	0.00	8.10
	----- True	Calc.	% Drift	-----			
109	1,2-Dibromo-3-Chloropropa	25.000	22.423	10.3	69	0.00	8.67
110	Hexachlorobutadiene	25.000	23.961	4.2	77	0.00	9.13
111	1,2,4-Trichlorobenzene	25.000	21.023	15.9	67	0.00	9.15
	----- AvgRF	CCRF	% Dev	-----			
112	Naphthalene	2.726	2.152	21.1	63	0.00	9.37
113	1,2,3-Trichlorobenzene	0.744	0.625	16.0	70	0.00	9.49

(#) = Out of Range  
 2076622.D V20\_06-07-2023.M

SPCC's out = 0 CCC's out = 1  
 Wed Jul 05 21:12:29 2023

6.7.5

6

# Initial Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

Response Factor Report MSVOA16

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Calibration Files

1 =I757261.D 2 =I757262.D 3 =I757263.D 4 =I757264.D  
 5 =I757265.D 6 =I757266.D 7 =I757267.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
-----									
1) I Fluorobenzene	-----ISTD-----								
2) Dichlorodifluorom	0.230	0.235	0.217	0.216	0.196	0.216	0.228	0.220	5.90
3)P Chloromethane	0.329	0.277	0.233	0.214	0.216	0.227	0.224	0.246	17.15
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9987								
	Response Ratio = 0.00000 + 0.22695 *A + -0.00178 *A^2								
4)C Vinyl Chloride	0.226	0.253	0.218	0.211	0.205	0.222	0.228	0.223	6.91
5) 1,3-Butadiene	0.240	0.260	0.194	0.205	0.165	0.184	0.185	0.205	16.49
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9940								
	Response Ratio = 0.00000 + 0.19523 *A + -0.00710 *A^2								
6) Bromomethane	0.282	0.109	0.074	0.069	0.073	0.081	0.077	0.109	70.57
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9963								
	Response Ratio = 0.00000 + 0.07544 *A + 0.00124 *A^2								
7) Chloroethane	0.233	0.158	0.117	0.095	0.089	0.092	0.090	0.125	43.28
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9947								
	Response Ratio = 0.00000 + 0.09359 *A								
8) Trichlorofluorome	0.318	0.327	0.303	0.289	0.277	0.298	0.300	0.302	5.56
	---- Linear regr., Force(0,0) ---- Coefficient = 0.9989								
	Response Ratio = 0.00000 + 0.29537 *A								
9) Ethyl Ether	0.156	0.151	0.138	0.154	0.153	0.168	0.163	0.155	6.18
10) 1,2-Dichlorotrifl	0.210	0.215	0.192	0.207	0.183	0.215	0.218	0.206	6.39
11)C 1,1-Dichloroethen	0.269	0.282	0.247	0.276	0.246	0.287	0.292	0.271	6.81
12) Ethanol	0.012	0.009	0.008	0.008	0.007	0.008	0.007	0.008	22.81
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9954								
	Response Ratio = 0.00000 + 0.00796 *A + -0.00003 *A^2								
13) Freon 113	0.163	0.172	0.158	0.172	0.146	0.178	0.190	0.169	8.46
14) Carbon Disulfide	0.640	0.581	0.490	0.544	0.488	0.574	0.583	0.557	9.76
15) Iodomethane	0.113	0.084	0.081	0.132	0.141	0.141		0.115	23.88
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9965								
	Response Ratio = 0.00000 + 0.12493 *A + 0.01219 *A^2								
16) Acrolein	0.093	0.058	0.074	0.071	0.068	0.080	0.077	0.075	14.49
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9971								
	Response Ratio = 0.00000 + 0.06843 *A + 0.00104 *A^2								
17) Allyl chloride	0.322	0.349	0.252	0.261	0.239	0.266	0.256	0.278	14.79
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9963								
	Response Ratio = 0.00000 + 0.26329 *A + -0.00342 *A^2								
18) Methylene Chlorid	0.554	0.326	0.258	0.268	0.261	0.274	0.260	0.314	34.39
	---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9977								

6.7.6  
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# Initial Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

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Response Ratio = 0.00000 + 0.28093 \*A + -0.00979 \*A^2

19)	Acetone	0.210	0.110	0.158	0.129	0.127	0.140	0.133	0.144	22.61
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9957								
		Response Ratio = 0.00000 + 0.13453 *A + 0.00001 *A^2								
20)	Methyl acetate	0.262	0.249	0.256	0.290	0.287	0.323	0.306	0.282	9.76
21)	trans-1,2-Dichlor	0.288	0.304	0.255	0.280	0.268	0.301	0.298	0.285	6.42
22)	Hexane	0.152	0.140	0.124	0.146	0.123	0.144	0.148	0.140	8.23
23)	Methyl Tert Butyl	0.615	0.576	0.544	0.602	0.597	0.648	0.628	0.601	5.70
24)	Tert butyl alchoh	0.080	0.070	0.075	0.085	0.083	0.094	0.088	0.082	9.98
25)	Acetonitrile	0.121	0.071	0.059	0.056	0.050	0.053	0.047	0.065	39.28
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9962								
		Response Ratio = 0.00000 + 0.06065 *A + -0.00067 *A^2								
26)	Di-isopropyl ethe	0.645	0.625	0.566	0.627	0.621	0.672	0.648	0.629	5.23
27)	Chloroprene	0.276	0.347	0.262	0.280	0.248	0.292	0.301	0.287	11.16
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9964								
		Response Ratio = 0.00000 + 0.26060 *A + 0.01926 *A^2								
28)P	1,1-Dichloroethan	0.359	0.411	0.334	0.372	0.357	0.397	0.385	0.374	6.99
29)	Acrylonitrile	0.119	0.112	0.138	0.151	0.139	0.153	0.147	0.137	11.57
30)	ETBE	0.626	0.623	0.535	0.598	0.595	0.642	0.620	0.606	5.78
31)	Vinyl acetate	0.333	0.298	0.357	0.415	0.405	0.445	0.431	0.384	14.28
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9979								
		Response Ratio = 0.00000 + 0.38215 *A + 0.00599 *A^2								
32)	cis-1,2-Dichloroe	0.220	0.238	0.197	0.221	0.219	0.242	0.236	0.225	6.96
33)	2,2-Dichloropropa	0.294	0.306	0.255	0.280	0.263	0.299	0.298	0.285	6.81
34)	Bromochloromethan	0.121	0.120	0.105	0.114	0.114	0.121	0.116	0.116	4.77
35)	Cyclohexane	0.310	0.310	0.290	0.318	0.265	0.315	0.332	0.305	7.16
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9969								
		Response Ratio = 0.00000 + 0.27692 *A + 0.02616 *A^2								
36)C	Chloroform	0.414	0.413	0.348	0.380	0.369	0.408	0.397	0.390	6.47
37)	Ethyl acetate	0.261	0.236	0.301	0.346	0.328	0.367	0.358	0.314	15.99
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9978								
		Response Ratio = 0.00000 + 0.31225 *A + 0.00542 *A^2								
38)	Tetrahydrofuran	0.169	0.147	0.146	0.156	0.149	0.164	0.157	0.155	5.64
39)S	Dibromofluorometh	0.278	0.279	0.280	0.290	0.287	0.284	0.289	0.284	1.73
40)	Carbon Tetrachlor	0.274	0.283	0.243	0.276	0.247	0.292	0.303	0.274	8.05
41)	1,1,1-Trichloroet	0.324	0.339	0.291	0.322	0.298	0.341	0.343	0.323	6.45
42)	2-Butanone	0.168	0.136	0.230	0.198	0.204	0.231	0.227	0.199	17.98
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9965								
		Response Ratio = 0.00000 + 0.19383 *A + 0.00380 *A^2								
43)	1,1-Dichloropropo	0.232	0.269	0.235	0.259	0.238	0.273	0.275	0.255	7.51
44)	tert-Butyl Format	0.149	0.146	0.144	0.150	0.159	0.176	0.171	0.156	8.16
45)	Propionitrile	0.063	0.076	0.065	0.070	0.064	0.072	0.070	0.069	6.66
46)	Methacrylonitrile	0.207	0.238	0.196	0.195	0.182	0.200	0.193	0.201	8.76
47)	Benzene	0.790	0.830	0.720	0.769	0.742	0.814	0.798	0.780	5.01
48)	TAME	0.628	0.598	0.520	0.574	0.574	0.616	0.594	0.586	6.05
49)S	1,2-Dichloroethan	0.260	0.256	0.260	0.269	0.254	0.249	0.259	0.258	2.50
50)	Isobutyl alcohol	0.019	0.016	0.016	0.018	0.017	0.020	0.021	0.018	11.24
51)	1,2-Dichloroethan	0.299	0.271	0.246	0.265	0.260	0.283	0.274	0.271	6.18
52)	Tert Amyl Alcohol	0.062	0.053	0.061	0.071	0.069	0.079	0.077	0.068	13.63
53)	Trichloroethene	0.263	0.214	0.190	0.210	0.199	0.226	0.226	0.218	10.87
54)	Methylcyclohexane	0.269	0.282	0.263	0.287	0.238	0.289	0.303	0.276	7.72
		---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9966								

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# Initial Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

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Response Ratio = 0.00000 + 0.24923 \*A + 0.02580 \*A^2

55)	Dibromomethane	0.148	0.134	0.124	0.134	0.138	0.150	0.148	0.139	6.94
56)C	1,2-Dichloropropa	0.206	0.202	0.181	0.196	0.197	0.217	0.210	0.201	5.76
57)	Bromodichlorometh	0.264	0.275	0.250	0.273	0.276	0.305	0.298	0.277	6.84
58)	Methyl methacryla	0.053	0.205	0.185	0.226	0.226	0.256	0.252	0.200	34.65
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9981								
		Response Ratio = 0.00000 + 0.20577 *A + 0.02624 *A^2								
59)	1,4-Dioxane	0.005	0.005	0.006	0.007	0.006	0.007	0.007	0.006	15.55
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9976								
		Response Ratio = 0.00000 + 0.00610 *A + 0.00002 *A^2								
60)	2-Chloroethyl vin	0.074	0.112	0.116	0.119	0.127	0.138	0.132	0.117	17.92
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9986								
		Response Ratio = 0.00000 + 0.11892 *A + 0.00165 *A^2								
61)	cis-1,3-Dichlorop	0.286	0.306	0.277	0.312	0.317	0.351	0.340	0.313	8.52
62) I	Chlorobenzene-d5	-----ISTD-----								
63)S	Toluene-d8	1.370	1.360	1.434	1.445	1.457	1.464	1.451	1.426	3.01
64)C	Toluene	1.152	1.163	1.039	1.121	1.098	1.230	1.183	1.141	5.40
65)	2-Nitropropane	0.095	0.082	0.089	0.107	0.111	0.128	0.124	0.105	16.56
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9969								
		Response Ratio = 0.00000 + 0.09900 *A + 0.00290 *A^2								
66)	4-Methyl-2-pentan	0.476	0.378	0.593	0.486	0.491	0.534	0.504	0.494	13.16
67)	trans-1,3-Dichlor	0.208	0.351	0.329	0.389	0.397	0.436	0.420	0.361	21.28
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9983								
		Response Ratio = 0.00000 + 0.36809 *A + 0.03171 *A^2								
68)	Tetrachloroethene	0.341	0.348	0.323	0.345	0.320	0.372	0.367	0.345	5.69
69)	Ethyl methacrylat	0.194	0.365	0.320	0.372	0.364	0.407	0.390	0.344	20.83
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9981								
		Response Ratio = 0.00000 + 0.35184 *A + 0.02388 *A^2								
70)	1,1,2-Trichloroet	0.237	0.230	0.216	0.229	0.232	0.249	0.235	0.233	4.32
71)	Dibromochlorometh	0.311	0.293	0.285	0.324	0.330	0.362	0.348	0.322	8.67
72)	1,3-Dichloropropa	0.361	0.382	0.368	0.411	0.422	0.459	0.435	0.405	9.03
73)	1,2-Dibromoethane	0.290	0.269	0.273	0.303	0.306	0.337	0.323	0.300	8.33
74)	3,3-dimethyl-1-bu	0.063	0.060	0.080	0.088	0.092	0.106	0.099	0.084	20.80
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9959								
		Response Ratio = 0.00000 + 0.08317 *A + 0.00020 *A^2								
75)	2-hexanone	0.296	0.276	0.468	0.387	0.392	0.433	0.421	0.382	18.64
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9961								
		Response Ratio = 0.00000 + 0.38610 *A + 0.00420 *A^2								
76)	1-Chlorohexane	0.346	0.310	0.296	0.319	0.292	0.346	0.349	0.323	7.51
77)C	Ethylbenzene	1.306	1.240	1.131	1.209	1.169	1.308	1.260	1.232	5.45
78)P	Chlorobenzene	0.740	0.779	0.703	0.750	0.735	0.802	0.768	0.754	4.31
79)	1,1,1,2-Tetrachlo	0.305	0.283	0.260	0.288	0.288	0.316	0.303	0.292	6.29
80)	m,p-Xylene	0.860	0.927	0.854	0.926	0.907	1.015	0.985	0.925	6.45
81)	o-Xylene	1.002	0.996	0.922	0.976	0.962	1.072	1.031	0.994	4.87
82)	Styrene	0.498	0.625	0.611	0.702	0.711	0.800	0.771	0.674	15.44
	---- Quadratic regr., Force(0,0) ----	Coefficient = 0.9982								
		Response Ratio = 0.00000 + 0.66427 *A + 0.06420 *A^2								
83)P	Bromoform	0.243	0.238	0.240	0.272	0.287	0.317	0.303	0.271	11.82
84)	Isopropylbenzene	1.168	1.191	1.080	1.163	1.114	1.254	1.221	1.170	5.10

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# Initial Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICC2948  
**Lab FileID:** I757265.D

85) I	1,4-Dichlorobenzene-d	-----ISTD-----								
86) S	4-Bromofluorobenz	0.828	0.841	0.833	0.838	0.855	0.856	0.842	0.842	1.25
87)	cis-1,4-Dichloro-	0.152	0.175	0.156	0.175	0.182	0.212	0.204	0.179	12.53
88)	n-Propylbenzene	2.223	2.363	1.993	2.137	2.074	2.369	2.249	2.201	6.44
89)	Bromobenzene	0.567	0.589	0.512	0.546	0.553	0.614	0.570	0.564	5.75
90) P	1,1,2,2-Tetrachlo	0.827	0.773	0.705	0.749	0.756	0.823	0.754	0.769	5.61
91)	1,3,5-Trimethylbe	1.547	1.703	1.450	1.534	1.510	1.704	1.595	1.577	6.10
92)	2-Chlorotoluene	1.516	1.610	1.392	1.468	1.430	1.604	1.490	1.501	5.50
93)	trans-1,4-Dichlor	0.108	0.140	0.147	0.185	0.193	0.226	0.214	0.173	24.85
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9960										
Response Ratio = 0.00000 + 0.19294 *A + 0.01285 *A^2										
94)	1,2,3-Trichloropr	0.229	0.239	0.221	0.237	0.235	0.264	0.240	0.238	5.58
95)	Cyclohexanone	0.060	0.045	0.052	0.054	0.050	0.057	0.053	0.053	9.27
96)	4-Chlorotoluene	1.337	1.391	1.230	1.302	1.331	1.483	1.384	1.351	5.86
97)	tert-Butylbenzene	0.849	0.896	0.785	0.804	0.786	0.894	0.856	0.838	5.71
98)	1,2,4-Trimethylbe	1.550	1.650	1.395	1.501	1.511	1.695	1.573	1.554	6.40
99)	Pentachloroethane	0.339	0.405	0.299	0.331	0.327	0.369	0.345	0.345	9.82
100)	sec-Butylbenzene	1.972	1.970	1.708	1.760	1.670	1.932	1.846	1.837	6.87
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9978										
Response Ratio = 0.00000 + 1.73377 *A + 0.07069 *A^2										
101)	4-Isopropyltoluen	1.497	1.699	1.441	1.535	1.494	1.710	1.624	1.571	6.77
102)	1,3-Dichlorobenze	0.930	1.003	0.869	0.948	0.967	1.078	1.012	0.972	6.85
103)	1,2,3-Trimethylbe	1.731	1.736	1.467	1.539	1.567	1.747	1.607	1.628	6.85
104)	1,4-Dichlorobenze	1.163	1.088	0.943	0.993	1.002	1.108	1.020	1.045	7.35
105)	n-Butylbenzene	0.669	0.803	0.700	0.777	0.756	0.870	0.833	0.773	9.19
106)	Benzyl Chloride	0.207	0.234	0.222	0.263	0.282	0.325	0.298	0.262	16.43
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9951										
Response Ratio = 0.00000 + 0.25719 *A + 0.02740 *A^2										
107)	1,2-Dichlorobenze	0.946	0.990	0.863	0.917	0.939	1.048	0.967	0.953	6.08
108)	1,2-Dibromo-3-Chl	0.190	0.166	0.172	0.192	0.198	0.229	0.215	0.194	11.46
109)	Hexachlorobutadie	0.336	0.349	0.298	0.312	0.294	0.335	0.337	0.323	6.65
110)	1,2,4-Trichlorobe	0.682	0.721	0.618	0.675	0.701	0.798	0.734	0.704	7.93
111)	Naphthalene	2.074	2.030	1.942	2.175	2.267	2.569	2.358	2.202	9.76
112)	1,2,3-Trichlorobe	0.725	0.722	0.609	0.670	0.693	0.776	0.719	0.702	7.44

(#) = Out of Range

VI-2023-06-15.m

Thu Jun 15 14:54:00 2023

6.7.6  
6



## Initial Calibration Verification

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2948-ICV2948  
 Lab FileID: I757269.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-15\I757269.D Vial: 10  
 Acq On : 15 Jun 2023 2:04 pm Operator: joannel  
 Sample : ICV2948-5 Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	100	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.195	11.4	99	0.00	2.35
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane	40.000	35.621	10.9	93	0.00	2.64
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride	0.223	0.185	17.0	90	0.00	2.77
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene			NA			
6	Bromomethane	40.000	35.861	10.3	94	0.00	3.23
7	Chloroethane	40.000	32.753	18.1	87	0.00	3.40
8	Trichlorofluoromethane	40.000	32.473	18.8	87	0.00	3.59
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether	0.155	0.165	-6.5	108	0.00	4.02
10	1,2-Dichlorotrifluoroetha	0.206	0.189	8.3	103	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.231	14.8	94	0.00	4.28
	----- Amount	Calc.	%Drift	-----			
12	Ethanol	800.000	755.110	5.6	107	0.00	4.21
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113	0.169	0.150	11.2	103	0.00	4.32
14	Carbon Disulfide	0.557	0.460	17.4	94	0.00	4.33
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane	40.000	41.691	-4.2	100	0.00	4.46
16	Acrolein	200.000	185.924	7.0	99	0.00	4.68
17	Allyl chloride	40.000	34.765	13.1	95	0.00	4.85
18	Methylene Chloride	40.000	38.344	4.1	101	0.00	4.98
19	Acetone	200.000	194.726	2.6	103	0.00	5.03
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate	0.282	0.279	1.1	97	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.259	9.1	97	0.00	5.18
22	Hexane	0.140	0.124	11.4	101	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.617	-2.7	103	0.00	5.30
24	Tert butyl alcohol	0.082	0.091	-11.0	110	0.00	5.39
	----- Amount	Calc.	%Drift	-----			

# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

25	Acetonitrile	400.000	389.314	2.7	108	0.00	5.56
	----- AvgRF	CCRF	%Dev	-----			
26	Di-isopropyl ether	0.629	0.606	3.7	98	0.00	5.73
	----- Amount	Calc.	%Drift	-----			
27	Chloroprene			-----NA-----			
	----- AvgRF	CCRF	%Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.339	9.4	95	0.00	5.88
29	Acrylonitrile	0.137	0.146	-6.6	105	0.00	5.92
30	ETBE	0.606	0.611	-0.8	103	0.00	6.13
	----- Amount	Calc.	%Drift	-----			
31	Vinyl acetate	200.000	208.013	-4.0	105	0.00	6.14
	----- AvgRF	CCRF	%Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.208	7.6	95	0.00	6.51
33	2,2-Dichloropropane	0.285	0.272	4.6	103	0.00	6.62
34	Bromochloromethane	0.116	0.109	6.0	96	0.00	6.73
	----- Amount	Calc.	%Drift	-----			
35	Cyclohexane	40.000	34.412	14.0	96	0.00	6.76
	----- AvgRF	CCRF	%Dev	-----			
36 C	Chloroform	0.390	0.365	6.4	99	0.00	6.79
	----- Amount	Calc.	%Drift	-----			
37	Ethyl acetate	200.000	196.355	1.8	100	0.00	6.88
	----- AvgRF	CCRF	%Dev	-----			
38	Tetrahydrofuran	0.155	0.152	1.9	102	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.290	-2.1	101	0.00	6.99
40	Carbon Tetrachloride	0.274	0.238	13.1	96	0.00	6.98
41	1,1,1-Trichloroethane	0.323	0.289	10.5	97	0.00	7.04
	----- Amount	Calc.	%Drift	-----			
42	2-Butanone	200.000	199.356	0.3	102	0.00	7.10
	----- AvgRF	CCRF	%Dev	-----			
43	1,1-Dichloropropene	0.255	0.234	8.2	98	0.00	7.17
44	tert-Butyl Formate	0.156	0.205	-31.4#	129	0.00	7.26
45	Propionitrile	0.069	0.064	7.2	100	0.00	7.41
46	Methacrylonitrile	0.201	0.178	11.4	98	0.00	7.44
47	Benzene	0.780	0.729	6.5	98	0.00	7.43
48	TAME	0.586	0.575	1.9	100	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.257	0.4	101	0.00	7.56
50	Isobutyl alcohol	0.018	0.018	0.0	106	0.00	7.59
51	1,2-Dichloroethane	0.271	0.258	4.8	99	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.075	-10.3	109	0.00	7.70
53	Trichloroethene	0.218	0.195	10.6	98	0.00	8.04
	----- Amount	Calc.	%Drift	-----			
54	Methylcyclohexane	40.000	33.591	16.0	94	0.00	8.05
	----- AvgRF	CCRF	%Dev	-----			
55	Dibromomethane	0.139	0.138	0.7	100	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.201	0.0	102	0.00	8.57
57	Bromodichloromethane	0.277	0.264	4.7	96	0.00	8.62

6.7.7  
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# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

		Amount	Calc.	%Drift			
58	Methyl methacrylate	40.000	36.540	8.7	91	0.00	8.74
59	1,4-Dioxane	800.000	806.023	-0.8	104	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	188.357	5.8	93	0.00	9.16
		AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene	0.313	0.314	-0.3	99	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	11.01
63 S	Toluene-d8	1.426	1.437	-0.8	100	0.00	9.45
64 C	Toluene	1.141	1.073	6.0	99	0.00	9.50
		Amount	Calc.	%Drift			
65	2-Nitropropane	200.000	193.743	3.1	97	0.00	9.69
		AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.494	0.478	3.2	98	0.00	9.83
		Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene	40.000	37.046	7.4	92	0.00	9.90
		AvgRF	CCRF	%Dev			
68	Tetrachloroethene	0.345	0.311	9.9	98	0.00	9.91
		Amount	Calc.	%Drift			
69	Ethyl methacrylate	40.000	39.786	0.5	103	0.00	10.01
		AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.233	0.223	4.3	97	0.00	10.05
71	Dibromochloromethane	0.322	0.336	-4.3	103	0.00	10.26
72	1,3-Dichloropropane	0.405	0.439	-8.4	105	0.00	10.34
73	1,2-Dibromoethane	0.300	0.304	-1.3	101	0.00	10.51
		Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	2000.000	2073.237	-3.7	105	0.00	10.62
75	2-hexanone	200.000	194.984	2.5	101	0.00	10.65
		AvgRF	CCRF	%Dev			
76	1-Chlorohexane	0.323	0.275	14.9	95	0.00	10.96
77 C	Ethylbenzene	1.232	1.133	8.0	98	0.00	11.02
78 P	Chlorobenzene	0.754	0.709	6.0	98	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.281	3.8	99	0.00	11.07
80	m,p-Xylene	0.925	0.887	4.1	99	0.00	11.16
81	o-Xylene	0.994	0.917	7.7	96	0.00	11.60
		Amount	Calc.	%Drift			
82	Styrene	40.000	39.073	2.3	99	0.00	11.66
		AvgRF	CCRF	%Dev			
83 P	Bromoform	0.271	0.278	-2.6	98	0.00	11.71
84	Isopropylbenzene	1.170	1.068	8.7	97	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.842	0.0	102	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.196	-9.5	111	0.00	12.26
88	n-Propylbenzene	2.201	1.942	11.8	97	0.00	12.33
89	Bromobenzene	0.564	0.558	1.1	104	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.739	3.9	101	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.462	7.3	100	0.00	12.51
92	2-Chlorotoluene	1.501	1.408	6.2	102	0.00	12.52

6.7.7  
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# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757269.D

	Amount	Calc.	%Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	36.749	8.1	100	0.00 12.57
	AvgRF	CCRF	%Dev			
94	1,2,3-Trichloropropane	0.238	0.255	-7.1	112	0.00 12.55
95	Cyclohexanone	0.053	0.065	-22.6#	136	0.00 12.61
96	4-Chlorotoluene	1.351	1.259	6.8	98	0.00 12.68
97	tert-Butylbenzene	0.838	0.736	12.2	97	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.455	6.4	99	0.00 12.93
99	Pentachloroethane	0.345	0.298	13.6	94	0.00 12.90
	Amount	Calc.	%Drift			
100	sec-Butylbenzene	40.000	33.776	15.6	93	0.00 13.04
	AvgRF	CCRF	%Dev			
101	4-Isopropyltoluene	1.571	1.385	11.8	96	0.00 13.17
102	1,3-Dichlorobenzene	0.972	0.918	5.6	98	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.532	5.9	101	0.00 13.38
104	1,4-Dichlorobenzene	1.045	0.968	7.4	100	0.00 13.39
105	n-Butylbenzene	0.773	0.743	3.9	101	0.00 13.61
	Amount	Calc.	%Drift			
106	Benzyl Chloride	40.000	40.140	-0.4	103	0.00 13.63
	AvgRF	CCRF	%Dev			
107	1,2-Dichlorobenzene	0.953	0.913	4.2	100	0.00 13.83
108	1,2-Dibromo-3-Chloropropa	0.194	0.208	-7.2	109	0.00 14.58
109	Hexachlorobutadiene	0.323	0.276	14.6	97	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.691	1.8	102	0.00 15.19
111	Naphthalene	2.202	2.224	-1.0	101	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.687	2.1	102	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Thu Jun 15 14:53:16 2023

6.7.7  
 6

# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-06-15\I757270.D Vial: 11  
 Acq On : 15 Jun 2023 2:27 pm Operator: joannel  
 Sample : ICV2948-4 Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	101	0.00	7.85
2	Dichlorodifluoromethane			NA			
		Amount	Calc.	%Drift			
3 P	Chloromethane			NA			
		AvgRF	CCRF	%Dev			
4 C	Vinyl Chloride			NA			
		Amount	Calc.	%Drift			
5	1,3-Butadiene	25.000	19.946	20.2#	76	0.00	2.79
6	Bromomethane			NA			
7	Chloroethane			NA			
8	Trichlorofluoromethane			NA			
		AvgRF	CCRF	%Dev			
9	Ethyl Ether			NA			
10	1,2-Dichlorotrifluoroetha			NA			
11 C	1,1-Dichloroethene			NA			
		Amount	Calc.	%Drift			
12	Ethanol			NA			
		AvgRF	CCRF	%Dev			
13	Freon 113			NA			
14	Carbon Disulfide			NA			
		Amount	Calc.	%Drift			
15	Iodomethane			NA			
16	Acrolein			NA			
17	Allyl chloride			NA			
18	Methylene Chloride			NA			
19	Acetone			NA			
		AvgRF	CCRF	%Dev			
20	Methyl acetate			NA			
21	trans-1,2-Dichloroethene			NA			
22	Hexane			NA			
23	Methyl Tert Butyl Ether			NA			
24	Tert butyl alcohol			NA			
		Amount	Calc.	%Drift			

6.7.8  
6



# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

	Amount	Calc.	%Drift				
58	Methyl methacrylate		NA				
59	1,4-Dioxane		NA				
60	2-Chloroethyl vinyl ether		NA				
	AvgRF	CCRF	%Dev				
61	cis-1,3-Dichloropropene		NA				
62 I	Chlorobenzene-d5	1.000	1.000	0.0	101	0.00	11.01
63 S	Toluene-d8	1.426	1.445	-1.3	101	0.00	9.44
64 C	Toluene		NA				
	Amount	Calc.	%Drift				
65	2-Nitropropane		NA				
	AvgRF	CCRF	%Dev				
66	4-Methyl-2-pentanone		NA				
	Amount	Calc.	%Drift				
67	trans-1,3-Dichloropropene		NA				
	AvgRF	CCRF	%Dev				
68	Tetrachloroethene		NA				
	Amount	Calc.	%Drift				
69	Ethyl methacrylate		NA				
	AvgRF	CCRF	%Dev				
70	1,1,2-Trichloroethane		NA				
71	Dibromochloromethane		NA				
72	1,3-Dichloropropane		NA				
73	1,2-Dibromoethane		NA				
	Amount	Calc.	%Drift				
74	3,3-dimethyl-1-butanol		NA				
75	2-hexanone		NA				
	AvgRF	CCRF	%Dev				
76	1-Chlorohexane		NA				
77 C	Ethylbenzene		NA				
78 P	Chlorobenzene		NA				
79	1,1,1,2-Tetrachloroethane		NA				
80	m,p-Xylene		NA				
81	o-Xylene		NA				
	Amount	Calc.	%Drift				
82	Styrene		NA				
	AvgRF	CCRF	%Dev				
83 P	Bromoform		NA				
84	Isopropylbenzene		NA				
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.848	-0.7	103	0.00	12.22
87	cis-1,4-Dichloro-2-butene		NA				
88	n-Propylbenzene		NA				
89	Bromobenzene		NA				
90 P	1,1,2,2-Tetrachloroethane		NA				
91	1,3,5-Trimethylbenzene		NA				
92	2-Chlorotoluene		NA				

6.7.8  
6

# Initial Calibration Verification

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2948-ICV2948  
**Lab FileID:** I757270.D

	Amount	Calc.	%Drift
93	trans-1,4-Dichloro-2-Bute		NA
	AvgRF	CCRF	%Dev
94	1,2,3-Trichloropropane		NA
95	Cyclohexanone		NA
96	4-Chlorotoluene		NA
97	tert-Butylbenzene		NA
98	1,2,4-Trimethylbenzene		NA
99	Pentachloroethane		NA
	Amount	Calc.	%Drift
100	sec-Butylbenzene		NA
	AvgRF	CCRF	%Dev
101	4-Isopropyltoluene		NA
102	1,3-Dichlorobenzene		NA
103	1,2,3-Trimethylbenzene		NA
104	1,4-Dichlorobenzene		NA
105	n-Butylbenzene		NA
	Amount	Calc.	%Drift
106	Benzyl Chloride		NA
	AvgRF	CCRF	%Dev
107	1,2-Dichlorobenzene		NA
108	1,2-Dibromo-3-Chloropropa		NA
109	Hexachlorobutadiene		NA
110	1,2,4-Trichlorobenzene		NA
111	Naphthalene		NA
112	1,2,3-Trichlorobenzene		NA

(#) = Out of Range  
 I757264.D VI-2023-06-15.m

SPCC's out = 4 CCC's out = 6  
 Thu Jun 15 14:51:38 2023



## Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-CC2948  
 Lab FileID: I757703.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2023-07-06\I757703.D Vial: 2  
 Acq On : 6 Jul 2023 9:12 am Operator: jeniferw  
 Sample : CC2948-5 Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	86	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.193	12.3	85	0.00	2.35
	----- Amount	Calc.	%Drift	-----			
3 P	Chloromethane	40.000	39.416	1.5	89	0.00	2.64
	----- AvgRF	CCRF	%Dev	-----			
4 C	Vinyl Chloride	0.223	0.217	2.7	92	0.00	2.76
	----- Amount	Calc.	%Drift	-----			
5	1,3-Butadiene	40.000	33.751	15.6	84	0.00	2.79
6	Bromomethane	40.000	47.012	-17.5	107	0.00	3.23
7	Chloroethane	40.000	41.422	-3.6	95	0.00	3.39
8	Trichlorofluoromethane	40.000	43.279	-8.2	100	0.00	3.59
	----- AvgRF	CCRF	%Dev	-----			
9	Ethyl Ether	0.155	0.149	3.9	84	0.00	4.01
10	1,2-Dichlorotrifluoroetha	0.206	0.206	0.0	97	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.265	2.2	93	0.00	4.27
	----- Amount	Calc.	%Drift	-----			
12	Ethanol	800.000	761.083	4.9	93	0.00	4.21
	----- AvgRF	CCRF	%Dev	-----			
13	Freon 113	0.169	0.169	0.0	100	0.00	4.32
14	Carbon Disulfide	0.557	0.491	11.8	87	0.00	4.32
	----- Amount	Calc.	%Drift	-----			
15	Iodomethane	40.000	46.415	-16.0	97	0.00	4.46
16	Acrolein	200.000	154.896	22.6#	71	0.00	4.68
17	Allyl chloride	40.000	37.162	7.1	88	0.00	4.85
18	Methylene Chloride	40.000	39.657	0.9	90	0.00	4.98
19	Acetone	200.000	202.594	-1.3	93	0.00	5.02
	----- AvgRF	CCRF	%Dev	-----			
20	Methyl acetate	0.282	0.303	-7.4	91	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.279	2.1	90	0.00	5.18
22	Hexane	0.140	0.139	0.7	97	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.576	4.2	83	0.00	5.29
24	Tert butyl alcohol	0.082	0.082	0.0	85	0.00	5.39
	----- Amount	Calc.	%Drift	-----			

# Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-CC2948  
 Lab FileID: I757703.D

25	Acetonitrile	400.000	383.823	4.0	92	0.00	5.56
	----- AvgRF	CCRF	%Dev	-----			
26	Di-isopropyl ether	0.629	0.603	4.1	84	0.00	5.72
	----- Amount	Calc.	%Drift	-----			
27	Chloroprene	40.000	37.181	7.0	89	0.00	5.86
	----- AvgRF	CCRF	%Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.369	1.3	89	0.00	5.88
29	Acrylonitrile	0.137	0.146	-6.6	91	0.00	5.92
30	ETBE	0.606	0.572	5.6	83	0.00	6.13
	----- Amount	Calc.	%Drift	-----			
31	Vinyl acetate	200.000	202.486	-1.2	88	0.00	6.13
	----- AvgRF	CCRF	%Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.218	3.1	86	0.00	6.50
33	2,2-Dichloropropane	0.285	0.272	4.6	89	0.00	6.62
34	Bromochloromethane	0.116	0.112	3.4	85	0.00	6.73
	----- Amount	Calc.	%Drift	-----			
35	Cyclohexane	40.000	39.744	0.6	96	0.00	6.75
	----- AvgRF	CCRF	%Dev	-----			
36 C	Chloroform	0.390	0.377	3.3	88	0.00	6.79
	----- Amount	Calc.	%Drift	-----			
37	Ethyl acetate	200.000	215.682	-7.8	95	0.00	6.88
	----- AvgRF	CCRF	%Dev	-----			
38	Tetrahydrofuran	0.155	0.150	3.2	87	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.286	-0.7	86	0.00	6.99
40	Carbon Tetrachloride	0.274	0.274	0.0	96	0.00	6.97
41	1,1,1-Trichloroethane	0.323	0.320	0.9	93	0.00	7.03
	----- Amount	Calc.	%Drift	-----			
42	2-Butanone	200.000	204.750	-2.4	91	0.00	7.10
	----- AvgRF	CCRF	%Dev	-----			
43	1,1-Dichloropropene	0.255	0.255	0.0	92	0.00	7.17
44	tert-Butyl Formate	0.156	0.150	3.8	82	0.00	7.25
45	Propionitrile	0.069	0.067	2.9	90	0.00	7.41
46	Methacrylonitrile	0.201	0.187	7.0	89	0.00	7.43
47	Benzene	0.780	0.757	2.9	88	0.00	7.43
48	TAME	0.586	0.549	6.3	83	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.256	0.8	87	0.00	7.56
50	Isobutyl alcohol	0.018	0.018	0.0	94	0.00	7.59
51	1,2-Dichloroethane	0.271	0.258	4.8	86	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.067	1.5	84	0.00	7.70
53	Trichloroethene	0.218	0.208	4.6	90	0.00	8.04
	----- Amount	Calc.	%Drift	-----			
54	Methylcyclohexane	40.000	39.285	1.8	96	0.00	8.05
	----- AvgRF	CCRF	%Dev	-----			
55	Dibromomethane	0.139	0.137	1.4	85	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.193	4.0	85	0.00	8.56
57	Bromodichloromethane	0.277	0.277	0.0	87	0.00	8.62

# Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-CC2948  
 Lab FileID: I757703.D

	Amount	Calc.	%Drift			
58	Methyl methacrylate	40.000	39.190	2.0	85	0.00 8.74
59	1,4-Dioxane	800.000	704.760	11.9	78	0.00 8.82
60	2-Chloroethyl vinyl ether	200.000	208.331	-4.2	89	0.00 9.15
	AvgRF	CCRF	%Dev			
61	cis-1,3-Dichloropropene	0.313	0.307	1.9	84	0.00 9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	83	0.00 11.01
63 S	Toluene-d8	1.426	1.478	-3.6	84	0.00 9.44
64 C	Toluene	1.141	1.153	-1.1	87	0.00 9.49
	Amount	Calc.	%Drift			
65	2-Nitropropane	200.000	227.932	-14.0	96	0.00 9.69
	AvgRF	CCRF	%Dev			
66	4-Methyl-2-pentanone	0.494	0.536	-8.5	91	0.00 9.82
	Amount	Calc.	%Drift			
67	trans-1,3-Dichloropropene	40.000	40.373	-0.9	83	0.00 9.89
	AvgRF	CCRF	%Dev			
68	Tetrachloroethene	0.345	0.354	-2.6	92	0.00 9.91
	Amount	Calc.	%Drift			
69	Ethyl methacrylate	40.000	40.517	-1.3	86	0.00 10.01
	AvgRF	CCRF	%Dev			
70	1,1,2-Trichloroethane	0.233	0.242	-3.9	87	0.00 10.05
71	Dibromochloromethane	0.322	0.335	-4.0	84	0.00 10.26
72	1,3-Dichloropropane	0.405	0.429	-5.9	84	0.00 10.34
73	1,2-Dibromoethane	0.300	0.312	-4.0	85	0.00 10.51
	Amount	Calc.	%Drift			
74	3,3-dimethyl-1-butanol	2000.000	2404.753	-20.2#	101	0.00 10.61
75	2-hexanone	200.000	209.264	-4.6	89	0.00 10.65
	AvgRF	CCRF	%Dev			
76	1-Chlorohexane	0.323	0.328	-1.5	93	0.00 10.96
77 C	Ethylbenzene	1.232	1.235	-0.2	88	0.00 11.02
78 P	Chlorobenzene	0.754	0.772	-2.4	87	0.00 11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.298	-2.1	86	0.00 11.07
80	m,p-Xylene	0.925	0.949	-2.6	87	0.00 11.16
81	o-Xylene	0.994	0.975	1.9	84	0.00 11.60
	Amount	Calc.	%Drift			
82	Styrene	40.000	40.341	-0.9	84	0.00 11.65
	AvgRF	CCRF	%Dev			
83 P	Bromoform	0.271	0.289	-6.6	84	0.00 11.71
84	Isopropylbenzene	1.170	1.183	-1.1	88	0.00 11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	82	0.00 13.37
86 S	4-Bromofluorobenzene	0.842	0.841	0.1	81	0.00 12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.190	-6.1	86	0.00 12.26
88	n-Propylbenzene	2.201	2.285	-3.8	90	0.00 12.33
89	Bromobenzene	0.564	0.588	-4.3	87	0.00 12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.808	-5.1	88	0.00 12.39
91	1,3,5-Trimethylbenzene	1.577	1.587	-0.6	86	0.00 12.51
92	2-Chlorotoluene	1.501	1.561	-4.0	89	0.00 12.52

6.7.9  
6

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-CC2948  
**Lab FileID:** I757703.D

	Amount	Calc.	%Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	38.172	4.6	82	0.00 12.57
	AvgRF	CCRF	%Dev			
94	1,2,3-Trichloropropane	0.238	0.243	-2.1	85	0.00 12.54
95	Cyclohexanone	0.053	0.050	5.7	82	0.00 12.61
96	4-Chlorotoluene	1.351	1.375	-1.8	85	0.00 12.68
97	tert-Butylbenzene	0.838	0.852	-1.7	89	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.585	-2.0	86	0.00 12.92
99	Pentachloroethane	0.345	0.372	-7.8	93	0.00 12.90
	Amount	Calc.	%Drift			
100	sec-Butylbenzene	40.000	41.588	-4.0	91	0.00 13.04
	AvgRF	CCRF	%Dev			
101	4-Isopropyltoluene	1.571	1.611	-2.5	88	0.00 13.17
102	1,3-Dichlorobenzene	0.972	1.022	-5.1	87	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.651	-1.4	86	0.00 13.38
104	1,4-Dichlorobenzene	1.045	1.061	-1.5	87	0.00 13.38
105	n-Butylbenzene	0.773	0.827	-7.0	90	0.00 13.61
	Amount	Calc.	%Drift			
106	Benzyl Chloride	40.000	39.969	0.1	81	0.00 13.63
	AvgRF	CCRF	%Dev			
107	1,2-Dichlorobenzene	0.953	0.994	-4.3	87	0.00 13.82
108	1,2-Dibromo-3-Chloropropa	0.194	0.202	-4.1	84	0.00 14.58
109	Hexachlorobutadiene	0.323	0.339	-5.0	95	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.712	-1.1	83	0.00 15.19
111	Naphthalene	2.202	2.249	-2.1	81	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.725	-3.3	86	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Thu Jul 06 10:07:04 2023

## Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-ECC2948  
 Lab FileID: I757726.D

## Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ce...2023\VI2963\I757726.d Vial: 23  
 Acq On : 6 Jul 2023 7:35 pm Operator: jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B  
 Last Update : Thu Jun 15 14:39:51 2023  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 50% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	74	0.00	7.85
2	Dichlorodifluoromethane	0.220	0.224	-1.8	85	0.00	2.35
	----- True	Calc.	% Drift	-----			
3 P	Chloromethane	40.000	41.338	-3.3	80	0.00	2.64
	----- AvgRF	CCRF	% Dev	-----			
4 C	Vinyl Chloride	0.223	0.226	-1.3	82	0.00	2.76
	----- True	Calc.	% Drift	-----			
5	1,3-Butadiene	40.000	36.496	8.8	78	0.00	2.79
6	Bromomethane	40.000	41.047	-2.6	80	0.00	3.23
7	Chloroethane	40.000	40.725	-1.8	80	0.00	3.39
8	Trichlorofluoromethane	40.000	41.671	-4.2	83	0.00	3.59
	----- AvgRF	CCRF	% Dev	-----			
9	Ethyl Ether	0.155	0.145	6.5	71	0.00	4.02
10	1,2-Dichlorotrifluoroetha	0.206	0.205	0.5	84	0.00	4.24
11 C	1,1-Dichloroethene	0.271	0.266	1.8	81	0.00	4.27
	----- True	Calc.	% Drift	-----			
12	Ethanol	800.000	777.605	2.8	82	0.00	4.21
	----- AvgRF	CCRF	% Dev	-----			
13	Freon 113	0.169	0.165	2.4	84	0.00	4.32
14	Carbon Disulfide	0.557	0.476	14.5	72	0.00	4.33
	----- True	Calc.	% Drift	-----			
15	Iodomethane	40.000	53.441	-33.6	97	0.00	4.46
16	Acrolein	200.000	150.162	24.9	59	0.00	4.68
17	Allyl chloride	40.000	35.316	11.7	72	0.00	4.85
18	Methylene Chloride	40.000	43.090	-7.7	84	0.00	4.98
19	Acetone	200.000	200.836	-0.4	79	0.00	5.03
	----- AvgRF	CCRF	% Dev	-----			
20	Methyl acetate	0.282	0.310	-9.9	80	0.00	5.17
21	trans-1,2-Dichloroethene	0.285	0.273	4.2	76	0.00	5.18
22	Hexane	0.140	0.135	3.6	81	0.00	5.28
23	Methyl Tert Butyl Ether	0.601	0.549	8.7	69	0.00	5.30
24	Tert butyl alcohol	0.082	0.083	-1.2	75	0.00	5.39
	----- True	Calc.	% Drift	-----			

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-ECC2948  
**Lab FileID:** I757726.D

25	Acetonitrile	400.000	380.970	4.8	79	0.00	5.56
	----- AvgRF	CCRF	% Dev	-----			
26	Di-isopropyl ether	0.629	0.607	3.5	73	0.00	5.73
	----- True	Calc.	% Drift	-----			
27	Chloroprene	40.000	36.284	9.3	75	0.00	5.87
	----- AvgRF	CCRF	% Dev	-----			
28 P	1,1-Dichloroethane	0.374	0.361	3.5	75	0.00	5.88
29	Acrylonitrile	0.137	0.143	-4.4	76	0.00	5.92
30	ETBE	0.606	0.569	6.1	71	0.00	6.13
	----- True	Calc.	% Drift	-----			
31	Vinyl acetate	200.000	190.409	4.8	71	0.00	6.14
	----- AvgRF	CCRF	% Dev	-----			
32	cis-1,2-Dichloroethene	0.225	0.206	8.4	70	0.00	6.51
33	2,2-Dichloropropane	0.285	0.247	13.3	70	0.00	6.62
34	Bromochloromethane	0.116	0.101	12.9	66	0.00	6.73
	----- True	Calc.	% Drift	-----			
35	Cyclohexane	40.000	39.776	0.6	83	0.00	6.76
	----- AvgRF	CCRF	% Dev	-----			
36 C	Chloroform	0.390	0.363	6.9	73	0.00	6.79
	----- True	Calc.	% Drift	-----			
37	Ethyl acetate	200.000	213.337	-6.7	81	0.00	6.88
	----- AvgRF	CCRF	% Dev	-----			
38	Tetrahydrofuran	0.155	0.154	0.6	77	0.00	6.98
39 S	Dibromofluoromethane	0.284	0.289	-1.8	75	0.00	6.99
40	Carbon Tetrachloride	0.274	0.264	3.6	80	0.00	6.98
41	1,1,1-Trichloroethane	0.323	0.311	3.7	78	0.00	7.04
	----- True	Calc.	% Drift	-----			
42	2-Butanone	200.000	205.186	-2.6	78	0.00	7.10
	----- AvgRF	CCRF	% Dev	-----			
43	1,1-Dichloropropene	0.255	0.249	2.4	78	0.00	7.17
44	tert-Butyl Formate	0.156	0.137	12.2	64	0.00	7.26
45	Propionitrile	0.069	0.067	2.9	77	0.00	7.41
46	Methacrylonitrile	0.201	0.188	6.5	77	0.00	7.44
47	Benzene	0.780	0.734	5.9	74	0.00	7.43
48	TAME	0.586	0.537	8.4	70	0.00	7.52
49 S	1,2-Dichloroethane-d4	0.258	0.284	-10.1	83	0.00	7.56
50	Isobutyl alcohol	0.018	0.019	-5.6	85	0.00	7.59
51	1,2-Dichloroethane	0.271	0.254	6.3	73	0.00	7.63
52	Tert Amyl Alcohol	0.068	0.068	0.0	74	0.00	7.70
53	Trichloroethene	0.218	0.203	6.9	76	0.00	8.04
	----- True	Calc.	% Drift	-----			
54	Methylcyclohexane	40.000	38.733	3.2	82	0.00	8.05
	----- AvgRF	CCRF	% Dev	-----			
55	Dibromomethane	0.139	0.129	7.2	69	0.00	8.48
56 C	1,2-Dichloropropane	0.201	0.192	4.5	72	0.00	8.57
57	Bromodichloromethane	0.277	0.264	4.7	71	0.00	8.63

6.7.10  
6

# Continuing Calibration Summary

Job Number: FC7413  
 Account: EAENYS EA Engineering  
 Project: Former Seneca Army Depot, NY

Sample: VI2963-ECC2948  
 Lab FileID: I757726.D

		True	Calc.	% Drift			
58	Methyl methacrylate	40.000	38.612	3.5	72	0.00	8.74
59	1,4-Dioxane	800.000	734.020	8.2	70	0.00	8.82
60	2-Chloroethyl vinyl ether	200.000	183.339	8.3	67	0.00	9.16
		AvgRF	CCRF	% Dev			
61	cis-1,3-Dichloropropene	0.313	0.294	6.1	69	0.00	9.25
62 I	Chlorobenzene-d5	1.000	1.000	0.0	73	0.00	11.01
63 S	Toluene-d8	1.426	1.461	-2.5	73	0.00	9.45
64 C	Toluene	1.141	1.091	4.4	72	0.00	9.50
		True	Calc.	% Drift			
65	2-Nitropropane	200.000	231.683	-15.8	86	0.00	9.70
		AvgRF	CCRF	% Dev			
66	4-Methyl-2-pentanone	0.494	0.525	-6.3	78	0.00	9.83
		True	Calc.	% Drift			
67	trans-1,3-Dichloropropene	40.000	38.716	3.2	70	0.00	9.90
		AvgRF	CCRF	% Dev			
68	Tetrachloroethene	0.345	0.355	-2.9	81	0.00	9.91
		True	Calc.	% Drift			
69	Ethyl methacrylate	40.000	38.052	4.9	71	0.00	10.01
		AvgRF	CCRF	% Dev			
70	1,1,2-Trichloroethane	0.233	0.227	2.6	71	0.00	10.05
71	Dibromochloromethane	0.322	0.311	3.4	69	0.00	10.26
72	1,3-Dichloropropane	0.405	0.408	-0.7	71	0.00	10.34
73	1,2-Dibromoethane	0.300	0.293	2.3	70	0.00	10.51
		True	Calc.	% Drift			
74	3,3-dimethyl-1-butanol	2000.000	2392.114	-19.6	88	0.00	10.61
75	2-hexanone	200.000	207.413	-3.7	78	0.00	10.66
		AvgRF	CCRF	% Dev			
76	1-Chlorohexane	0.323	0.312	3.4	78	0.00	10.96
77 C	Ethylbenzene	1.232	1.198	2.8	75	0.00	11.02
78 P	Chlorobenzene	0.754	0.724	4.0	72	0.00	11.02
79	1,1,1,2-Tetrachloroethane	0.292	0.279	4.5	71	0.00	11.07
80	m,p-Xylene	0.925	0.909	1.7	73	0.00	11.16
81	o-Xylene	0.994	0.948	4.6	72	0.00	11.60
		True	Calc.	% Drift			
82	Styrene	40.000	38.360	4.1	70	0.00	11.66
		AvgRF	CCRF	% Dev			
83 P	Bromoform	0.271	0.263	3.0	67	0.00	11.71
84	Isopropylbenzene	1.170	1.137	2.8	74	0.00	11.91
85 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	73	0.00	13.37
86 S	4-Bromofluorobenzene	0.842	0.838	0.5	71	0.00	12.22
87	cis-1,4-Dichloro-2-butene	0.179	0.155	13.4	62	0.00	12.26
88	n-Propylbenzene	2.201	2.174	1.2	76	0.00	12.33
89	Bromobenzene	0.564	0.543	3.7	71	0.00	12.35
90 P	1,1,2,2-Tetrachloroethane	0.769	0.759	1.3	73	0.00	12.39
91	1,3,5-Trimethylbenzene	1.577	1.527	3.2	73	0.00	12.52
92	2-Chlorotoluene	1.501	1.486	1.0	75	0.00	12.52

6.7.10  
6

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** VI2963-ECC2948  
**Lab FileID:** I757726.D

	True	Calc.	% Drift			
93	trans-1,4-Dichloro-2-Bute	40.000	33.718	15.7	64	0.00 12.57
	AvgRF	CCRF	% Dev			
94	1,2,3-Trichloropropane	0.238	0.235	1.3	73	0.00 12.55
95	Cyclohexanone	0.053	0.051	3.8	74	0.00 12.61
96	4-Chlorotoluene	1.351	1.318	2.4	72	0.00 12.68
97	tert-Butylbenzene	0.838	0.813	3.0	75	0.00 12.85
98	1,2,4-Trimethylbenzene	1.554	1.498	3.6	72	0.00 12.93
99	Pentachloroethane	0.345	0.314	9.0	70	0.00 12.90
	True	Calc.	% Drift			
100	sec-Butylbenzene	40.000	39.940	0.2	78	0.00 13.04
	AvgRF	CCRF	% Dev			
101	4-Isopropyltoluene	1.571	1.539	2.0	75	0.00 13.17
102	1,3-Dichlorobenzene	0.972	0.955	1.7	72	0.00 13.30
103	1,2,3-Trimethylbenzene	1.628	1.563	4.0	73	0.00 13.38
104	1,4-Dichlorobenzene	1.045	0.996	4.7	72	0.00 13.39
105	n-Butylbenzene	0.773	0.777	-0.5	75	0.00 13.61
	True	Calc.	% Drift			
106	Benzyl Chloride	40.000	32.740	18.1	58	0.00 13.63
	AvgRF	CCRF	% Dev			
107	1,2-Dichlorobenzene	0.953	0.934	2.0	72	0.00 13.83
108	1,2-Dibromo-3-Chloropropa	0.194	0.197	-1.5	72	0.00 14.58
109	Hexachlorobutadiene	0.323	0.311	3.7	77	0.00 15.15
110	1,2,4-Trichlorobenzene	0.704	0.653	7.2	68	0.00 15.19
111	Naphthalene	2.202	2.085	5.3	67	0.00 15.46
112	1,2,3-Trichlorobenzene	0.702	0.653	7.0	68	0.00 15.63

(#) = Out of Range  
 I757265.D VI-2023-06-15.m

SPCC's out = 0 CCC's out = 0  
 Thu Jul 06 23:13:42 2023

6.7.10 6



**Run Sequence Report**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> V2O2981	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMS20
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<b>Lab Sample ID</b>	<b>Lab File ID</b>	<b>Date/Time Analyzed</b>	<b>Prep QC Batch</b>	<b>Client Sample ID</b>
V2O2981-BFB	2O76618.D	06/07/23 09:26	n/a	BFB Tune
V2O2981-IC2981	2O76622.D	06/07/23 11:22	n/a	Initial cal 4
V2O2981-ICC2981	2O76623.D	06/07/23 11:47	n/a	Initial cal 5
V2O2981-IC2981	2O76624.D	06/07/23 12:13	n/a	Initial cal 6
V2O2981-IC2981	2O76625.D	06/07/23 12:38	n/a	Initial cal 7
V2O2981-IC2981	2O76627.D	06/07/23 13:55	n/a	Initial cal 1
V2O2981-IC2981	2O76628.D	06/07/23 14:20	n/a	Initial cal 2
V2O2981-IC2981	2O76629.D	06/07/23 14:46	n/a	Initial cal 3
V2O2981-ICV2981	2O76631.D	06/07/23 15:37	n/a	Initial cal verification 5
V2O2981-ICV2981	2O76632.D	06/07/23 16:02	n/a	Initial cal verification 4

## Run Sequence Report

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> V203017	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMS20
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V203017-BFB	2077411.D	07/05/23 08:10	n/a	BFB Tune
V203017-CC2981	2077412.D	07/05/23 08:36	n/a	Continuing cal 4
V203017-BS	2077413.D	07/05/23 09:01	n/a	Blank Spike
V203017-MB	2077415.D	07/05/23 09:52	n/a	Method Blank
ZZZZZZ	2077416.D	07/05/23 10:17	n/a	(unrelated sample)
ZZZZZZ	2077417.D	07/05/23 10:43	n/a	(unrelated sample)
FC7382-1	2077418.D	07/05/23 11:08	n/a	(used for QC only; not part of job FC7413)
ZZZZZZ	2077419.D	07/05/23 11:34	n/a	(unrelated sample)
ZZZZZZ	2077420.D	07/05/23 11:59	n/a	(unrelated sample)
ZZZZZZ	2077421.D	07/05/23 12:25	n/a	(unrelated sample)
ZZZZZZ	2077422.D	07/05/23 12:50	n/a	(unrelated sample)
ZZZZZZ	2077423.D	07/05/23 13:16	n/a	(unrelated sample)
FC7413-1	2077424.D	07/05/23 13:41	n/a	SEAD-MWT-28-20230629
FC7413-2	2077425.D	07/05/23 14:07	n/a	TB
ZZZZZZ	2077426.D	07/05/23 14:32	n/a	(unrelated sample)
ZZZZZZ	2077427.D	07/05/23 14:58	n/a	(unrelated sample)
ZZZZZZ	2077428.D	07/05/23 15:23	n/a	(unrelated sample)
ZZZZZZ	2077429.D	07/05/23 15:49	n/a	(unrelated sample)
ZZZZZZ	2077430.D	07/05/23 16:14	n/a	(unrelated sample)
ZZZZZZ	2077431.D	07/05/23 16:40	n/a	(unrelated sample)
ZZZZZZ	2077432.D	07/05/23 17:05	n/a	(unrelated sample)
ZZZZZZ	2077433.D	07/05/23 17:30	n/a	(unrelated sample)
ZZZZZZ	2077434.D	07/05/23 17:56	n/a	(unrelated sample)
ZZZZZZ	2077435.D	07/05/23 18:21	n/a	(unrelated sample)
FC7382-1MS	2077436.D	07/05/23 18:47	n/a	Matrix Spike
FC7382-1MSD	2077437.D	07/05/23 19:12	n/a	Matrix Spike Duplicate
V203017-ECC2981	2077438.D	07/05/23 19:38	n/a	Ending cal 4

## Run Sequence Report

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> VI2948	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMSI
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VI2948-BFB	I757260.D	06/15/23 10:08	n/a	BFB Tune
VI2948-IC2948	I757261.D	06/15/23 10:43	n/a	Initial cal 1
VI2948-IC2948	I757262.D	06/15/23 11:16	n/a	Initial cal 2
VI2948-IC2948	I757263.D	06/15/23 11:40	n/a	Initial cal 3
VI2948-IC2948	I757264.D	06/15/23 12:04	n/a	Initial cal 4
VI2948-ICC2948	I757265.D	06/15/23 12:28	n/a	Initial cal 5
VI2948-IC2948	I757266.D	06/15/23 12:52	n/a	Initial cal 6
VI2948-IC2948	I757267.D	06/15/23 13:15	n/a	Initial cal 7
VI2948-CC2948	I757269A.D	06/15/23 14:04	n/a	Continuing cal 5
VI2948-ICV2948	I757269.D	06/15/23 14:04	n/a	Initial cal verification 5
VI2948-BS	I757270A.D	06/15/23 14:27	n/a	Blank Spike
VI2948-ICV2948	I757270.D	06/15/23 14:27	n/a	Initial cal verification 4
VI2948-BSD	I757271.D	06/15/23 14:51	n/a	Blank Spike Duplicate
VI2948-MB	I757273.D	06/15/23 15:39	n/a	Method Blank
ZZZZZZ	I757274.D	06/15/23 16:03	n/a	(unrelated sample)
ZZZZZZ	I757275.D	06/15/23 16:27	n/a	(unrelated sample)
ZZZZZZ	I757276.D	06/15/23 16:51	n/a	(unrelated sample)
ZZZZZZ	I757277.D	06/15/23 17:15	n/a	(unrelated sample)
ZZZZZZ	I757278.D	06/15/23 17:39	n/a	(unrelated sample)
ZZZZZZ	I757279.D	06/15/23 18:03	n/a	(unrelated sample)
ZZZZZZ	I757280.D	06/15/23 18:27	n/a	(unrelated sample)
ZZZZZZ	I757281.D	06/15/23 18:51	n/a	(unrelated sample)
ZZZZZZ	I757282.D	06/15/23 19:15	n/a	(unrelated sample)
ZZZZZZ	I757283.D	06/15/23 19:39	n/a	(unrelated sample)
ZZZZZZ	I757284.D	06/15/23 20:03	n/a	(unrelated sample)
ZZZZZZ	I757285.D	06/15/23 20:27	n/a	(unrelated sample)
VI2948-ECC2948	I757286.D	06/15/23 20:51	n/a	Ending cal 5

## Run Sequence Report

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> VI2963	<b>Method:</b> SW846 8260D	<b>Instrument ID:</b> GCMSI
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
VI2963-BFB	I757702.D	07/06/23 08:41	n/a	BFB Tune
VI2963-CC2948	I757703.D	07/06/23 09:12	n/a	Continuing cal 5
VI2963-BS	I757704.D	07/06/23 09:43	n/a	Blank Spike
VI2963-MB	I757706.D	07/06/23 10:31	n/a	Method Blank
ZZZZZZ	I757707.D	07/06/23 10:55	n/a	(unrelated sample)
ZZZZZZ	I757708.D	07/06/23 11:19	n/a	(unrelated sample)
FC7413-2	I757709.D	07/06/23 11:42	n/a	TB
FC7493-1	I757710.D	07/06/23 12:06	n/a	(used for QC only; not part of job FC7413)
ZZZZZZ	I757711.D	07/06/23 12:30	n/a	(unrelated sample)
ZZZZZZ	I757712.D	07/06/23 12:54	n/a	(unrelated sample)
ZZZZZZ	I757713.D	07/06/23 13:18	n/a	(unrelated sample)
ZZZZZZ	I757716.D	07/06/23 15:41	n/a	(unrelated sample)
ZZZZZZ	I757717.D	07/06/23 16:05	n/a	(unrelated sample)
ZZZZZZ	I757718.D	07/06/23 16:29	n/a	(unrelated sample)
FC7413-1	I757720.D	07/06/23 16:53	n/a	SEAD-MWT-28-20230629
ZZZZZZ	I757721.D	07/06/23 17:36	n/a	(unrelated sample)
ZZZZZZ	I757722.D	07/06/23 18:00	n/a	(unrelated sample)
ZZZZZZ	I757723.D	07/06/23 18:24	n/a	(unrelated sample)
FC7493-1MS	I757724.D	07/06/23 18:48	n/a	Matrix Spike
FC7493-1MSD	I757725.D	07/06/23 19:12	n/a	Matrix Spike Duplicate
VI2963-ECC2948	I757726.D	07/06/23 19:35	n/a	Ending cal 5

MS Volatiles

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Raw Data

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7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077424.d  
 Acq On : 5 Jul 2023 1:41 pm  
 Operator : jeniferw  
 Sample : FC7413-1  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 05 21:36:59 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	306458	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	218049	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.775	152	98605	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	87347	52.41	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	104.82%	
50) 1,2-Dichloroethane-d4	3.849	65	97393	49.23	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	98.46%	
63) Toluene-d8	4.970	98	278202	47.85	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	95.70%	
86) 4-Bromofluorobenzene	6.915	174	78118	54.22	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	108.44%	
Target Compounds						
19) Acetone	2.550	43	8212	11.61	ug/L	96
25) Acetonitrile	2.830	41	2002	7.27	ug/L	90
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

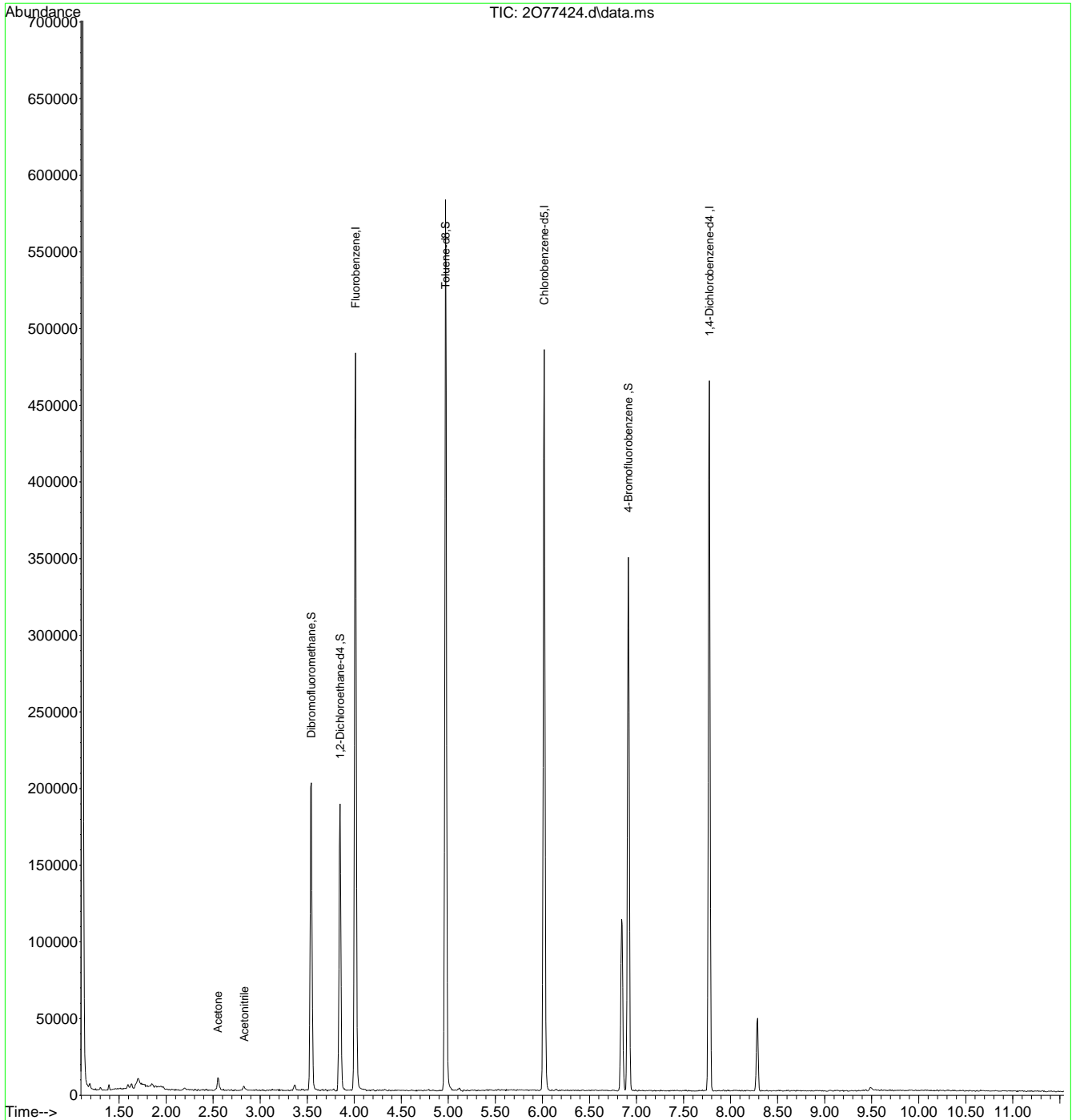
7.1.1  
7



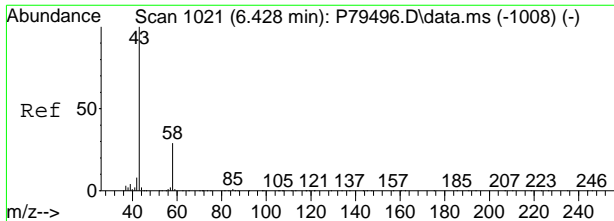
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077424.d  
Acq On : 5 Jul 2023 1:41 pm  
Operator : jeniferw  
Sample : FC7413-1  
Misc : MS54357,V203017,,,,,  
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jul 05 21:36:59 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration

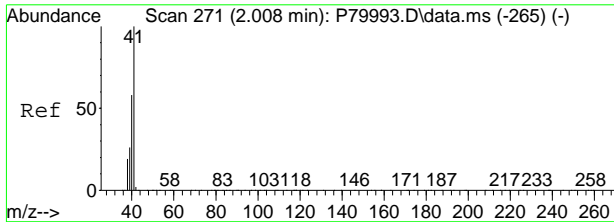
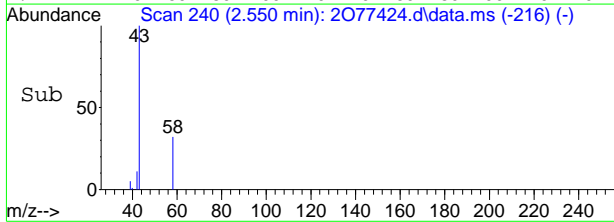
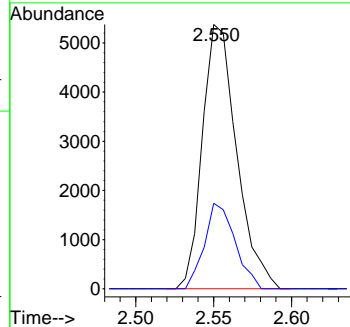
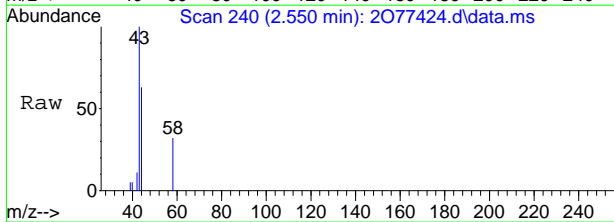


7  
117



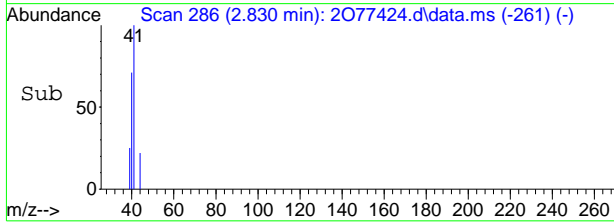
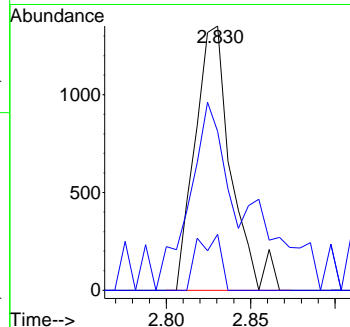
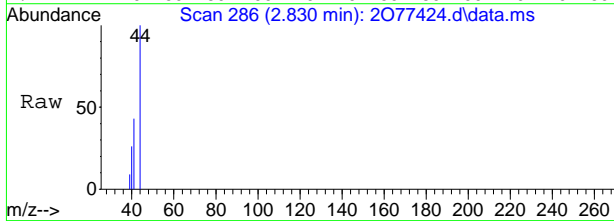
#19  
 Acetone  
 Concen: 11.61 ug/L  
 RT: 2.550 min Scan# 240  
 Delta R.T. -0.006 min  
 Lab File: 2077424.d  
 Acq: 5 Jul 2023 1:41 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	32.3	0.1	60.1



#25  
 Acetonitrile  
 Concen: 7.27 ug/L  
 RT: 2.830 min Scan# 286  
 Delta R.T. 0.000 min  
 Lab File: 2077424.d  
 Acq: 5 Jul 2023 1:41 pm

Tgt Ion	Ratio	Lower	Upper
41	100		
40	43.9	32.7	72.7
39	21.2	0.0	39.4



7.1.1  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757720.d  
 Acq On : 6 Jul 2023 4:53 pm  
 Operator : jeniferw  
 Sample : FC7413-1 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:37:01 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

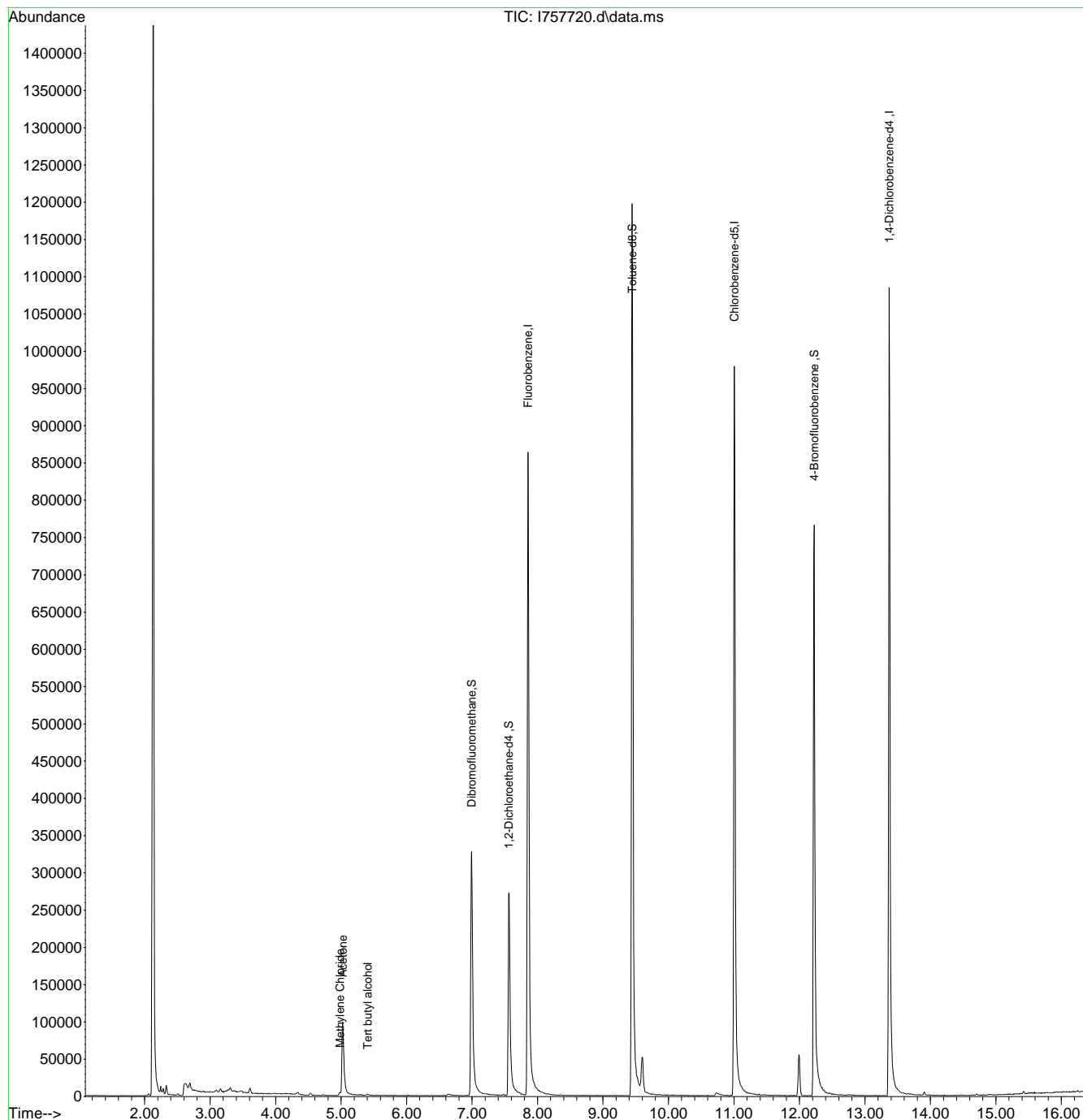
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	804783	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.005	117	578173	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	320890	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	221345	48.46	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.92%	
49) 1,2-Dichloroethane-d4	7.561	65	212955	51.27	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.54%	
63) Toluene-d8	9.445	98	813441	49.34	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.68%	
86) 4-Bromofluorobenzene	12.225	174	263848	48.83	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.66%	
Target Compounds						
18) Methylene Chloride	4.982	49	2673	0.59	ug/L	96
19) Acetone	5.025	43	142075	65.61	ug/L	99
24) Tert butyl alcohol	5.403	59	1742	1.32	ug/L	68
-----						

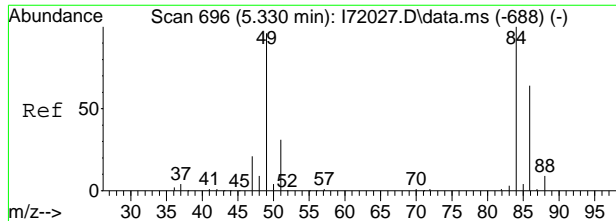
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
Data File : I757720.d  
Acq On : 6 Jul 2023 4:53 pm  
Operator : jeniferw  
Sample : FC7413-1 Inst : MSVOA16  
Misc : MS54368,VI2963,,,,,  
ALS Vial : 17 Sample Multiplier: 1

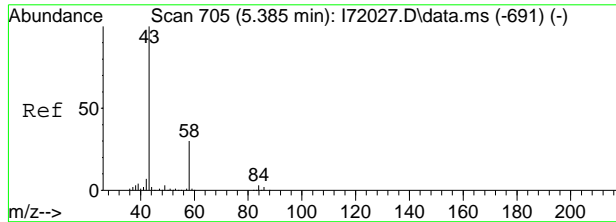
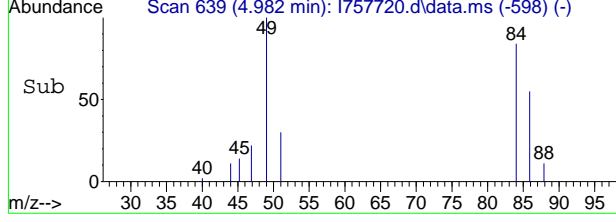
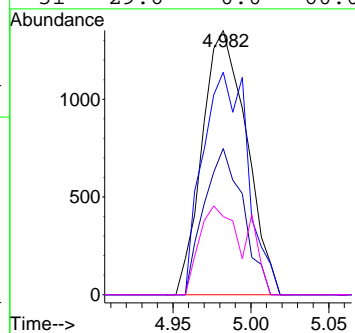
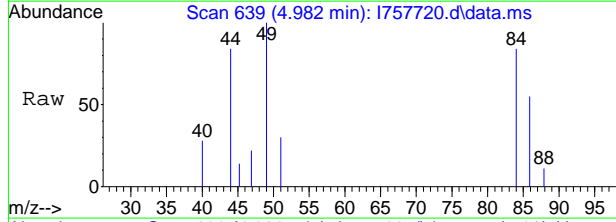
Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jul 06 23:37:01 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration





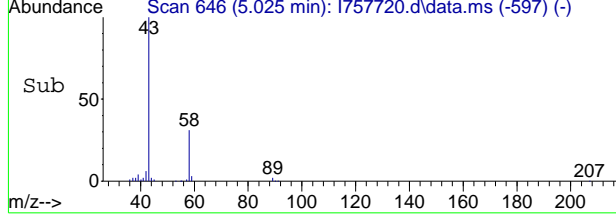
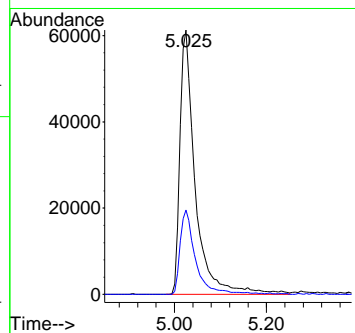
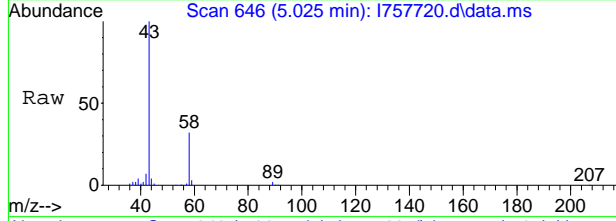
#18  
 Methylene Chloride  
 Concen: 0.59 ug/L  
 RT: 4.982 min Scan# 639  
 Delta R.T. 0.000 min  
 Lab File: I757720.d  
 Acq: 6 Jul 2023 4:53 pm

Tgt Ion	Ratio	Lower	Upper
49	100		
84	84.1	51.5	111.5
86	55.3	19.4	79.4
51	29.6	0.0	60.0

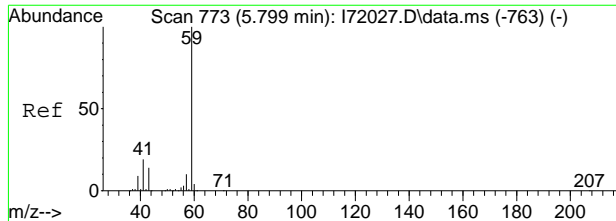


#19  
 Acetone  
 Concen: 65.61 ug/L  
 RT: 5.025 min Scan# 646  
 Delta R.T. -0.000 min  
 Lab File: I757720.d  
 Acq: 6 Jul 2023 4:53 pm

Tgt Ion	Ratio	Lower	Upper
43	100		
58	31.9	2.3	62.3

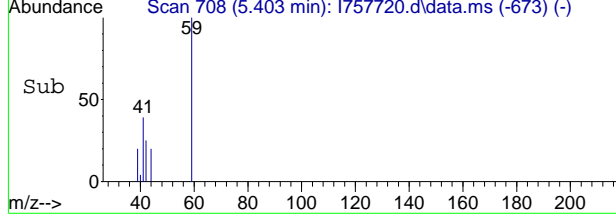
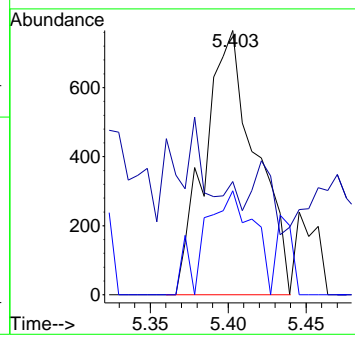
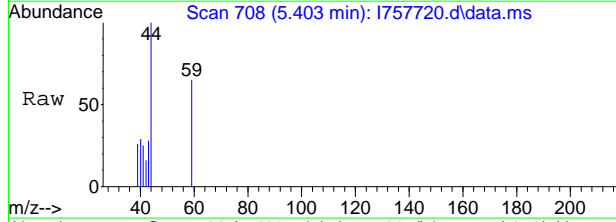


7.12  
7



#24  
 Tert butyl alcohol  
 Concen: 1.32 ug/L  
 RT: 5.403 min Scan# 708  
 Delta R.T. 0.012 min  
 Lab File: I757720.d  
 Acq: 6 Jul 2023 4:53 pm

Tgt Ion	Resp
59	1742
41	39.3
43	17.2



7.1.2  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077425.d  
 Acq On : 5 Jul 2023 2:07 pm  
 Operator : jeniferw  
 Sample : FC7413-2  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 05 21:37:53 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

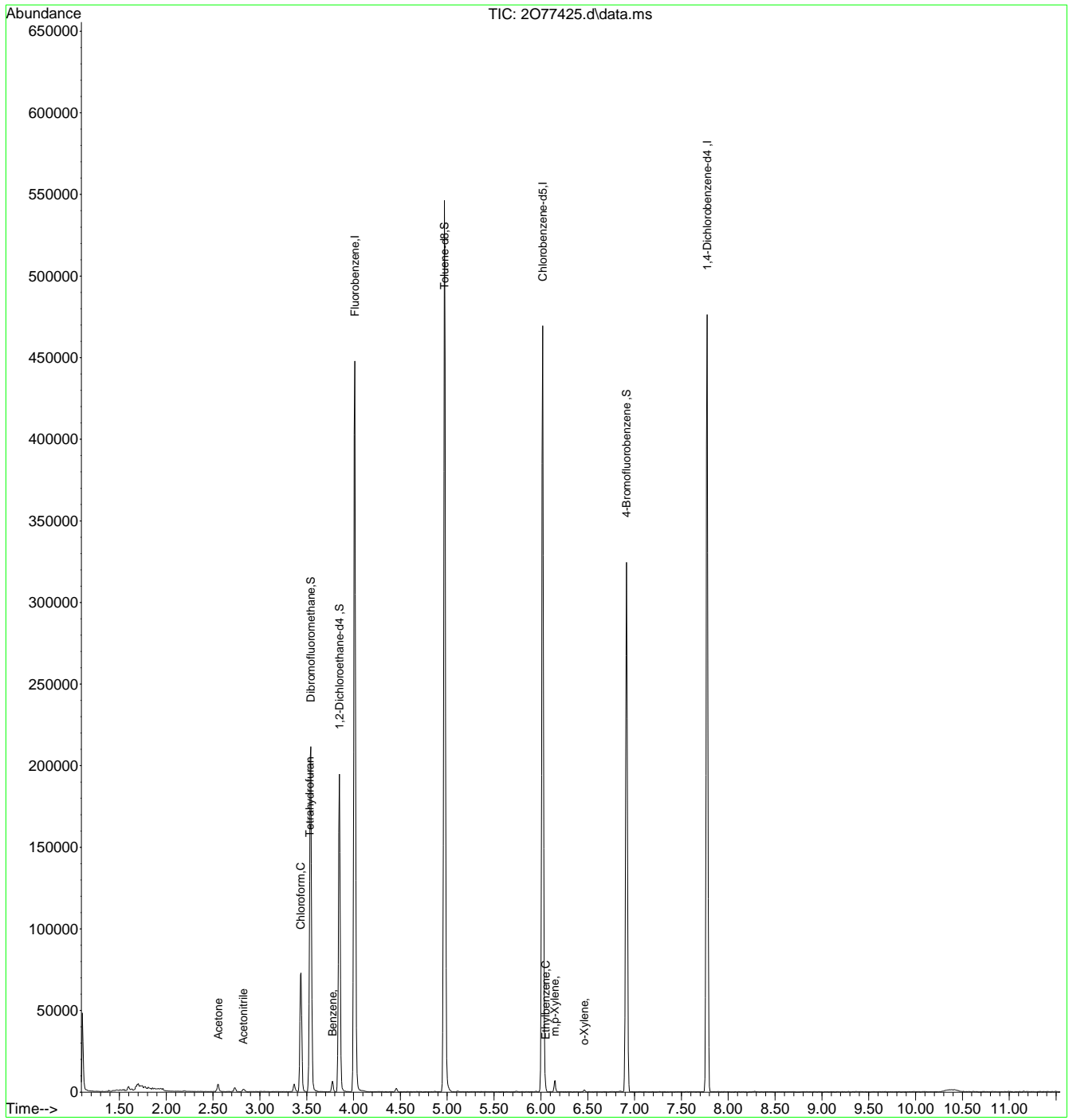
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	290311	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	210115	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.775	152	99698	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	88420	56.01	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	112.02%	
50) 1,2-Dichloroethane-d4	3.849	65	99391	53.03	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	106.06%	
63) Toluene-d8	4.970	98	272869	48.71	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.42%	
86) 4-Bromofluorobenzene	6.915	174	70287	48.25	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.50%	
Target Compounds						
19) Acetone	2.556	43	4599	6.87	ug/L	99
25) Acetonitrile	2.824	41	1224	4.69	ug/L	95
36) Chloroform	3.434	83	42344	16.00	ug/L	97
38) Tetrahydrofuran	3.532	42	6811	9.99	ug/L	88
47) Benzene	3.775	78	4526	0.86	ug/L	68
77) Ethylbenzene	6.049	91	2097	0.34	ug/L	87
80) m,p-Xylene	6.147	91	3675	0.76	ug/L	99
81) o-Xylene	6.464	91	986	0.20	ug/L	79
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

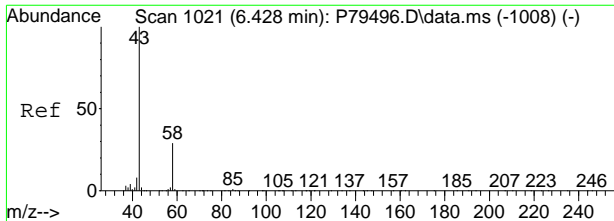
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077425.d  
Acq On : 5 Jul 2023 2:07 pm  
Operator : jeniferw  
Sample : FC7413-2  
Misc : MS54357,V203017,,,,,  
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jul 05 21:37:53 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration



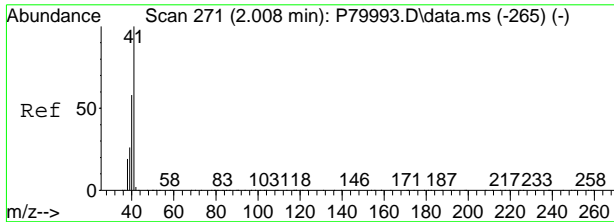
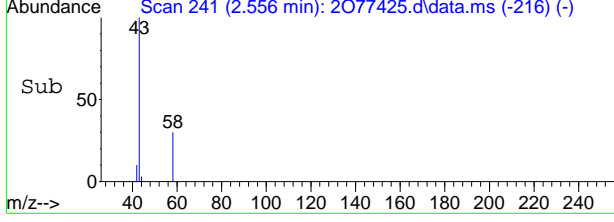
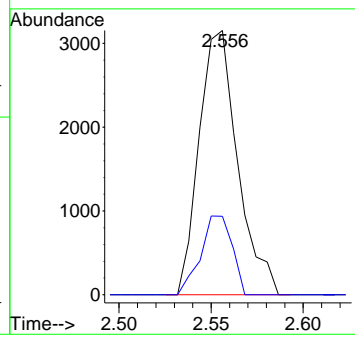
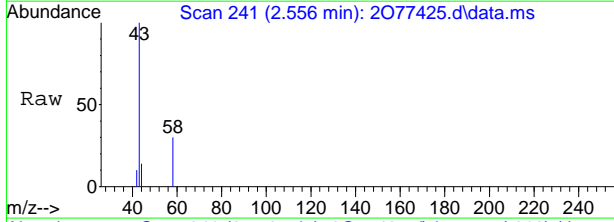
7.1.3  
7





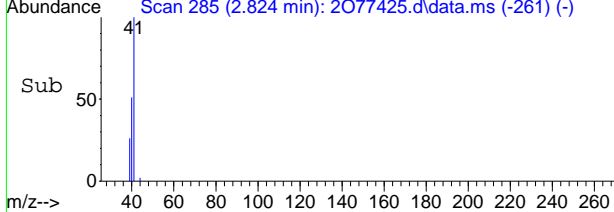
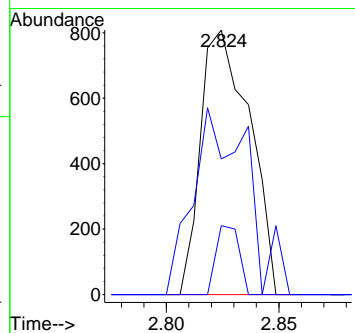
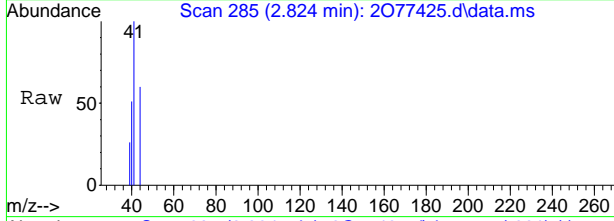
#19  
 Acetone  
 Concen: 6.87 ug/L  
 RT: 2.556 min Scan# 241  
 Delta R.T. 0.000 min  
 Lab File: 2077425.d  
 Acq: 5 Jul 2023 2:07 pm

Tgt Ion	Resp	Lower	Upper
43	4599	100	
58	29.7	0.1	60.1

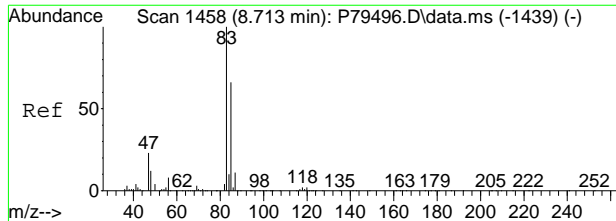


#25  
 Acetonitrile  
 Concen: 4.69 ug/L  
 RT: 2.824 min Scan# 285  
 Delta R.T. -0.006 min  
 Lab File: 2077425.d  
 Acq: 5 Jul 2023 2:07 pm

Tgt Ion	Resp	Lower	Upper
41	1224	100	
40	51.2	32.7	72.7
39	26.0	0.0	39.4

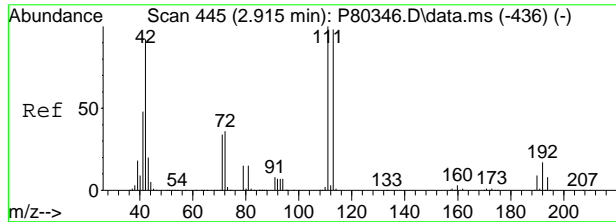
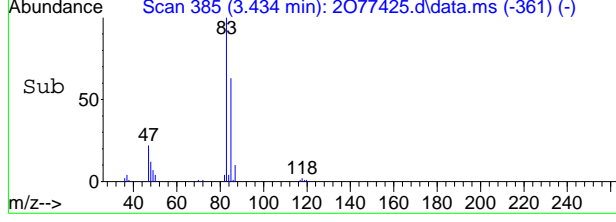
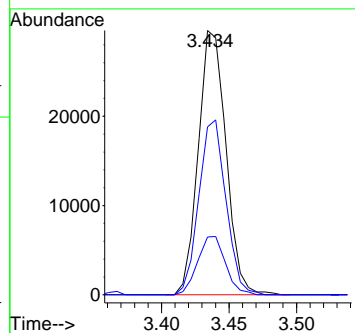
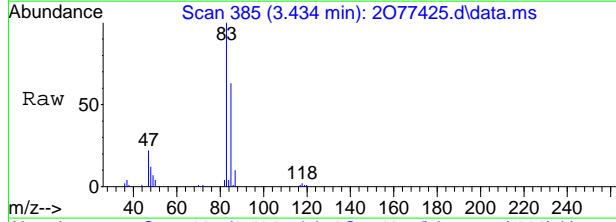


7.13  
7



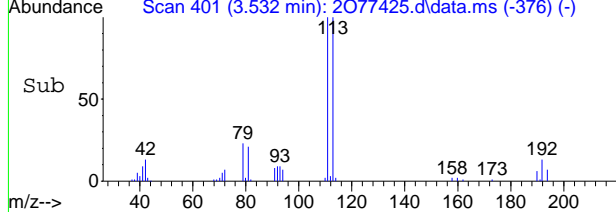
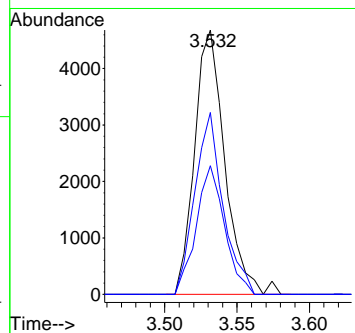
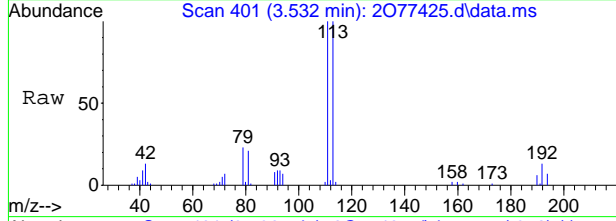
#36  
 Chloroform  
 Concen: 16.00 ug/L  
 RT: 3.434 min Scan# 385  
 Delta R.T. -0.006 min  
 Lab File: 2077425.d  
 Acq: 5 Jul 2023 2:07 pm

Tgt Ion	Ratio	Lower	Upper
83	100		
85	63.5	36.2	96.2
47	21.9	0.0	52.3



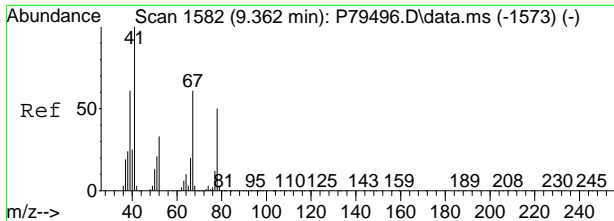
#38  
 Tetrahydrofuran  
 Concen: 9.99 ug/L  
 RT: 3.532 min Scan# 401  
 Delta R.T. 0.001 min  
 Lab File: 2077425.d  
 Acq: 5 Jul 2023 2:07 pm

Tgt Ion	Ratio	Lower	Upper
42	100		
41	68.8	35.0	75.0
72	48.6	26.3	66.3

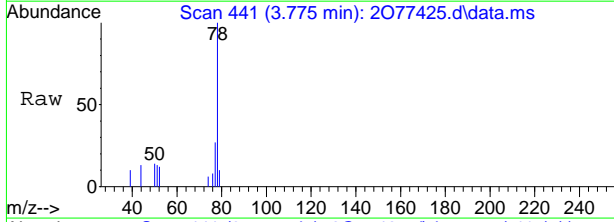


7.1.3  
7



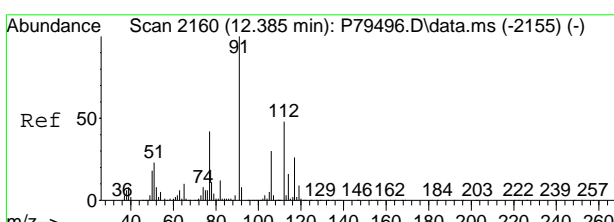
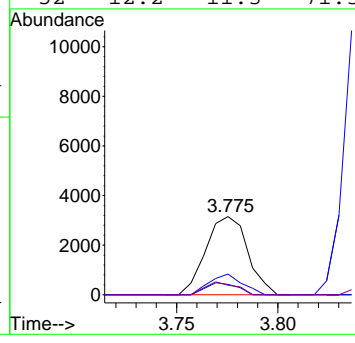
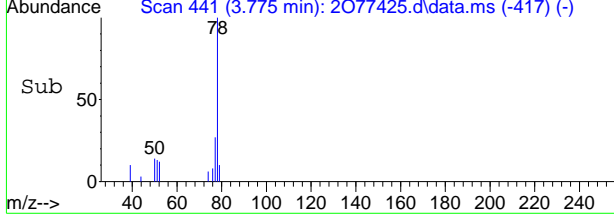


#47  
Benzene  
Concen: 0.86 ug/L  
RT: 3.775 min Scan# 441  
Delta R.T. -0.006 min  
Lab File: 2077425.d  
Acq: 5 Jul 2023 2:07 pm

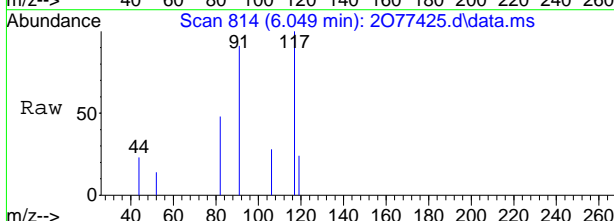


Tgt Ion: 78 Resp: 4526

Ion	Ratio	Lower	Upper
78	100		
51	13.3	3.0	63.0
77	26.7	0.0	54.1
52	12.2	11.3	71.3

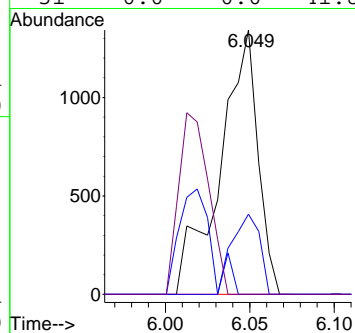
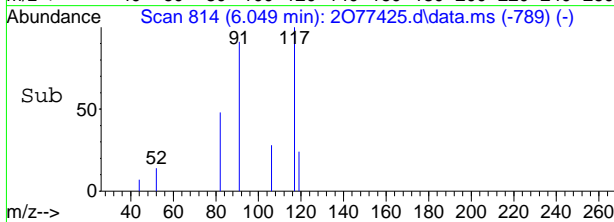


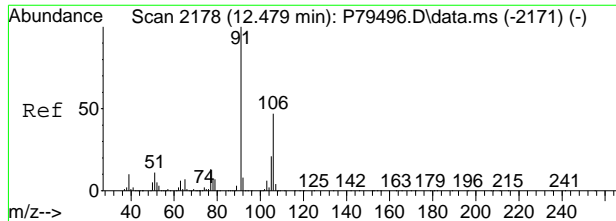
#77  
Ethylbenzene  
Concen: 0.34 ug/L  
RT: 6.049 min Scan# 814  
Delta R.T. 0.000 min  
Lab File: 2077425.d  
Acq: 5 Jul 2023 2:07 pm



Tgt Ion: 91 Resp: 2097

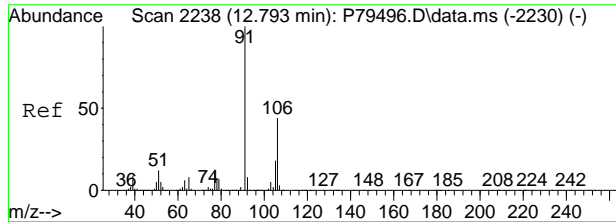
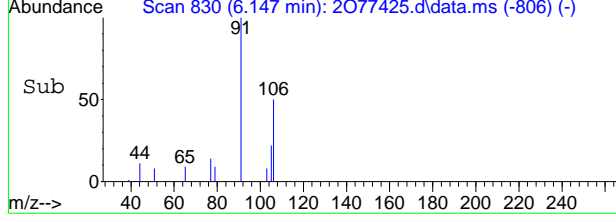
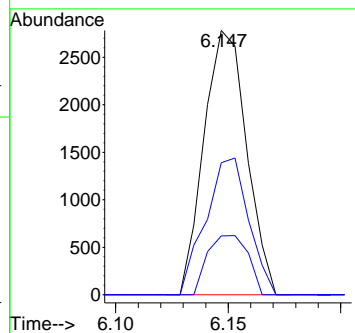
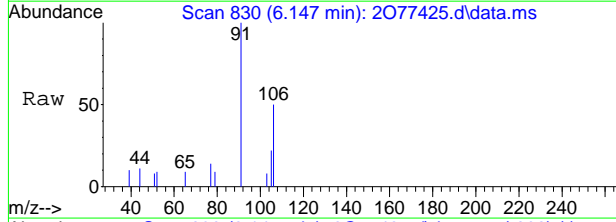
Ion	Ratio	Lower	Upper
91	100		
106	30.4	2.3	62.3
65	0.0	0.0	38.9
51	0.0	0.0	41.8





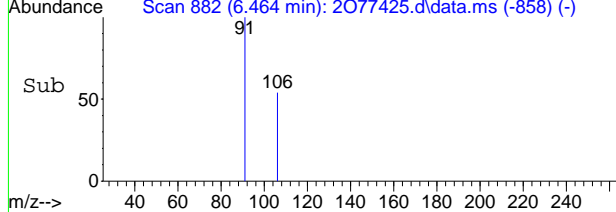
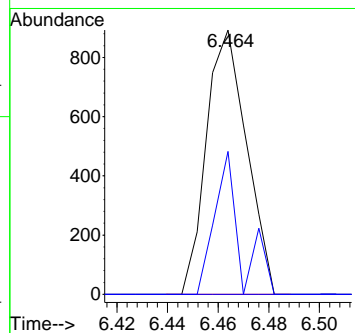
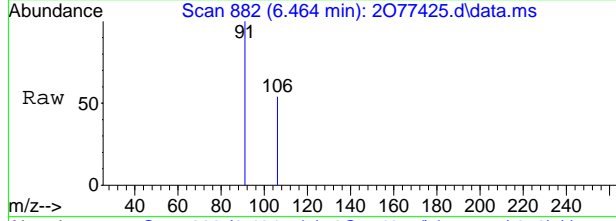
#80  
 m,p-Xylene  
 Concen: 0.76 ug/L  
 RT: 6.147 min Scan# 830  
 Delta R.T. -0.006 min  
 Lab File: 2077425.d  
 Acq: 5 Jul 2023 2:07 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
106	49.9	19.3	79.3
105	22.3	0.0	52.3



#81  
 o-Xylene  
 Concen: 0.20 ug/L  
 RT: 6.464 min Scan# 882  
 Delta R.T. -0.006 min  
 Lab File: 2077425.d  
 Acq: 5 Jul 2023 2:07 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
106	54.1	15.9	75.9
105	0.0	0.0	48.9



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757709.d  
 Acq On : 6 Jul 2023 11:42 am  
 Operator : jeniferw  
 Sample : FC7413-2 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:22:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

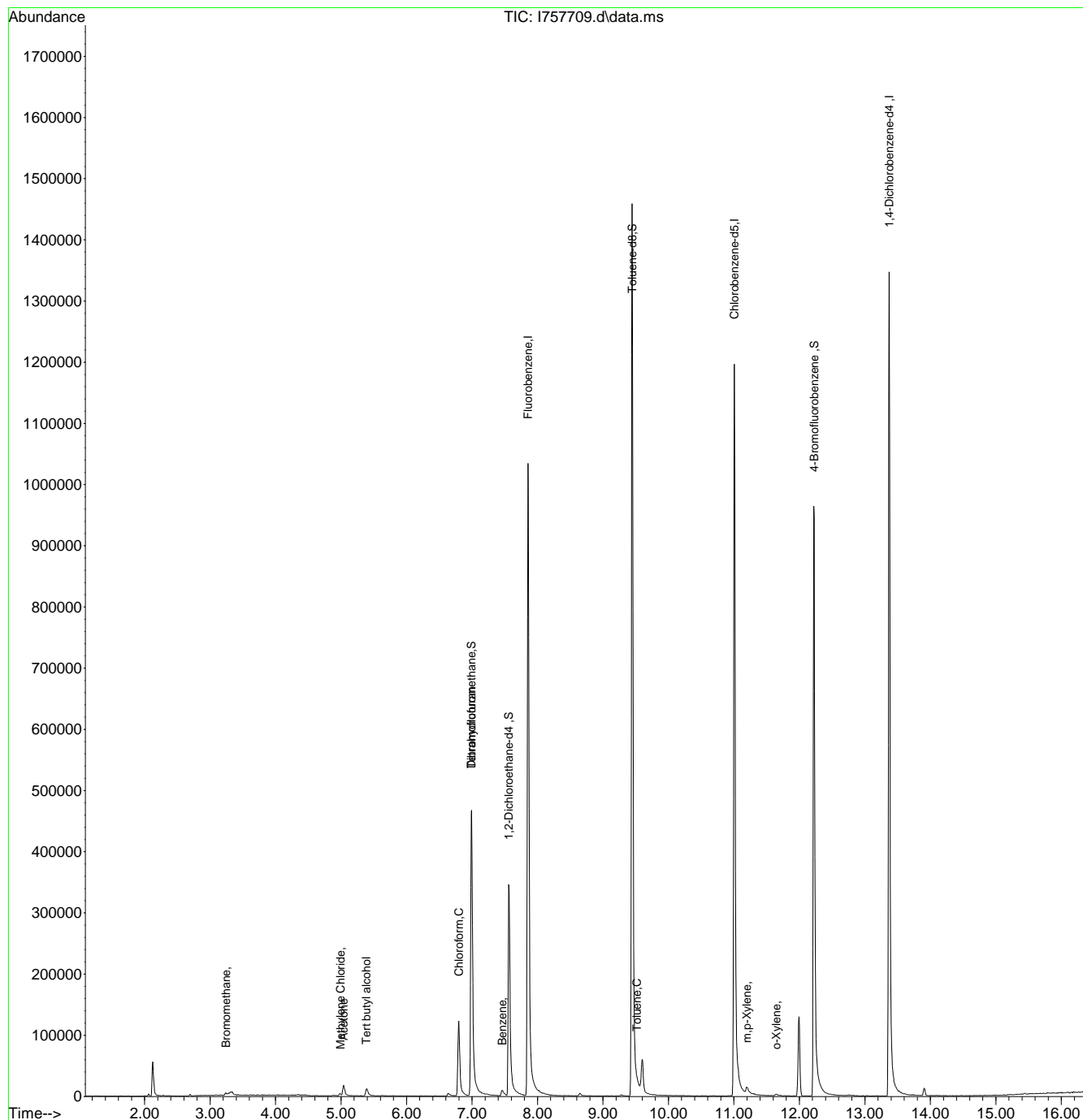
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	988961	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	727616	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	409494	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	280797	50.02	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.04%	
49) 1,2-Dichloroethane-d4	7.561	65	267488	52.41	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	104.82%	
63) Toluene-d8	9.445	98	990326	47.73	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	95.46%	
86) 4-Bromofluorobenzene	12.225	174	340087	49.32	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.64%	
Target Compounds						
						Qvalue
6) Bromomethane	3.239	94	2877	1.93	ug/L	94
18) Methylene Chloride	4.988	49	2551	0.46	ug/L	82
19) Acetone	5.037	43	16966	6.38	ug/L	80
24) Tert butyl alcohol	5.385	59	19075	11.72	ug/L	90
36) Chloroform	6.799	83	113898	14.77	ug/L	96
38) Tetrahydrofuran	6.988	42	38628	12.56	ug/L	92
47) Benzene	7.457	78	13358	0.87	ug/L #	46
64) Toluene	9.518	91	3436	0.21	ug/L	95
80) m,p-Xylene	11.195	91	12794	0.95	ug/L	88
81) o-Xylene	11.646	91	3849	0.27	ug/L	85
-----						

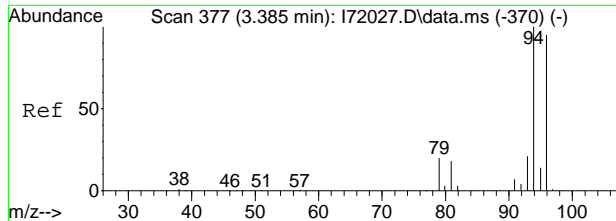
(#) = qualifier out of range (m) = manual integration (+) = signals summed

## Quantitation Report (QT Reviewed)

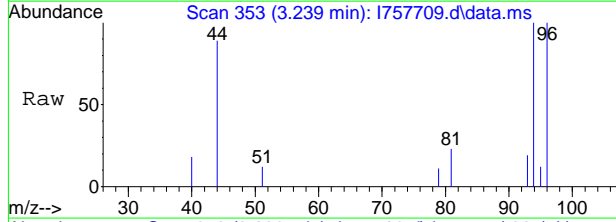
Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757709.d  
 Acq On : 6 Jul 2023 11:42 am  
 Operator : jeniferw  
 Sample : FC7413-2 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:22:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



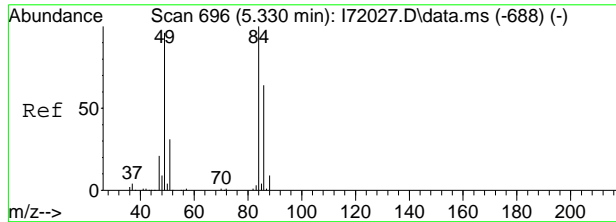
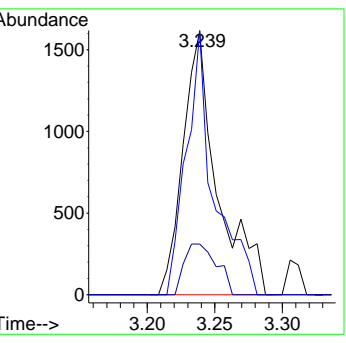
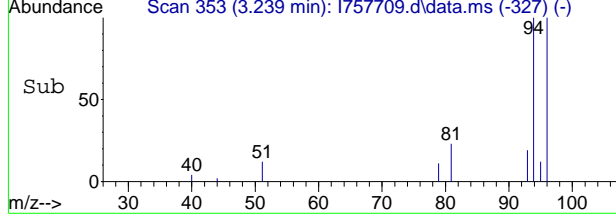


#6  
 Bromomethane  
 Concen: 1.93 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757709.d  
 Acq: 6 Jul 2023 11:42 am

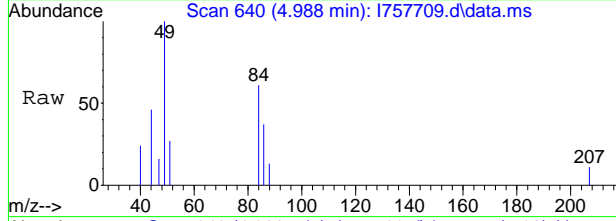


Tgt Ion: 94 Resp: 2877

Ion	Ratio	Lower	Upper
94	100		
96	100.2	63.7	123.7
93	19.2	0.0	50.9

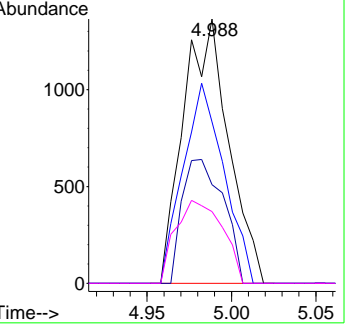
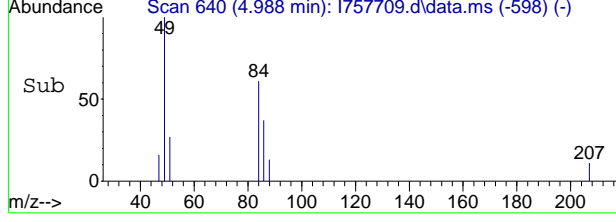


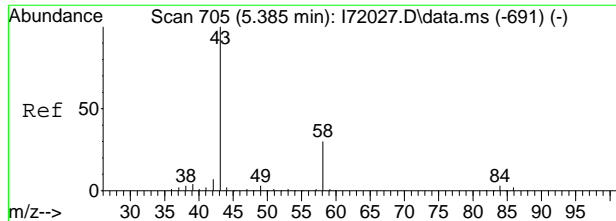
#18  
 Methylene Chloride  
 Concen: 0.46 ug/L  
 RT: 4.988 min Scan# 640  
 Delta R.T. 0.006 min  
 Lab File: I757709.d  
 Acq: 6 Jul 2023 11:42 am



Tgt Ion: 49 Resp: 2551

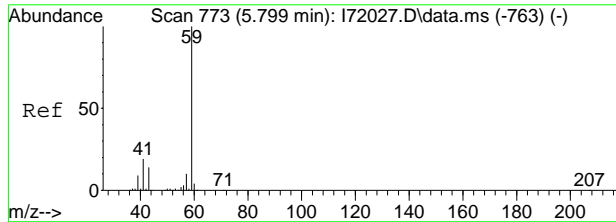
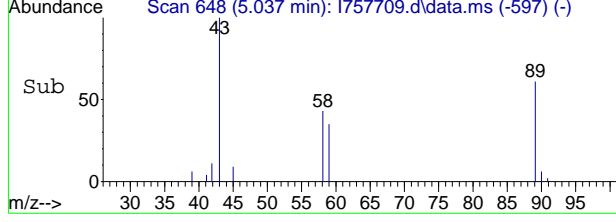
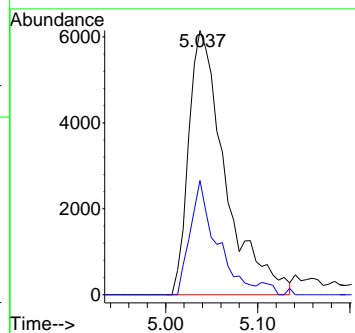
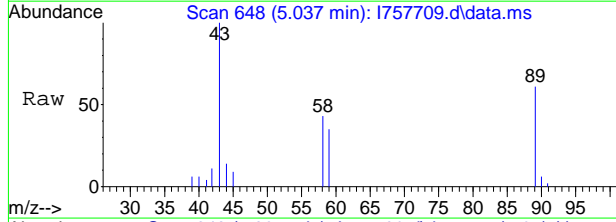
Ion	Ratio	Lower	Upper
49	100		
84	61.0	51.5	111.5
86	37.3	19.4	79.4
51	27.1	0.0	60.0





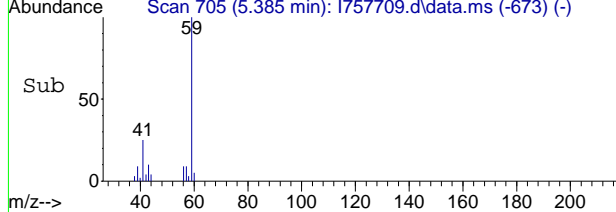
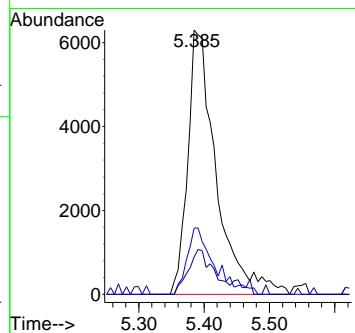
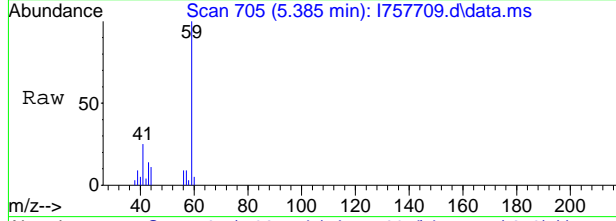
#19  
 Acetone  
 Concen: 6.38 ug/L  
 RT: 5.037 min Scan# 648  
 Delta R.T. 0.012 min  
 Lab File: I757709.d  
 Acq: 6 Jul 2023 11:42 am

Tgt Ion	Resp	Lower	Upper
43	16966		
58	43.2	2.3	62.3

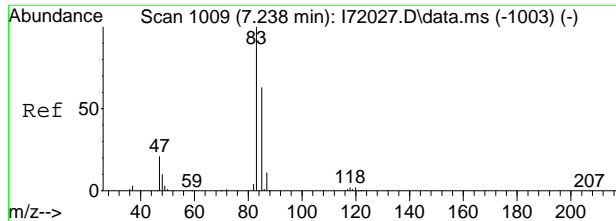


#24  
 Tert butyl alcohol  
 Concen: 11.72 ug/L  
 RT: 5.385 min Scan# 705  
 Delta R.T. -0.006 min  
 Lab File: I757709.d  
 Acq: 6 Jul 2023 11:42 am

Tgt Ion	Resp	Lower	Upper
59	19075		
41	25.0	0.0	47.2
43	14.1	0.0	44.0

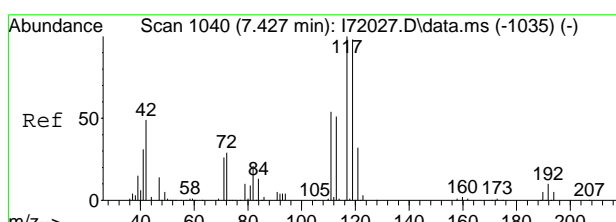
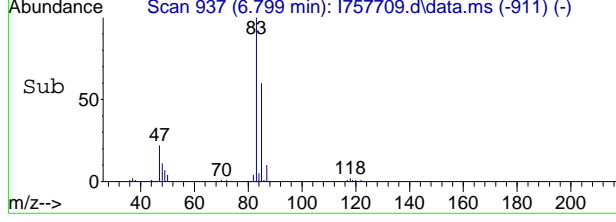
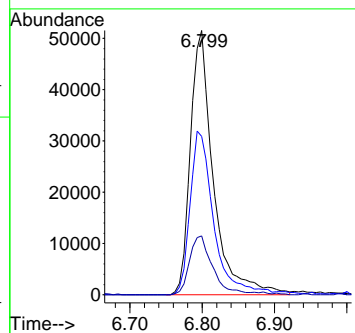
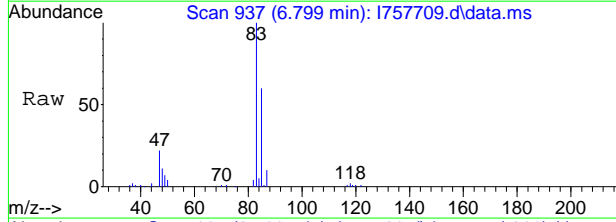


7.14  
7



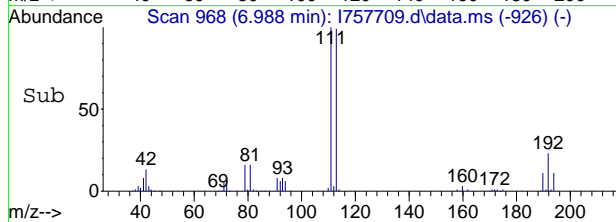
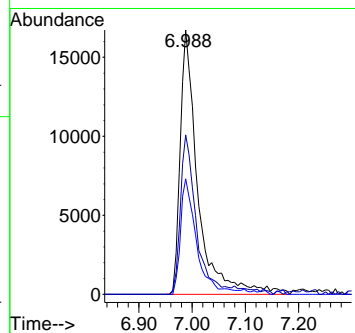
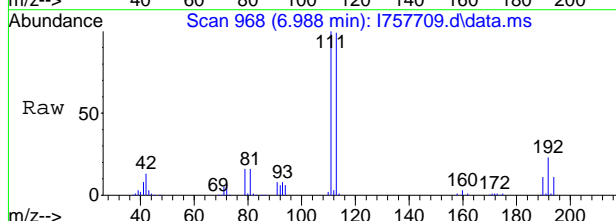
#36  
 Chloroform  
 Concen: 14.77 ug/L  
 RT: 6.799 min Scan# 937  
 Delta R.T. 0.006 min  
 Lab File: I757709.d  
 Acq: 6 Jul 2023 11:42 am

Tgt Ion	Resp	Lower	Upper
83	113898		
85	59.9	33.6	93.6
47	22.3	0.0	52.5

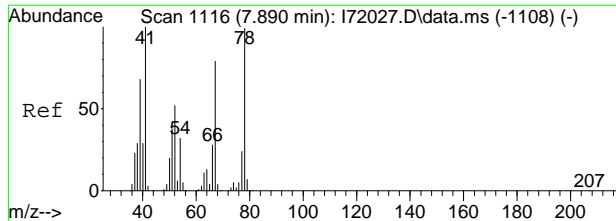


#38  
 Tetrahydrofuran  
 Concen: 12.56 ug/L  
 RT: 6.988 min Scan# 968  
 Delta R.T. 0.006 min  
 Lab File: I757709.d  
 Acq: 6 Jul 2023 11:42 am

Tgt Ion	Resp	Lower	Upper
42	38628		
42	100		
72	43.7	18.5	78.5
41	60.3	24.6	84.6

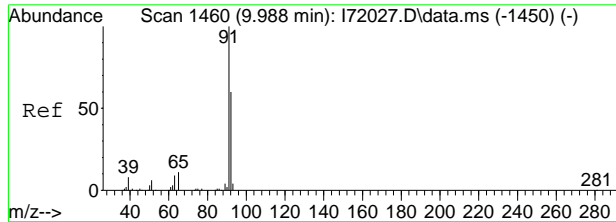
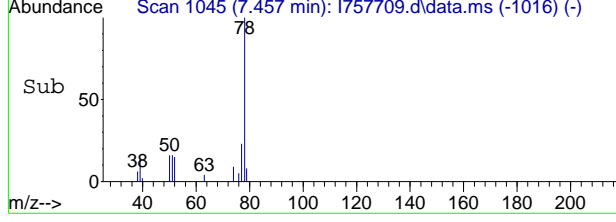
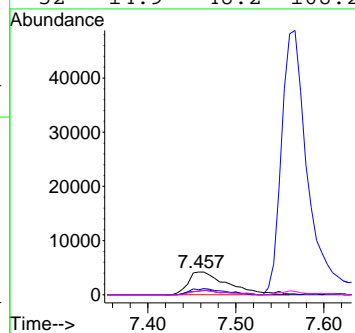
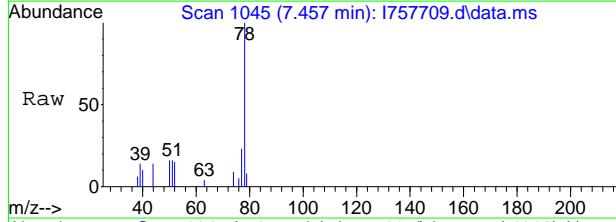


7.14  
 7



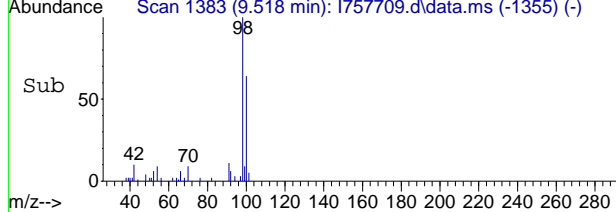
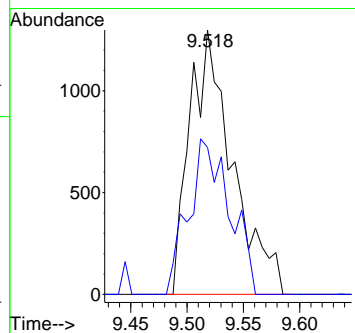
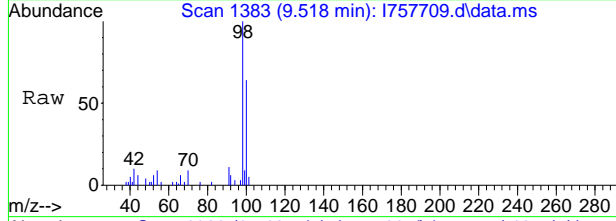
#47  
Benzene  
Concen: 0.87 ug/L  
RT: 7.457 min Scan# 1045  
Delta R.T. 0.024 min  
Lab File: I757709.d  
Acq: 6 Jul 2023 11:42 am

Tgt Ion	Resp	Lower	Upper
78	13358		
51	16.3	19.4	79.4#
77	22.9	0.0	54.0
52	14.9	48.2	108.2#



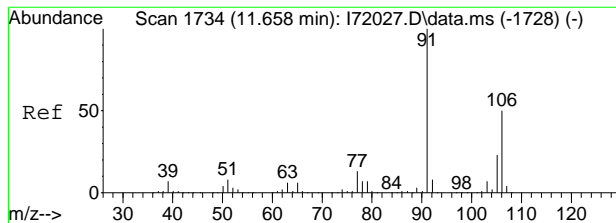
#64  
Toluene  
Concen: 0.21 ug/L  
RT: 9.518 min Scan# 1383  
Delta R.T. 0.018 min  
Lab File: I757709.d  
Acq: 6 Jul 2023 11:42 am

Tgt Ion	Resp	Lower	Upper
91	3436		
91	100		
92	55.6	29.2	89.2

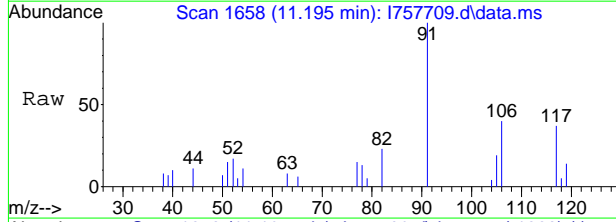


7.14  
7



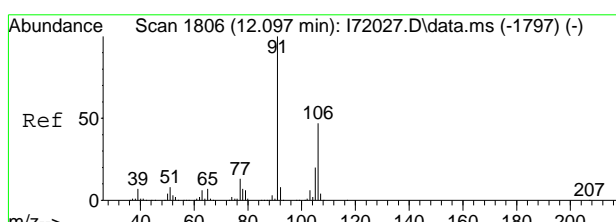
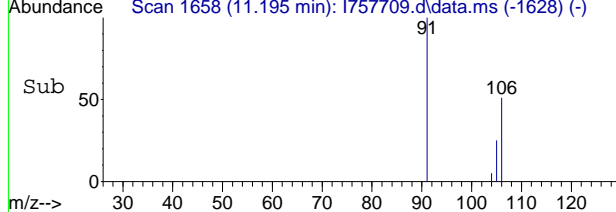
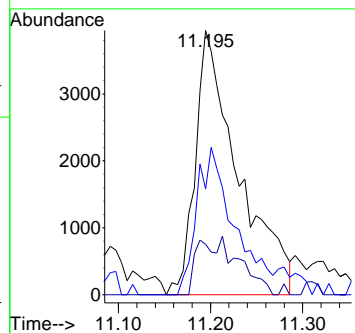


#80  
 m,p-Xylene  
 Concen: 0.95 ug/L  
 RT: 11.195 min Scan# 1658  
 Delta R.T. 0.031 min  
 Lab File: I757709.d  
 Acq: 6 Jul 2023 11:42 am

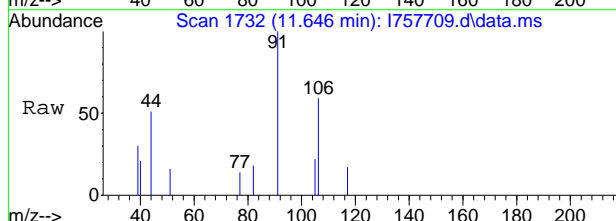


Tgt Ion: 91 Resp: 12794

Ion	Ratio	Lower	Upper
91	100		
106	40.0	20.2	80.2
105	19.1	0.0	52.6

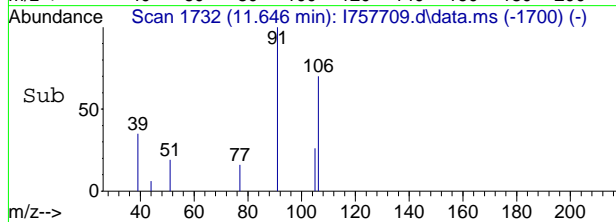
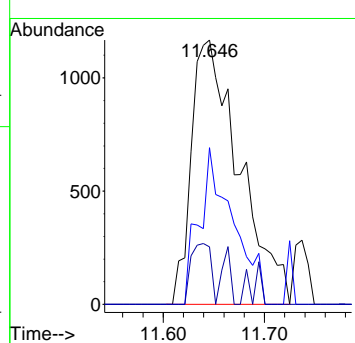


#81  
 o-Xylene  
 Concen: 0.27 ug/L  
 RT: 11.646 min Scan# 1732  
 Delta R.T. 0.043 min  
 Lab File: I757709.d  
 Acq: 6 Jul 2023 11:42 am



Tgt Ion: 91 Resp: 3849

Ion	Ratio	Lower	Upper
91	100		
106	59.2	16.8	76.8
105	21.7	0.0	49.1



7.1.4  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077415.d  
 Acq On : 5 Jul 2023 9:52 am  
 Operator : jeniferw  
 Sample : MB  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 05 21:27:54 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	4.013	96	305171	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	212296	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.775	152	106160	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	88250	53.18	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	106.36%	
50) 1,2-Dichloroethane-d4	3.849	65	100635	51.08	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.16%	
63) Toluene-d8	4.970	98	292071	51.60	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	103.20%	
86) 4-Bromofluorobenzene	6.915	174	85000	54.79	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	109.58%	
Target Compounds						
18) Methylene Chloride	2.532	49	947	0.55	ug/L	78
19) Acetone	2.550	43	18610	26.43	ug/L	96
25) Acetonitrile	2.830	41	5224	19.04	ug/L	95
-----						

(#) = qualifier out of range (m) = manual integration (+) = signals summed

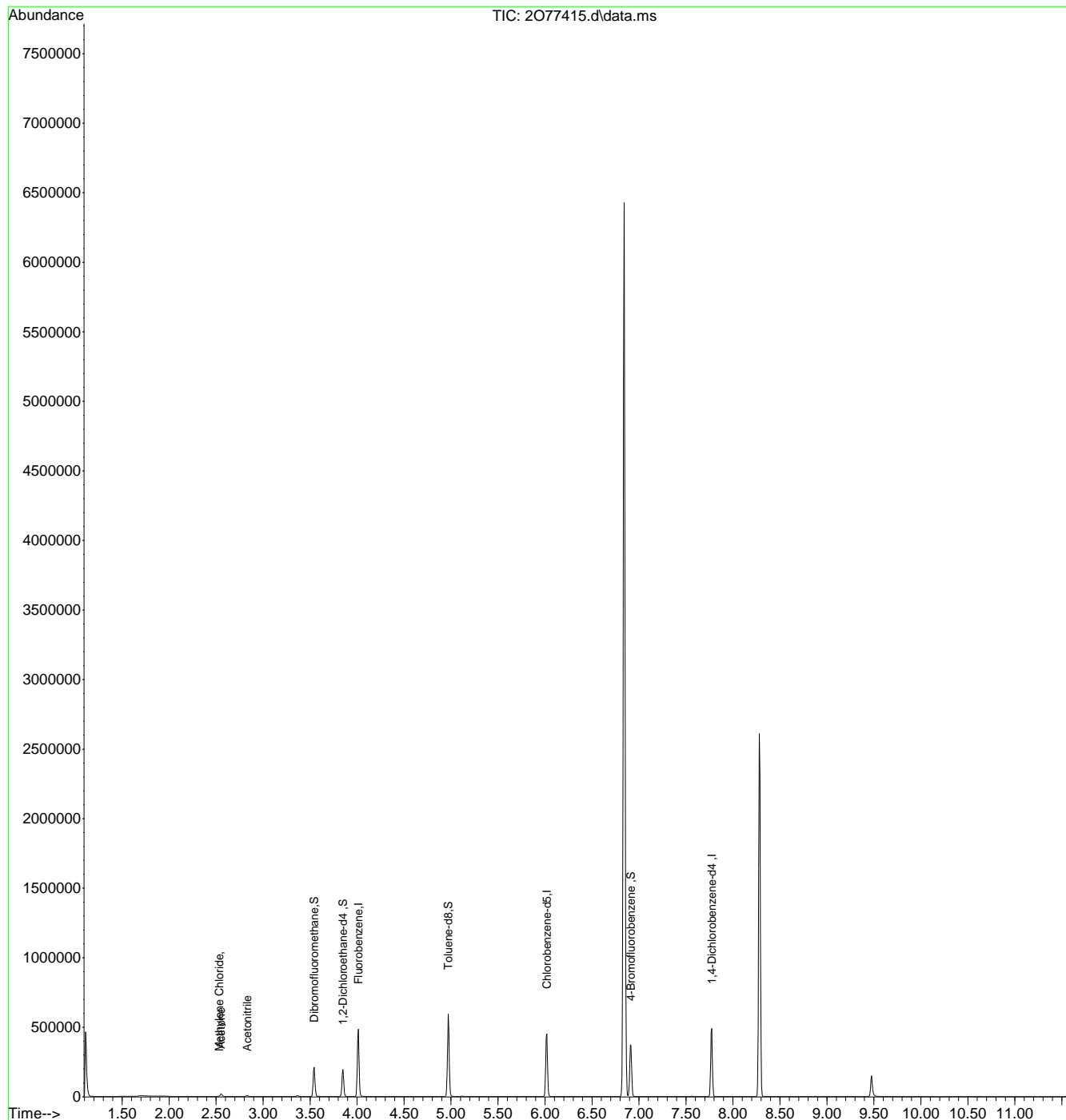
7.2.1  
7



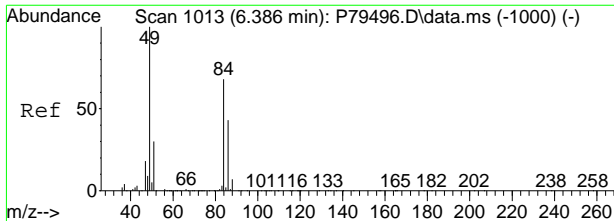
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077415.d  
 Acq On : 5 Jul 2023 9:52 am  
 Operator : jeniferw  
 Sample : MB  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jul 05 21:27:54 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

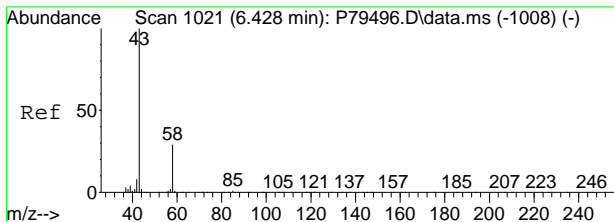
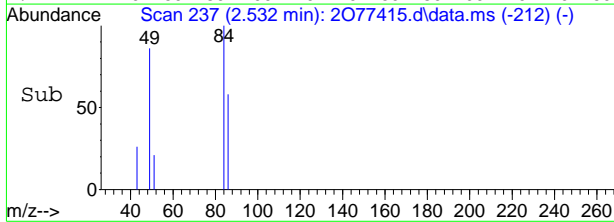
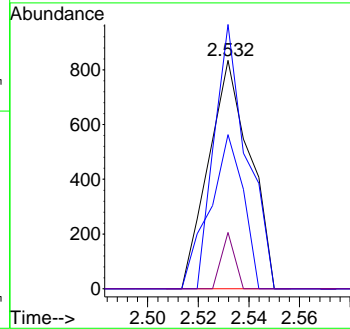
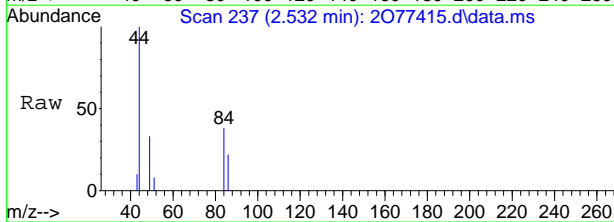


7.2.1  
7



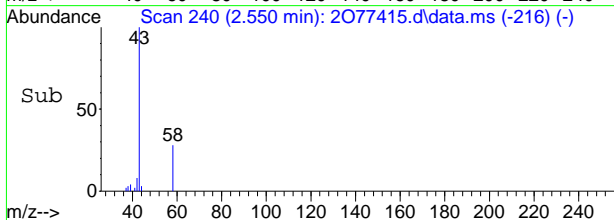
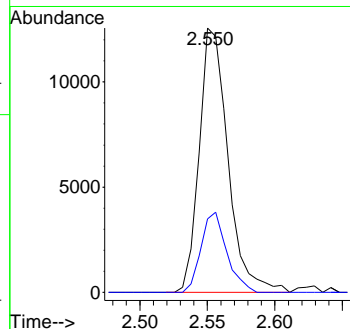
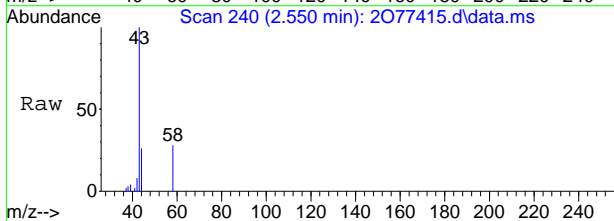
#18  
 Methylene Chloride  
 Concen: 0.55 ug/L  
 RT: 2.532 min Scan# 237  
 Delta R.T. -0.000 min  
 Lab File: 2077415.d  
 Acq: 5 Jul 2023 9:52 am

Tgt Ion	Ratio	Lower	Upper
49	100		
84	115.8	58.2	118.2
86	67.5	26.1	86.1
51	24.7	1.8	61.8

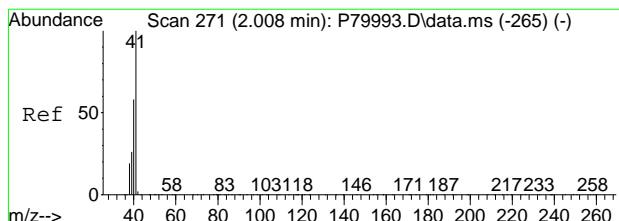


#19  
 Acetone  
 Concen: 26.43 ug/L  
 RT: 2.550 min Scan# 240  
 Delta R.T. -0.006 min  
 Lab File: 2077415.d  
 Acq: 5 Jul 2023 9:52 am

Tgt Ion	Ratio	Lower	Upper
43	100		
58	27.8	0.1	60.1

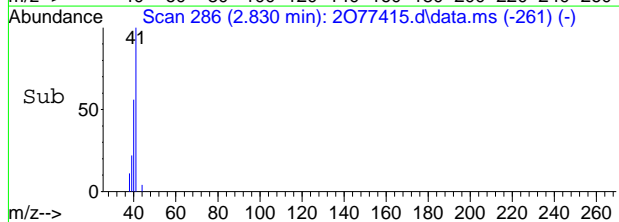
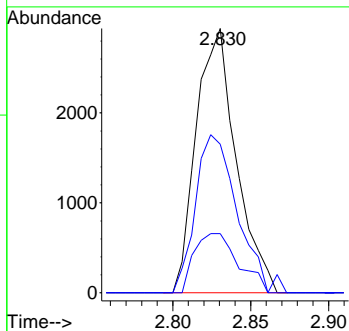
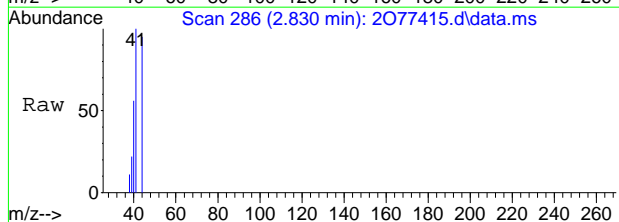


7.2.1  
7



#25  
 Acetonitrile  
 Concen: 19.04 ug/L  
 RT: 2.830 min Scan# 286  
 Delta R.T. 0.000 min  
 Lab File: 2077415.d  
 Acq: 5 Jul 2023 9:52 am

Tgt Ion	Ratio	Lower	Upper
41	100		
40	56.2	32.7	72.7
39	22.4	0.0	39.4



7.2.1  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757706.d  
 Acq On : 6 Jul 2023 10:31 am  
 Operator : jeniferw  
 Sample : MB Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:20:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.860	96	999716	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.005	117	726062	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	408938	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.994	113	274709	48.41	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.82%	
49) 1,2-Dichloroethane-d4	7.567	65	256784	49.77	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	99.54%	
63) Toluene-d8	9.445	98	1007111	48.64	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	97.28%	
86) 4-Bromofluorobenzene	12.225	174	339637	49.33	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.66%	
-----						
Target Compounds						Qvalue
6) Bromomethane	3.239	94	3627	2.40	ug/L	97
15) Iodomethane	4.470	142	1917	0.77	ug/L	82
18) Methylene Chloride	4.976	49	3157	0.56	ug/L	77
19) Acetone	5.043	43	5232	1.95	ug/L	90
-----						

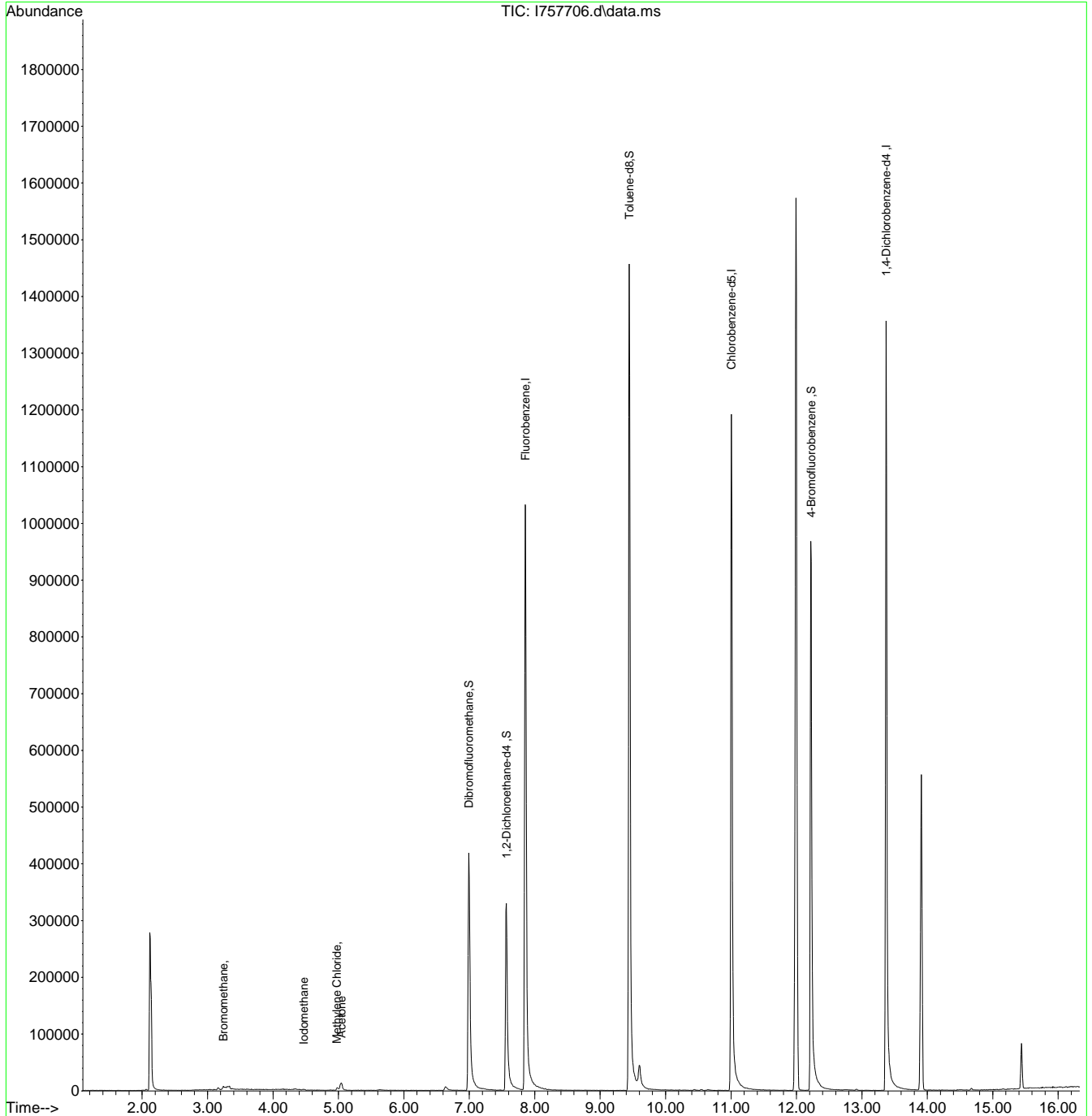
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.22  
7

Quantitation Report (QT Reviewed)

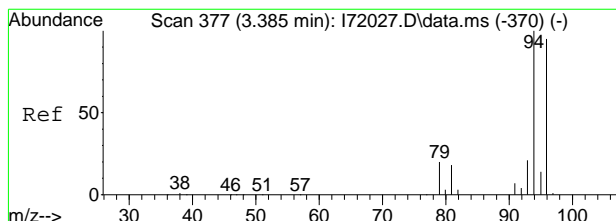
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 Data File : I757706.d  
 Acq On : 6 Jul 2023 10:31 am  
 Operator : jeniferw  
 Sample : MB Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:20:09 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



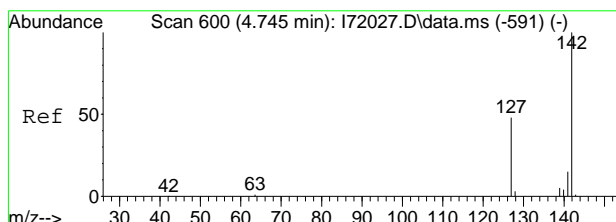
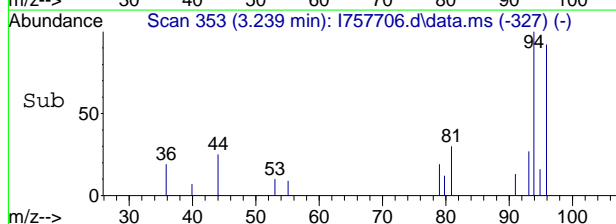
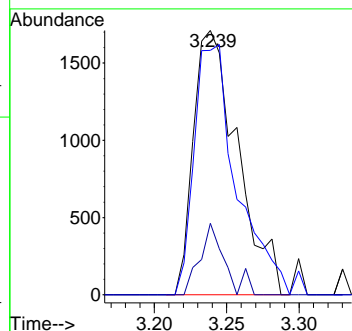
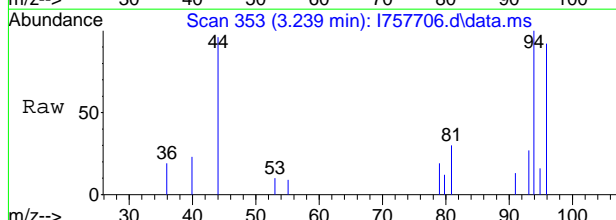
7.2.2  
7





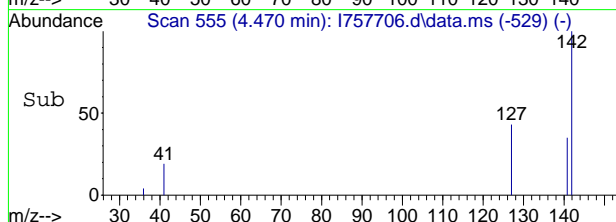
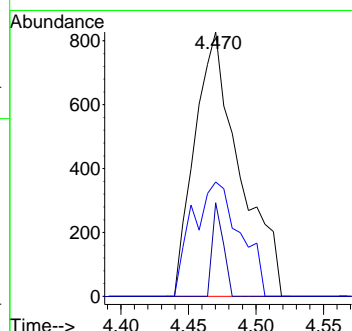
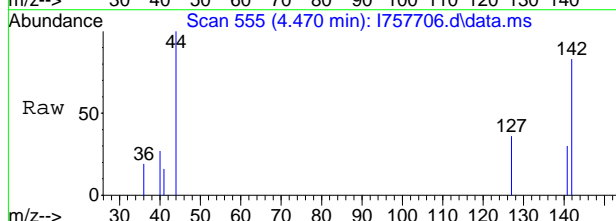
#6  
 Bromomethane  
 Concen: 2.40 ug/L  
 RT: 3.239 min Scan# 353  
 Delta R.T. 0.006 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

Tgt Ion	Resp	Lower	Upper
94	3627		
96	92.4	63.7	123.7
93	27.0	0.0	50.9



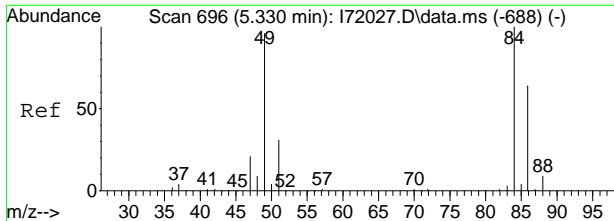
#15  
 Iodomethane  
 Concen: 0.77 ug/L  
 RT: 4.470 min Scan# 555  
 Delta R.T. 0.006 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

Tgt Ion	Resp	Lower	Upper
142	1917		
127	43.2	9.6	69.6
141	35.4	0.0	43.4



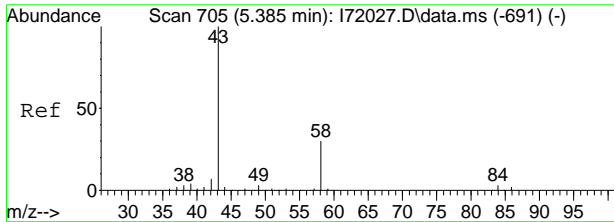
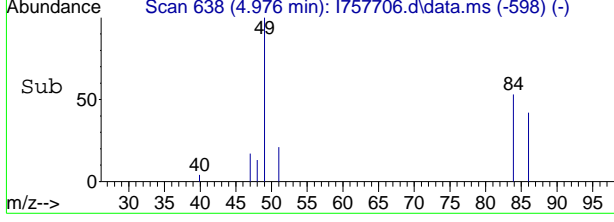
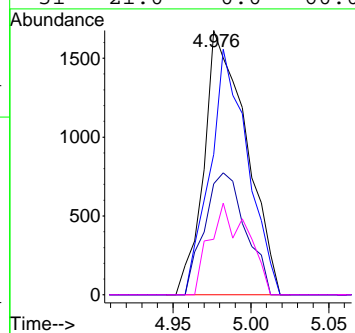
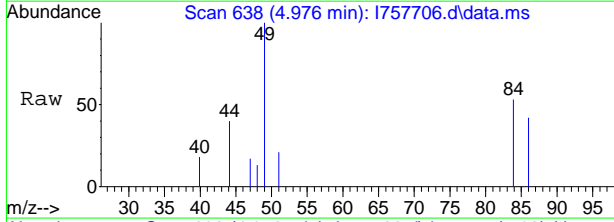
7.2.2  
7





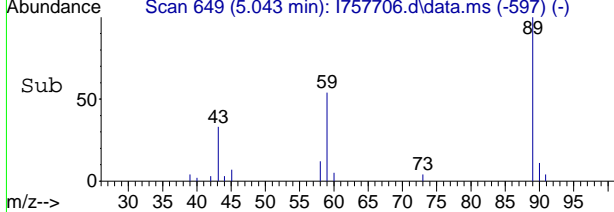
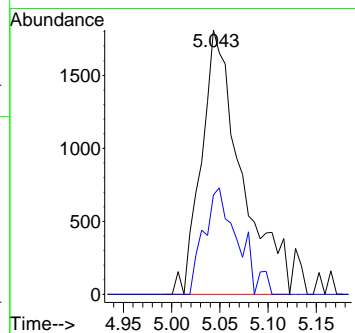
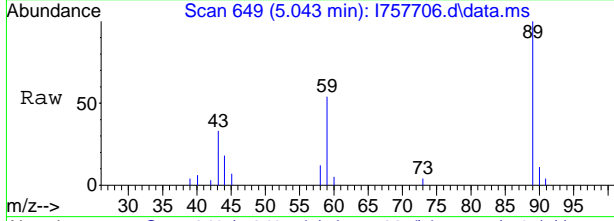
#18  
 Methylene Chloride  
 Concen: 0.56 ug/L  
 RT: 4.976 min Scan# 638  
 Delta R.T. -0.006 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

Tgt Ion	Ratio	Lower	Upper
49	100		
84	53.1	51.5	111.5
86	42.0	19.4	79.4
51	21.0	0.0	60.0



#19  
 Acetone  
 Concen: 1.95 ug/L  
 RT: 5.043 min Scan# 649  
 Delta R.T. 0.018 min  
 Lab File: I757706.d  
 Acq: 6 Jul 2023 10:31 am

Tgt Ion	Ratio	Lower	Upper
43	100		
58	37.7	2.3	62.3



7.2.2  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	375787	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	268562	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.769	152	130962	50.00	ug/L	-0.01
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	102408	50.11	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.22%	
50) 1,2-Dichloroethane-d4	3.849	65	125574	51.76	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.52%	
63) Toluene-d8	4.970	98	358023	50.00	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	100.00%	
86) 4-Bromofluorobenzene	6.915	174	93058	48.63	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.26%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	43952	31.68	ug/L	97
3) Chloromethane	1.380	50	38582	27.28	ug/L	96
4) 1,3-butadiene	1.447	39	36635	22.69	ug/L	97
5) Vinyl Chloride	1.434	62	42386	29.05	ug/L	99
6) Bromomethane	1.666	94	27976	24.67	ug/L	98
7) Chloroethane	1.751	64	30428	34.04	ug/L	99
8) Trichlorofluoromethane	1.849	101	85382	31.02	ug/L	100
9) Ethyl Ether	2.056	59	33474	25.82	ug/L	99
10) Ethanol	2.148	45	18164	621.12	ug/L	97
11) 1,2-Dichlorotrifluoro...	2.178	67	51006	27.75	ug/L	99
12) 1,1-Dichloroethene	2.178	61	57358	24.85	ug/L	97
13) Freon 113	2.209	101	42865	26.42	ug/L	98
14) Carbon Disulfide	2.196	76	118612	27.62	ug/L	100
15) Iodomethane	2.270	142	34448	24.18	ug/L	96
16) Acrolein	2.379	56	55364	132.20	ug/L	100
17) Allyl chloride	2.471	41	46862	27.85	ug/L	98
18) Methylene Chloride	2.532	49	54488	26.14	ug/L	97
19) Acetone	2.556	43	132659	153.01	ug/L	98
20) Methyl acetate	2.629	43	237278	115.90	ug/L	99
21) trans-1,2-Dichloroethene	2.629	61	55590	23.83	ug/L	97
22) Hexane	2.678	56	28724	24.21	ug/L	93
23) Methyl Tert Butyl Ether	2.690	73	116801	24.90	ug/L	92
24) Tert Butyl Alcohol	2.739	59	75420	259.64	ug/L	88
25) Acetonitrile	2.824	41	98119	290.39	ug/L	99
26) Di-isopropyl ether	2.904	45	110767	23.99	ug/L	97
27) Chloroprene	2.971	53	44373	19.31	ug/L	98
28) 1,1-Dichloroethane	2.983	63	71999	23.75	ug/L	99
29) Acrylonitrile	3.007	52	100547	120.11	ug/L	98
30) ETBE	3.111	59	112837	25.70	ug/L	98
31) Vinyl acetate	3.117	43	460163	139.86	ug/L	99
32) cis-1,2-Dichloroethene	3.288	96	44803	22.55	ug/L	98
33) 2,2-Dichloropropane	3.349	77	55678	27.48	ug/L	100
34) Bromochloromethane	3.397	128	23943	24.77	ug/L	95
35) Cyclohexane	3.410	56	52430	22.66	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	84523	24.68	ug/L	99
37) Ethyl acetate	3.495	43	302711	122.91	ug/L	99
38) Tetrahydrofuran	3.532	42	21125	23.94	ug/L	94
40) Carbon Tetrachloride	3.525	117	56407m	25.56	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	66085	24.46	ug/L	98
42) 2-Butanone	3.605	43	168538	125.74	ug/L	100
43) 1,1-Dichloropropene	3.629	75	55675	24.58	ug/L	98
44) tert-Butyl formate	3.690	59	124204	204.80	ug/L	92
45) Propionitrile	3.775	54	116812	281.35	ug/L	87
46) Methacrylonitrile	3.794	41	415149	287.55	ug/L	96
47) Benzene	3.775	78	175851	25.72	ug/L	98
48) TAME	3.830	73	110097	26.44	ug/L	96
49) Isobutyl alcohol	3.873	43	74033m	596.56	ug/L	
51) 1,2-Dichloroethane	3.885	62	68796	24.45	ug/L	98
52) Tert Amyl Alcohol	3.934	59	60057	269.73	ug/L	96
53) Trichloroethene	4.111	95	47684	24.04	ug/L	97
54) Methylcyclohexane	4.117	83	55433	22.76	ug/L	98
55) Dibromomethane	4.361	93	32857	24.32	ug/L	93
56) 1,2-Dichloropropane	4.422	63	42588	26.03	ug/L	98
57) Bromodichloromethane	4.458	83	58150	25.38	ug/L	98
58) Methyl methacrylate	4.544	41	39379	22.65	ug/L	97
59) 1,4-Dioxane	4.580	88	15135	470.62	ug/L	99
60) 2-Chloroethyl vinyl ether	4.800	63	160751	120.15	ug/L	99
61) cis-1,3-Dichloropropene	4.848	75	65689	26.53	ug/L	96
64) Toluene	5.001	91	178539	24.88	ug/L	99
65) 2-Nitropropane	5.147	41	71996	140.74	ug/L	99
66) 4-Methyl-2-pentanone	5.239	43	299973	134.53	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	62491	25.80	ug/L	93
68) Tetrachloroethene	5.257	166	45947	24.64	ug/L	97
69) Ethyl methacrylate	5.360	69	54269	26.13	ug/L	93
70) 1,1,2-Trichloroethane	5.373	83	38871	25.79	ug/L	94
71) Dibromochloromethane	5.501	129	46597	27.49	ug/L	98
72) 1,3-Dichloropropane	5.562	76	74081	25.75	ug/L	99
73) 1,2-Dibromoethane	5.665	107	46711	23.78	ug/L	97
74) 3,3-dimethyl-1-butanol	5.775	57	417459	1350.13	ug/L	100
75) 2-hexanone	5.799	43	308215	136.95	ug/L	97
76) 1-Chlorohexane	6.007	91	49783m	22.65	ug/L	
77) Ethylbenzene	6.043	91	188956	24.10	ug/L	99
78) Chlorobenzene	6.031	112	121327	24.32	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.074	131	43131	27.02	ug/L	98
80) m,p-Xylene	6.147	91	302939	48.91	ug/L	100
81) o-Xylene	6.464	91	136073	21.87	ug/L	99
82) Styrene	6.500	104	113716	23.97	ug/L	99
83) Bromoform	6.525	173	27950	26.93	ug/L	98
84) Isopropylbenzene	6.696	105	156292	21.81	ug/L	97
87) cis-1,4-Dichloro-2-butene	6.958	53	13356	26.10	ug/L	95
88) n-Propylbenzene	7.013	91	194336	24.16	ug/L	98
89) Bromobenzene	6.994	156	45564	25.25	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.061	83	68227	26.15	ug/L	98
91) 1,3,5-Trimethylbenzene	7.165	105	142185	24.73	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.135	91	132522	23.52	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.202	53	9956	21.13	ug/L	99
94) 1,2,3-Trichloropropane	7.171	110	22855	27.34	ug/L	97
95) Cyclohexanone	7.202	55	17395	195.76	ug/L	97
96) 4-Chlorotoluene	7.263	91	127716	23.83	ug/L	97
97) tert-Butylbenzene	7.415	91	71944	23.05	ug/L	96
99) 1,2,4-Trimethylbenzene	7.470	105	138743	24.10	ug/L	99
100) Pentachloroethane	7.433	167	23909	29.07	ug/L #	78
101) sec-Butylbenzene	7.555	105	146855	22.28	ug/L	99
102) 4-Isopropyltoluene	7.665	119	126890	22.54	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	84975	23.71	ug/L	98
104) 1,2,3-Trimethylbenzene	7.799	105	155388	25.40	ug/L	99
105) 1,4-Dichlorobenzene	7.781	146	88898	24.83	ug/L	94
106) n-Butylbenzene	7.976	92	70940	24.60	ug/L	96
107) Benzyl Chloride	7.970	126	18851	30.79	ug/L	96
108) 1,2-Dichlorobenzene	8.092	146	80823	23.56	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.665	75	13473	25.94	ug/L	91
110) Hexachlorobutadiene	9.128	225	15613	24.20	ug/L	98
111) 1,2,4-Trichlorobenzene	9.140	180	43983	22.45	ug/L	98
112) Naphthalene	9.366	128	155351	21.76	ug/L	99
113) 1,2,3-Trichlorobenzene	9.488	180	43705	22.44	ug/L	96

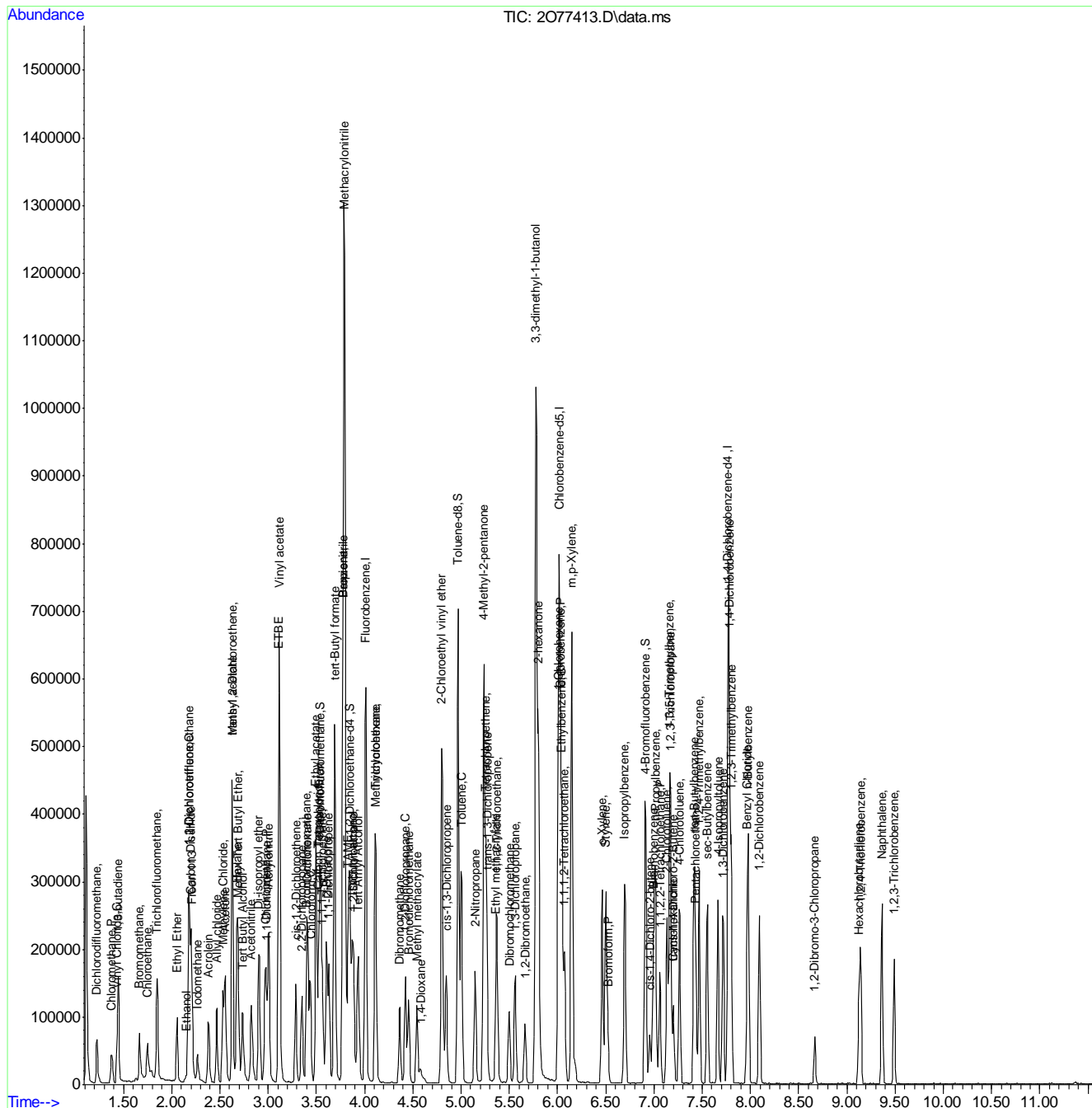
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 05 09:15:48 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7.3.1  
7

# Manual Integration Approval Summary

**Sample Number:** V2O3017-BS      **Method:** SW846 8260D  
**Lab FileID:** 2O77413.D      **Analyst approved:** 07/05/23 09:17 Jenifer Willis  
**Injection Time:** 07/05/23 09:01      **Supervisor approved:** 07/06/23 13:22 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

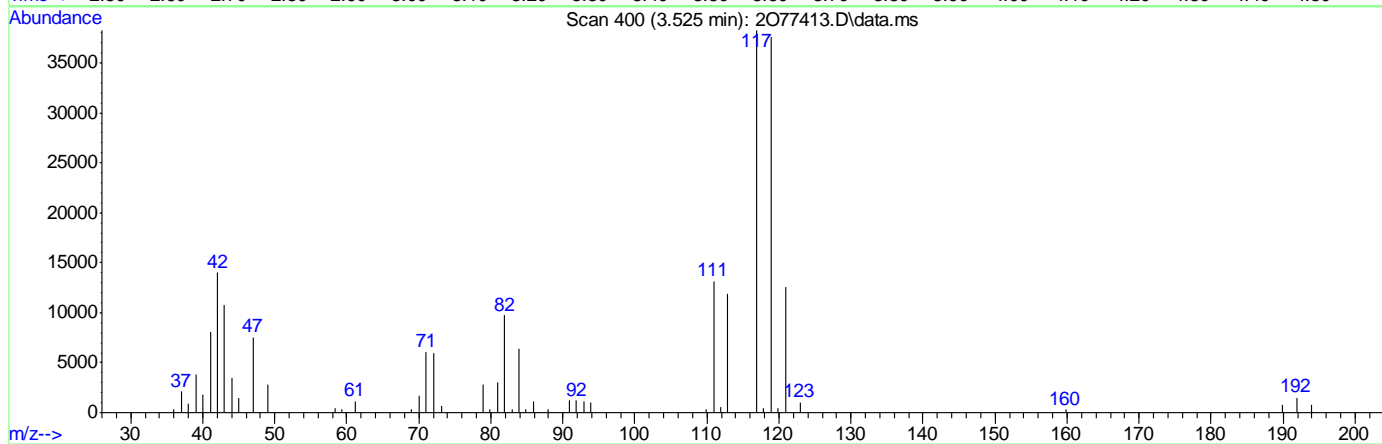
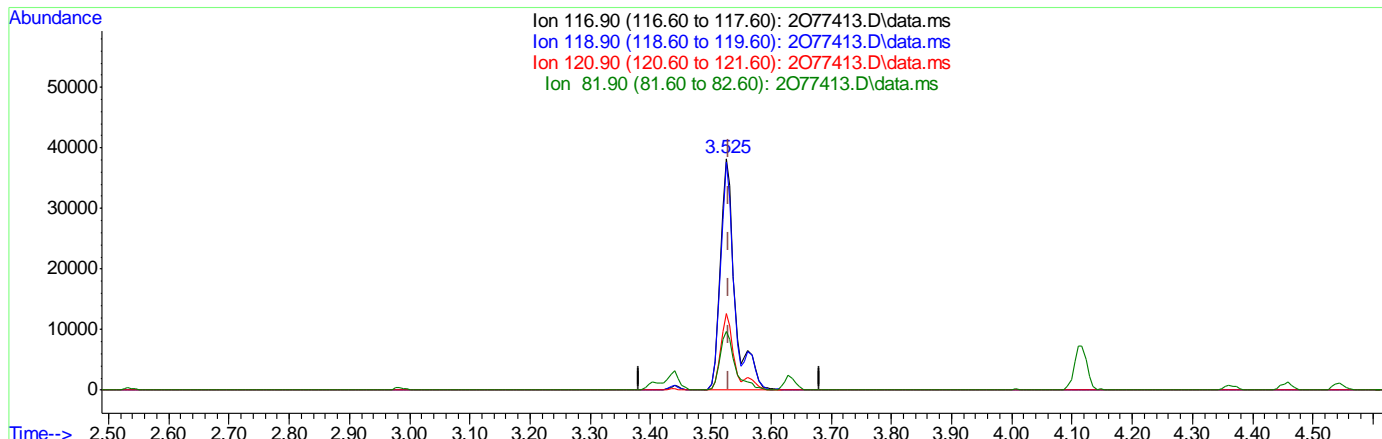
7.3.1.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.59ug/L

response 65312

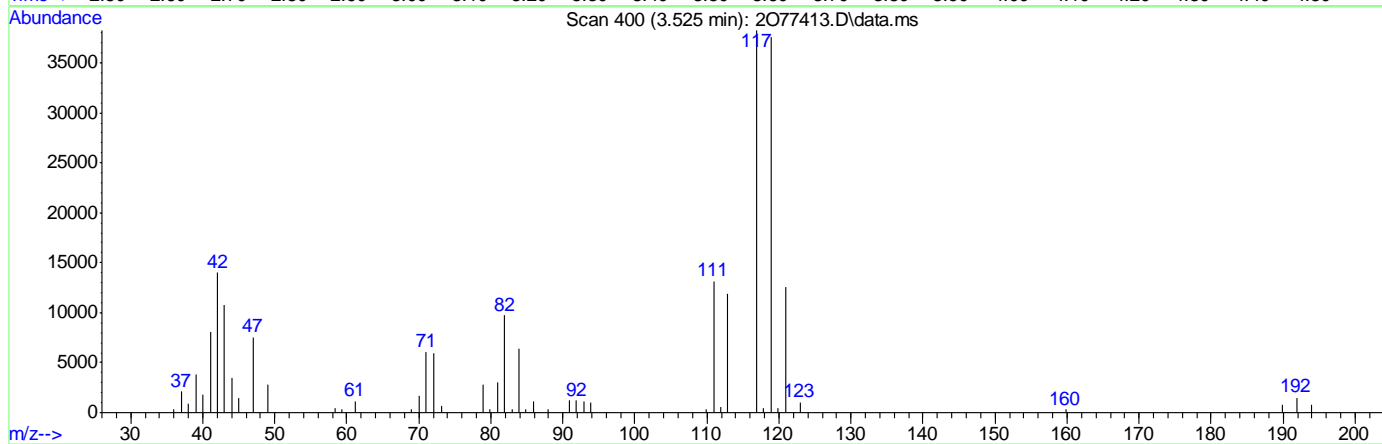
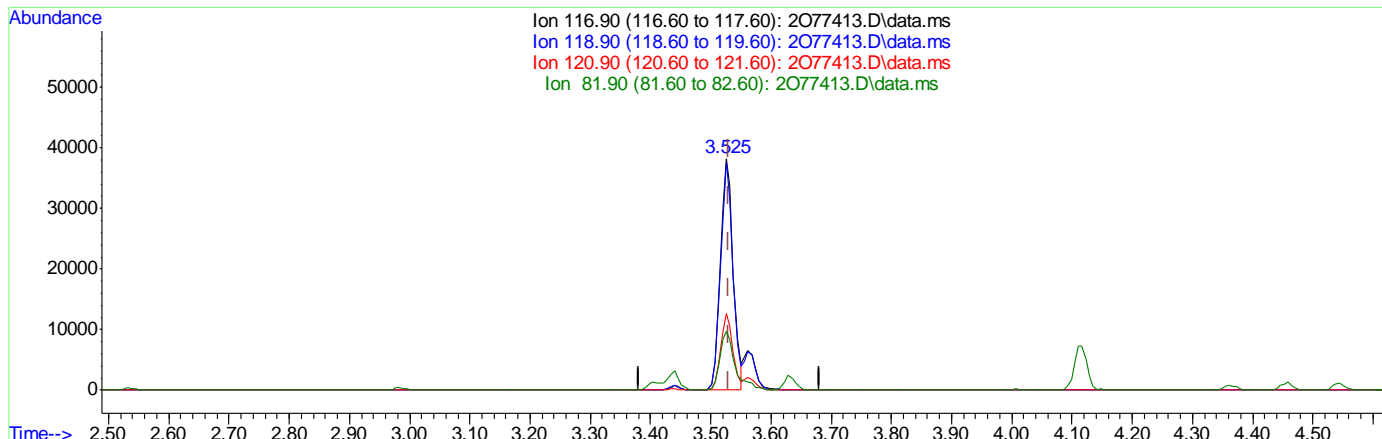
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.35
120.90	31.50	32.96
81.90	24.40	25.39

7.3.12  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.525min (-0.006) 25.56ug/L m  
 response 56407

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.35
120.90	31.50	32.96
81.90	24.40	25.39

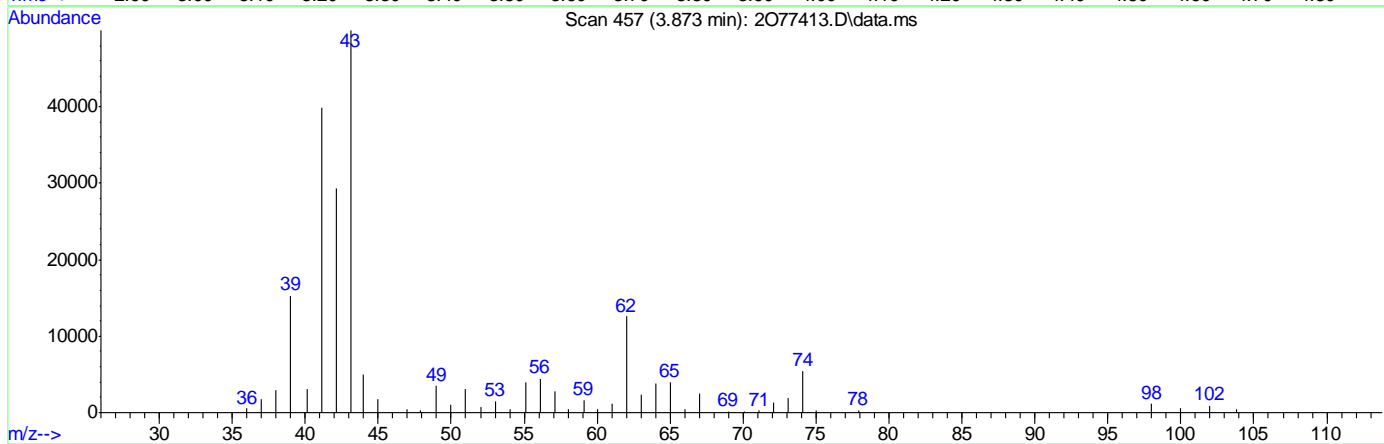
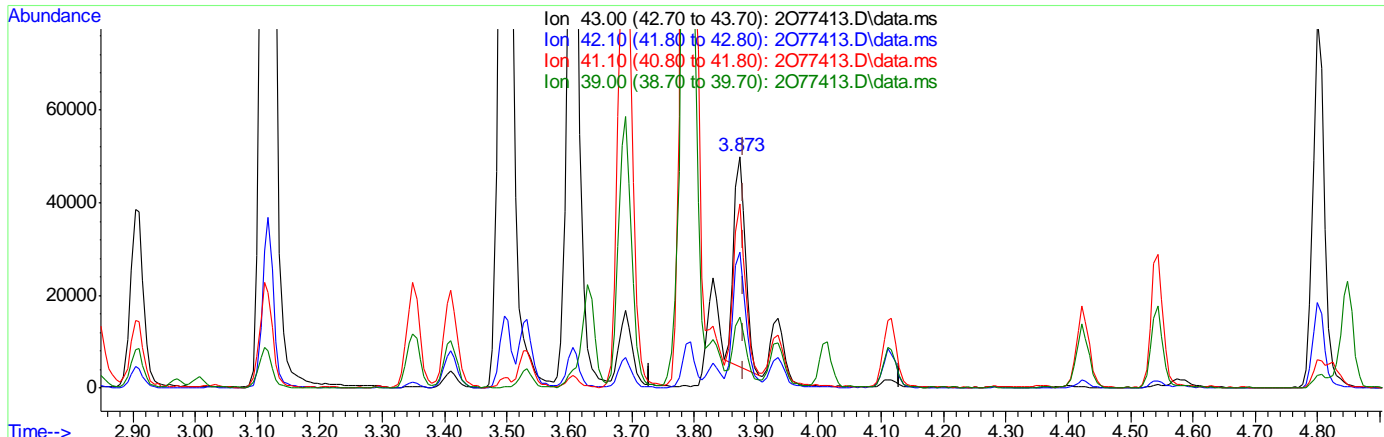
7.3.1.3  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 475.66ug/L  
 response 58473

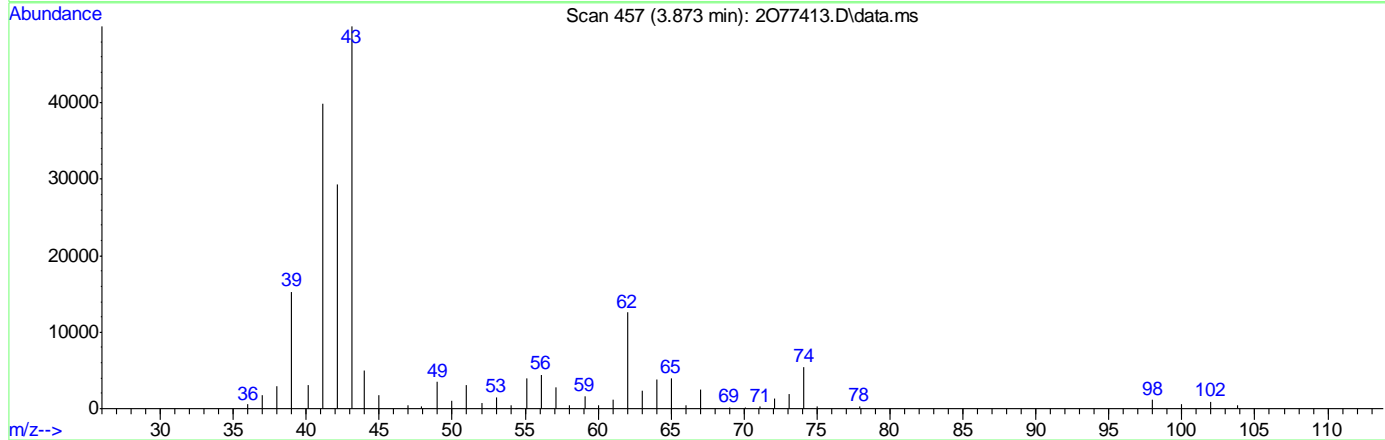
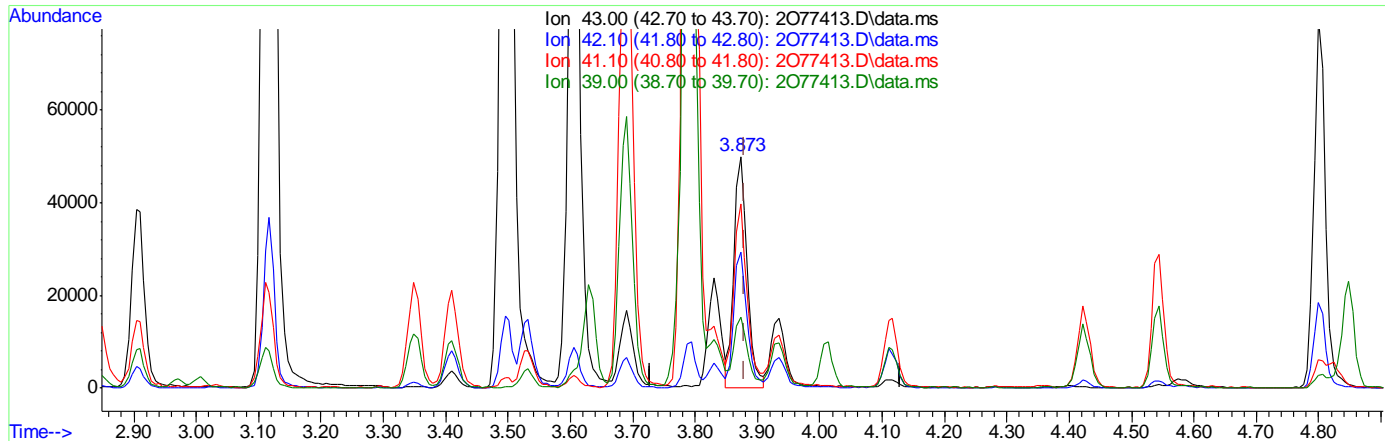
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.28
41.10	77.50	77.47
39.00	31.30	28.78

7.3.14  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 596.56ug/L m  
 response 74033

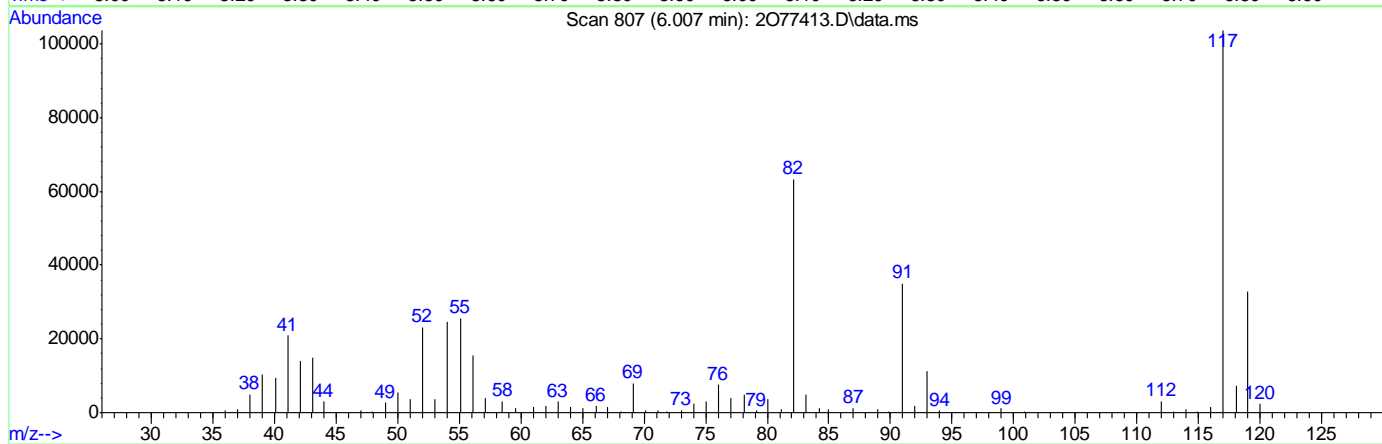
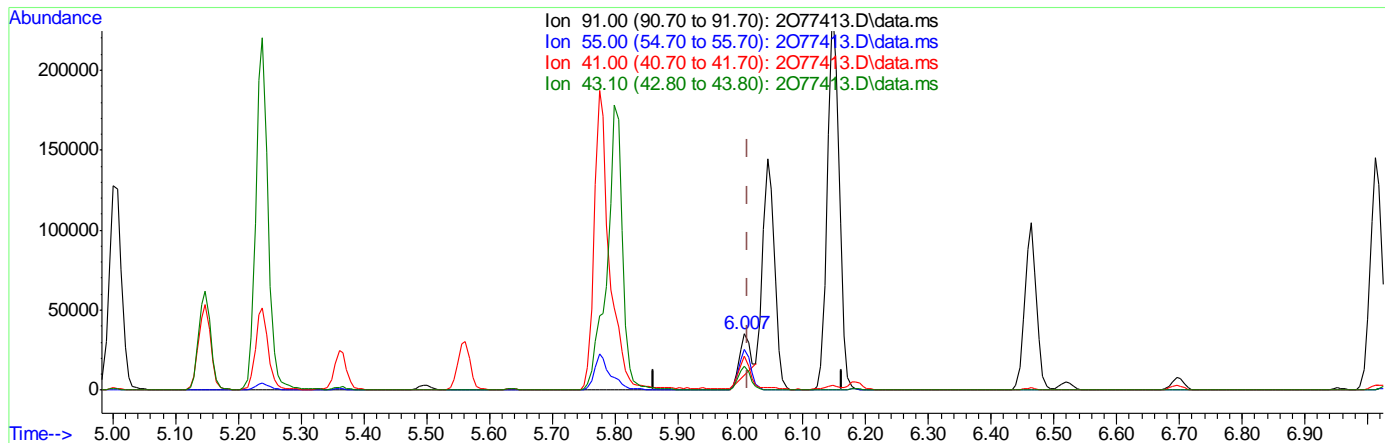
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.52
41.10	77.50	79.68
39.00	31.30	30.61

7.3.1.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(76) 1-Chlorohexane

6.007min (-0.006) 13.09ug/L

response 28762

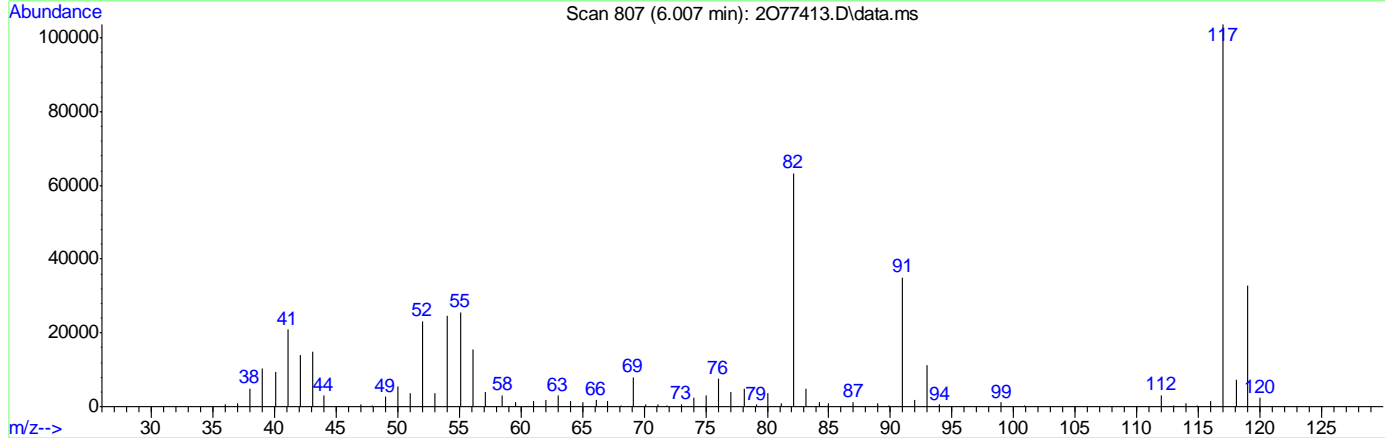
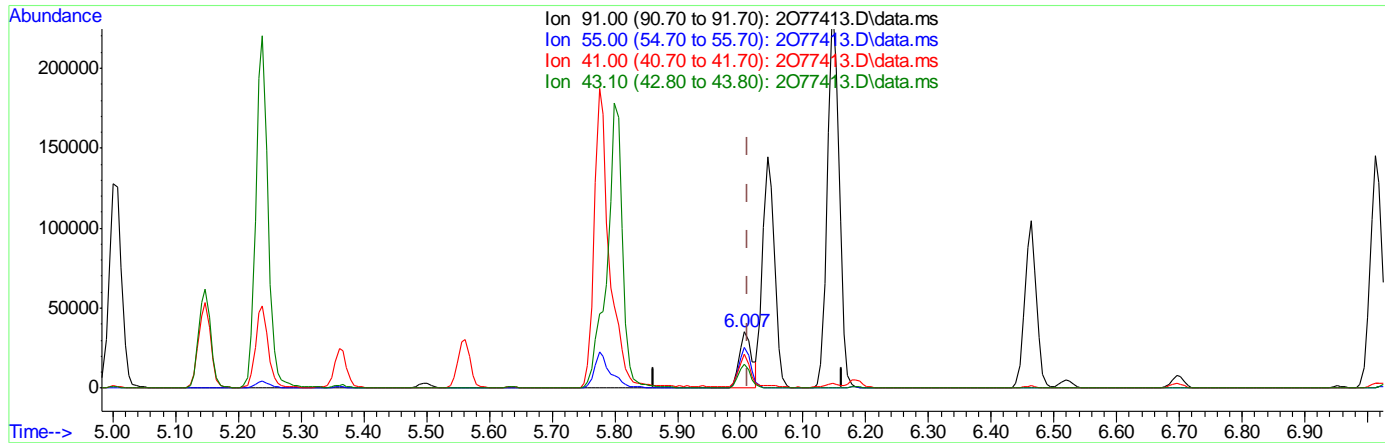
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.39
41.00	55.00	56.93
43.10	42.40	41.31

7.3.1.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077413.D  
 Acq On : 5 Jul 2023 9:01 am  
 Operator : jeniferw  
 Sample : BS Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 05 09:15:19 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077413.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 22.65ug/L m  
 response 49783

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.10
41.00	55.00	59.87
43.10	42.40	42.47

7.3.1.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1010121	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	711222	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	434708	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	288440	50.31	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.62%	
49) 1,2-Dichloroethane-d4	7.561	65	272870	52.34	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	104.68%	
63) Toluene-d8	9.445	98	1037109	51.14	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.28%	
86) 4-Bromofluorobenzene	12.219	174	364342	49.78	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.56%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	63099	14.22	ug/L		96
3) Chloromethane	2.635	50	76923	16.82	ug/L		95
4) Vinyl Chloride	2.763	62	75302	16.70	ug/L		100
5) 1,3-Butadiene	2.794	39	76421	19.66	ug/L		95
6) Bromomethane	3.227	94	42381	27.56	ug/L		98
7) Chloroethane	3.391	64	41251	21.82	ug/L		97
8) Trichlorofluoromethane	3.599	101	114796	19.24	ug/L		99
9) Ethyl Ether	4.013	59	79363	25.41	ug/L		97
10) 1,2-Dichlorotrifluoro...	4.239	67	112083	26.98	ug/L		98
11) 1,1-Dichloroethene	4.269	61	135068	24.64	ug/L		98
12) Ethanol	4.190	45	64989	416.67	ug/L		99
13) Freon 113	4.318	101	97048	28.50	ug/L		97
14) Carbon Disulfide	4.330	76	265035	23.54	ug/L		99
15) Iodomethane	4.458	142	92166	34.23	ug/L		93
16) Acrolein	4.678	56	152841	107.07	ug/L		97
17) Allyl chloride	4.848	41	123012	23.27	ug/L		98
18) Methylene Chloride	4.976	49	139233	24.97	ug/L		97
19) Acetone	5.019	43	303460	111.64	ug/L		97
20) Methyl acetate	5.165	43	625387	109.77	ug/L		98
21) trans-1,2-Dichloroethene	5.178	61	135321	23.53	ug/L		97
22) Hexane	5.275	56	74625	26.47	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	283544	23.34	ug/L		85
24) Tert butyl alcohol	5.379	59	360233	216.70	ug/L		96
25) Acetonitrile	5.555	41	261193	224.28	ug/L		98
26) Di-isopropyl ether	5.720	45	288121	22.67	ug/L		97
27) Chloroprene	5.866	53	110676	20.41	ug/L		99
28) 1,1-Dichloroethane	5.879	63	171905	22.77	ug/L		98
29) Acrylonitrile	5.921	53	329833	119.10	ug/L		99
30) ETBE	6.135	59	288762	23.60	ug/L		99
31) Vinyl acetate	6.135	43	1009244	125.76	ug/L		99
32) cis-1,2-Dichloroethene	6.500	96	102751	22.65	ug/L		94
33) 2,2-Dichloropropane	6.616	77	140169	24.36	ug/L		98
34) Bromochloromethane	6.726	128	55612	23.75	ug/L		96
35) Cyclohexane	6.756	56	151808	25.87	ug/L		98
36) Chloroform	6.787	83	184670	23.45	ug/L		100
37) Ethyl acetate	6.884	43	800262	121.72	ug/L		99
38) Tetrahydrofuran	6.982	42	68200	21.72	ug/L		95
40) Carbon Tetrachloride	6.970	117	137913	24.94	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	155365	23.85	ug/L		100
42) 2-Butanone	7.098	43	457465	111.92	ug/L		98
43) 1,1-Dichloropropene	7.171	75	127014	24.70	ug/L		98
44) tert-Butyl Formate	7.250	59	457334	144.77	ug/L		91

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	313008	225.52	ug/L	95
46) Methacrylonitrile	7.433	41	918845	225.80	ug/L	99
47) Benzene	7.427	78	371697	23.57	ug/L	96
48) TAME	7.525	73	269841	22.78	ug/L	97
50) Isobutyl alcohol	7.586	42	161308	438.84	ug/L	98
51) 1,2-Dichloroethane	7.634	62	124618	22.75	ug/L	98
52) Tert Amyl Alcohol	7.695	59	292578	214.43	ug/L	95
53) Trichloroethene	8.043	95	99502	22.56	ug/L	97
54) Methylcyclohexane	8.049	83	132965	25.10	ug/L	97
55) Dibromomethane	8.482	93	67175	23.85	ug/L	97
56) 1,2-Dichloropropane	8.567	63	98415	24.22	ug/L	95
57) Bromodichloromethane	8.622	83	125082	22.33	ug/L	98
58) Methyl methacrylate	8.744	41	97271	22.15	ug/L	98
59) 1,4-Dioxane	8.811	88	46680	368.48	ug/L	93
60) 2-Chloroethyl vinyl ether	9.158	63	279282	112.72	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	146179	23.15	ug/L	99
64) Toluene	9.500	91	388207	23.92	ug/L	98
65) 2-Nitropropane	9.695	41	198254	130.77	ug/L	93
66) 4-Methyl-2-pentanone	9.823	43	829616	117.95	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	121483	22.34	ug/L	92
68) Tetrachloroethene	9.908	166	121394	24.72	ug/L	98
69) Ethyl methacrylate	10.012	69	133741	25.82	ug/L	98
70) 1,1,2-Trichloroethane	10.061	83	80723	24.39	ug/L	97
71) Dibromochloromethane	10.256	129	114386	24.98	ug/L	98
72) 1,3-Dichloropropane	10.335	76	151148	26.21	ug/L	96
73) 1,2-Dibromoethane	10.518	107	105128	24.62	ug/L	96
74) 3,3-dimethyl-1-butanol	10.609	57	1576760	1256.91	ug/L	99
75) 2-hexanone	10.652	43	663893	117.86	ug/L	99
76) 1-Chlorohexane	10.963	91	108616	23.66	ug/L	96
77) Ethylbenzene	11.024	91	417250	23.81	ug/L	99
78) Chlorobenzene	11.024	112	256911	23.96	ug/L	98
79) 1,1,1,2-Tetrachloroethane	11.073	131	97541	23.50	ug/L	97
80) m,p-Xylene	11.164	91	635142	48.28	ug/L	99
81) o-Xylene	11.603	91	316650	22.38	ug/L	98
82) Styrene	11.658	104	234833	23.76	ug/L	99
83) Bromoform	11.713	173	92905	24.08	ug/L	98
84) Isopropylbenzene	11.908	105	388071	23.32	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.261	53	40959	26.27	ug/L	87
88) n-Propylbenzene	12.329	91	447112	23.36	ug/L	99
89) Bromobenzene	12.347	156	121967	24.86	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	160337	23.97	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	319026	23.26	ug/L	99
92) 2-Chlorotoluene	12.518	91	312010	23.90	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.572	53	36272	21.03	ug/L	86
94) 1,2,3-Trimethylpropane	12.542	110	53332	25.79	ug/L	97
95) Cyclohexanone	12.603	55	67687	146.44	ug/L	95
96) 4-Chlorotoluene	12.682	91	273762	23.30	ug/L	98
97) tert-Butylbenzene	12.853	91	169189	23.21	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	314073	23.25	ug/L	97
99) Pentachloroethane	12.902	167	75522	25.18	ug/L	99
100) sec-Butylbenzene	13.036	105	357180	23.25	ug/L	99
101) 4-Isopropyltoluene	13.170	119	312540	22.88	ug/L	98
102) 1,3-Dichlorobenzene	13.304	146	198228	23.45	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	341806	24.15	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	214469	23.60	ug/L	97
105) n-Butylbenzene	13.615	92	168781	25.13	ug/L	89
106) Benzyl Chloride	13.627	126	52062	22.23	ug/L #	71
107) 1,2-Dichlorobenzene	13.822	146	200339	24.18	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

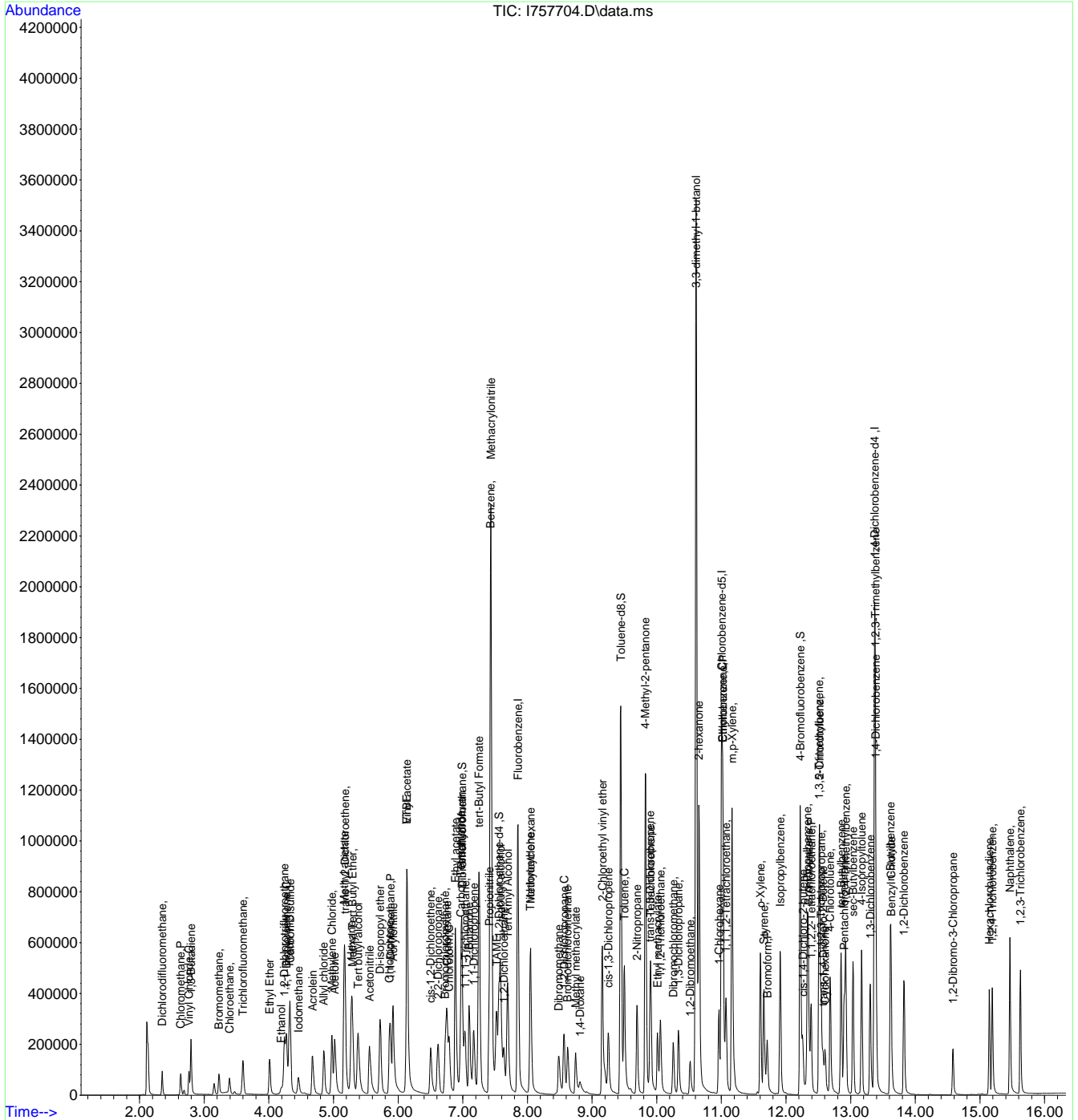
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	39549	23.39	ug/L	94
109) Hexachlorobutadiene	15.145	225	71404	25.44	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	141776	23.16	ug/L	97
111) Naphthalene	15.462	128	429180	22.42	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	143003	23.42	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757704.D  
 Acq On : 6 Jul 2023 9:43 am  
 Operator : jeniferw  
 Sample : BS  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 10:05:59 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.3.2  
7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	314648	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	245177	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.774	152	117244	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	91140	53.26	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	106.52%	
50) 1,2-Dichloroethane-d4	3.848	65	104161	51.28	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	102.56%	
63) Toluene-d8	4.970	98	300629	45.99	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	91.98%	
86) 4-Bromofluorobenzene	6.915	174	81133	47.36	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	94.72%	
Target Compounds							
2) Dichlorodifluoromethane	1.221	85	43971	37.86	ug/L	99	
3) Chloromethane	1.367	50	37346	31.53	ug/L	100	
4) 1,3-butadiene	1.440	39	37037	27.80	ug/L	95	
5) Vinyl Chloride	1.428	62	41164	33.69	ug/L	94	
6) Bromomethane	1.660	94	18415	19.46	ug/L	96	
7) Chloroethane	1.745	64	35254	Below	Cal	98	
8) Trichlorofluoromethane	1.849	101	82330	35.72	ug/L	100	
9) Ethyl Ether	2.050	59	28423	26.18	ug/L	97	
10) Ethanol	2.148	45	10002	408.48	ug/L	94	
11) 1,2-Dichlorotrifluoro...	2.172	67	53165	34.55	ug/L	92	
12) 1,1-Dichloroethene	2.178	61	55359	28.64	ug/L	97	
13) Freon 113	2.202	101	47285	34.81	ug/L	98	
14) Carbon Disulfide	2.196	76	119459	33.22	ug/L	100	
15) Iodomethane	2.263	142	26170	22.07	ug/L	98	
16) Acrolein	2.379	56	45254	129.10	ug/L	97	
17) Allyl chloride	2.465	41	41077	29.16	ug/L	98	
18) Methylene Chloride	2.526	49	49604	28.46	ug/L	93	
19) Acetone	2.550	43	83678	115.27	ug/L	99	
20) Methyl acetate	2.623	43	185019	107.94	ug/L	99	
21) trans-1,2-Dichloroethene	2.623	61	54763	28.04	ug/L	97	
22) Hexane	2.678	56	30387	30.59	ug/L	# 93	
23) Methyl Tert Butyl Ether	2.684	73	98383	25.04	ug/L	87	
24) Tert Butyl Alcohol	2.733	59	70149	288.42	ug/L	80	
25) Acetonitrile	2.824	41	73641	260.29	ug/L	97	
26) Di-isopropyl ether	2.903	45	93594	24.21	ug/L	95	
27) Chloroprene	2.964	53	42015	21.89	ug/L	97	
28) 1,1-Dichloroethane	2.977	63	71755	28.27	ug/L	98	
29) Acrylonitrile	3.001	52	86067	122.79	ug/L	98	
30) ETBE	3.111	59	95642	26.02	ug/L	98	
31) Vinyl acetate	3.117	43	373681	135.64	ug/L	100	
32) cis-1,2-Dichloroethene	3.288	96	49536	29.78	ug/L	95	
33) 2,2-Dichloropropane	3.349	77	48742	28.73	ug/L	98	
34) Bromochloromethane	3.397	128	22129	27.34	ug/L	96	
35) Cyclohexane	3.409	56	56592	29.22	ug/L	97	
36) Chloroform	3.434	83	80487	28.07	ug/L	99	
37) Ethyl acetate	3.495	43	240268	116.51	ug/L	98	
38) Tetrahydrofuran	3.525	42	16578	22.44	ug/L	91	
40) Carbon Tetrachloride	3.525	117	57658m	31.20	ug/L		
41) 1,1,1-Trichloroethane	3.562	97	67095	29.66	ug/L	97	
42) 2-Butanone	3.605	43	132928	118.44	ug/L	99	
43) 1,1-Dichloropropene	3.629	75	57613	30.37	ug/L	98	
44) tert-Butyl formate	3.684	59	2781	6.00	ug/L	97	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	3.775	54	88976	255.95	ug/L	99
46) Methacrylonitrile	3.787	41	331491	274.22	ug/L	99
47) Benzene	3.775	78	193301	33.76	ug/L	92
48) TAME	3.830	73	83578	23.97	ug/L	93
49) Isobutyl alcohol	3.873	43	45942m	447.34	ug/L	
51) 1,2-Dichloroethane	3.885	62	60344	25.61	ug/L	97
52) Tert Amyl Alcohol	3.934	59	39871	216.93	ug/L	92
53) Trichloroethene	4.111	95	49730	29.94	ug/L	97
54) Methylcyclohexane	4.117	83	56250	27.58	ug/L	98
55) Dibromomethane	4.361	93	29783	26.32	ug/L	97
56) 1,2-Dichloropropane	4.421	63	38404	28.04	ug/L	95
57) Bromodichloromethane	4.458	83	49915	26.02	ug/L	99
58) Methyl methacrylate	4.543	41	29799	20.51	ug/L	96
59) 1,4-Dioxane	4.580	88	9047	339.22	ug/L	96
61) cis-1,3-Dichloropropene	4.848	75	50450	24.33	ug/L	100
64) Toluene	5.007	91	178200	27.21	ug/L	98
65) 2-Nitropropane	5.147	41	59518	128.60	ug/L	95
66) 4-Methyl-2-pentanone	5.238	43	264573	129.97	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	56000	25.33	ug/L	94
68) Tetrachloroethene	5.263	166	47198	27.73	ug/L	94
69) Ethyl methacrylate	5.366	69	43287	22.90	ug/L	87
70) 1,1,2-Trichloroethane	5.373	83	37137	26.99	ug/L	98
71) Dibromochloromethane	5.501	129	42579	27.51	ug/L	100
72) 1,3-Dichloropropane	5.561	76	68267	25.99	ug/L	99
73) 1,2-Dibromoethane	5.665	107	42620	23.76	ug/L	99
74) 3,3-dimethyl-1-butanol	5.781	57	410329	1447.12	ug/L	98
75) 2-hexanone	5.805	43	280362	136.46	ug/L	94
76) 1-Chlorohexane	6.013	91	46343m	23.10	ug/L	
77) Ethylbenzene	6.043	91	196886	27.51	ug/L	98
78) Chlorobenzene	6.031	112	116275	25.54	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.074	131	37906	26.01	ug/L	97
80) m,p-Xylene	6.153	91	634605	112.23	ug/L	98
81) o-Xylene	6.464	91	650471	114.50	ug/L	98
82) Styrene	6.500	104	104088	24.03	ug/L	99
83) Bromoform	6.525	173	22705	24.16	ug/L	98
84) Isopropylbenzene	6.702	105	146458	22.39	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.958	53	9228	20.15	ug/L	95
88) n-Propylbenzene	7.019	91	188021	26.11	ug/L	99
89) Bromobenzene	6.994	156	40837	25.28	ug/L	98
90) 1,1,2,2-Tetrachloroethane	7.061	83	60831	26.04	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	192745	37.45	ug/L	99
92) 2-Chlorotoluene	7.140	91	134148	26.60	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.201	53	7411	17.57	ug/L	89
94) 1,2,3-Trichloropropane	7.171	110	19843	26.51	ug/L	94
95) Cyclohexanone	7.208	55	8798	110.60	ug/L	88
96) 4-Chlorotoluene	7.268	91	117505	24.49	ug/L	99
97) tert-Butylbenzene	7.421	91	69211	24.77	ug/L	98
99) 1,2,4-Trimethylbenzene	7.470	105	194548	37.74	ug/L	100
100) Pentachloroethane	7.433	167	20236	27.54	ug/L	93
101) sec-Butylbenzene	7.555	105	143556	24.33	ug/L	98
102) 4-Isopropyltoluene	7.665	119	123204	24.45	ug/L	100
103) 1,3-Dichlorobenzene	7.720	146	77912	24.28	ug/L	98
104) 1,2,3-Trimethylbenzene	7.805	105	230257	42.04	ug/L	99
105) 1,4-Dichlorobenzene	7.787	146	82602	25.78	ug/L	97
106) n-Butylbenzene	7.982	92	71433	27.67	ug/L #	77
107) Benzyl Chloride	7.970	126	12822	24.17	ug/L #	86
108) 1,2-Dichlorobenzene	8.098	146	73076	23.79	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.671	75	11300	24.39	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

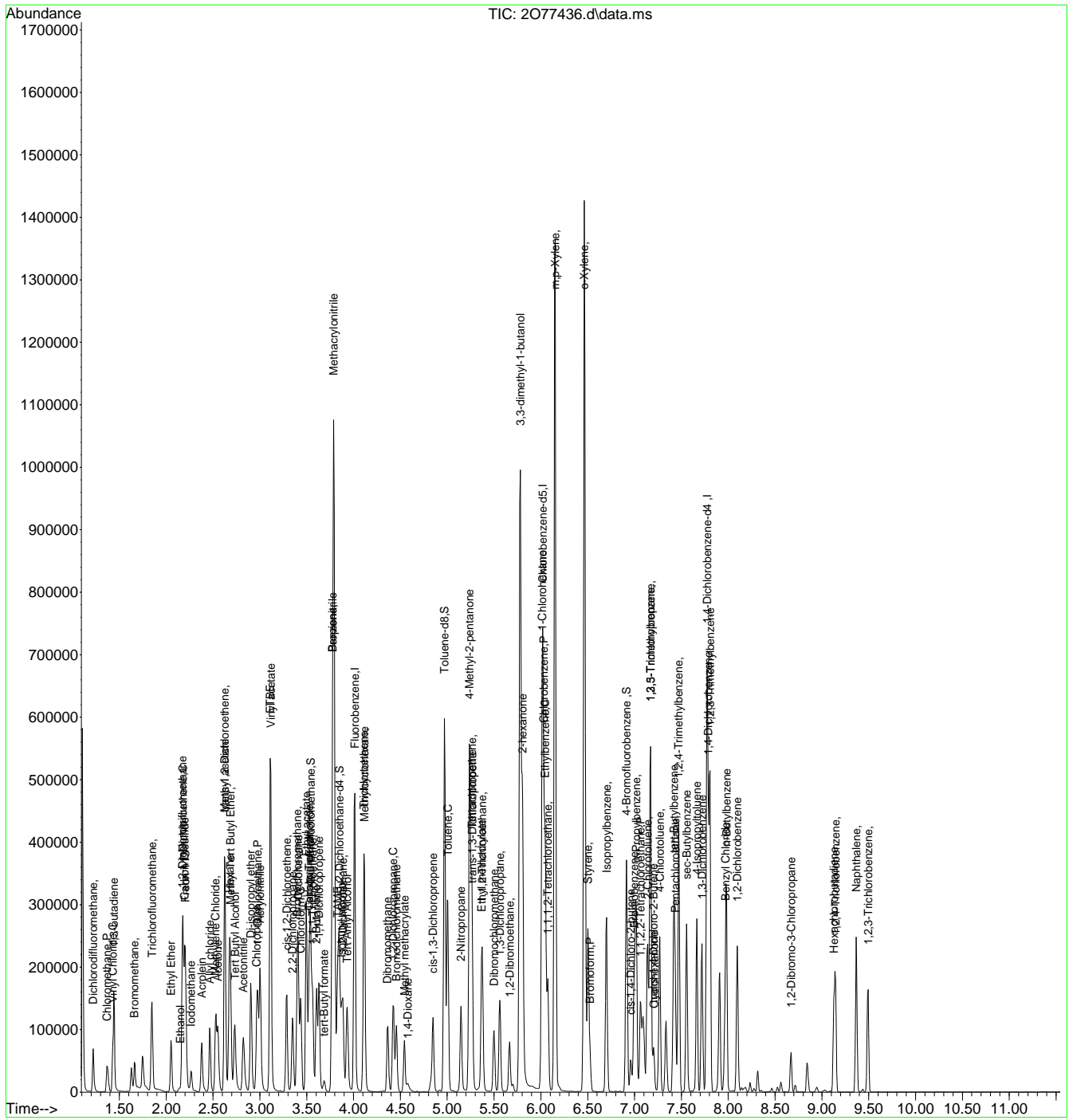
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) Hexachlorobutadiene	9.128	225	16533	28.69	ug/L	95
111) 1,2,4-Trichlorobenzene	9.146	180	42002	23.94	ug/L	95
112) Naphthalene	9.366	128	147038	23.01	ug/L	99
113) 1,2,3-Trichlorobenzene	9.494	180	39988	22.94	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077436.d  
Acq On : 5 Jul 2023 6:47 pm  
Operator : jeniferw  
Sample : FC7382-1MS  
Misc : MS54357,V203017,,,,,  
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:09:01 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration



7.4.1  
7



# Manual Integration Approval Summary

**Sample Number:** FC7382-1MS      **Method:** SW846 8260D  
**Lab FileID:** 2077436.D      **Analyst approved:** 07/05/23 21:25 Celine Celis  
**Injection Time:** 07/05/23 18:47      **Supervisor approved:** 07/07/23 09:33 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

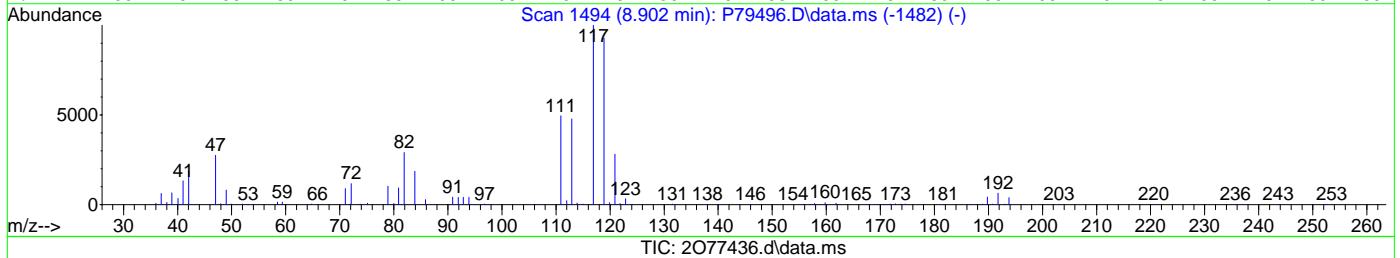
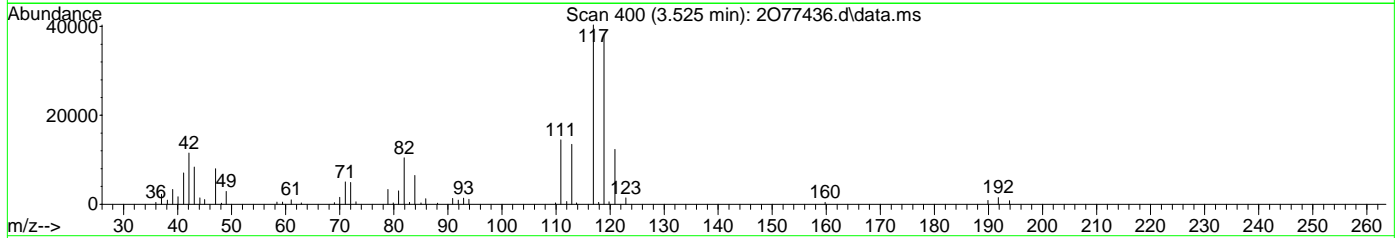
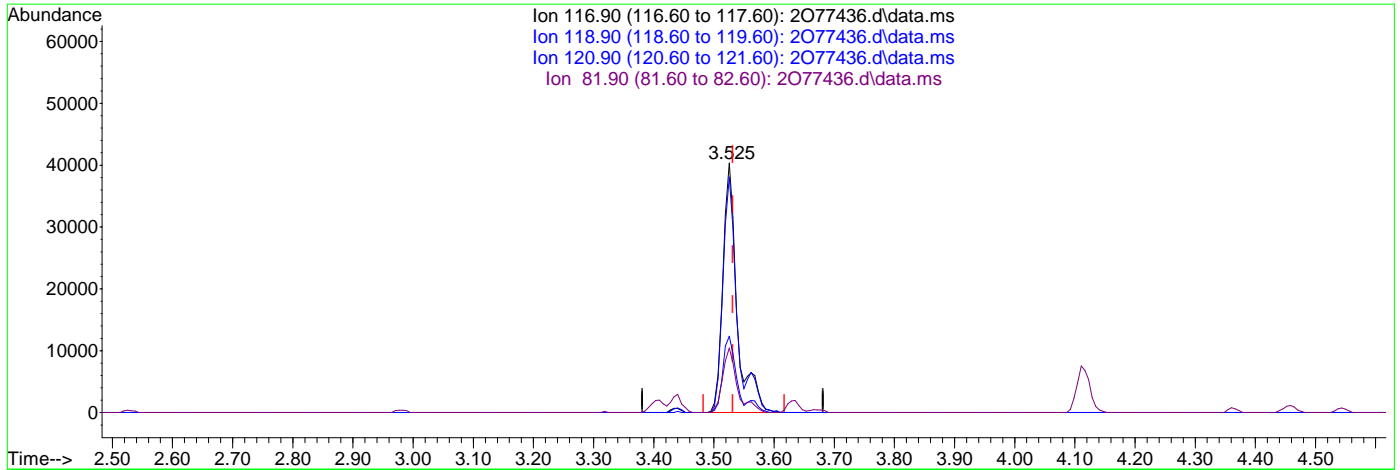
7.4.1.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 36.06ug/L

response 66637

Ion Exp% Act%

116.90 100 100

118.90 99.30 94.33

120.90 31.50 30.57

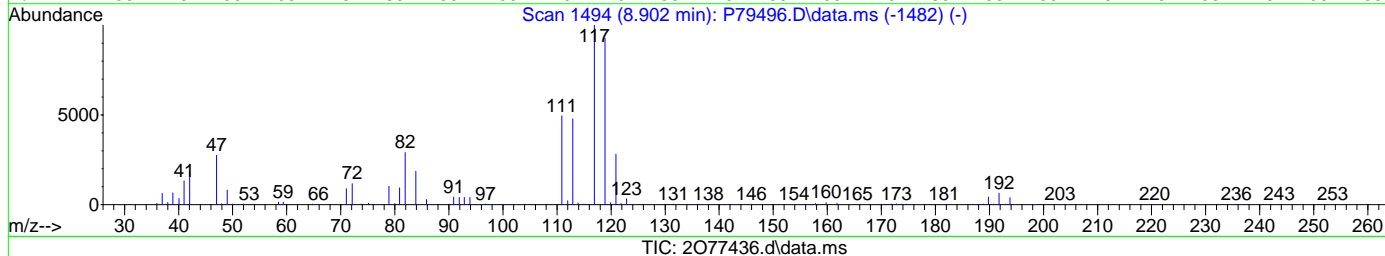
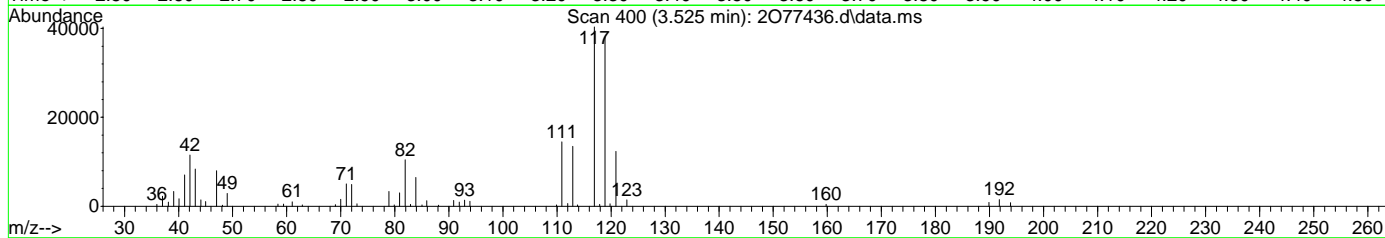
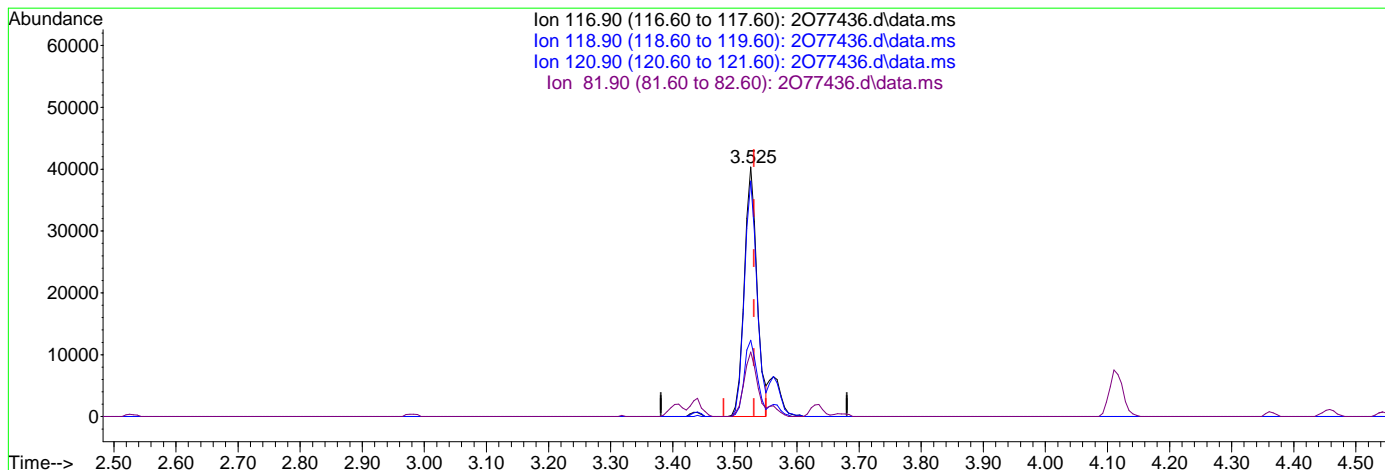
81.90 24.40 25.92

7.4.1.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )  
 3.525min (-0.006) 31.20ug/L m  
 response 57658

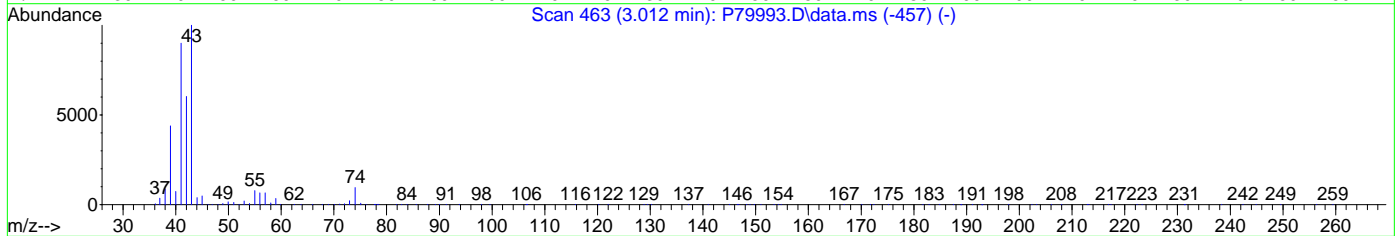
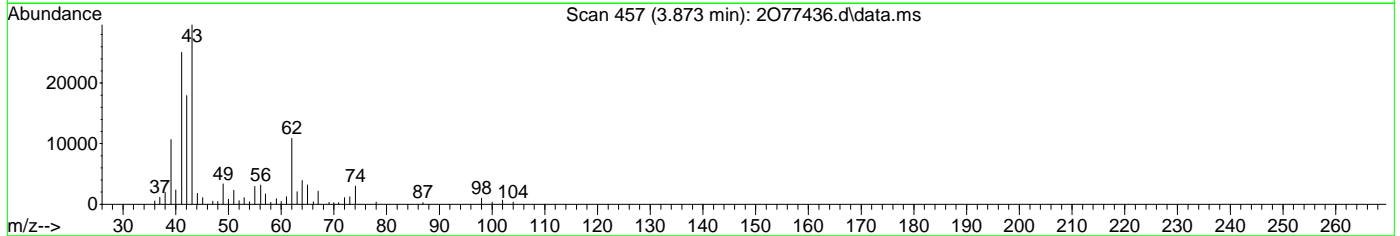
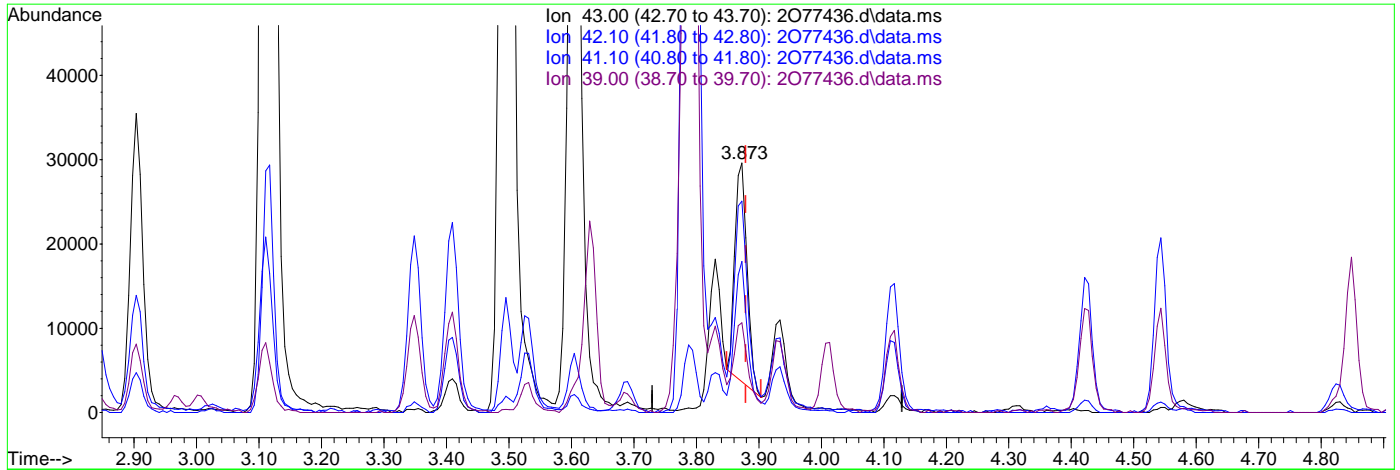
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	94.33
120.90	31.50	30.57
81.90	24.40	25.92

7.4.1.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077436.d\data.ms

(49) Isobutyl alcohol

3.873min (-0.006) 339.18ug/L

response 34537

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.03
41.10	77.50	83.44
39.00	31.30	34.27

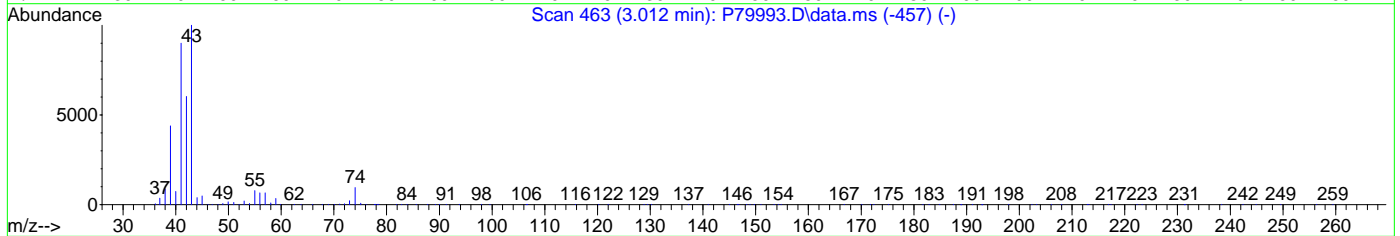
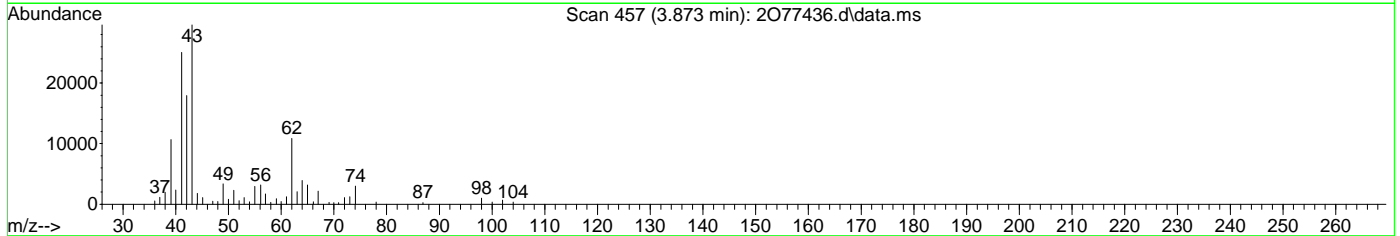
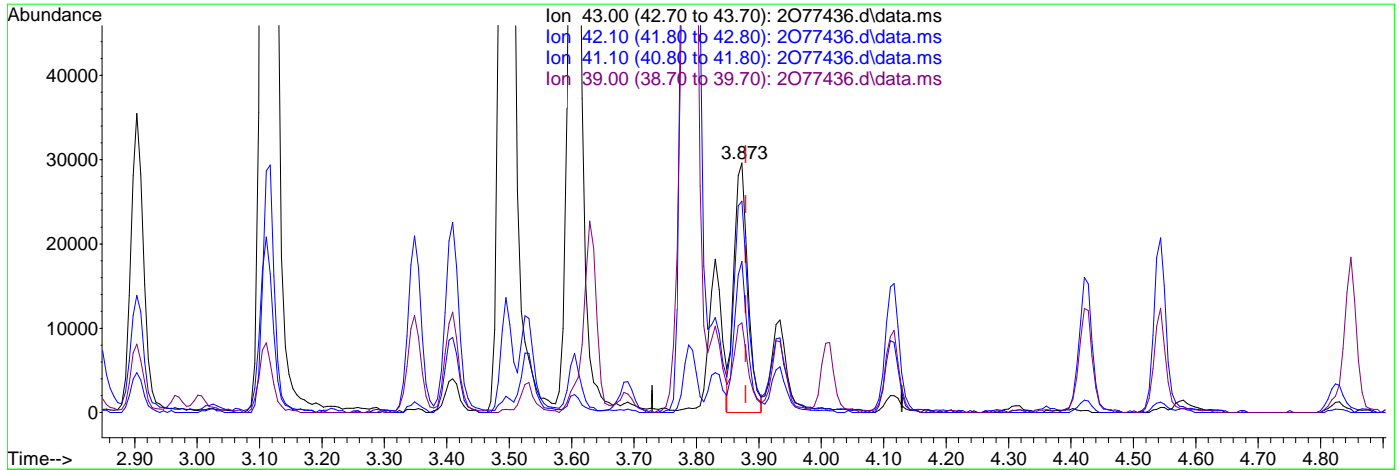
7.4.1.4  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077436.d\data.ms

(49) Isobutyl alcohol

3.873min (-0.006) 447.34ug/L m

response 45942

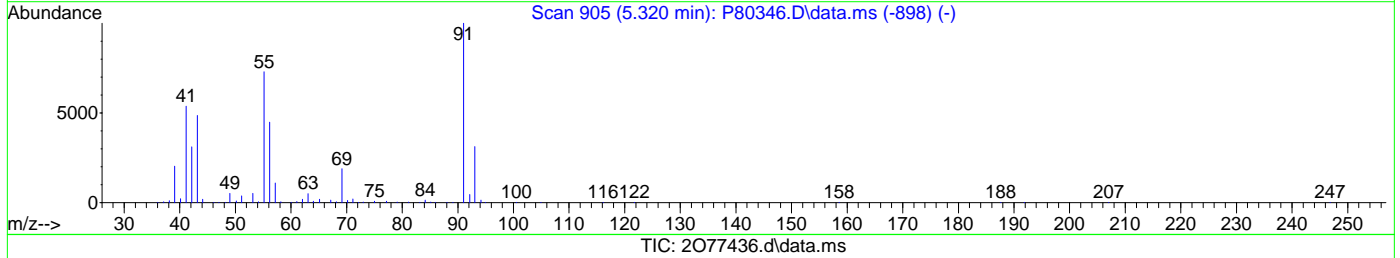
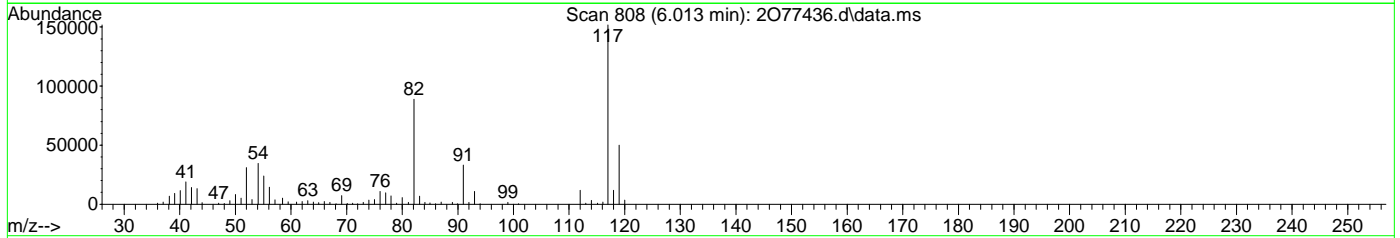
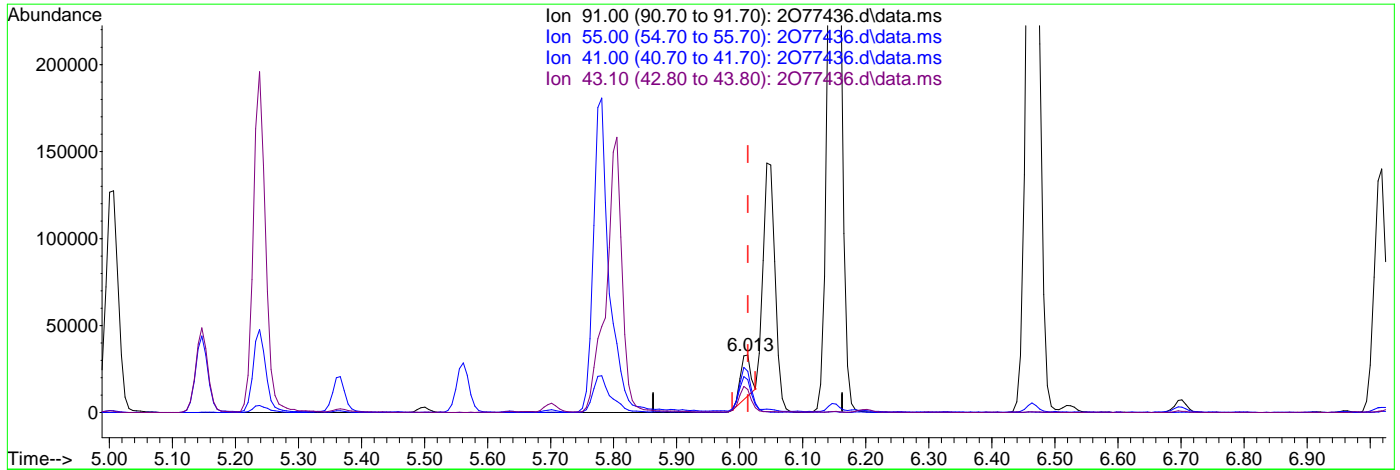
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.53
41.10	77.50	84.66
39.00	31.30	35.96

7.4.1.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane

6.013min (-0.000) 14.80ug/L

response 29685

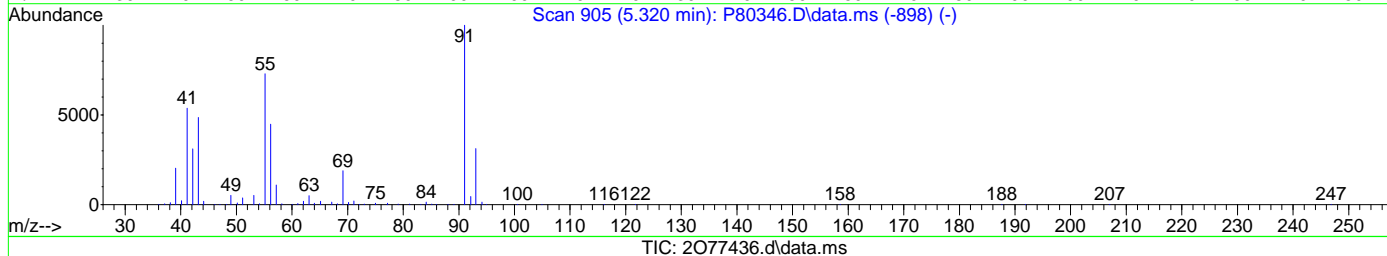
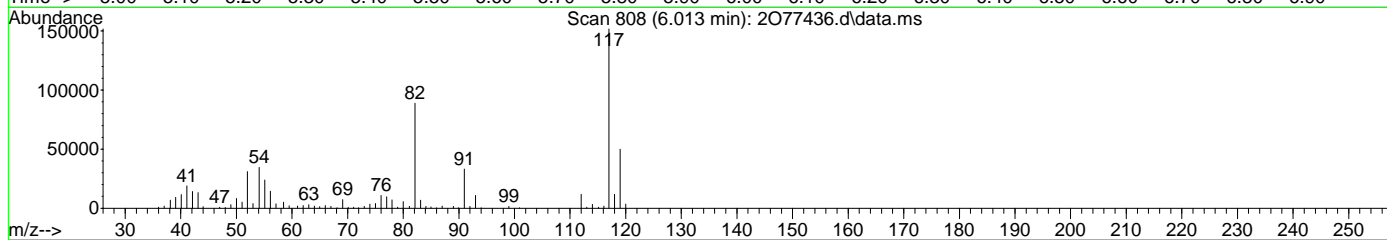
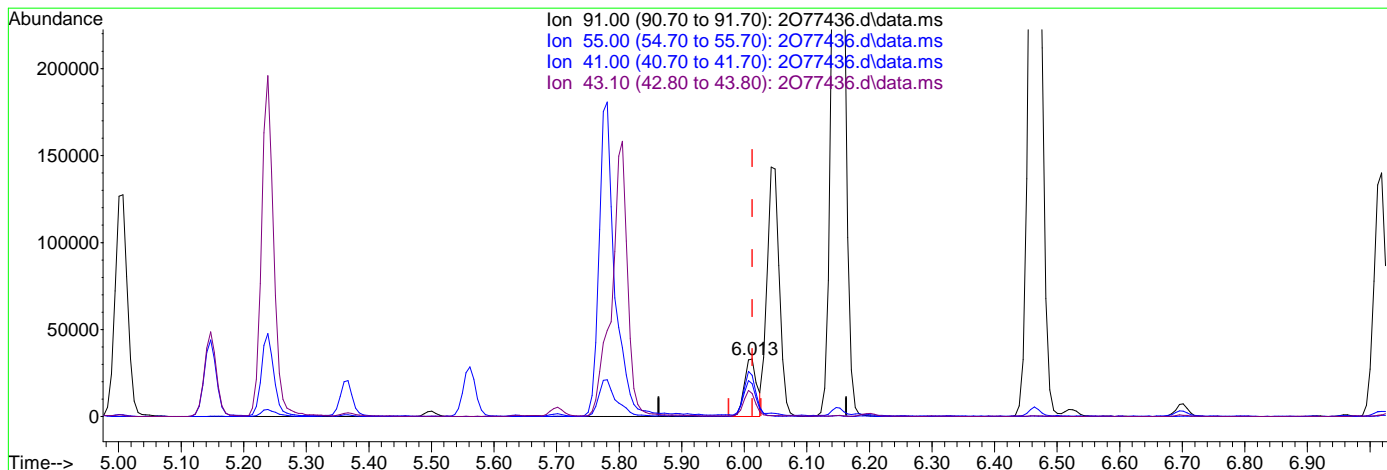
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	70.44
41.00	55.00	52.85
43.10	42.40	37.60

7.4.1.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077436.d  
 Acq On : 5 Jul 2023 6:47 pm  
 Operator : jeniferw  
 Sample : FC7382-1MS  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 26 Sample Multiplier: 1

Quant Time: Jul 05 21:05:23 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane

6.013min (-0.000) 23.10ug/L m

response 46343

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.03
41.00	55.00	57.36
43.10	42.40	39.96

7.4.1.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	364378	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	244262	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.775	152	123741	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	91074	45.96	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	91.92%	
50) 1,2-Dichloroethane-d4	3.849	65	125364	53.30	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	106.60%	
63) Toluene-d8	4.970	98	311944	47.90	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	95.80%	
86) 4-Bromofluorobenzene	6.915	174	84168	46.55	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	93.10%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	49147	36.54	ug/L		98
3) Chloromethane	1.373	50	41903	30.55	ug/L		100
4) 1,3-butadiene	1.441	39	40827	26.35	ug/L		99
5) Vinyl Chloride	1.428	62	46735	33.03	ug/L		98
6) Bromomethane	1.666	94	23914	21.79	ug/L		95
7) Chloroethane	1.751	64	35137	Below	Cal		99
8) Trichlorofluoromethane	1.849	101	91581	34.31	ug/L		98
9) Ethyl Ether	2.050	59	28388	22.58	ug/L		97
10) Ethanol	2.148	45	12973	457.50	ug/L		95
11) 1,2-Dichlorotrifluoro...	2.178	67	52043	29.20	ug/L		97
12) 1,1-Dichloroethene	2.178	61	55076	24.61	ug/L		97
13) Freon 113	2.209	101	45920	29.19	ug/L		98
14) Carbon Disulfide	2.196	76	117393	28.19	ug/L		99
15) Iodomethane	2.270	142	35438	25.56	ug/L		98
16) Acrolein	2.379	56	49099	121.07	ug/L		99
17) Allyl chloride	2.465	41	48028	29.44	ug/L		96
18) Methylene Chloride	2.532	49	48352	23.89	ug/L		96
19) Acetone	2.550	43	90704	107.89	ug/L		98
20) Methyl acetate	2.623	43	186847	94.13	ug/L		99
21) trans-1,2-Dichloroethene	2.623	61	54802	24.23	ug/L		97
22) Hexane	2.678	56	30299	26.34	ug/L		95
23) Methyl Tert Butyl Ether	2.684	73	99450	21.86	ug/L		84
24) Tert Butyl Alcohol	2.733	59	79063	280.70	ug/L #		63
25) Acetonitrile	2.824	41	80481	245.64	ug/L		98
26) Di-isopropyl ether	2.904	45	95278	21.28	ug/L		95
27) Chloroprene	2.971	53	47406	21.32	ug/L		99
28) 1,1-Dichloroethane	2.977	63	71889	24.46	ug/L		99
29) Acrylonitrile	3.001	52	92380	113.81	ug/L		96
30) ETBE	3.111	59	96403	22.64	ug/L		98
31) Vinyl acetate	3.117	43	407914	127.86	ug/L		100
32) cis-1,2-Dichloroethene	3.288	96	49240	25.56	ug/L		98
33) 2,2-Dichloropropane	3.349	77	49528	25.21	ug/L		99
34) Bromochloromethane	3.397	128	21600	23.04	ug/L		93
35) Cyclohexane	3.410	56	56187	25.05	ug/L		93
36) Chloroform	3.434	83	78639	23.68	ug/L		98
37) Ethyl acetate	3.495	43	256701	107.49	ug/L		99
38) Tetrahydrofuran	3.532	42	17778	20.78	ug/L		95
40) Carbon Tetrachloride	3.525	117	55700m	26.03	ug/L		
41) 1,1,1-Trichloroethane	3.562	97	65294	24.92	ug/L		97
42) 2-Butanone	3.605	43	138608	106.65	ug/L		100
43) 1,1-Dichloropropene	3.629	75	55375	25.21	ug/L		98
44) tert-Butyl formate	3.690	59	2610	4.87	ug/L #		81

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	3.775	54	109361	271.65	ug/L	94
46) Methacrylonitrile	3.788	41	411294	293.80	ug/L	99
47) Benzene	3.775	78	215791	32.55	ug/L	92
48) TAME	3.830	73	97176	24.07	ug/L	93
49) Isobutyl alcohol	3.873	43	62930m	525.86	ug/L	
51) 1,2-Dichloroethane	3.885	62	66878	24.51	ug/L	98
52) Tert Amyl Alcohol	3.934	59	49722	232.61	ug/L	94
53) Trichloroethene	4.111	95	55716	28.97	ug/L	93
54) Methylcyclohexane	4.117	83	63702	26.97	ug/L	98
55) Dibromomethane	4.367	93	30217	23.06	ug/L	97
56) 1,2-Dichloropropane	4.422	63	41556	26.20	ug/L	97
57) Bromodichloromethane	4.458	83	53936	24.28	ug/L	97
58) Methyl methacrylate	4.544	41	38055	22.58	ug/L	96
59) 1,4-Dioxane	4.580	88	12855	413.95	ug/L	97
61) cis-1,3-Dichloropropene	4.848	75	53458	22.26	ug/L	96
64) Toluene	5.007	91	174490	26.74	ug/L	99
65) 2-Nitropropane	5.147	41	54355	118.75	ug/L	95
66) 4-Methyl-2-pentanone	5.239	43	254695	125.59	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	51191	23.24	ug/L	96
68) Tetrachloroethene	5.263	166	41700	24.59	ug/L	97
69) Ethyl methacrylate	5.367	69	46206	24.50	ug/L	88
70) 1,1,2-Trichloroethane	5.373	83	32663	23.82	ug/L	95
71) Dibromochloromethane	5.501	129	37082	24.05	ug/L	96
72) 1,3-Dichloropropane	5.562	76	62924	24.04	ug/L	98
73) 1,2-Dibromoethane	5.665	107	39446	22.08	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	428706	1512.99	ug/L	100
75) 2-hexanone	5.806	43	285253	139.36	ug/L	93
76) 1-Chlorohexane	6.007	91	44857m	22.44	ug/L	
77) Ethylbenzene	6.049	91	191405	26.84	ug/L	97
78) Chlorobenzene	6.031	112	108590	23.94	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.074	131	36545	25.17	ug/L	97
80) m,p-Xylene	6.153	91	678692	120.47	ug/L	100
81) o-Xylene	6.464	91	705273	124.61	ug/L	99
82) Styrene	6.500	104	103600	24.01	ug/L	98
83) Bromoform	6.525	173	22302	23.84	ug/L	99
84) Isopropylbenzene	6.702	105	150697	23.13	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.958	53	10621	21.97	ug/L	92
88) n-Propylbenzene	7.019	91	187249	24.64	ug/L	98
89) Bromobenzene	6.994	156	41095	24.10	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.061	83	59886	24.29	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	195634	36.02	ug/L	98
92) 2-Chlorotoluene	7.141	91	130211	24.46	ug/L	97
93) trans-1,4-Dichloro-2-B...	7.202	53	7620	17.11	ug/L	97
94) 1,2,3-Trichloropropane	7.171	110	20285	25.68	ug/L	94
95) Cyclohexanone	7.202	55	10290	122.56	ug/L	95
96) 4-Chlorotoluene	7.269	91	117005	23.11	ug/L	99
97) tert-Butylbenzene	7.415	91	70324	23.84	ug/L	96
99) 1,2,4-Trimethylbenzene	7.470	105	198521	36.49	ug/L	99
100) Pentachloroethane	7.433	167	22786	29.31	ug/L	98
101) sec-Butylbenzene	7.555	105	144266	23.17	ug/L	98
102) 4-Isopropyltoluene	7.665	119	124457	23.40	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	77239	22.80	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	232550	40.23	ug/L	98
105) 1,4-Dichlorobenzene	7.787	146	81143	23.98	ug/L	97
106) n-Butylbenzene	7.982	92	71614	26.28	ug/L #	78
107) Benzyl Chloride	7.970	126	12859	23.09	ug/L #	92
108) 1,2-Dichlorobenzene	8.098	146	72504	22.36	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.671	75	11810	24.17	ug/L	96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

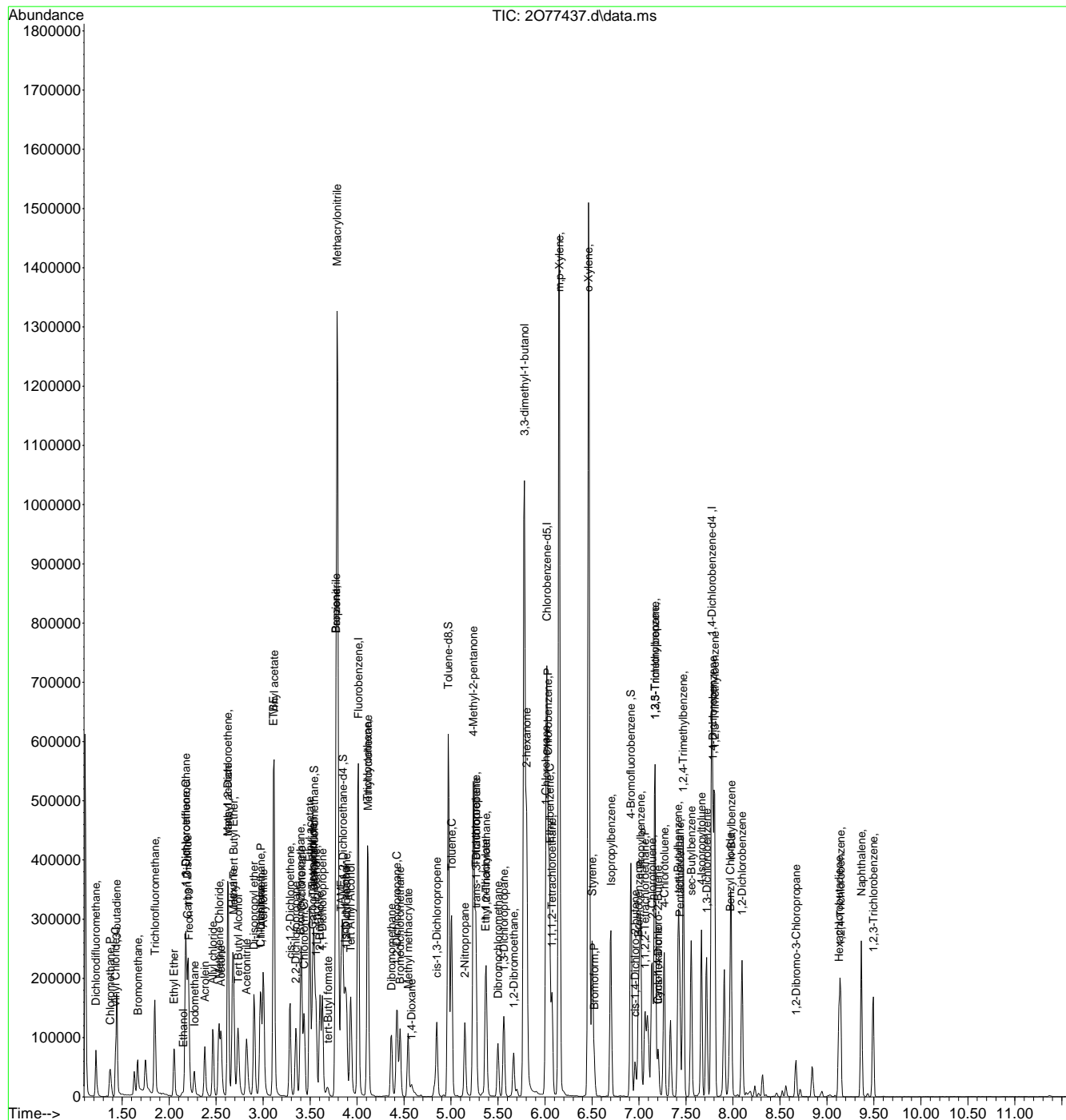
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) Hexachlorobutadiene	9.128	225	16646	27.35	ug/L	98
111) 1,2,4-Trichlorobenzene	9.146	180	42035	22.70	ug/L	99
112) Naphthalene	9.366	128	153113	22.70	ug/L	100
113) 1,2,3-Trichlorobenzene	9.494	180	39736	21.60	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
Data File : 2077437.d  
Acq On : 5 Jul 2023 7:12 pm  
Operator : jeniferw  
Sample : FC7382-1MSD  
Misc : MS54357,V203017,,,,,  
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:10:09 2023  
Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 08 09:01:58 2023  
Response via : Initial Calibration



7.4.2  
7

# Manual Integration Approval Summary

**Sample Number:** FC7382-1MSD  
**Lab FileID:** 2O77437.D  
**Injection Time:** 07/05/23 19:12

**Method:** SW846 8260D  
**Analyst approved:** 07/05/23 21:25 Celine Celis  
**Supervisor approved:** 07/07/23 09:33 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

7.4.2.1

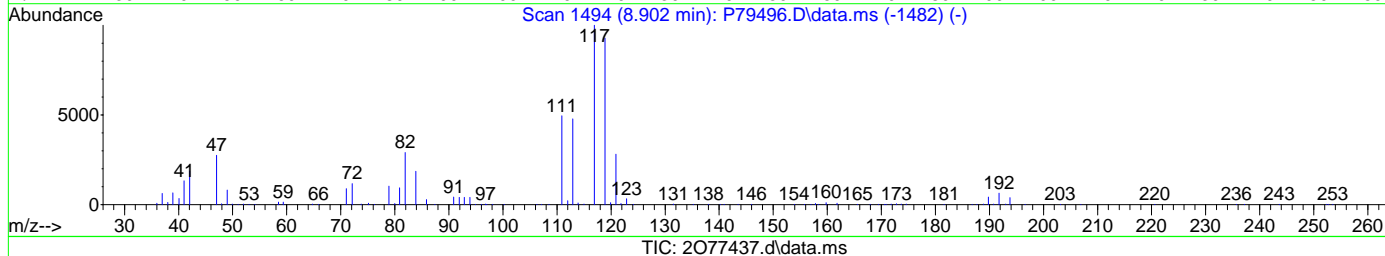
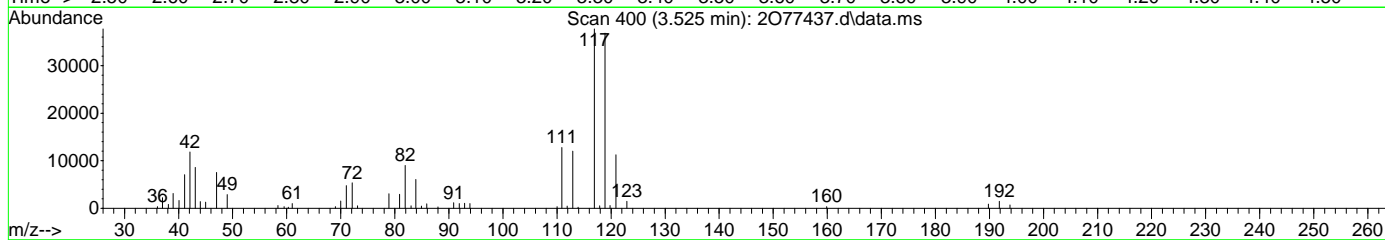
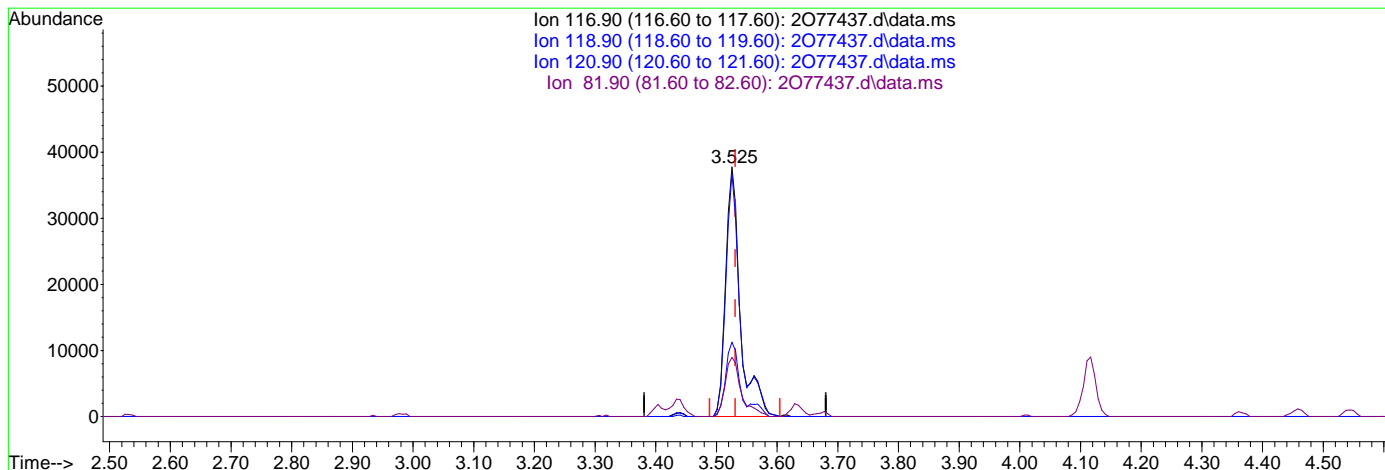
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.81ug/L

response 63780

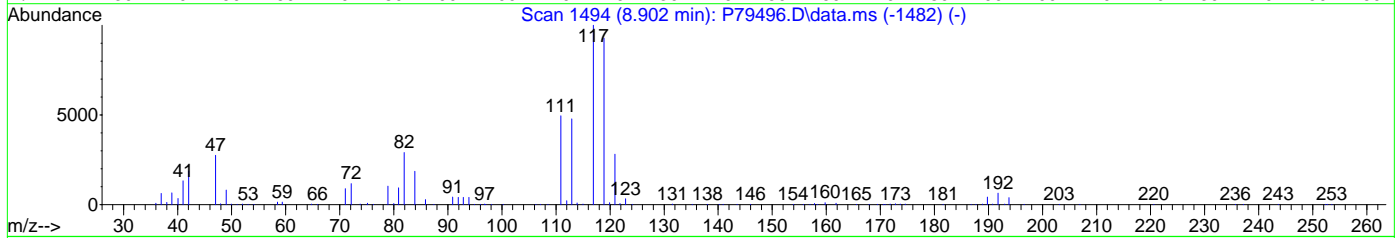
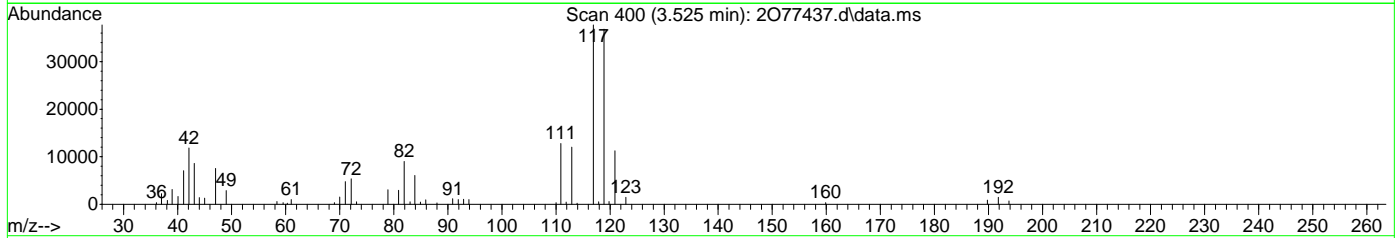
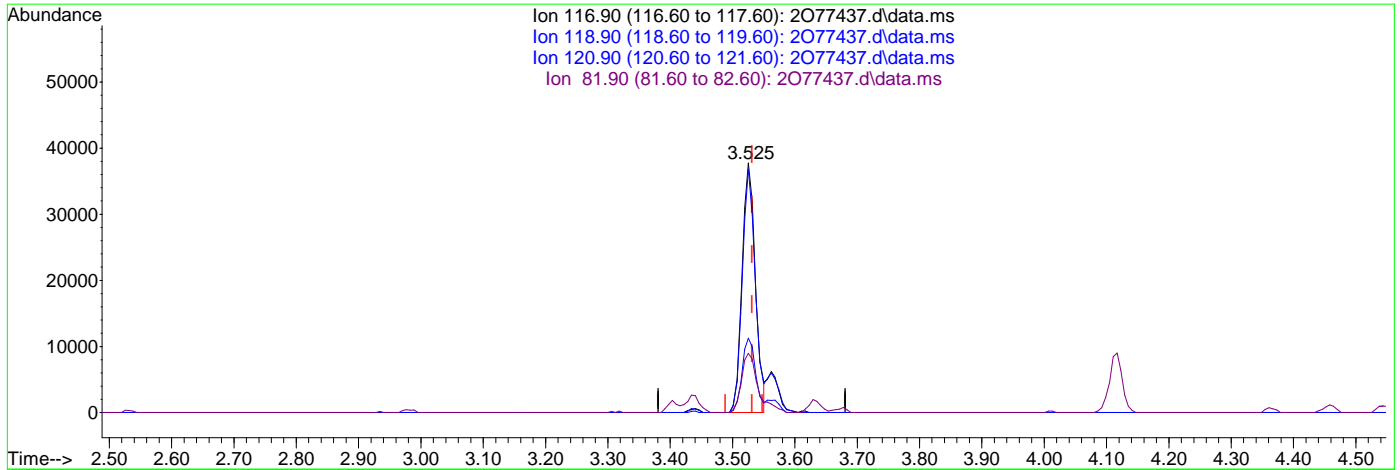
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.52
120.90	31.50	29.77
81.90	24.40	23.79

7.4.2.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077437.d\data.ms

(40) Carbon Tetrachloride ( )

3.525min (-0.006) 26.03ug/L m

response 55700

Ion Exp% Act%

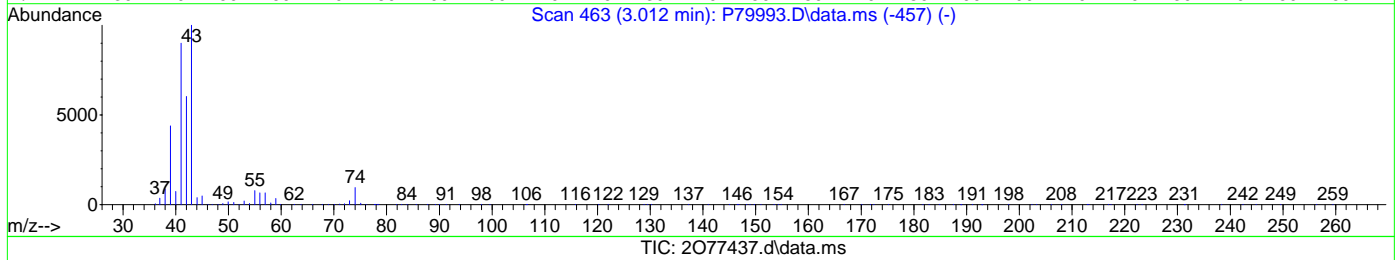
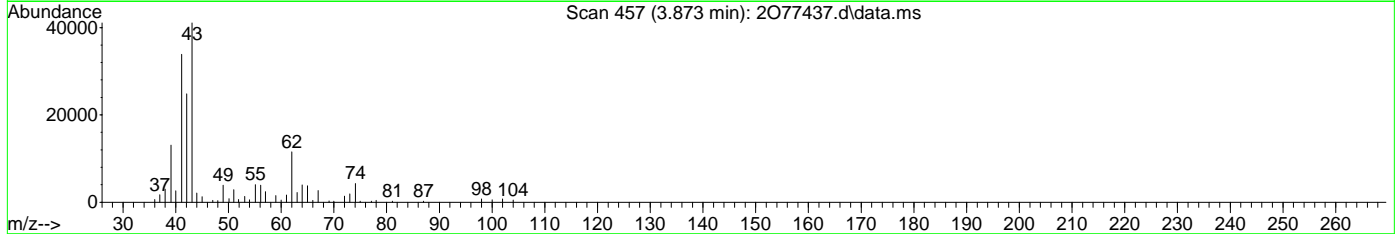
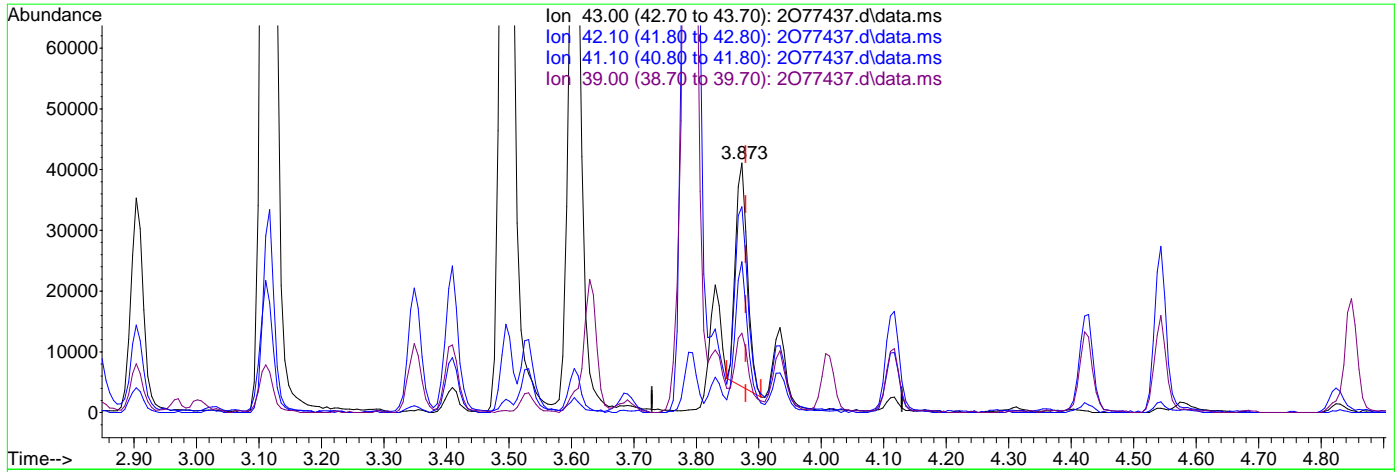
116.90	100	100
118.90	99.30	97.52
120.90	31.50	29.77
81.90	24.40	23.79

7.4.2.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol

3.873min (-0.006) 409.08ug/L

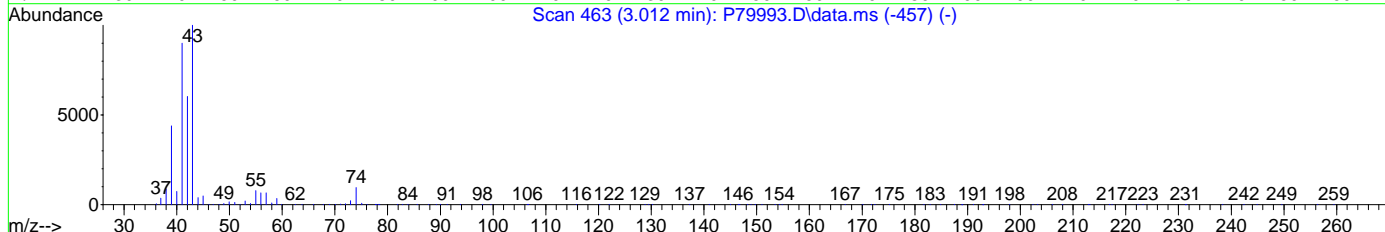
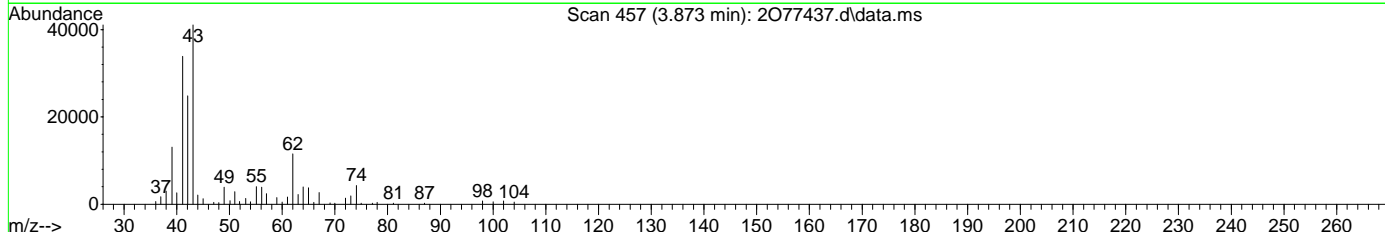
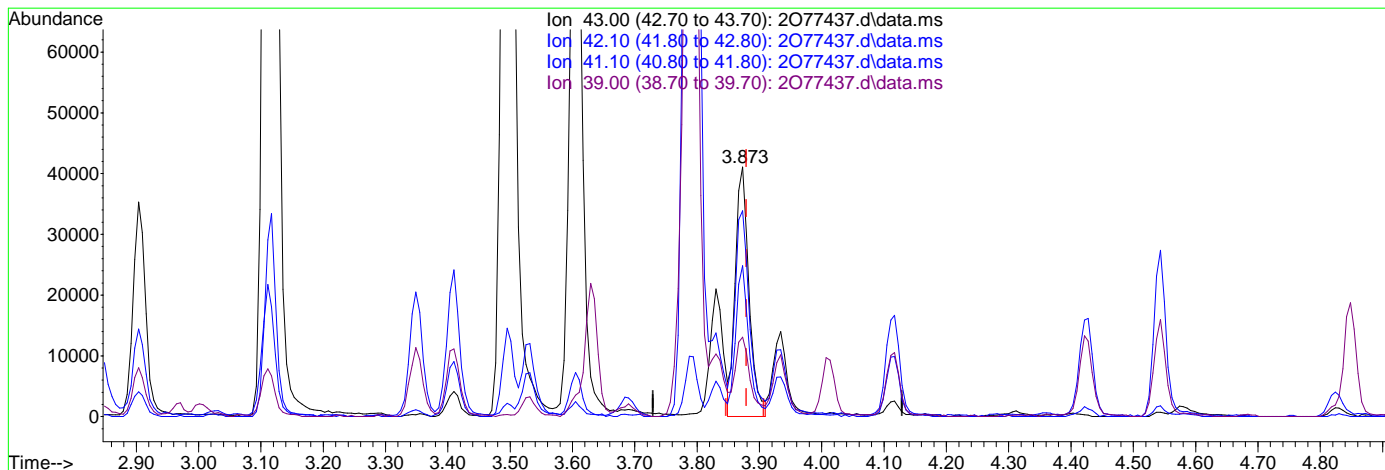
response 48507

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.22
41.10	77.50	79.92
39.00	31.30	29.03

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.873min (-0.006) 525.86ug/L m

response 62930

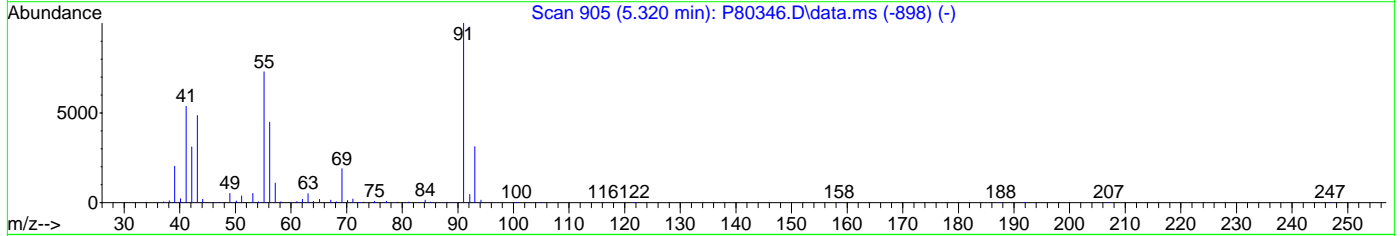
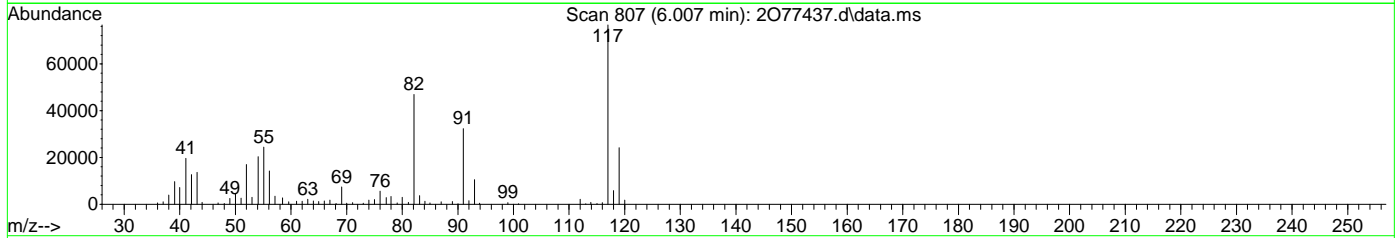
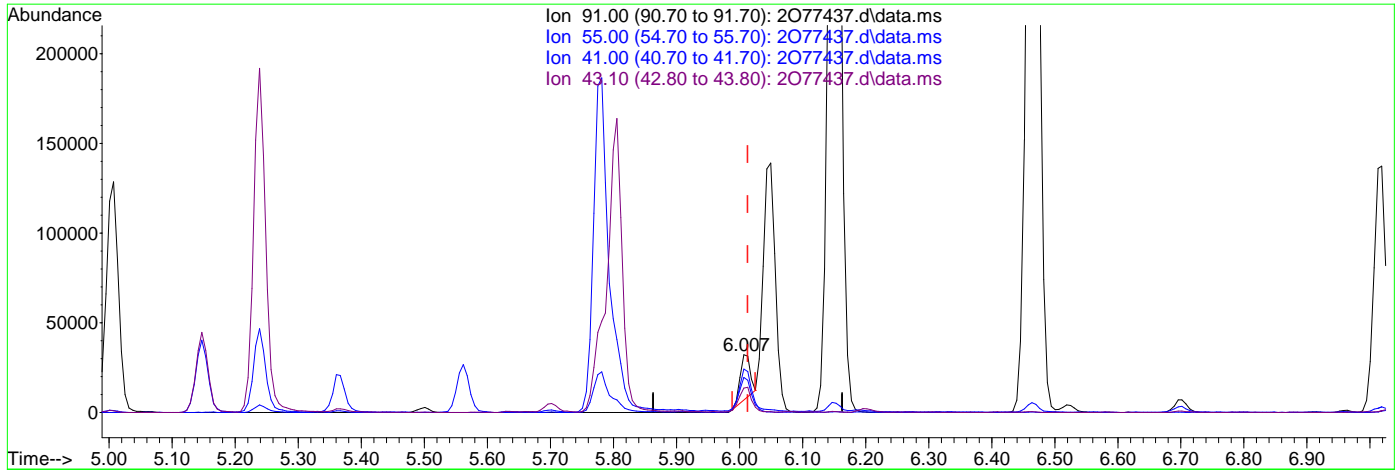
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	60.39
41.10	77.50	82.40
39.00	31.30	31.85

7.4.2.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077437.d\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 14.74ug/L  
 response 29454

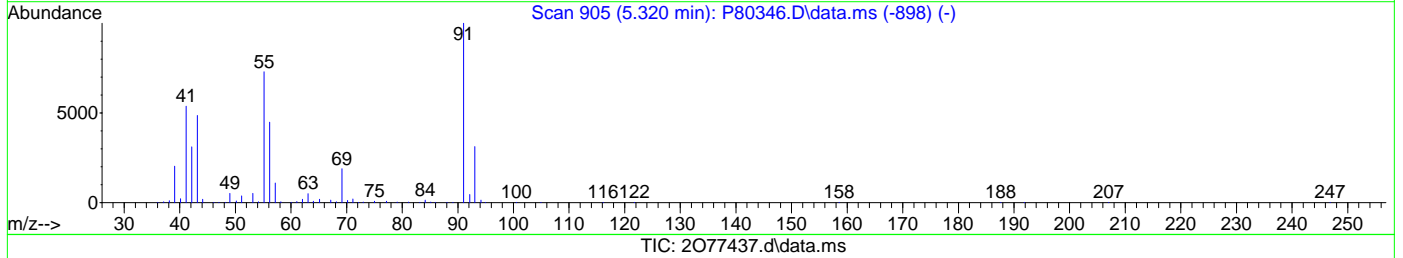
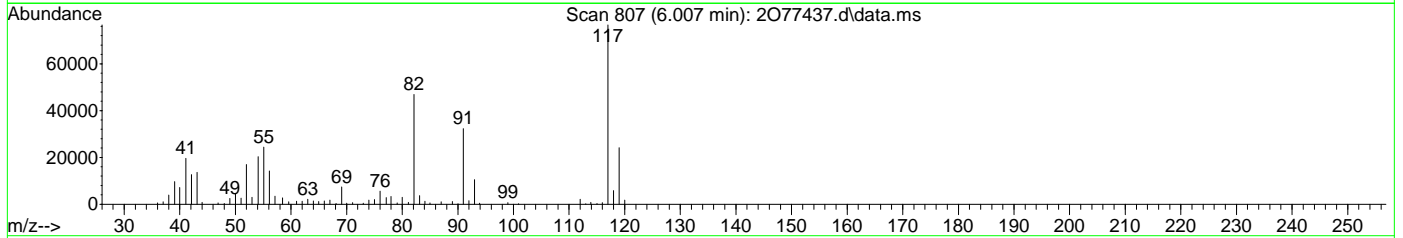
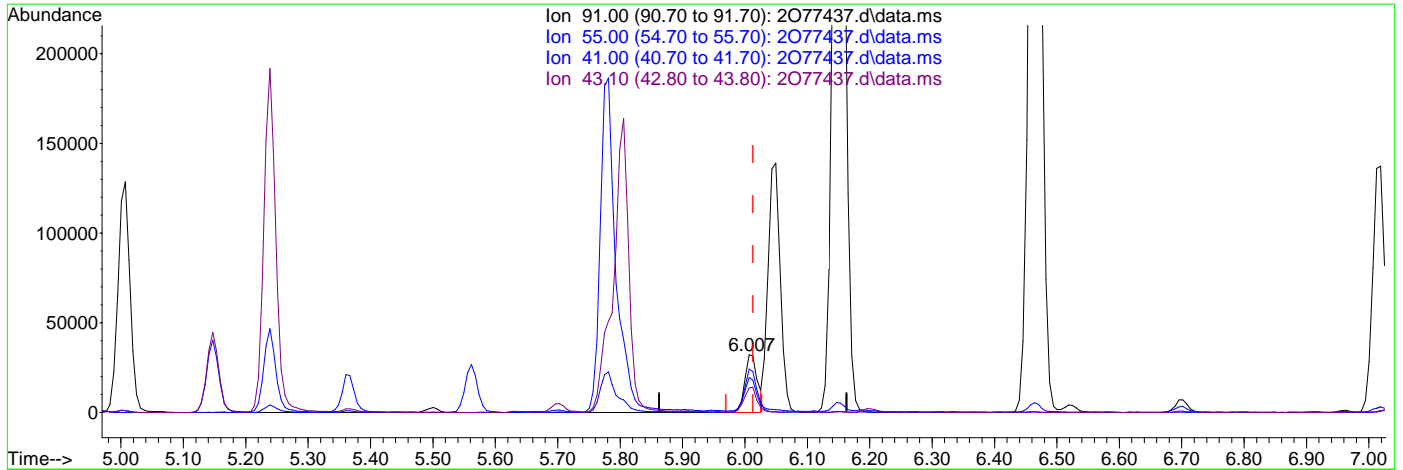
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.93
41.00	55.00	56.64
43.10	42.40	40.48

7.4.2.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077437.d  
 Acq On : 5 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7382-1MSD  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 27 Sample Multiplier: 1

Quant Time: Jul 05 21:05:26 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane

6.007min (-0.006) 22.44ug/L m

response 44857

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	75.48
41.00	55.00	60.58
43.10	42.40	42.32

7.4.2.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.854	96	847446	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	593693	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	358049	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	242387	50.39	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.78%	
49) 1,2-Dichloroethane-d4	7.561	65	233694	53.43	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	106.86%	
63) Toluene-d8	9.445	98	867991	51.27	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.54%	
86) 4-Bromofluorobenzene	12.225	174	296385	49.16	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.32%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	113413	30.46	ug/L		98
3) Chloromethane	2.635	50	112606	29.41	ug/L		100
4) Vinyl Chloride	2.763	62	105041	27.77	ug/L		97
5) 1,3-Butadiene	2.794	39	84592	26.06	ug/L		90
6) Bromomethane	3.233	94	23363	18.16	ug/L		99
7) Chloroethane	3.391	64	57119	36.01	ug/L		98
8) Trichlorofluoromethane	3.598	101	142760	28.52	ug/L		99
9) Ethyl Ether	4.013	59	74365	28.38	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	109550	31.43	ug/L		96
11) 1,1-Dichloroethene	4.275	61	129758	28.22	ug/L		99
12) Ethanol	4.196	45	56641	433.39	ug/L		91
13) Freon 113	4.318	101	93640	32.77	ug/L		97
14) Carbon Disulfide	4.330	76	263071	27.85	ug/L		99
15) Iodomethane	4.458	142	84433	37.18	ug/L		94
16) Acrolein	4.678	56	146959	122.17	ug/L		96
17) Allyl chloride	4.854	41	117424	26.50	ug/L		98
18) Methylene Chloride	4.976	49	143883	30.88	ug/L		93
19) Acetone	5.025	43	308145	135.13	ug/L		100
20) Methyl acetate	5.165	43	600080	125.55	ug/L		98
21) trans-1,2-Dichloroethene	5.184	61	125489	26.01	ug/L		98
22) Hexane	5.281	56	69627	29.43	ug/L		92
23) Methyl Tert Butyl Ether	5.293	73	264676	25.97	ug/L		77
24) Tert butyl alcohol	5.385	59	382618	274.34	ug/L		95
25) Acetonitrile	5.561	41	245718	253.19	ug/L		97
26) Di-isopropyl ether	5.726	45	274835	25.78	ug/L		96
27) Chloroprene	5.866	53	104075	22.80	ug/L		97
28) 1,1-Dichloroethane	5.885	63	163014	25.74	ug/L		97
29) Acrylonitrile	5.921	53	317880	136.82	ug/L		96
30) ETBE	6.135	59	271145	26.42	ug/L		98
31) Vinyl acetate	6.141	43	1014865	149.66	ug/L		100
32) cis-1,2-Dichloroethene	6.506	96	95135	24.99	ug/L		95
33) 2,2-Dichloropropane	6.622	77	120852	25.03	ug/L		99
34) Bromochloromethane	6.732	128	48845	24.87	ug/L		91
35) Cyclohexane	6.756	56	145065	29.29	ug/L		96
36) Chloroform	6.793	83	170741	25.85	ug/L		99
37) Ethyl acetate	6.891	43	783221	141.08	ug/L		98
38) Tetrahydrofuran	6.976	42	67038	25.45	ug/L		92
40) Carbon Tetrachloride	6.976	117	126193	27.20	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	146004	26.71	ug/L		96
42) 2-Butanone	7.098	43	462976	133.91	ug/L		95
43) 1,1-Dichloropropene	7.171	75	120034	27.83	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	217948	82.24	ug/L	85
45) Propionitrile	7.409	54	290069	249.11	ug/L	99
46) Methacrylonitrile	7.439	41	873943	255.99	ug/L	98
47) Benzene	7.433	78	351265	26.55	ug/L	99
48) TAME	7.525	73	243436	24.50	ug/L	93
50) Isobutyl alcohol	7.585	42	150564	488.24	ug/L	97
51) 1,2-Dichloroethane	7.640	62	119153	25.93	ug/L	97
52) Tert Amyl Alcohol	7.695	59	277611	242.52	ug/L	94
53) Trichloroethene	8.049	95	90203	24.38	ug/L	94
54) Methylcyclohexane	8.049	83	121509	27.23	ug/L	100
55) Dibromomethane	8.488	93	60169	25.47	ug/L	98
56) 1,2-Dichloropropane	8.567	63	92063	27.01	ug/L	98
57) Bromodichloromethane	8.628	83	116916	24.88	ug/L	97
58) Methyl methacrylate	8.750	41	86261	23.34	ug/L	97
59) 1,4-Dioxane	8.811	88	38281	360.41	ug/L	95
61) cis-1,3-Dichloropropene	9.262	75	123813	23.37	ug/L	99
64) Toluene	9.500	91	364831	26.93	ug/L	97
65) 2-Nitropropane	9.695	41	201422	156.93	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	828597	141.12	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	106121	23.34	ug/L	89
68) Tetrachloroethene	9.908	166	108813	26.54	ug/L	98
69) Ethyl methacrylate	10.012	69	118291	27.30	ug/L	96
70) 1,1,2-Trichloroethane	10.061	83	72761	26.34	ug/L	99
71) Dibromochloromethane	10.256	129	102857	26.91	ug/L	99
72) 1,3-Dichloropropane	10.341	76	140725	29.23	ug/L	98
73) 1,2-Dibromoethane	10.518	107	94253	26.44	ug/L	97
74) 3,3-dimethyl-1-butanol	10.609	57	1510852	1431.46	ug/L	99
75) 2-hexanone	10.658	43	669826	141.74	ug/L	97
76) 1-Chlorohexane	10.963	91	98088	25.59	ug/L	91
77) Ethylbenzene	11.024	91	395467	27.04	ug/L	99
78) Chlorobenzene	11.024	112	236031	26.37	ug/L	95
79) 1,1,1,2-Tetrachloroethane	11.073	131	90401	26.10	ug/L	96
80) m,p-Xylene	11.164	91	590956	53.82	ug/L	98
81) o-Xylene	11.603	91	294117	24.91	ug/L	98
82) Styrene	11.658	104	216449	26.12	ug/L	100
83) Bromoform	11.713	173	80162	24.89	ug/L	97
84) Isopropylbenzene	11.914	105	357265	25.72	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.261	53	30575	23.81	ug/L	88
88) n-Propylbenzene	12.335	91	417792	26.51	ug/L	99
89) Bromobenzene	12.347	156	110158	27.26	ug/L	94
90) 1,1,2,2-Tetrachloroethane	12.389	83	153219	27.81	ug/L	97
91) 1,3,5-Trimethylbenzene	12.517	105	296483	26.25	ug/L	98
92) 2-Chlorotoluene	12.517	91	284222	26.44	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.578	53	26769	18.90	ug/L	96
94) 1,2,3-Trichloropropane	12.548	110	49318	28.95	ug/L	96
95) Cyclohexanone	12.609	55	40570	106.56	ug/L	96
96) 4-Chlorotoluene	12.682	91	247799	25.61	ug/L	95
97) tert-Butylbenzene	12.853	91	154416	25.72	ug/L	95
98) 1,2,4-Trimethylbenzene	12.926	105	293609	26.39	ug/L	97
99) Pentachloroethane	12.902	167	68093	27.56	ug/L	98
100) sec-Butylbenzene	13.036	105	323902	25.56	ug/L	98
101) 4-Isopropyltoluene	13.170	119	281946	25.06	ug/L	98
102) 1,3-Dichlorobenzene	13.304	146	179329	25.75	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	316933	27.19	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	191207	25.55	ug/L	98
105) n-Butylbenzene	13.615	92	149779	27.07	ug/L #	80
106) Benzyl Chloride	13.627	126	40427	21.01	ug/L #	43



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

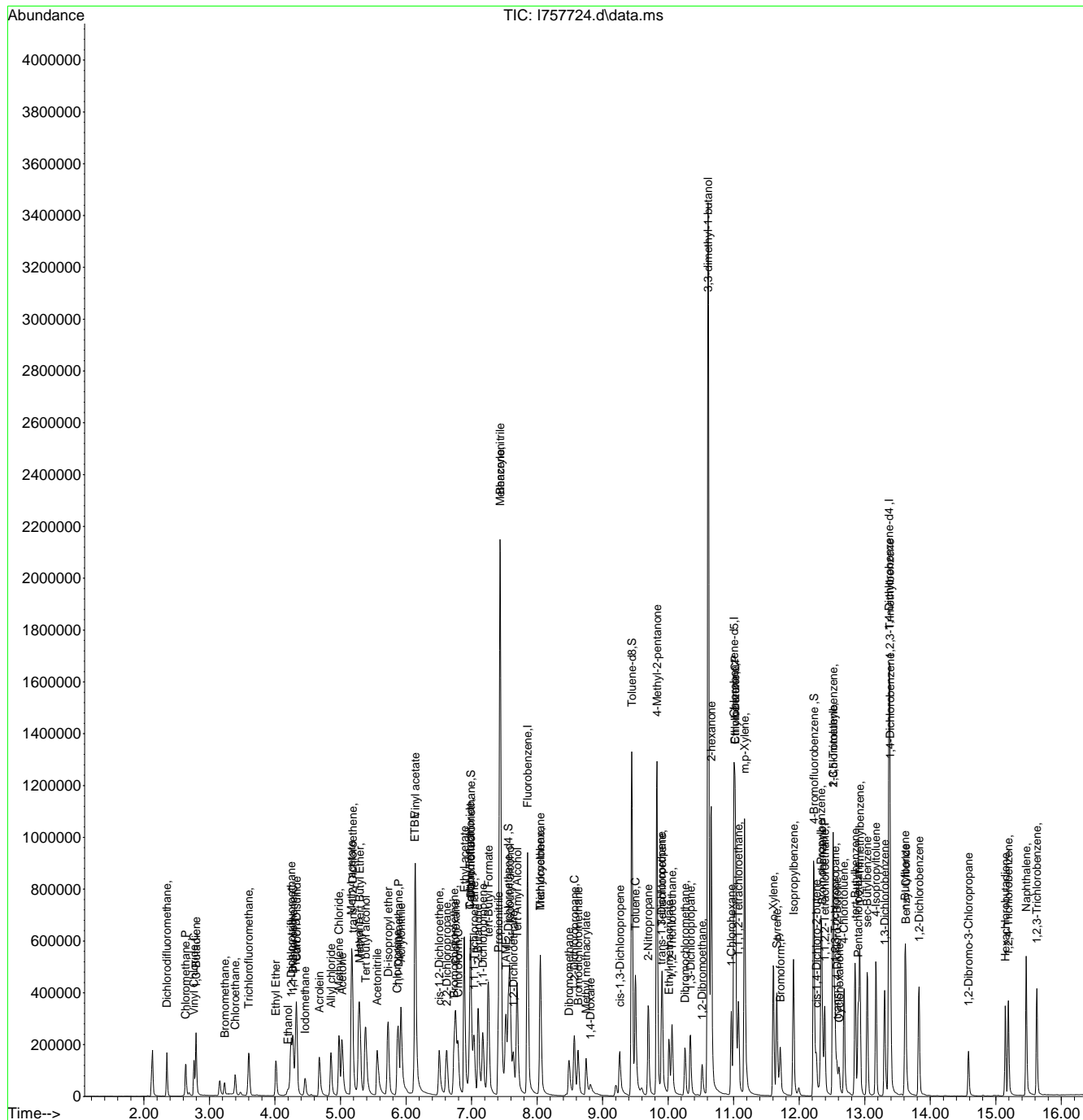
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) 1,2-Dichlorobenzene	13.828	146	176305	25.84	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	38318	27.52	ug/L	88
109) Hexachlorobutadiene	15.145	225	58169	25.16	ug/L	98
110) 1,2,4-Trichlorobenzene	15.194	180	116886	23.18	ug/L	98
111) Naphthalene	15.462	128	374014	23.72	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	119089	23.68	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757724.d  
 Acq On : 6 Jul 2023 6:48 pm  
 Operator : jeniferw  
 Sample : FC7493-1MS 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:04 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.4.3  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757725.d  
 Acq On : 6 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7493-1MSD 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:08 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.854	96	862228	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	609356	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	360534	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	246048	50.27	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.54%	
49) 1,2-Dichloroethane-d4	7.561	65	238015	53.49	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	106.98%	
63) Toluene-d8	9.445	98	884321	50.89	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	101.78%	
86) 4-Bromofluorobenzene	12.225	174	302209	49.78	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.56%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	100791	26.60	ug/L		99
3) Chloromethane	2.641	50	103527	26.56	ug/L		98
4) Vinyl Chloride	2.763	62	95555	24.83	ug/L		97
5) 1,3-Butadiene	2.800	39	76455	23.10	ug/L		94
6) Bromomethane	3.233	94	31894	24.32	ug/L		98
7) Chloroethane	3.397	64	51363	31.83	ug/L		98
8) Trichlorofluoromethane	3.605	101	126302	24.80	ug/L		99
9) Ethyl Ether	4.013	59	68133	25.55	ug/L		98
10) 1,2-Dichlorotrifluoroethane	4.245	67	98725	27.84	ug/L		98
11) 1,1-Dichloroethene	4.275	61	117794	25.18	ug/L		96
12) Ethanol	4.202	45	55422	416.27	ug/L		93
13) Freon 113	4.318	101	80639	27.74	ug/L		94
14) Carbon Disulfide	4.330	76	227267	23.65	ug/L		95
15) Iodomethane	4.458	142	92599	39.88	ug/L		94
16) Acrolein	4.678	56	141313	115.68	ug/L		97
17) Allyl chloride	4.854	41	104845	23.23	ug/L		97
18) Methylene Chloride	4.976	49	132761	27.95	ug/L		94
19) Acetone	5.025	43	302186	130.24	ug/L		99
20) Methyl acetate	5.165	43	566388	116.47	ug/L		98
21) trans-1,2-Dichloroethene	5.184	61	118824	24.21	ug/L		97
22) Hexane	5.281	56	62609	26.01	ug/L		94
23) Methyl Tert Butyl Ether	5.299	73	243151	23.44	ug/L		89
24) Tert butyl alcohol	5.385	59	381530	268.87	ug/L		94
25) Acetonitrile	5.562	41	235317	237.44	ug/L		97
26) Di-isopropyl ether	5.726	45	255111	23.52	ug/L		96
27) Chloroprene	5.872	53	96000	20.73	ug/L		97
28) 1,1-Dichloroethane	5.885	63	150533	23.36	ug/L		99
29) Acrylonitrile	5.921	53	301995	127.75	ug/L		98
30) ETBE	6.135	59	253406	24.27	ug/L		97
31) Vinyl acetate	6.141	43	960509	139.64	ug/L		99
32) cis-1,2-Dichloroethene	6.506	96	87666	22.64	ug/L		94
33) 2,2-Dichloropropane	6.616	77	109065	22.20	ug/L		97
34) Bromochloromethane	6.732	128	43698	21.86	ug/L		90
35) Cyclohexane	6.756	56	130903	26.12	ug/L		93
36) Chloroform	6.793	83	156688	23.31	ug/L		98
37) Ethyl acetate	6.891	43	748406	132.86	ug/L		98
38) Tetrahydrofuran	6.982	42	63758	23.79	ug/L		95
40) Carbon Tetrachloride	6.976	117	113117	23.96	ug/L		99
41) 1,1,1-Trichloroethane	7.037	97	131198	23.59	ug/L		94
42) 2-Butanone	7.104	43	433528	123.71	ug/L		96
43) 1,1-Dichloropropene	7.171	75	108081	24.63	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757725.d  
 Acq On : 6 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7493-1MSD 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:08 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	192256	71.30	ug/L	86
45) Propionitrile	7.409	54	276186	233.12	ug/L	99
46) Methacrylonitrile	7.439	41	817743	235.43	ug/L	99
47) Benzene	7.433	78	320335	23.80	ug/L	97
48) TAME	7.525	73	225646	22.32	ug/L	98
50) Isobutyl alcohol	7.586	42	148606	473.63	ug/L	98
51) 1,2-Dichloroethane	7.640	62	111626	23.88	ug/L	98
52) Tert Amyl Alcohol	7.695	59	267582	229.75	ug/L	96
53) Trichloroethene	8.049	95	81583	21.67	ug/L	97
54) Methylcyclohexane	8.049	83	111194	24.62	ug/L	98
55) Dibromomethane	8.488	93	56744	23.61	ug/L	97
56) 1,2-Dichloropropane	8.567	63	84264	24.29	ug/L	96
57) Bromodichloromethane	8.628	83	107786	22.54	ug/L	94
58) Methyl methacrylate	8.750	41	81430	21.74	ug/L	96
59) 1,4-Dioxane	8.817	88	39245	363.07	ug/L	92
60) 2-Chloroethyl vinyl ether	9.268	63	569	0.28	ug/L #	33
61) cis-1,3-Dichloropropene	9.262	75	114743	21.29	ug/L	98
64) Toluene	9.500	91	333500	23.99	ug/L	100
65) 2-Nitropropane	9.695	41	189439	144.75	ug/L	95
66) 4-Methyl-2-pentanone	9.829	43	770674	127.88	ug/L	98
67) trans-1,3-Dichloropropene	9.902	75	100916	21.69	ug/L	89
68) Tetrachloroethene	9.908	166	97878	23.26	ug/L	98
69) Ethyl methacrylate	10.012	69	108172	24.42	ug/L	98
70) 1,1,2-Trichloroethane	10.061	83	69217	24.41	ug/L	97
71) Dibromochloromethane	10.256	129	96746	24.66	ug/L	98
72) 1,3-Dichloropropane	10.341	76	128272	25.96	ug/L	98
73) 1,2-Dibromoethane	10.518	107	85540	23.38	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	1469501	1360.82	ug/L	98
75) 2-hexanone	10.658	43	625721	129.34	ug/L	98
76) 1-Chlorohexane	10.963	91	88562	22.51	ug/L	91
77) Ethylbenzene	11.030	91	365149	24.32	ug/L	99
78) Chlorobenzene	11.024	112	217406	23.66	ug/L	94
79) 1,1,1,2-Tetrachloroethane	11.073	131	83623	23.52	ug/L	97
80) m,p-Xylene	11.164	91	544682	48.33	ug/L	99
81) o-Xylene	11.603	91	272024	22.44	ug/L	99
82) Styrene	11.658	104	196560	23.24	ug/L	98
83) Bromoform	11.713	173	75015	22.69	ug/L	98
84) Isopropylbenzene	11.914	105	326287	22.88	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.261	53	28197	21.81	ug/L	90
88) n-Propylbenzene	12.335	91	383321	24.15	ug/L	99
89) Bromobenzene	12.347	156	101746	25.00	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	143596	25.88	ug/L	98
91) 1,3,5-Trimethylbenzene	12.517	105	276690	24.32	ug/L	99
92) 2-Chlorotoluene	12.517	91	260720	24.08	ug/L	97
93) trans-1,4-Dichloro-2-B...	12.572	53	24810	17.43	ug/L #	81
94) 1,2,3-Trichloropropane	12.548	110	45113	26.30	ug/L	96
95) Cyclohexanone	12.609	55	42116	109.86	ug/L	96
96) 4-Chlorotoluene	12.682	91	229486	23.55	ug/L	99
97) tert-Butylbenzene	12.853	91	141709	23.44	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	275242	24.57	ug/L	97
99) Pentachloroethane	12.902	167	62738	25.22	ug/L	95
100) sec-Butylbenzene	13.036	105	298851	23.46	ug/L	98
101) 4-Isopropyltoluene	13.170	119	256724	22.66	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	164076	23.40	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	291564	24.84	ug/L	98
104) 1,4-Dichlorobenzene	13.389	146	175761	23.32	ug/L	99
105) n-Butylbenzene	13.615	92	136044	24.42	ug/L #	79

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757725.d  
 Acq On : 6 Jul 2023 7:12 pm  
 Operator : jeniferw  
 Sample : FC7493-1MSD 5X Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,5  
 ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:08 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

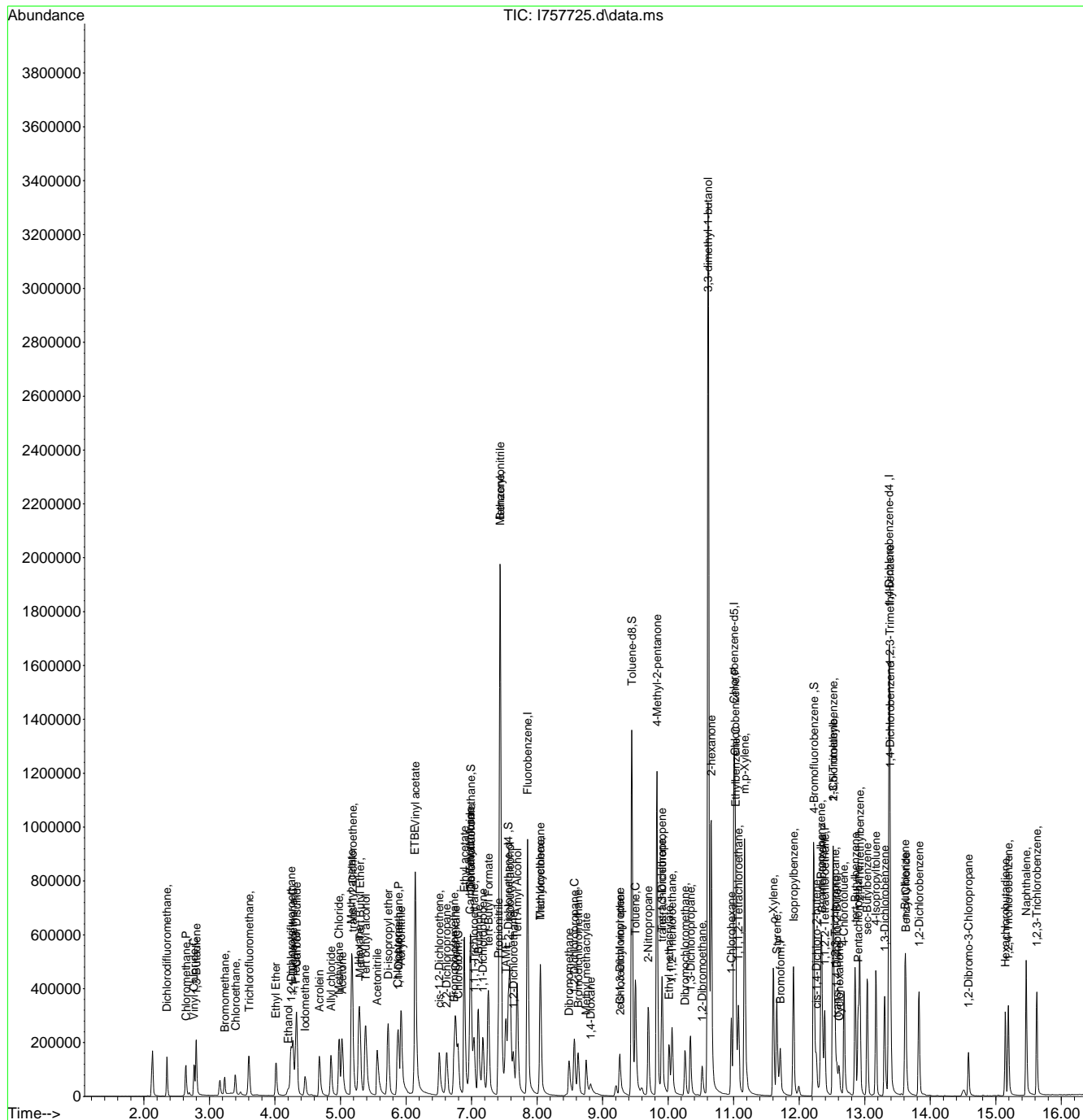
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	13.627	126	37134	19.24	ug/L #	32
107) 1,2-Dichlorobenzene	13.828	146	163615	23.81	ug/L	98
108) 1,2-Dibromo-3-Chloropr...	14.584	75	35128	25.05	ug/L	94
109) Hexachlorobutadiene	15.145	225	54652	23.48	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	110122	21.69	ug/L	99
111) Naphthalene	15.462	128	349545	22.01	ug/L	96
112) 1,2,3-Trichlorobenzene	15.627	180	112483	22.21	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
Data File : I757725.d  
Acq On : 6 Jul 2023 7:12 pm  
Operator : jeniferw  
Sample : FC7493-1MSD 5X Inst : MSVOA16  
Misc : MS54368,VI2963,,,,,5  
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
Quant Results File: VI-2023-06-15.RES  
Quant Time: Jul 06 23:08:08 2023  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 14:39:51 2023  
Response via : Initial Calibration

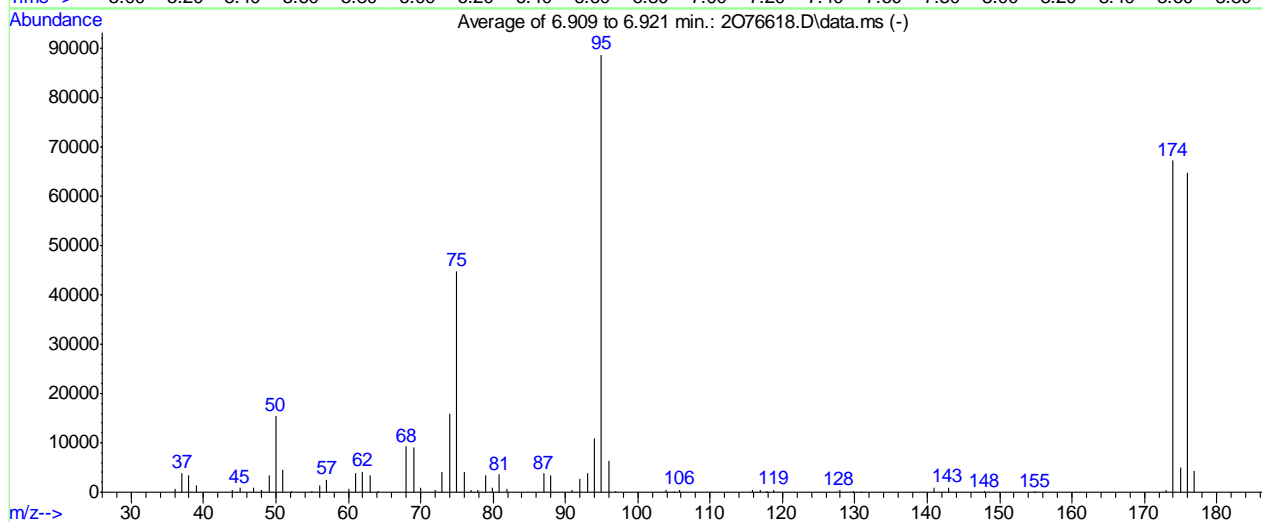
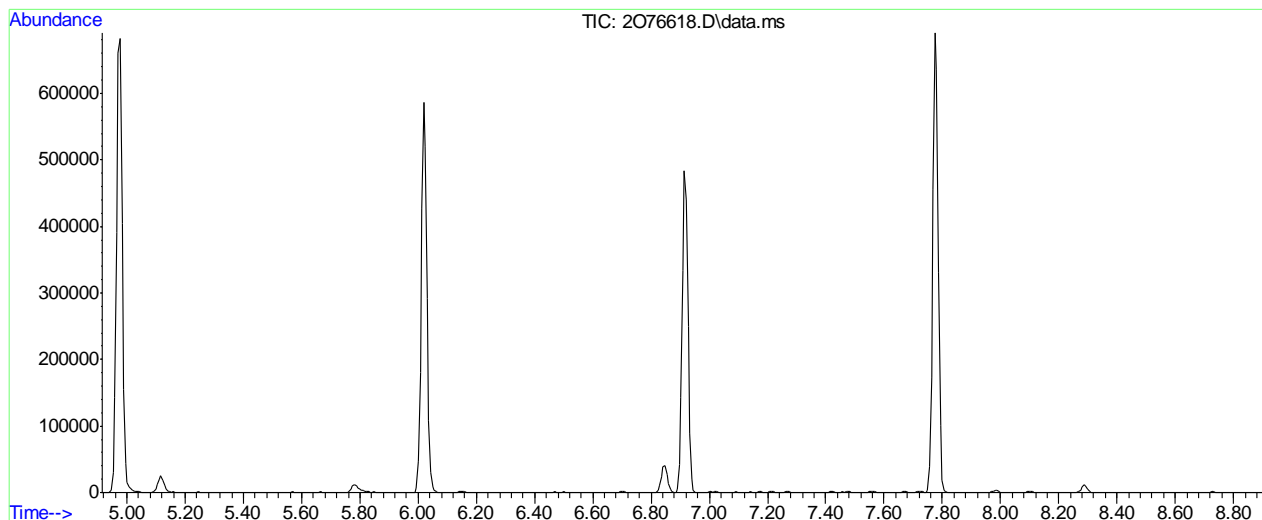


7.4.4  
7

Methods: SW-846 8260B

Data File : C:\msdchem\2\data\2023-06-07\2076618.D Vial: 1  
 Acq On : 7 Jun 2023 9:26 am Operator: joannel  
 Sample : BFB Inst : MSVOA12  
 Misc : MS54147,V2O2981,,,,, Multiplr: 1.00  
 MS Integration Params: big.p

Method : C:\msdchem\2\met...V2O\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



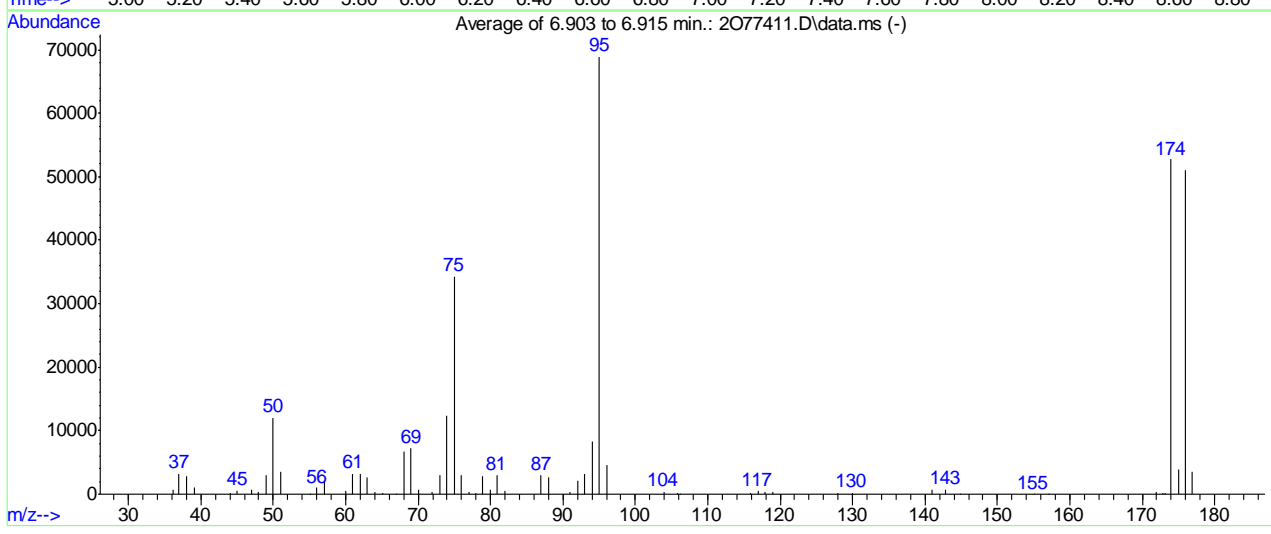
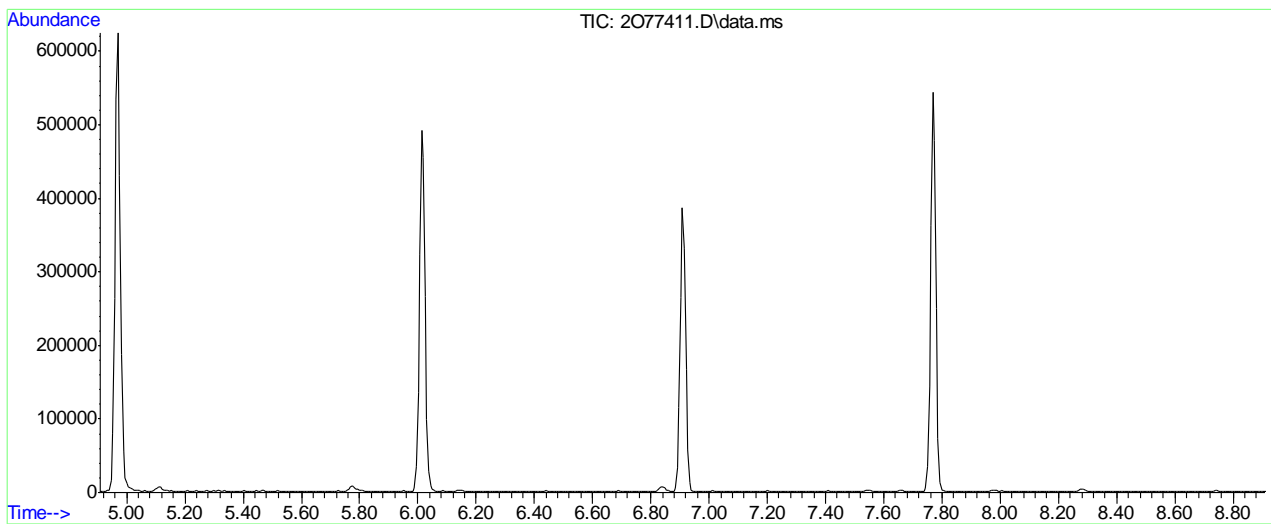
AutoFind: Scans 955, 956, 957; Background Corrected with Scan 949

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	15441	PASS
75	95	30	60	50.5	44797	PASS
95	95	100	100	100.0	88696	PASS
96	95	5	9	7.2	6368	PASS
173	174	0.00	2	0.8	520	PASS
174	95	50	100	75.7	67133	PASS
175	174	5	9	7.5	5047	PASS
176	174	95	101	96.3	64680	PASS
177	176	5	9	6.6	4269	PASS

2076618.D V2O\_06-07-2023.M

Thu Jun 08 09:37:41 2023

Methods: SW-846 8260B  
 Data File : C:\msdchem\2\data\2023-07-05\2077411.D Vial: 1  
 Acq On : 5 Jul 2023 8:10 am Operator: jeniferw  
 Sample : BFB Inst : MSVOA12  
 Misc : MS54349,V2O3017,,,,, Multiplr: 1.00  
 MS Integration Params: big.p  
 Method : C:\msdchem\2\met...V2O\_06-07-2023.M (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



AutoFind: Scans 954, 955, 956; Background Corrected with Scan 948

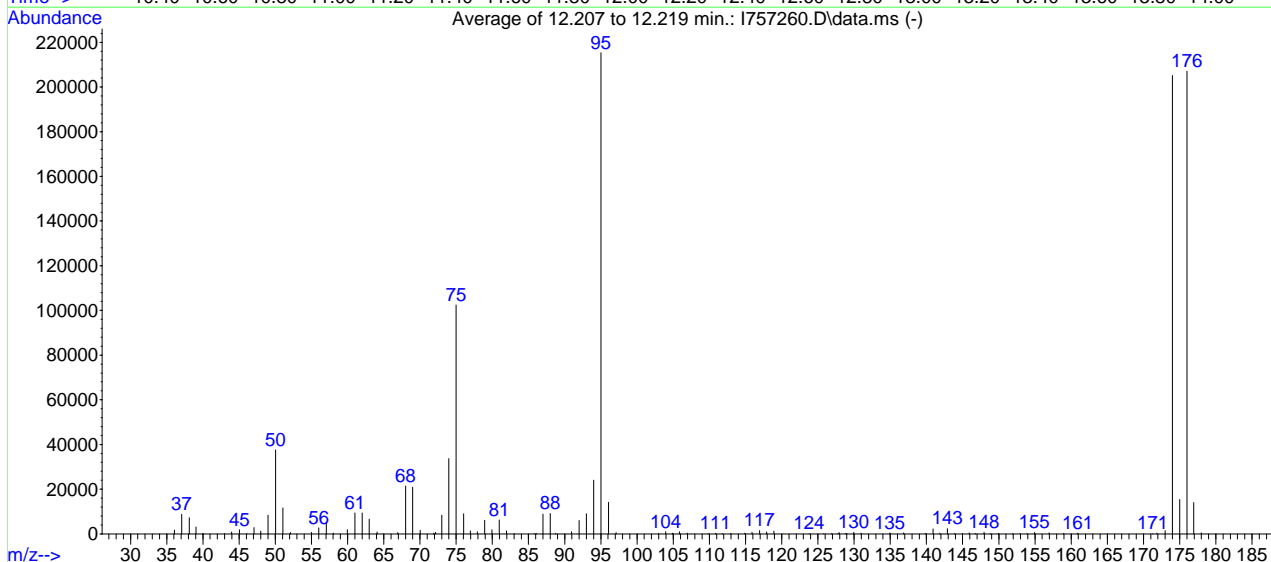
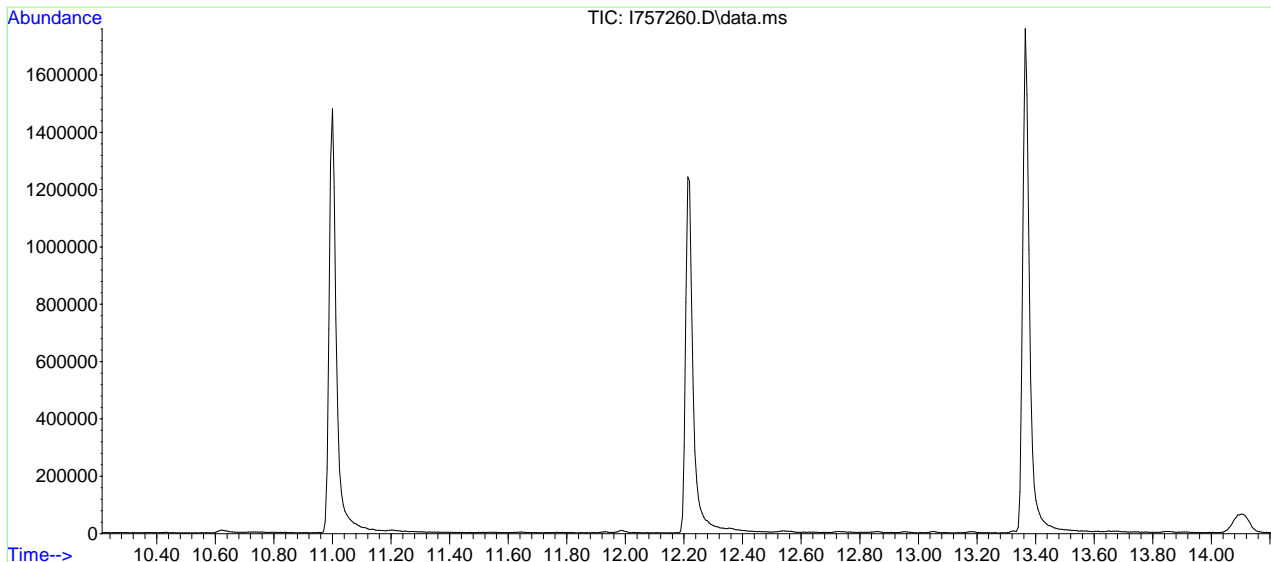
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.5	12065	PASS
75	95	30	60	49.7	34259	PASS
95	95	100	100	100.0	68939	PASS
96	95	5	9	6.7	4613	PASS
173	174	0.00	2	0.4	233	PASS
174	95	50	100	76.5	52733	PASS
175	174	5	9	7.5	3978	PASS
176	174	95	101	96.8	51037	PASS
177	176	5	9	6.8	3462	PASS

7.5.2  
7



Methods: SW-846 8260B  
 Data File : C:\msdchem\1\data\2023-06-15\I757260.D Vial: 1  
 Acq On : 15 Jun 2023 10:08 am Operator: joannel  
 Sample : BFB Inst : MSVOA16  
 Misc : MS54130,VI2948,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



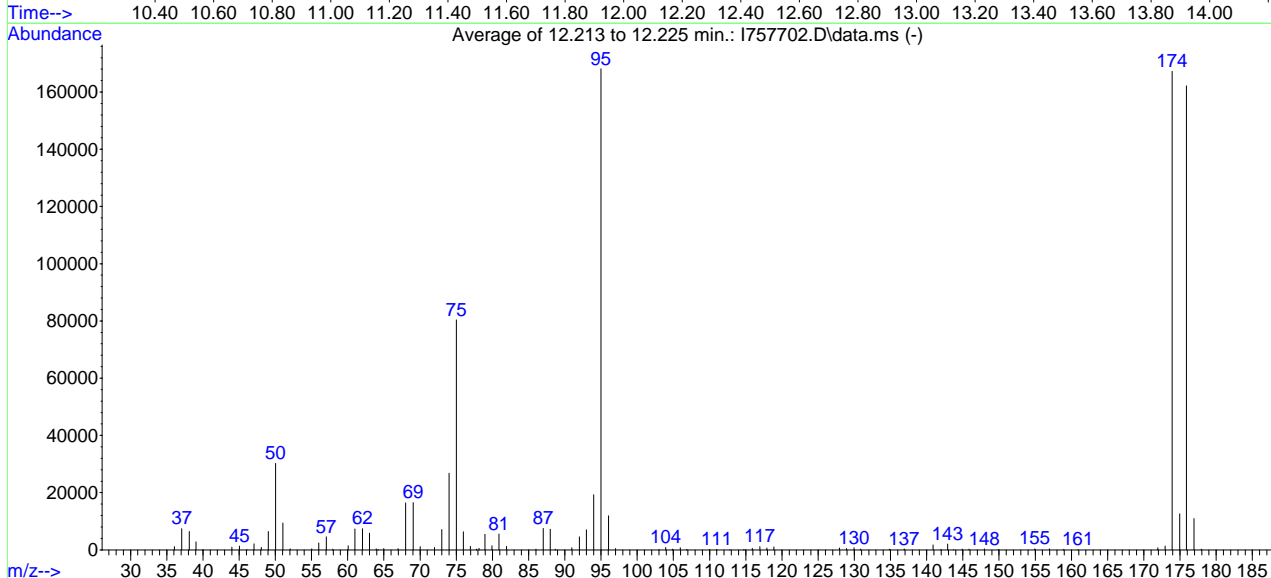
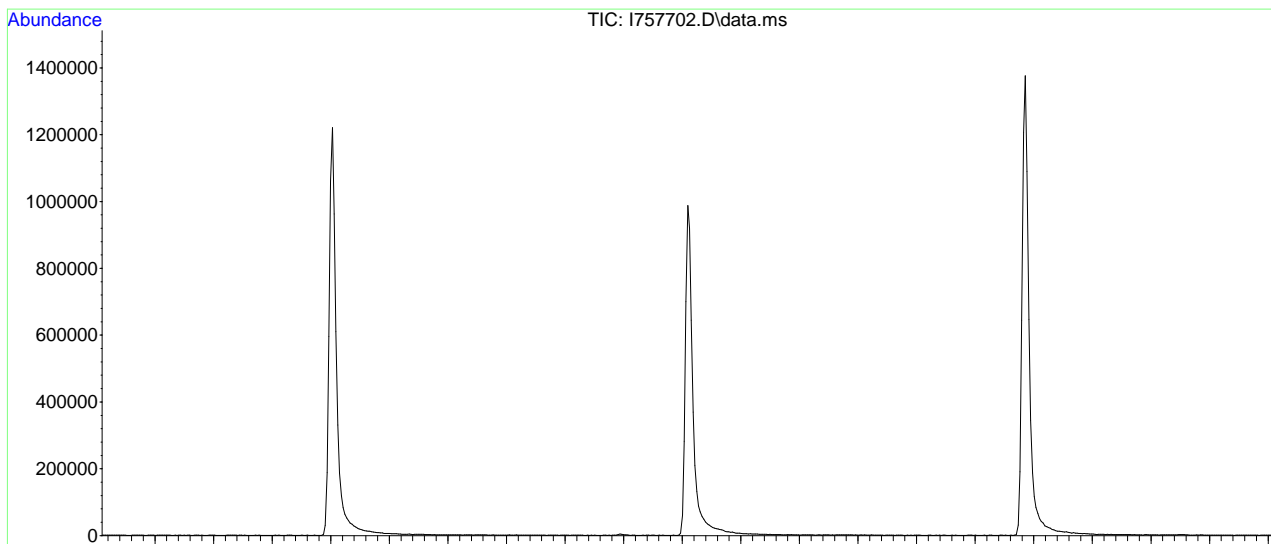
AutoFind: Scans 1824, 1825, 1826; Background Corrected with Scan 1818

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.4	37549	PASS
75	95	30	60	47.6	102373	PASS
95	95	100	100	100.0	215275	PASS
96	95	5	9	6.6	14176	PASS
173	174	0.00	2	0.7	1477	PASS
174	95	50	100	95.3	205205	PASS
175	174	5	9	7.5	15382	PASS
176	174	95	101	100.9	207019	PASS
177	176	5	9	6.7	13947	PASS

Methods: SW-846 8260B

Data File : C:\msdchem\1\data\2023-07-06\I757702.D Vial: 1  
 Acq On : 6 Jul 2023 8:41 am Operator: jeniferw  
 Sample : BFB Inst : MSVOA16  
 Misc : MS54358,VI2963,,,,, Multiplr: 1.00  
 MS Integration Params: tiny.p

Method : C:\msdchem\1\met...\VI-2023-06-15.m (RTE Integrator)  
 Title : SW-846 Method 5035A/8260B



AutoFind: Scans 1825, 1826, 1827; Background Corrected with Scan 1819

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.0	30253	PASS
75	95	30	60	47.8	80371	PASS
95	95	100	100	100.0	168107	PASS
96	95	5	9	7.1	11934	PASS
173	174	0.00	2	0.8	1301	PASS
174	95	50	100	99.5	167299	PASS
175	174	5	9	7.5	12607	PASS
176	174	95	101	96.9	162133	PASS
177	176	5	9	6.7	10891	PASS

7.5.4  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
<b>Internal Standards</b>						
1) Fluorobenzene	4.013	96	411508	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	303637	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	160349	50.00	ug/L	-0.02
<b>System Monitoring Compounds</b>						
39) Dibromofluoromethane	3.544	113	112234	49.21	ug/L	-0.01
Spiked Amount	50.000	Range 83	- 118	Recovery =	98.42%	
50) 1,2-Dichloroethane-d4	3.854	65	131197	54.12	ug/L	-0.01
Spiked Amount	50.000	Range 79	- 125	Recovery =	108.24%	
63) Toluene-d8	4.976	98	399385	48.23	ug/L	-0.01
Spiked Amount	50.000	Range 85	- 112	Recovery =	96.46%	
86) 4-Bromofluorobenzene	6.921	174	115732	47.30	ug/L	-0.02
Spiked Amount	50.000	Range 83	- 118	Recovery =	94.60%	
<b>Target Compounds</b>						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	38994	23.26	ug/L	95
3) Chloromethane	1.373	50	37269	20.56	ug/L	97
4) 1,3-butadiene	1.446	39	45293	24.92	ug/L	92
5) Vinyl Chloride	1.434	62	39991	22.22	ug/L	97
6) Bromomethane	1.666	94	29963	21.74	ug/L	99
7) Chloroethane	1.751	64	28233	32.05	ug/L	98
8) Trichlorofluoromethane	1.849	101	78549	24.57	ug/L	97
9) Ethyl Ether	2.056	59	34624	24.42	ug/L	96
10) Ethanol	2.154	45	15818	426.52	ug/L	100
11) 1,2-Dichlorotrifluoro...	2.178	67	49983	23.68	ug/L	98
12) 1,1-Dichloroethene	2.178	61	63089	23.27	ug/L	99
13) Freon 113	2.208	101	45779	25.37	ug/L	98
14) Carbon Disulfide	2.202	76	115077	21.86	ug/L	96
15) Iodomethane	2.269	142	38298	13.60	ug/L	93
16) Acrolein	2.385	56	56093	108.73	ug/L	99
17) Allyl chloride	2.471	41	47627	22.69	ug/L	92
18) Methylene Chloride	2.532	49	55845	22.36	ug/L	98
19) Acetone	2.556	43	113944	110.08	ug/L	98
20) Methyl acetate	2.629	43	272095	114.32	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	62555	24.14	ug/L	97
22) Hexane	2.678	56	32375	23.65	ug/L	97
23) Methyl Tert Butyl Ether	2.690	73	123824	24.90	ug/L	89
24) Tert Butyl Alcohol	2.739	59	79255	204.00	ug/L	90
25) Acetonitrile	2.830	41	85863	220.28	ug/L	99
26) Di-isopropyl ether	2.910	45	123738	23.46	ug/L	96
27) Chloroprene	2.970	53	64253	25.91	ug/L	98
28) 1,1-Dichloroethane	2.983	63	80909	24.04	ug/L	99
29) Acrylonitrile	3.007	52	119356	119.06	ug/L	99
30) ETBE	3.117	59	118570	24.78	ug/L	98
31) Vinyl acetate	3.117	43	505207	131.33	ug/L	100
32) cis-1,2-Dichloroethene	3.287	96	51375	24.58	ug/L	98
33) 2,2-Dichloropropane	3.355	77	54158	23.96	ug/L	98
34) Bromochloromethane	3.403	128	27012	23.97	ug/L	98
35) Cyclohexane	3.416	56	65417	23.53	ug/L	96

7.6-1  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	93084	25.54	ug/L	98
37) Ethyl acetate	3.501	43	373906	123.71	ug/L	100
38) Tetrahydrofuran	3.537	42	23310	20.06	ug/L	98
40) Carbon Tetrachloride	3.531	117	60973	26.71	ug/L	99
41) 1,1,1-Trichloroethane	3.568	97	75228	25.43	ug/L	96
42) 2-Butanone	3.611	43	183385	106.81	ug/L	98
43) 1,1-Dichloropropene	3.635	75	61988	24.28	ug/L	98
44) tert-Butyl formate	3.696	59	74360	108.64	ug/L	98
45) Propionitrile	3.781	54	115924	227.52	ug/L	97
46) Methacrylonitrile	3.793	41	408203	236.70	ug/L	99
47) Benzene	3.781	78	183039	24.25	ug/L	84
48) TAME	3.836	73	111128	24.81	ug/L	97
49) Isobutyl alcohol	3.879	43	68115m	441.44	ug/L	
51) 1,2-Dichloroethane	3.891	62	74362	27.65	ug/L	97
52) Tert Amyl Alcohol	3.934	59	58406	190.60	ug/L	91
53) Trichloroethene	4.117	95	53300	24.50	ug/L	97
54) Methylcyclohexane	4.117	83	68228	23.96	ug/L	97
55) Dibromomethane	4.367	93	35521	25.96	ug/L	93
56) 1,2-Dichloropropane	4.428	63	43341	24.48	ug/L	96
57) Bromodichloromethane	4.464	83	62579	25.81	ug/L	98
58) Methyl methacrylate	4.549	41	47116	23.79	ug/L	97
59) 1,4-Dioxane	4.580	88	17127	454.51	ug/L	95
60) 2-Chloroethyl vinyl ether	4.805	63	183297	119.22	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	67468	24.31	ug/L	96
64) Toluene	5.007	91	196545	23.62	ug/L	99
65) 2-Nitropropane	5.153	41	72851	137.45	ug/L	99
66) 4-Methyl-2-pentanone	5.244	43	325265	109.40	ug/L	97
67) trans-1,3-Dichloropropene	5.269	75	68013	24.87	ug/L	95
68) Tetrachloroethene	5.263	166	52210	22.14	ug/L	96
69) Ethyl methacrylate	5.366	69	59216	24.49	ug/L	93
70) 1,1,2-Trichloroethane	5.379	83	42378	25.24	ug/L	97
71) Dibromochloromethane	5.507	129	48706	24.88	ug/L	99
72) 1,3-Dichloropropane	5.568	76	78704	25.59	ug/L	97
73) 1,2-Dibromoethane	5.671	107	52840	25.15	ug/L	97
74) 3,3-dimethyl-1-butanol	5.781	57	431695	1077.04	ug/L	99
75) 2-hexanone	5.811	43	327136	110.75	ug/L	94
76) 1-Chlorohexane	6.013	91	60017m	22.91	ug/L	
77) Ethylbenzene	6.049	91	217796	24.27	ug/L	97
78) Chlorobenzene	6.037	112	136215	24.22	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.080	131	46330	26.31	ug/L	98
80) m,p-Xylene	6.153	91	346730	49.64	ug/L	97
81) o-Xylene	6.470	91	175043	24.82	ug/L	97
82) Styrene	6.506	104	134964	24.36	ug/L	98
83) Bromoform	6.531	173	28902	23.20	ug/L	93
84) Isopropylbenzene	6.701	105	203447	23.93	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	14431	19.87	ug/L #	79
88) n-Propylbenzene	7.018	91	241207	24.26	ug/L	98
89) Bromobenzene	7.000	156	52433	23.77	ug/L	92
90) 1,1,2,2-Tetrachloroethane	7.067	83	77797	25.70	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	172688	24.61	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	170133	25.38	ug/L	95
93) trans-1,4-Dichloro-2-B...	7.207	53	13783	21.66	ug/L #	84
94) 1,2,3-Trichloropropane	7.177	110	24220	24.31	ug/L	97
95) Cyclohexanone	7.214	55	14856	107.54	ug/L	95
96) 4-Chlorotoluene	7.274	91	156888	25.43	ug/L	99
97) tert-Butylbenzene	7.421	91	93142	24.57	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	172851	24.93	ug/L	98
100) Pentachloroethane	7.439	167	25143	26.32	ug/L #	84
101) sec-Butylbenzene	7.561	105	200239	23.84	ug/L	98
102) 4-Isopropyltoluene	7.671	119	170775	23.30	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	104575	23.99	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	178723	24.63	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	105572	23.91	ug/L	97
106) n-Butylbenzene	7.988	92	86734	23.55	ug/L	89
107) Benzyl Chloride	7.976	126	17727	21.51	ug/L #	45
108) 1,2-Dichlorobenzene	8.104	146	99217	24.12	ug/L	99
109) 1,2-Dibromo-3-Chloropr...	8.677	75	15955	25.36	ug/L	82
110) Hexachlorobutadiene	9.134	225	19122	21.48	ug/L	95
111) 1,2,4-Trichlorobenzene	9.152	180	58507	23.43	ug/L	99
112) Naphthalene	9.372	128	212372	24.04	ug/L	100
113) 1,2,3-Trichlorobenzene	9.500	180	55697	23.49	ug/L	94

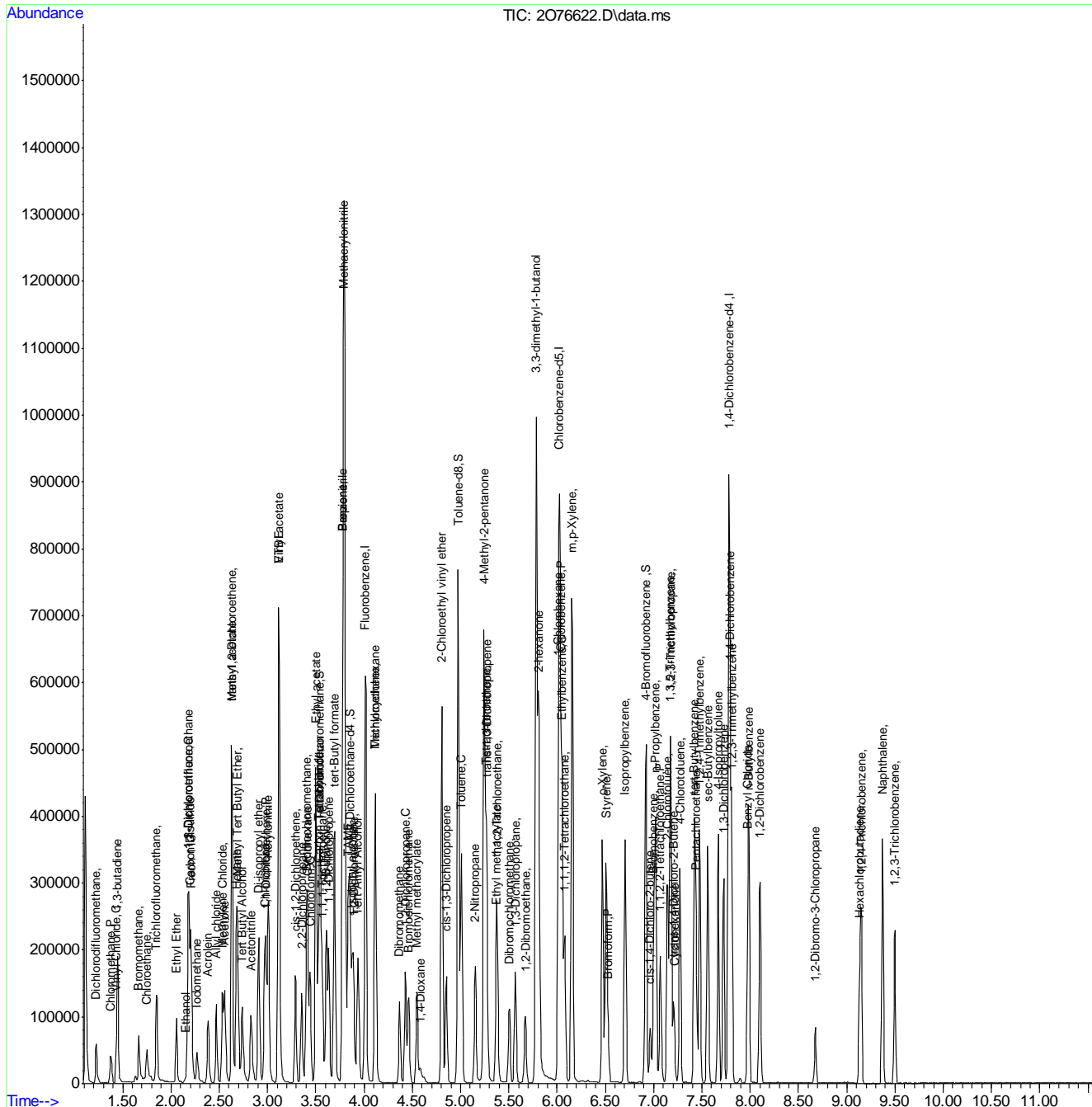
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 11:47:10 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



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# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76622.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 11:22      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

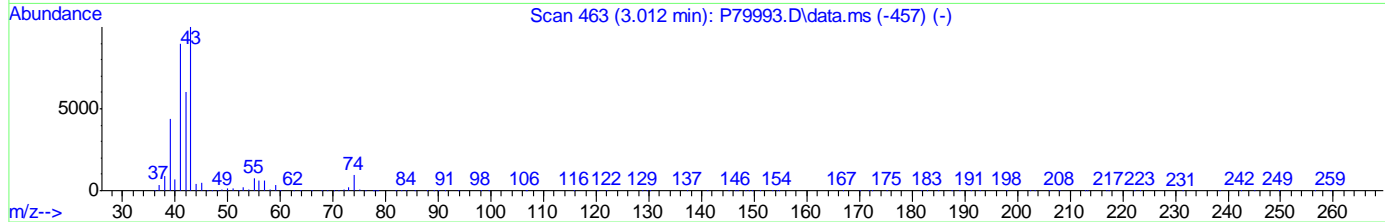
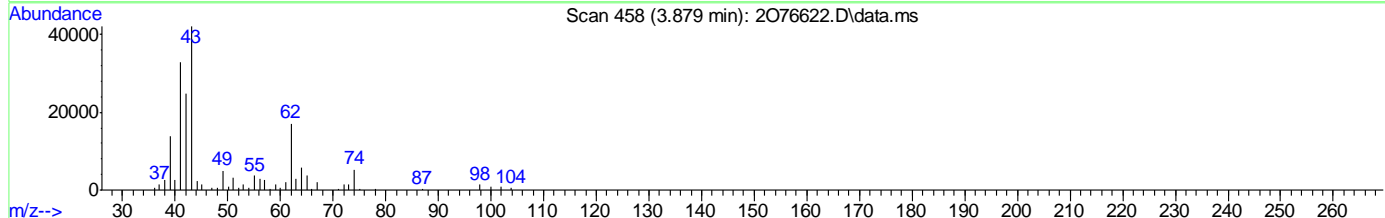
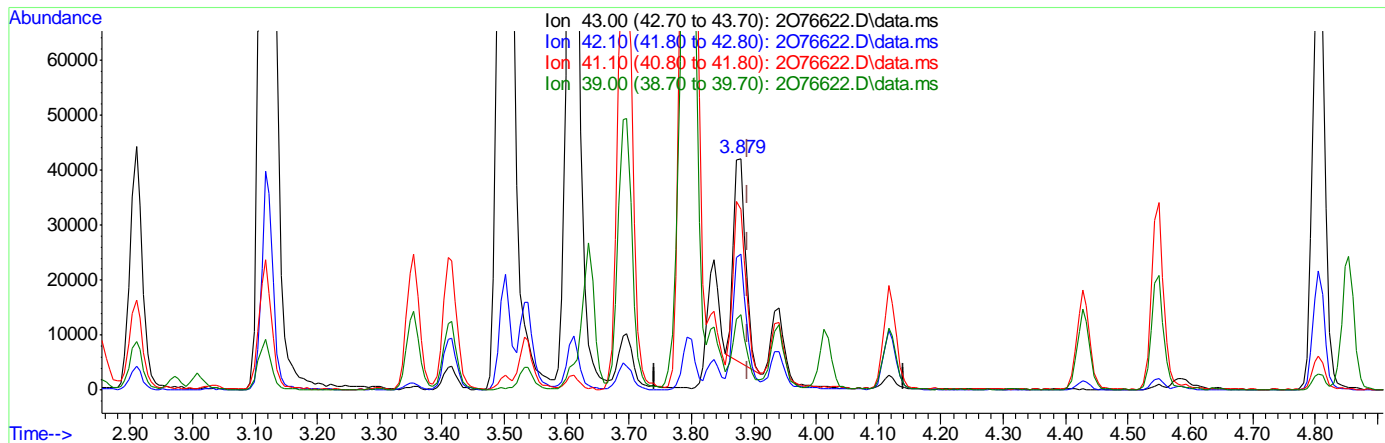
7.6.1.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V2O\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.879min (-0.012) 328.80ug/L  
 response 49985

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	59.52
41.10	73.50	75.72
39.00	30.20	30.39

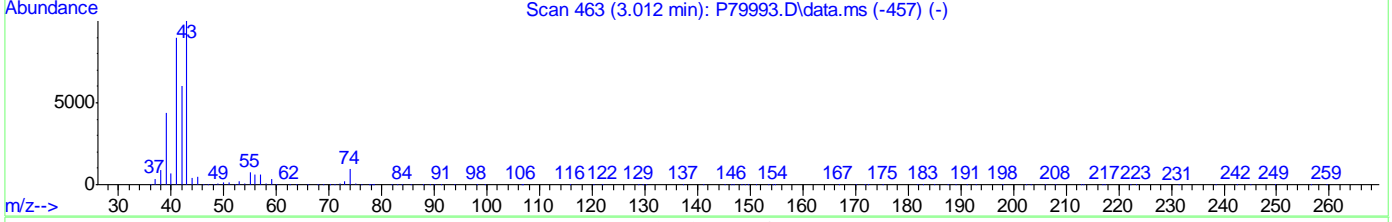
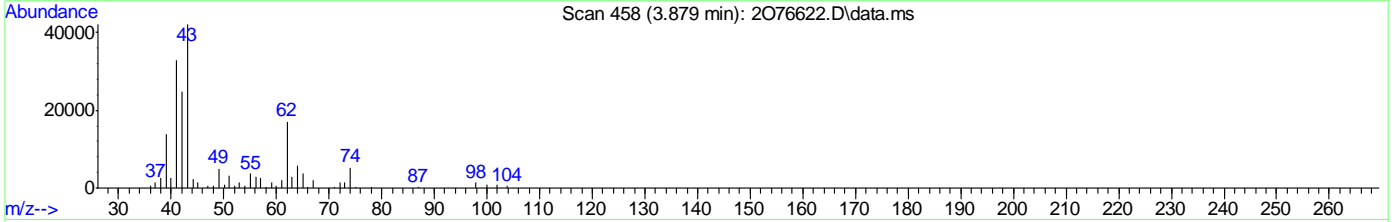
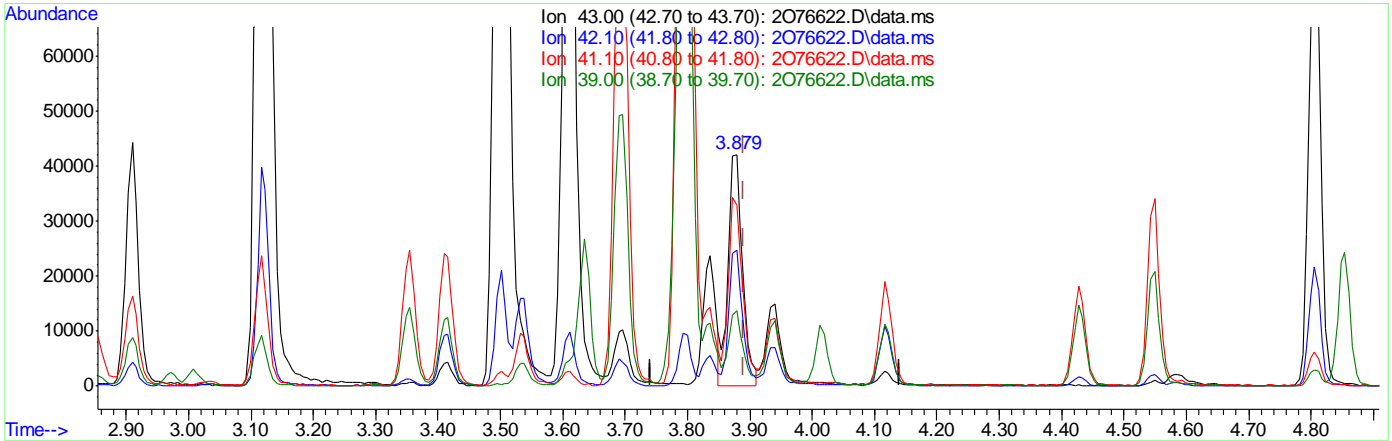
7.6.1.2  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 441.44ug/L m  
 response 68115

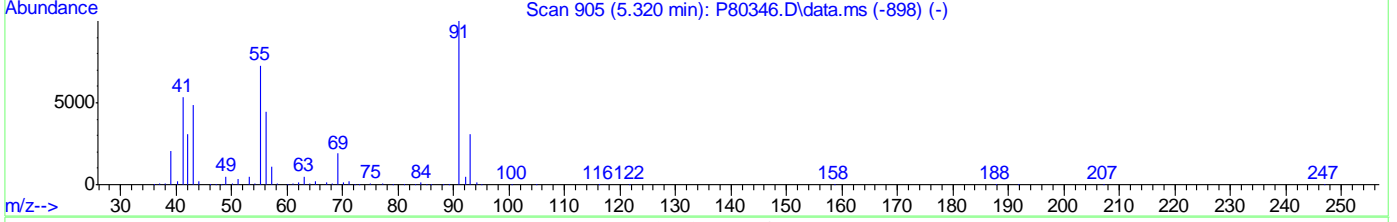
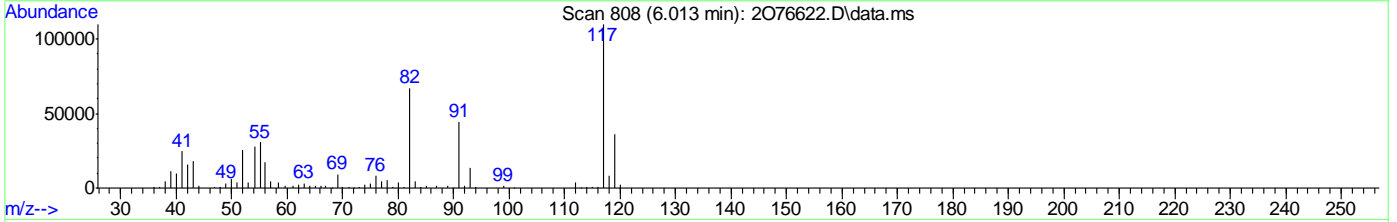
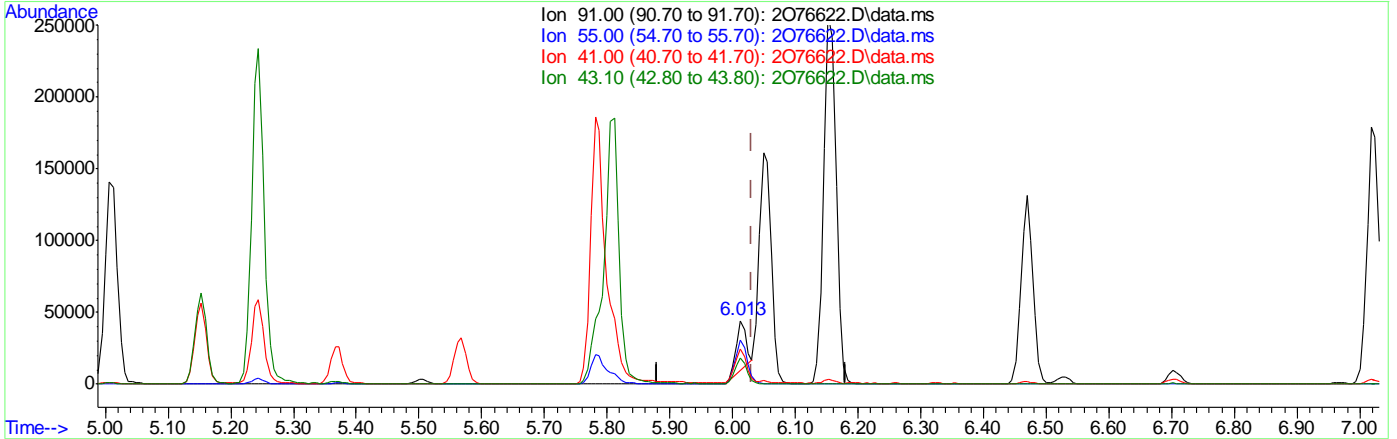
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.75
41.10	73.50	78.06
39.00	30.20	32.70

7.6.1.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 14.59ug/L  
 response 38213

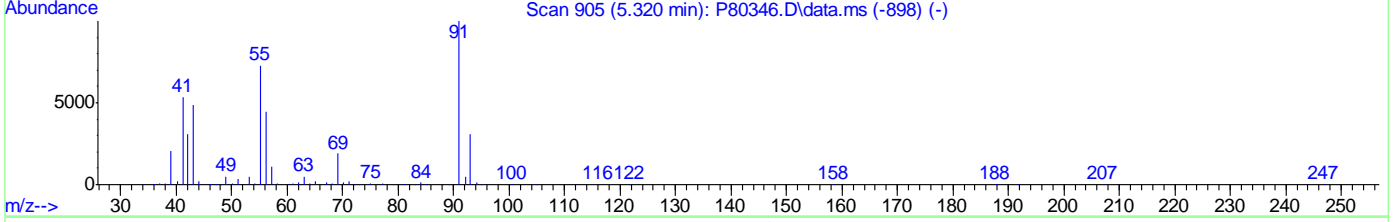
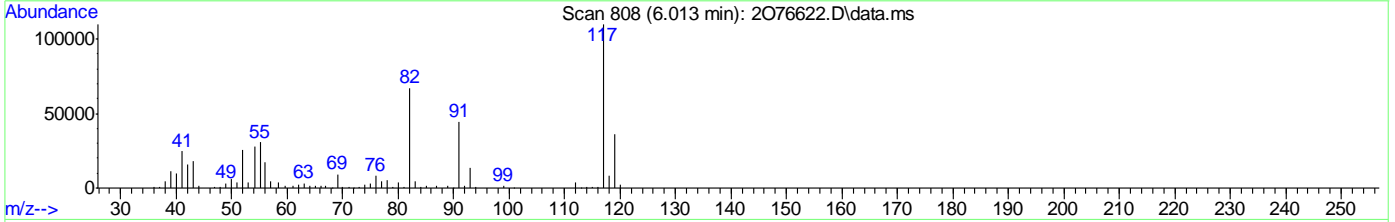
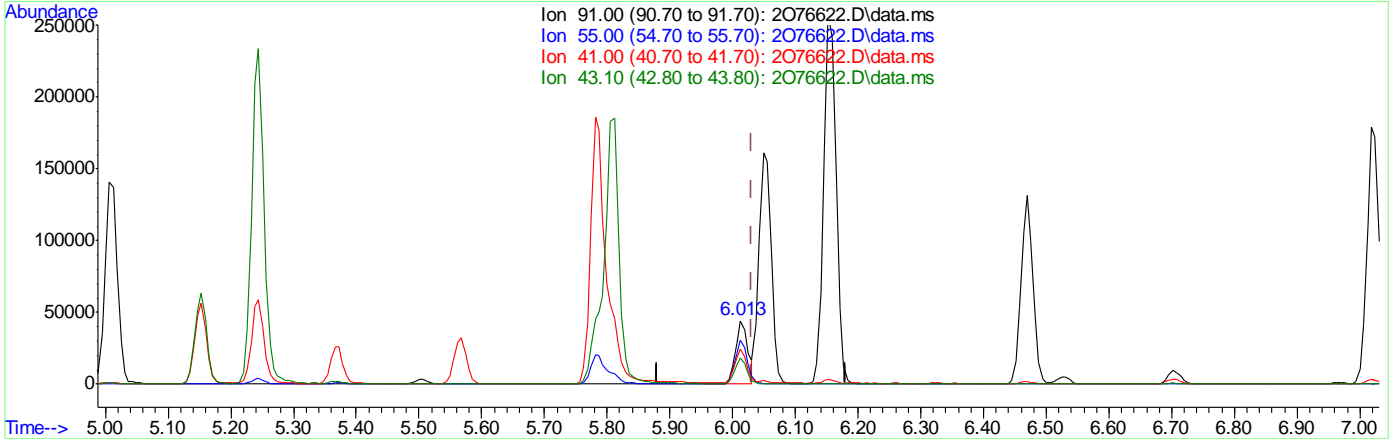
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	69.16
41.00	53.70	53.18
43.10	42.30	40.30

7.6.1.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076622.D  
 Acq On : 7 Jun 2023 11:22 am  
 Operator : joannel  
 Sample : IC2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 07 11:39:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076622.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.018) 22.91ug/L m

response 60017

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	69.66
41.00	53.70	55.68
43.10	42.30	41.44

7.6.1.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	426373	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	320814	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	169764	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	116224	49.18	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	98.36%	
50) 1,2-Dichloroethane-d4	3.854	65	141050	56.15	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	112.30%	
63) Toluene-d8	4.976	98	419102	47.90	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	95.80%	
86) 4-Bromofluorobenzene	6.921	174	122824	47.41	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	94.82%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	65826	37.90	ug/L		99
3) Chloromethane	1.379	50	62443	33.25	ug/L		99
4) 1,3-butadiene	1.446	39	68924	36.60	ug/L		98
5) Vinyl Chloride	1.434	62	68903	36.95	ug/L		96
6) Bromomethane	1.672	94	53773	37.65	ug/L		98
7) Chloroethane	1.751	64	37179	Below Cal			98
8) Trichlorofluoromethane	1.849	101	135489	40.91	ug/L		100
9) Ethyl Ether	2.056	59	61952	42.17	ug/L		98
10) Ethanol	2.154	45	23426	610.76	ug/L		99
11) 1,2-Dichlorotrifluoro...	2.178	67	91695	41.93	ug/L		97
12) 1,1-Dichloroethene	2.178	61	116171	41.36	ug/L		97
13) Freon 113	2.208	101	83745	44.79	ug/L		95
14) Carbon Disulfide	2.202	76	214433	39.31	ug/L		95
15) Iodomethane	2.269	142	76584	26.24	ug/L		93
16) Acrolein	2.385	56	95417	178.50	ug/L		99
17) Allyl chloride	2.471	41	77458	35.62	ug/L		94
18) Methylene Chloride	2.532	49	98407	38.46	ug/L		96
19) Acetone	2.556	43	187001	174.37	ug/L		97
20) Methyl acetate	2.629	43	465679	188.83	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	113274	42.18	ug/L		98
22) Hexane	2.678	56	57910	40.83	ug/L		98
23) Methyl Tert Butyl Ether	2.690	73	229067	44.46	ug/L		89
24) Tert Butyl Alcohol	2.739	59	137160	331.52	ug/L		96
25) Acetonitrile	2.830	41	131978	326.78	ug/L		98
26) Di-isopropyl ether	2.910	45	224834	41.13	ug/L		96
27) Chloroprene	2.971	53	102290	39.81	ug/L		100
28) 1,1-Dichloroethane	2.983	63	147398	42.28	ug/L		100
29) Acrylonitrile	3.007	52	178389	171.74	ug/L		98
30) ETBE	3.117	59	221218	44.62	ug/L		99
31) Vinyl acetate	3.117	43	786299	197.27	ug/L		100
32) cis-1,2-Dichloroethene	3.288	96	93812	43.31	ug/L		96
33) 2,2-Dichloropropane	3.355	77	102880	43.93	ug/L		98
34) Bromochloromethane	3.403	128	45659	39.10	ug/L		97
35) Cyclohexane	3.416	56	118080	40.99	ug/L		92

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	166135	43.99	ug/L	100
37) Ethyl acetate	3.501	43	559095	178.53	ug/L	100
38) Tetrahydrofuran	3.531	42	39579	32.87	ug/L	98
40) Carbon Tetrachloride	3.531	117	116593m	49.30	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	138307	45.13	ug/L	98
42) 2-Butanone	3.611	43	300446	168.90	ug/L	99
43) 1,1-Dichloropropene	3.635	75	114328	43.23	ug/L	97
44) tert-Butyl formate	3.696	59	151609	200.97	ug/L	90
45) Propionitrile	3.781	54	178462	338.06	ug/L	92
46) Methacrylonitrile	3.794	41	638344	357.25	ug/L	99
47) Benzene	3.781	78	335332	42.87	ug/L	90
48) TAME	3.836	73	213020	45.90	ug/L	99
49) Isobutyl alcohol	3.879	43	109378m	664.69	ug/L	
51) 1,2-Dichloroethane	3.891	62	132126	47.41	ug/L	98
52) Tert Amyl Alcohol	3.940	59	105000	320.82	ug/L	97
53) Trichloroethene	4.117	95	95946	42.56	ug/L	97
54) Methylcyclohexane	4.117	83	125578	42.56	ug/L	97
55) Dibromomethane	4.367	93	62808	44.29	ug/L	98
56) 1,2-Dichloropropane	4.428	63	79539	43.36	ug/L	97
57) Bromodichloromethane	4.464	83	115870	46.13	ug/L	99
58) Methyl methacrylate	4.549	41	77860	37.95	ug/L	99
59) 1,4-Dioxane	4.586	88	30335	760.40	ug/L	95
60) 2-Chloroethyl vinyl ether	4.806	63	336704	211.37	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	129473	43.92	ug/L	98
64) Toluene	5.007	91	358502	40.78	ug/L	99
65) 2-Nitropropane	5.153	41	139242	229.70	ug/L	95
66) 4-Methyl-2-pentanone	5.244	43	547884	174.40	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	129149	43.80	ug/L	96
68) Tetrachloroethene	5.263	166	95581	38.37	ug/L	95
69) Ethyl methacrylate	5.366	69	97892	37.68	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	75298	42.45	ug/L	98
71) Dibromochloromethane	5.501	129	93044	43.54	ug/L	98
72) 1,3-Dichloropropane	5.568	76	142612	43.88	ug/L	97
73) 1,2-Dibromoethane	5.671	107	97238	43.80	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	770515	1768.71	ug/L	99
75) 2-hexanone	5.805	43	550862	176.51	ug/L	100
76) 1-Chlorohexane	6.013	91	111025m	40.12	ug/L	
77) Ethylbenzene	6.049	91	394127	41.56	ug/L	98
78) Chlorobenzene	6.037	112	246538	41.49	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	85432	45.91	ug/L	98
80) m,p-Xylene	6.153	91	632914	85.76	ug/L	97
81) o-Xylene	6.470	91	319474	42.88	ug/L	96
82) Styrene	6.506	104	253553	43.31	ug/L	97
83) Bromoform	6.531	173	55711	40.32	ug/L	98
84) Isopropylbenzene	6.702	105	375983	41.85	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	24681	32.10	ug/L #	87
88) n-Propylbenzene	7.019	91	439449	41.76	ug/L	98
89) Bromobenzene	7.000	156	96668	41.39	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.067	83	139025	43.38	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	320425	43.12	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:47:20 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.140	91	304666	42.93	ug/L	96
93) trans-1,4-Dichloro-2-B...	7.207	53	25988	37.37	ug/L	94
94) 1,2,3-Trichloropropane	7.177	110	44519	42.21	ug/L	97
95) Cyclohexanone	7.214	55	22436	153.41	ug/L	97
96) 4-Chlorotoluene	7.275	91	288538	44.18	ug/L	99
97) tert-Butylbenzene	7.421	91	172894	43.07	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	322431	43.92	ug/L	97
100) Pentachloroethane	7.439	167	42913	40.81	ug/L #	85
101) sec-Butylbenzene	7.561	105	364792	41.02	ug/L	99
102) 4-Isopropyltoluene	7.671	119	317715	40.94	ug/L	98
103) 1,3-Dichlorobenzene	7.726	146	189630	41.09	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	333706	43.43	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	192691	41.21	ug/L	99
106) n-Butylbenzene	7.982	92	158519	40.22	ug/L #	80
107) Benzyl Chloride	7.976	126	36514	38.61	ug/L #	60
108) 1,2-Dichlorobenzene	8.104	146	180515	41.45	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	28987	41.99	ug/L	83
110) Hexachlorobutadiene	9.134	225	34012	35.64	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	104883	39.67	ug/L	98
112) Naphthalene	9.372	128	401231	42.90	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	101571	40.46	ug/L	99

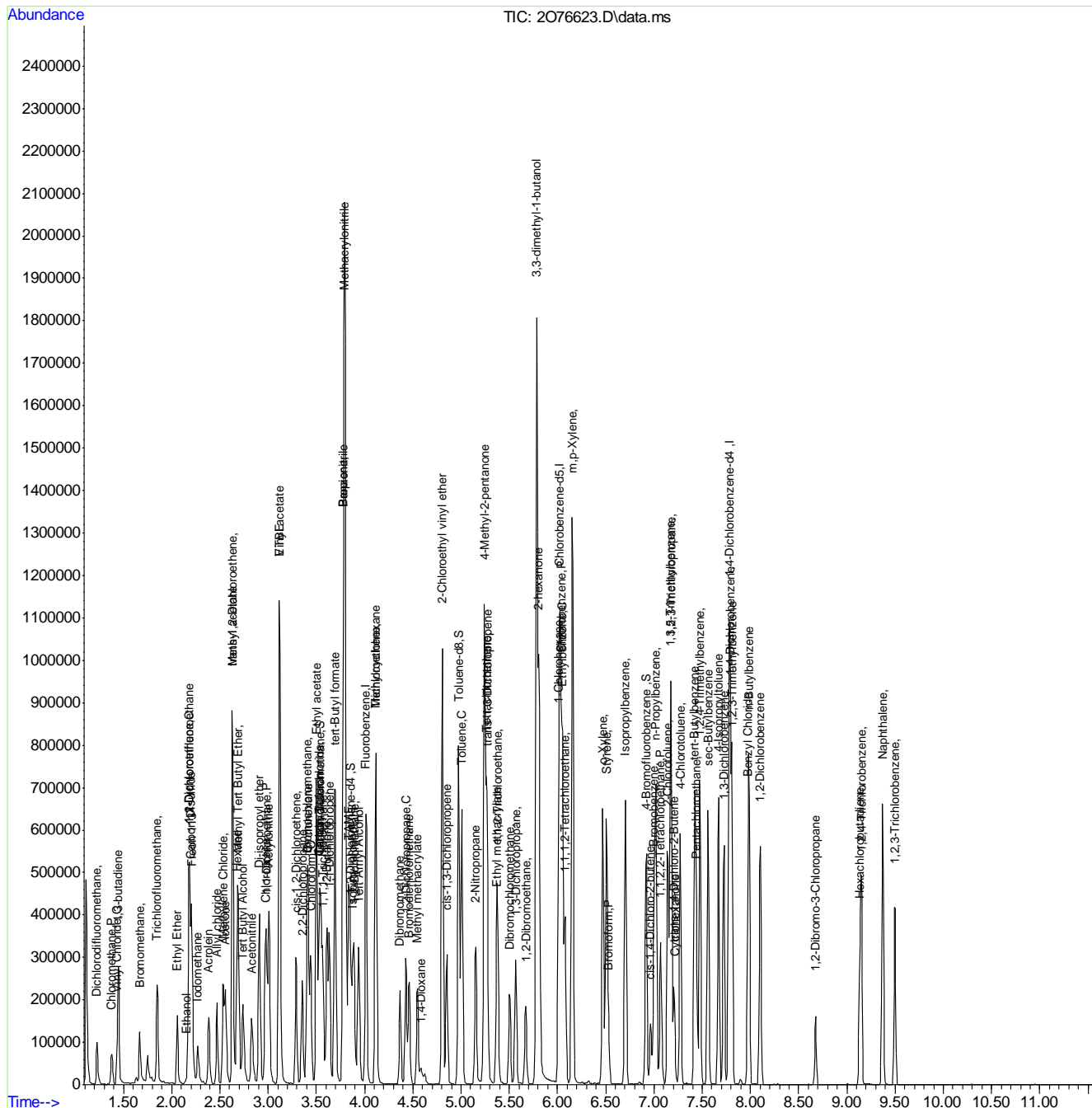
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\
Data File : 2076623.D
Acq On : 7 Jun 2023 11:47 am
Operator : joannel
Sample : ICC2981-5
Misc : MS54147,V202981,,,,,
ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:47:20 2023
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M
Quant Title : SW-846 Method 5035A/8260B
QLast Update : Tue Apr 11 14:22:12 2023
Response via : Initial Calibration



7.6.2 7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-ICC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76623.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 11:47      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

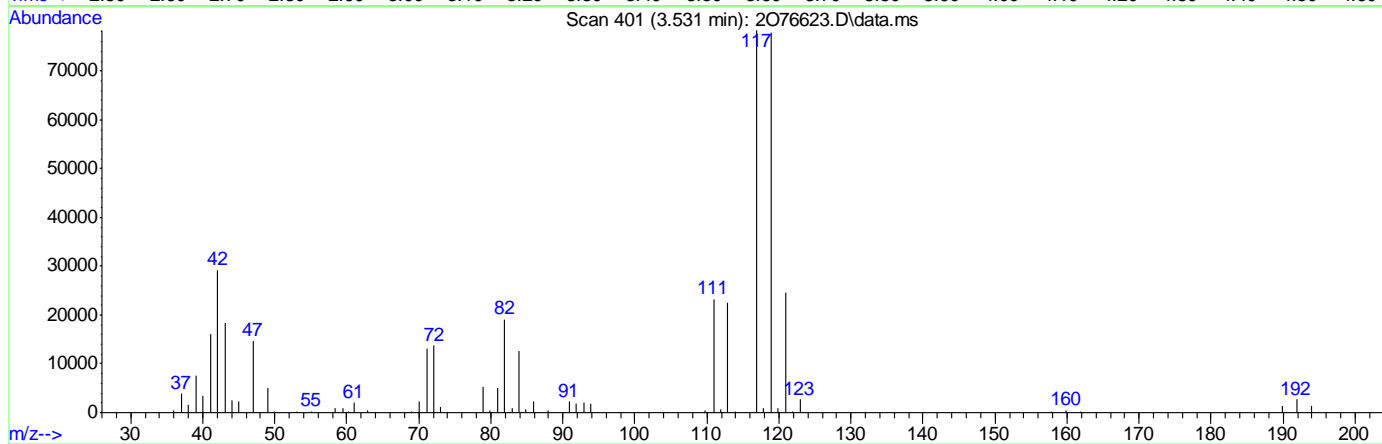
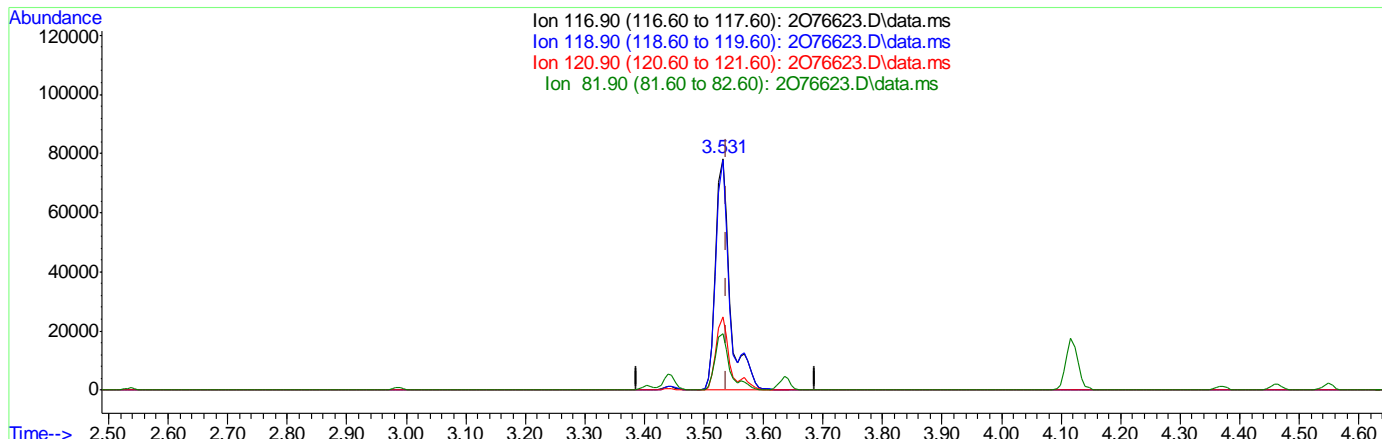
7.6.2.1  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.007) 56.30ug/L

response 133150

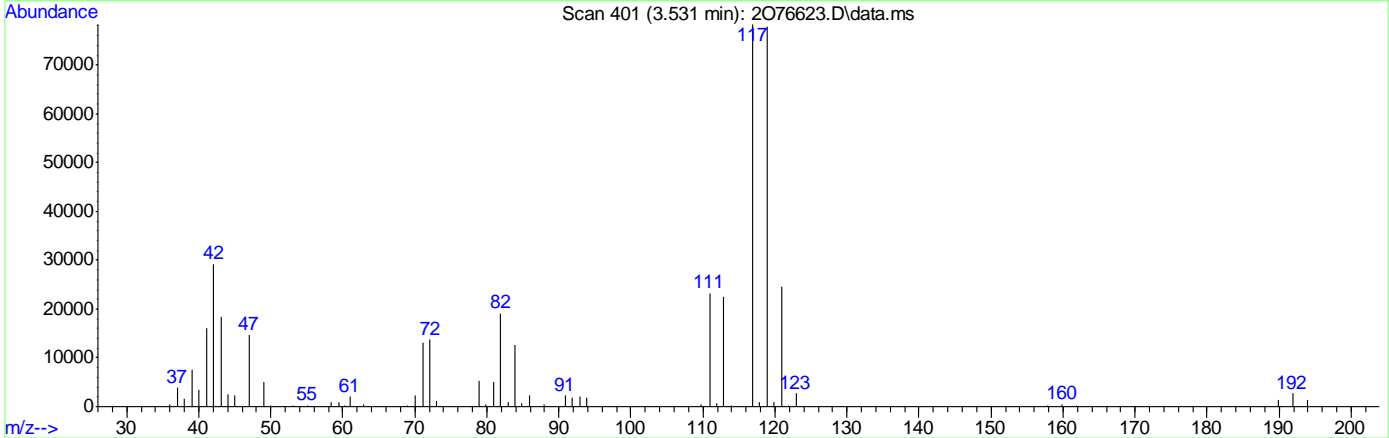
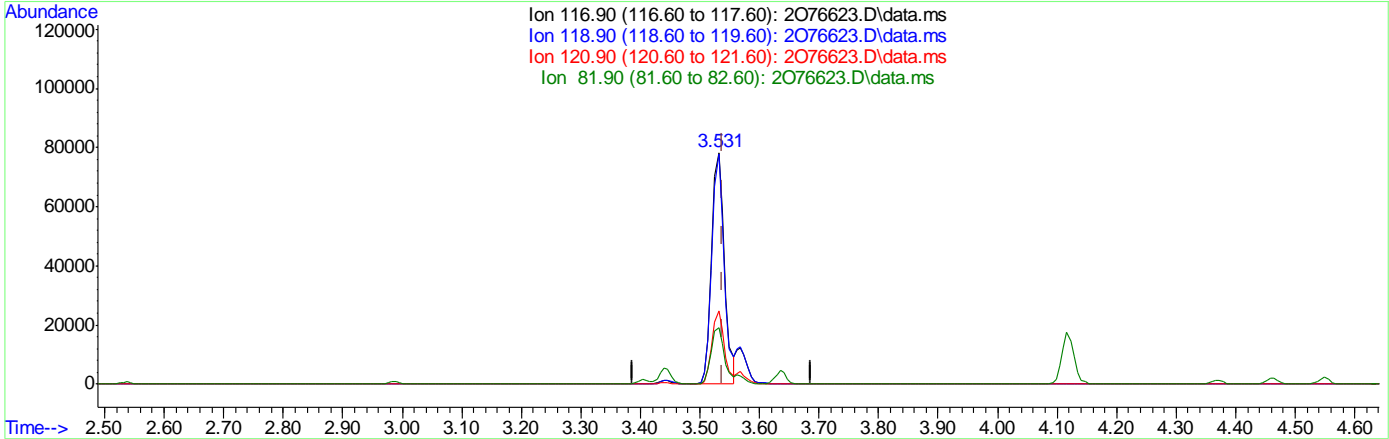
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.29
120.90	31.00	31.46
81.90	24.80	24.43

7.6.2.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.007) 49.30ug/L m

response 116593

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.29
120.90	31.00	31.46
81.90	24.80	24.43

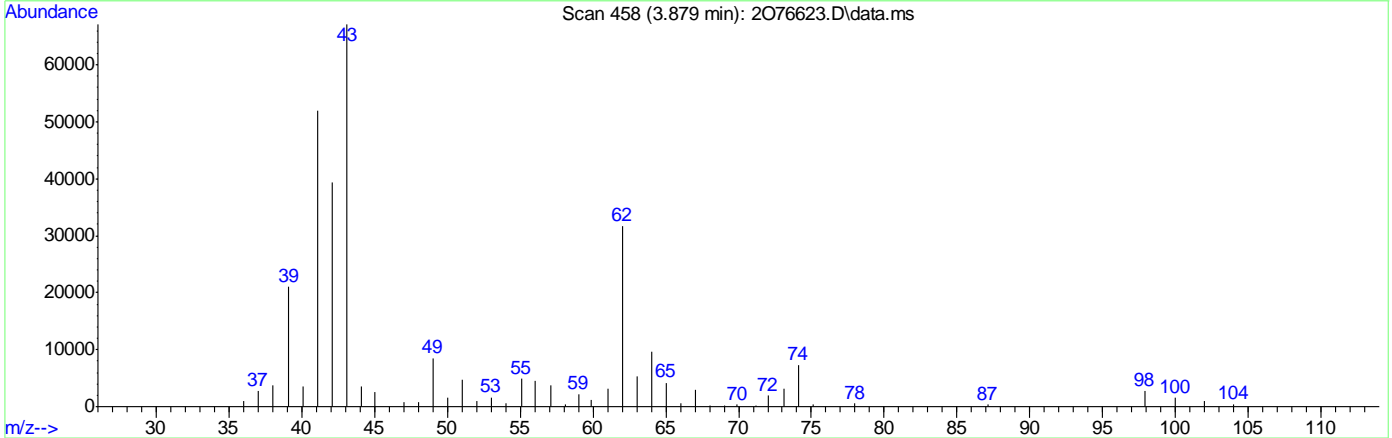
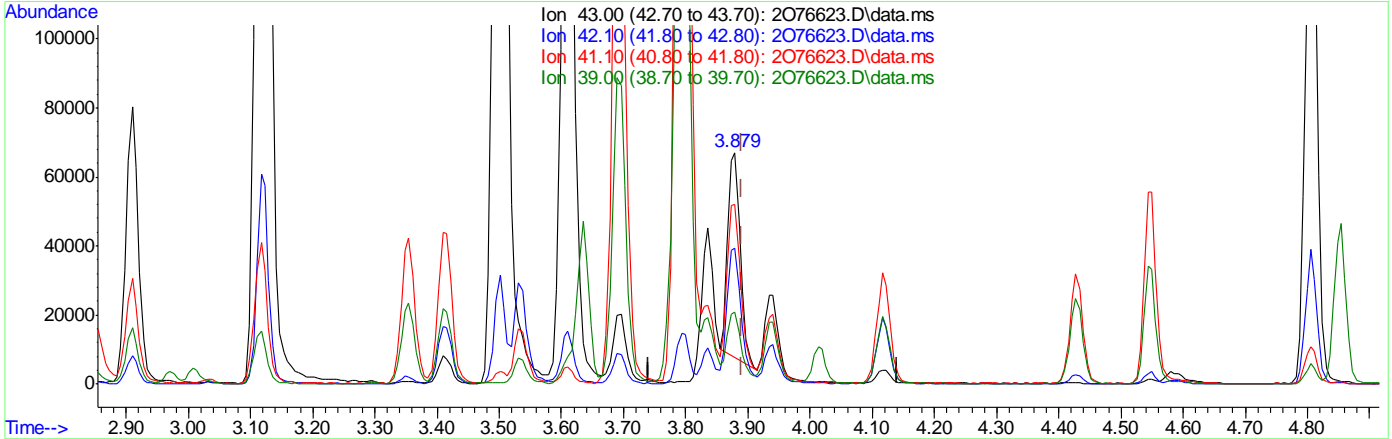
7.6.2.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

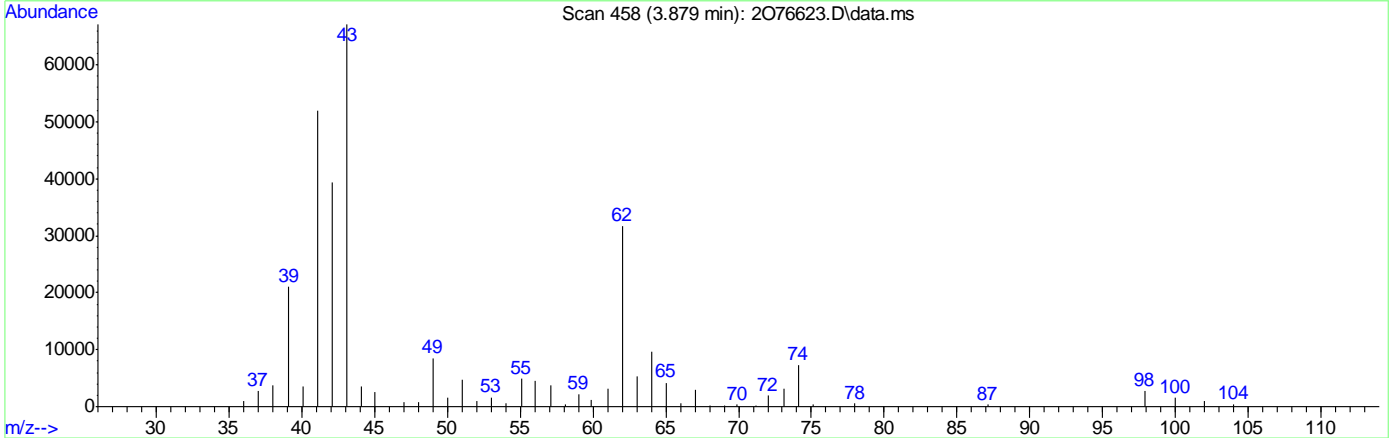
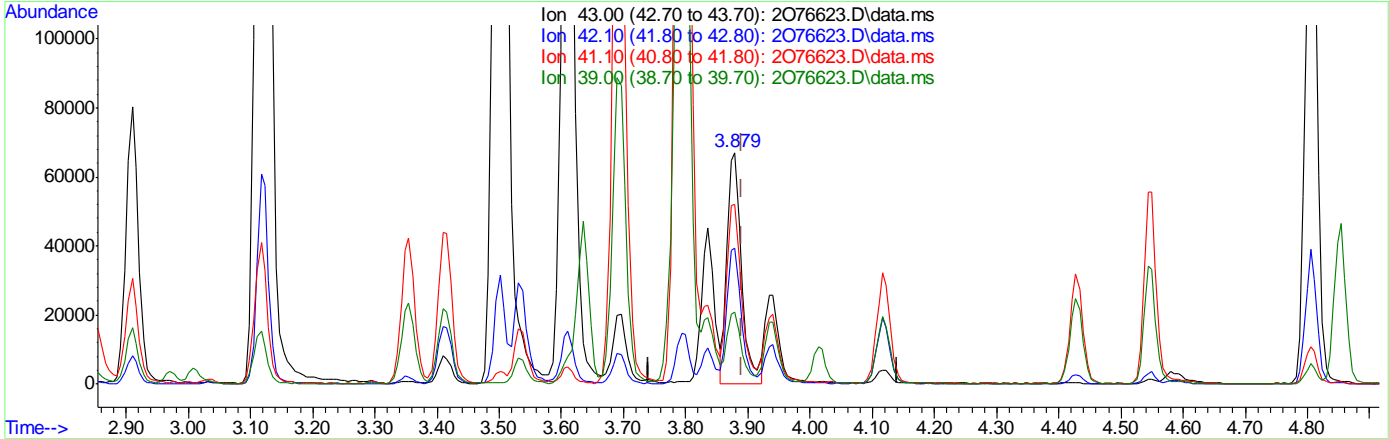
(49) Isobutyl alcohol  
 3.879min (-0.012) 498.42ug/L  
 response 80281

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	59.10
41.10	73.50	75.61
39.00	30.20	29.27

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 664.69ug/L m  
 response 109378

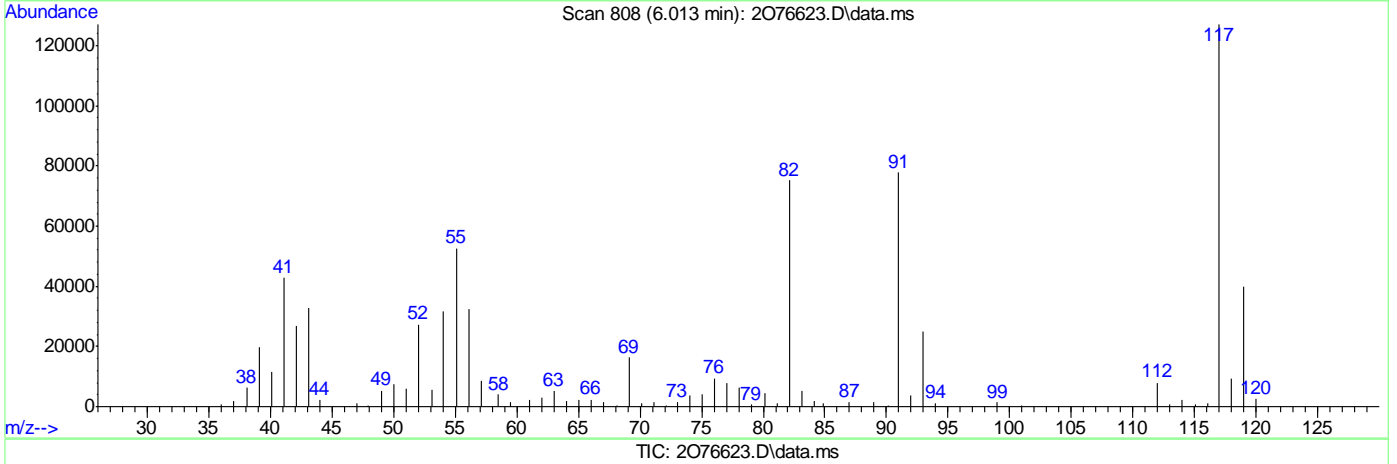
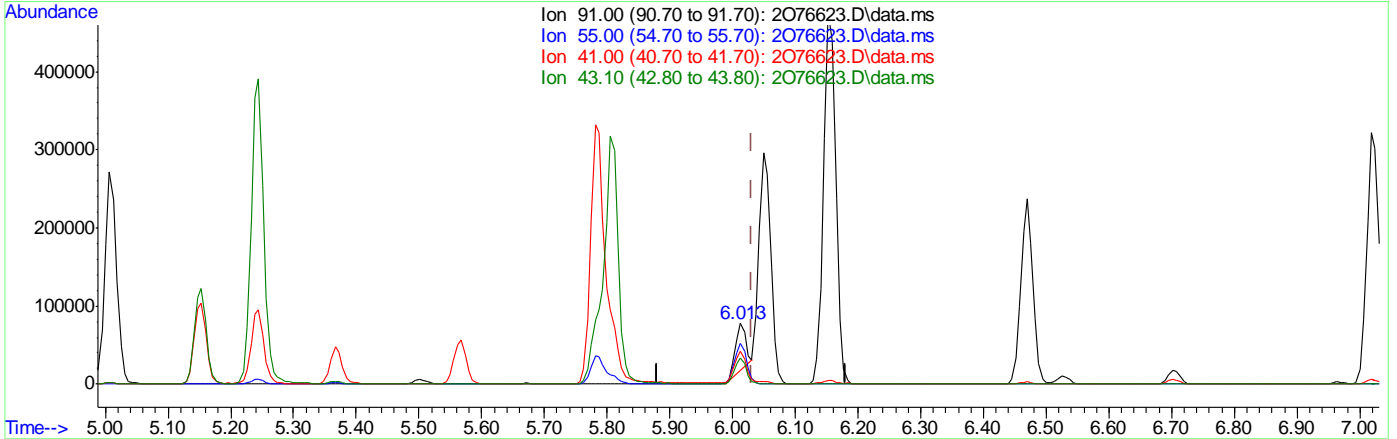
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.52
41.10	73.50	77.53
39.00	30.20	31.34

7.6.2.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



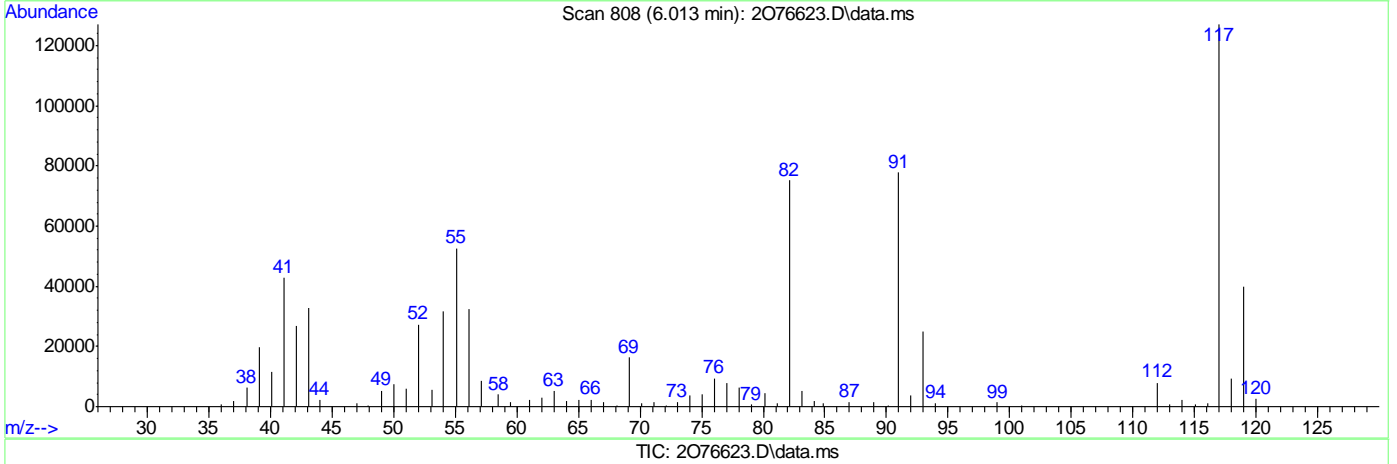
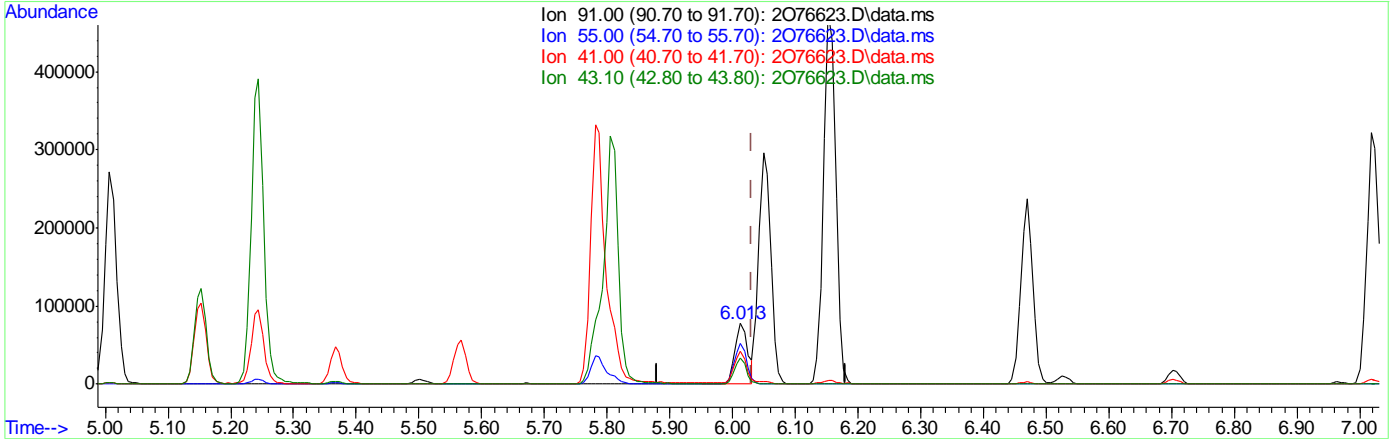
(76) 1-Chlorohexane  
 6.013min (-0.018) 25.37ug/L  
 response 70207

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.82
41.00	53.70	53.12
43.10	42.30	41.64

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076623.D  
 Acq On : 7 Jun 2023 11:47 am  
 Operator : joannel  
 Sample : ICC2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 07 14:46:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076623.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 40.12ug/L m  
 response 111025

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	67.57
41.00	53.70	55.03
43.10	42.30	42.37

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	423665	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	315924	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	168870	50.00	ug/L	-0.02
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	116494	49.61	ug/L	-0.01
Spiked Amount	50.000	Range 83 - 118	Recovery =	99.22%		
50) 1,2-Dichloroethane-d4	3.855	65	142277	57.00	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 125	Recovery =	114.00%		
63) Toluene-d8	4.976	98	416533	48.35	ug/L	-0.01
Spiked Amount	50.000	Range 85 - 112	Recovery =	96.70%		
86) 4-Bromofluorobenzene	6.921	174	122505	47.54	ug/L	-0.02
Spiked Amount	50.000	Range 83 - 118	Recovery =	95.08%		
Target Compounds						
2) Dichlorodifluoromethane	1.221	85	100849	58.43	ug/L	99
3) Chloromethane	1.373	50	103507	55.46	ug/L	97
4) 1,3-butadiene	1.446	39	100557	53.74	ug/L	94
5) Vinyl Chloride	1.434	62	108811	58.72	ug/L	99
6) Bromomethane	1.666	94	89131	62.81	ug/L	99
7) Chloroethane	1.745	64	28937	31.72	ug/L	97
8) Trichlorofluoromethane	1.843	101	206704	62.81	ug/L	99
9) Ethyl Ether	2.056	59	100657	68.95	ug/L	97
10) Ethanol	2.166	45	45124	1190.84	ug/L	98
11) 1,2-Dichlorotrifluoro...	2.178	67	134609	61.95	ug/L	98
12) 1,1-Dichloroethene	2.178	61	167189	59.91	ug/L	98
13) Freon 113	2.209	101	115717	62.28	ug/L	97
14) Carbon Disulfide	2.196	76	314715	58.06	ug/L	97
15) Iodomethane	2.269	142	127042	43.80	ug/L	93
16) Acrolein	2.385	56	171860	323.56	ug/L	99
17) Allyl chloride	2.471	41	127695	59.09	ug/L	93
18) Methylene Chloride	2.532	49	156334	62.56	ug/L	97
19) Acetone	2.556	43	336383	315.66	ug/L	97
20) Methyl acetate	2.629	43	791518	323.01	ug/L	100
21) trans-1,2-Dichloroethene	2.629	61	170176	63.78	ug/L	97
22) Hexane	2.678	56	84377	59.87	ug/L #	87
23) Methyl Tert Butyl Ether	2.690	73	379116	74.05	ug/L	98
24) Tert Butyl Alcohol	2.745	59	262994	604.66	ug/L	96
25) Acetonitrile	2.830	41	243690	607.24	ug/L	99
26) Di-isopropyl ether	2.910	45	365675	67.33	ug/L	97
27) Chloroprene	2.971	53	161613	63.30	ug/L	99
28) 1,1-Dichloroethane	2.983	63	227817	65.76	ug/L	99
29) Acrylonitrile	3.007	52	313540	303.79	ug/L	100
30) ETBE	3.117	59	359432	72.96	ug/L	97
31) Vinyl acetate	3.117	43	1341282	338.65	ug/L	100
32) cis-1,2-Dichloroethene	3.288	96	146825	68.22	ug/L	99
33) 2,2-Dichloropropane	3.355	77	157544	67.70	ug/L	99
34) Bromochloromethane	3.403	128	69690	60.06	ug/L	97
35) Cyclohexane	3.410	56	172963	60.42	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	257838	68.71	ug/L	98
37) Ethyl acetate	3.501	43	980406	315.07	ug/L	99
38) Tetrahydrofuran	3.531	42	72748	60.80	ug/L	99
40) Carbon Tetrachloride	3.531	117	172538	73.42	ug/L	99
41) 1,1,1-Trichloroethane	3.568	97	208373	68.43	ug/L	99
42) 2-Butanone	3.611	43	541327	306.25	ug/L	100
43) 1,1-Dichloropropene	3.635	75	170522	64.88	ug/L	96
44) tert-Butyl formate	3.696	59	265084	326.95	ug/L #	86
45) Propionitrile	3.781	54	333946	636.63	ug/L	96
46) Methacrylonitrile	3.794	41	1143273	643.92	ug/L	100
47) Benzene	3.775	78	516853	66.50	ug/L	96
48) TAME	3.836	73	352467	76.43	ug/L	99
49) Isobutyl alcohol	3.879	43	218491m	1244.36	ug/L	
51) 1,2-Dichloroethane	3.891	62	209385	75.62	ug/L	97
52) Tert Amyl Alcohol	3.940	59	199779	579.86	ug/L	99
53) Trichloroethene	4.117	95	145175	64.81	ug/L	97
54) Methylcyclohexane	4.117	83	181410	61.88	ug/L	97
55) Dibromomethane	4.367	93	101623	72.12	ug/L	97
56) 1,2-Dichloropropane	4.428	63	127319	69.86	ug/L	97
57) Bromodichloromethane	4.464	83	186925	74.89	ug/L	99
58) Methyl methacrylate	4.543	41	143720	70.50	ug/L	97
59) 1,4-Dioxane	4.586	88	55008	1334.34	ug/L	98
60) 2-Chloroethyl vinyl ether	4.806	63	564785	356.82	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	210443	69.62	ug/L	97
64) Toluene	5.007	91	555074	64.12	ug/L	100
65) 2-Nitropropane	5.153	41	252315	376.86	ug/L	96
66) 4-Methyl-2-pentanone	5.245	43	957840	309.62	ug/L	97
67) trans-1,3-Dichloropropene	5.269	75	211865	70.94	ug/L	98
68) Tetrachloroethene	5.263	166	143361	58.44	ug/L	95
69) Ethyl methacrylate	5.366	69	178886	67.40	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	120928	69.22	ug/L	97
71) Dibromochloromethane	5.507	129	154347	70.15	ug/L	98
72) 1,3-Dichloropropane	5.568	76	228588	71.43	ug/L	98
73) 1,2-Dibromoethane	5.671	107	158388	72.45	ug/L	99
74) 3,3-dimethyl-1-butanol	5.787	57	1473088	3241.40	ug/L	98
75) 2-hexanone	5.805	43	984752	320.43	ug/L	94
76) 1-Chlorohexane	6.013	91	165854m	60.86	ug/L	
77) Ethylbenzene	6.049	91	613129	65.66	ug/L	96
78) Chlorobenzene	6.037	112	386620	66.07	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	137976	75.30	ug/L	99
80) m,p-Xylene	6.153	91	980876	134.97	ug/L	97
81) o-Xylene	6.470	91	502925	68.55	ug/L	97
82) Styrene	6.506	104	410291	71.17	ug/L	98
83) Bromoform	6.531	173	97638	66.87	ug/L	98
84) Isopropylbenzene	6.702	105	581839	65.77	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	47332	61.88	ug/L #	90
88) n-Propylbenzene	7.019	91	686570	65.58	ug/L	99
89) Bromobenzene	7.000	156	156022	67.16	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	230627	72.35	ug/L	98
91) 1,3,5-Trimethylbenzene	7.177	105	510371	69.05	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:47:55 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	484219	68.60	ug/L	95
93) trans-1,4-Dichloro-2-B...	7.208	53	45900	63.10	ug/L	97
94) 1,2,3-Trichloropropane	7.177	110	73408	69.98	ug/L	98
95) Cyclohexanone	7.214	55	44123	303.29	ug/L	97
96) 4-Chlorotoluene	7.275	91	458711	70.60	ug/L	99
97) tert-Butylbenzene	7.421	91	271714	68.05	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	518007	70.93	ug/L	99
100) Pentachloroethane	7.439	167	77272	68.77	ug/L	92
101) sec-Butylbenzene	7.561	105	569271	64.35	ug/L	99
102) 4-Isopropyltoluene	7.671	119	513765	66.55	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	309150	67.34	ug/L	97
104) 1,2,3-Trimethylbenzene	7.811	105	546431	71.49	ug/L	100
105) 1,4-Dichlorobenzene	7.793	146	309008	66.44	ug/L	99
106) n-Butylbenzene	7.988	92	259526	65.14	ug/L	97
107) Benzyl Chloride	7.976	126	67210	64.09	ug/L #	75
108) 1,2-Dichlorobenzene	8.104	146	295952	68.32	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.677	75	53148	72.66	ug/L	82
110) Hexachlorobutadiene	9.134	225	53585	55.45	ug/L	97
111) 1,2,4-Trichlorobenzene	9.152	180	175830	66.86	ug/L	99
112) Naphthalene	9.372	128	686038	73.73	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	168246	67.37	ug/L	99

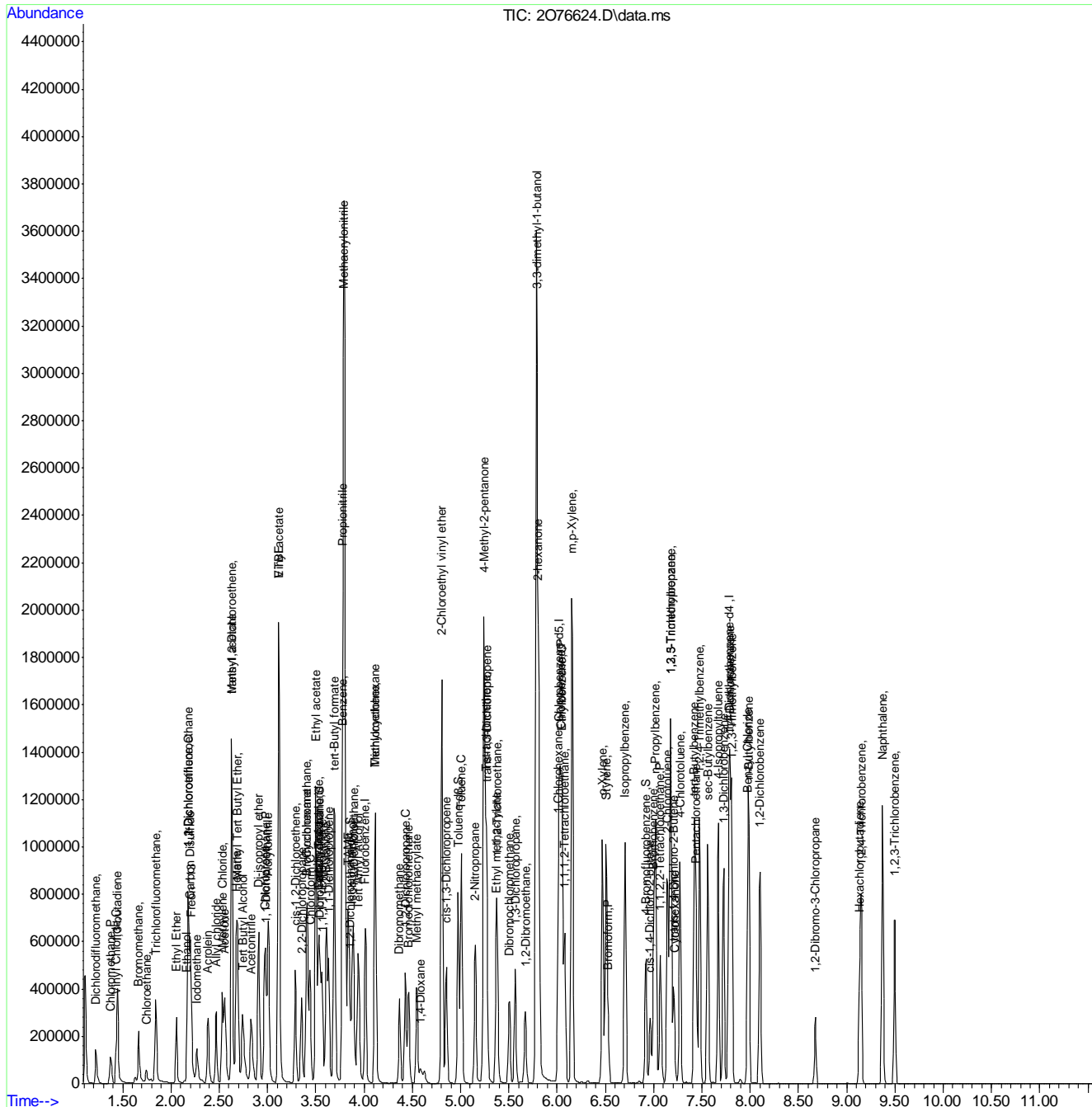
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
Data File : 2076624.D  
Acq On : 7 Jun 2023 12:13 pm  
Operator : joannel  
Sample : IC2981-6  
Misc : MS54147,V202981,,,,,  
ALS Vial : 7 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:47:55 2023  
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Tue Apr 11 14:22:12 2023  
Response via : Initial Calibration



7.6.3  
7

# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76624.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 12:13      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

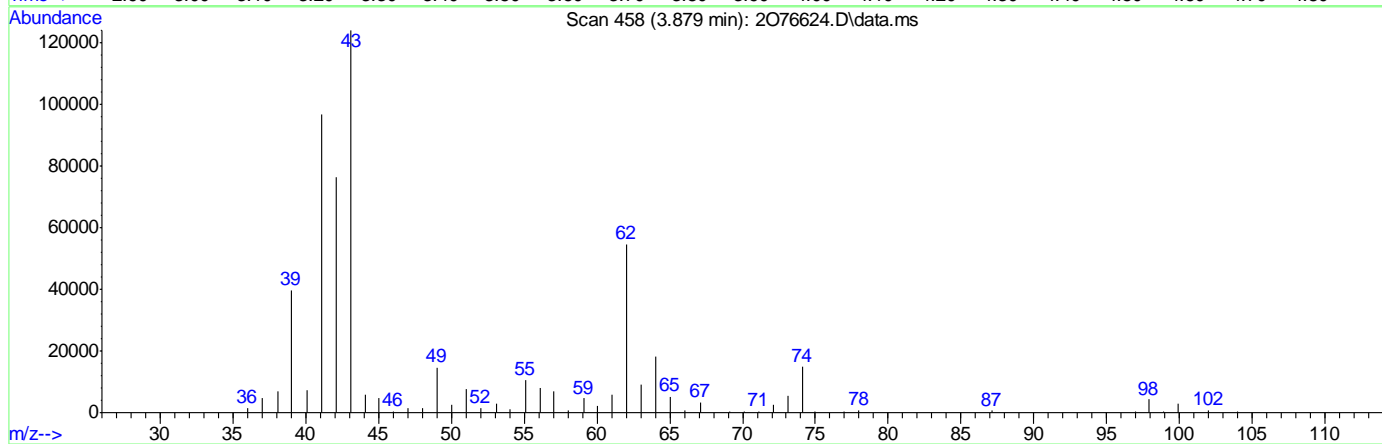
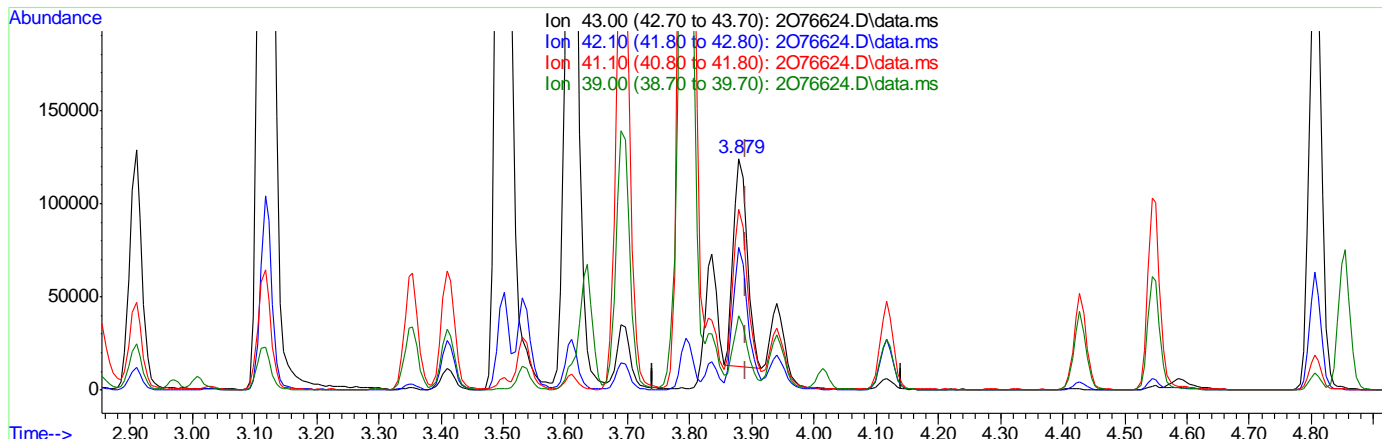
7.6.3.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 1012.80ug/L  
 response 172947

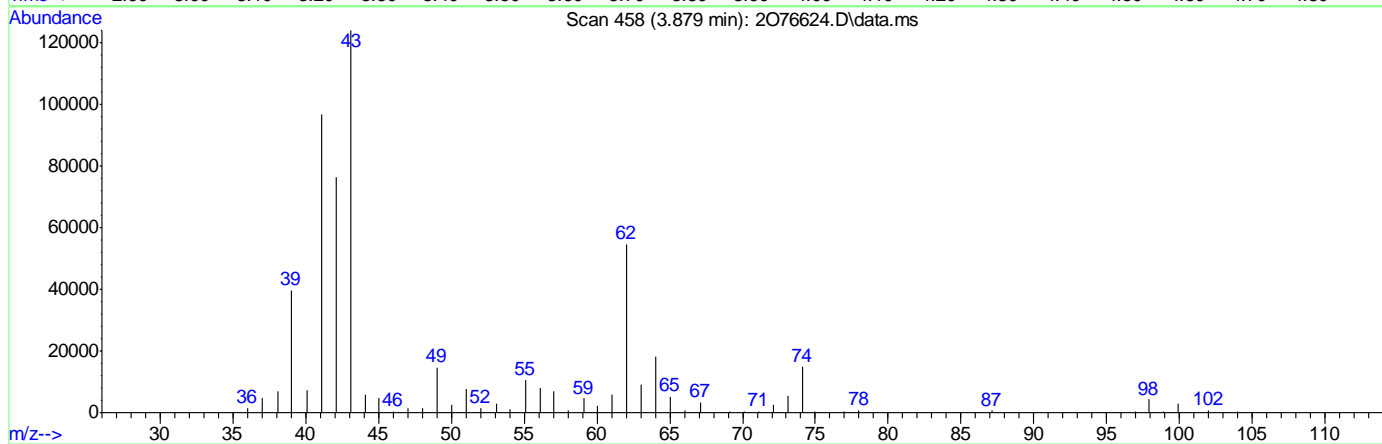
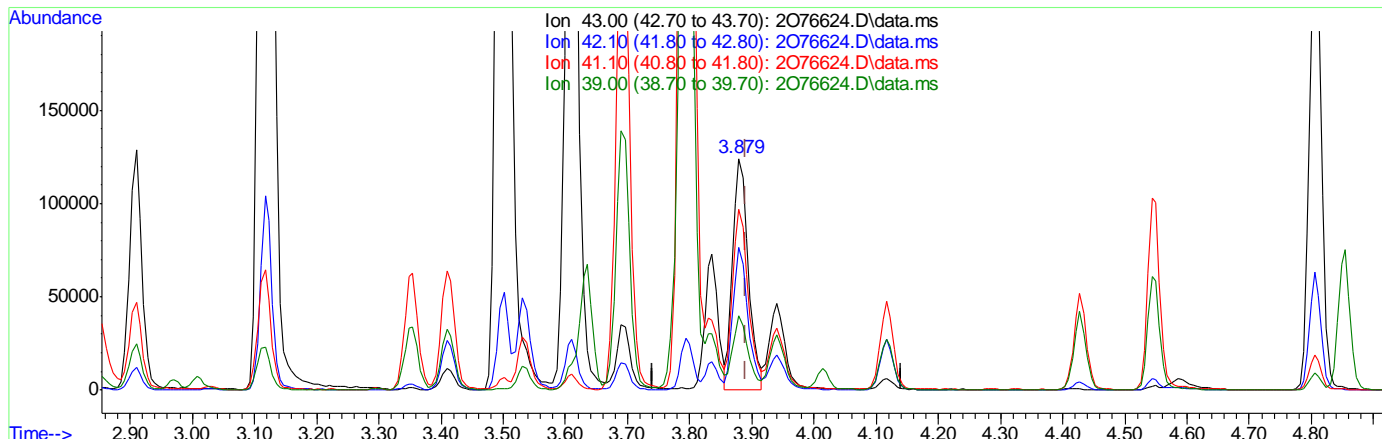
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	64.34
41.10	73.50	76.80
39.00	30.20	30.77

7.6.3.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 1244.36ug/L m  
 response 218491

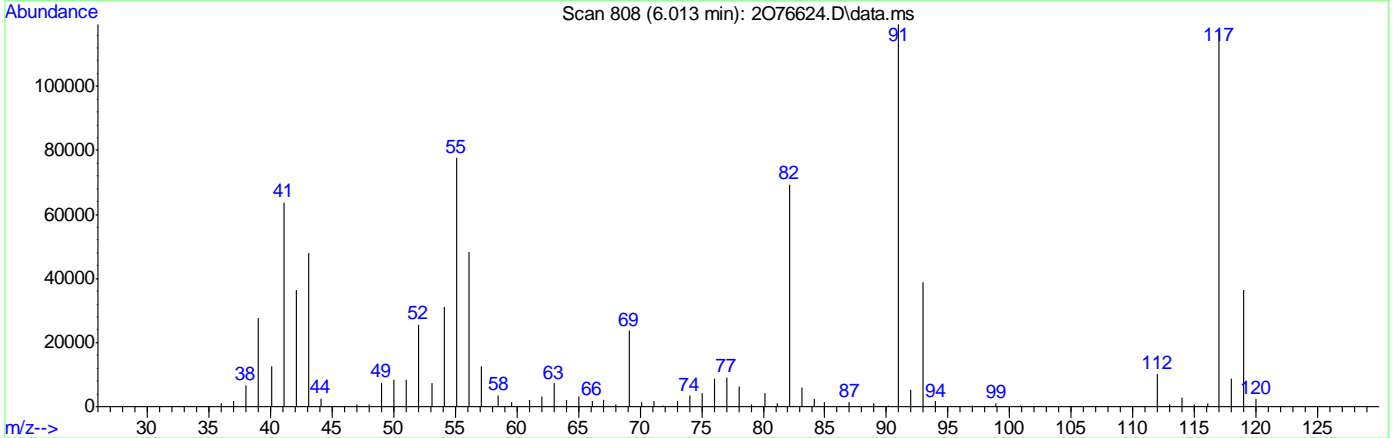
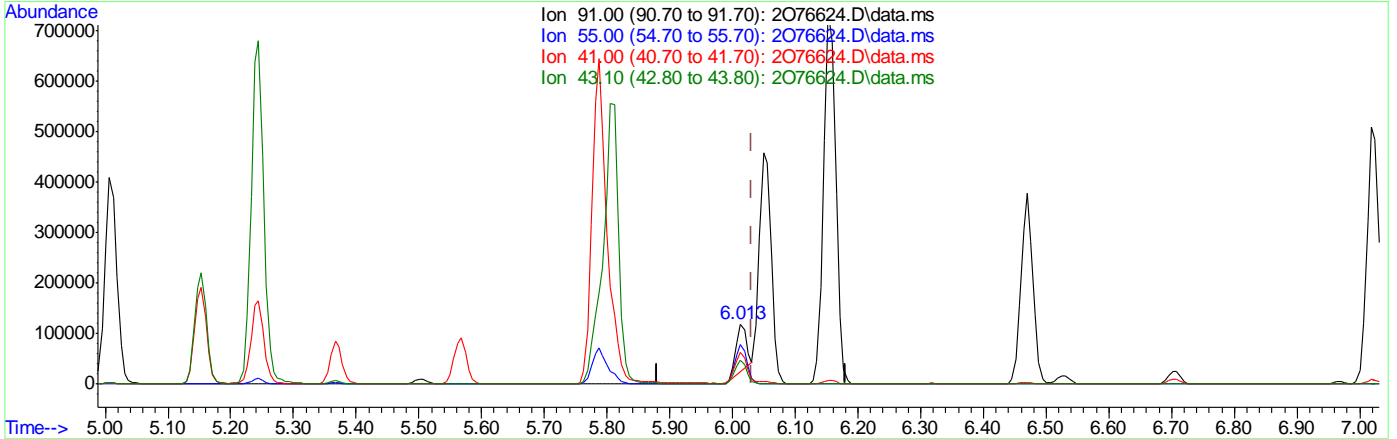
Ion	Exp%	Act%
43.00	100	100
42.10	60.00	61.69
41.10	73.50	77.87
39.00	30.20	32.07

7.633  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 39.66ug/L  
 response 108079

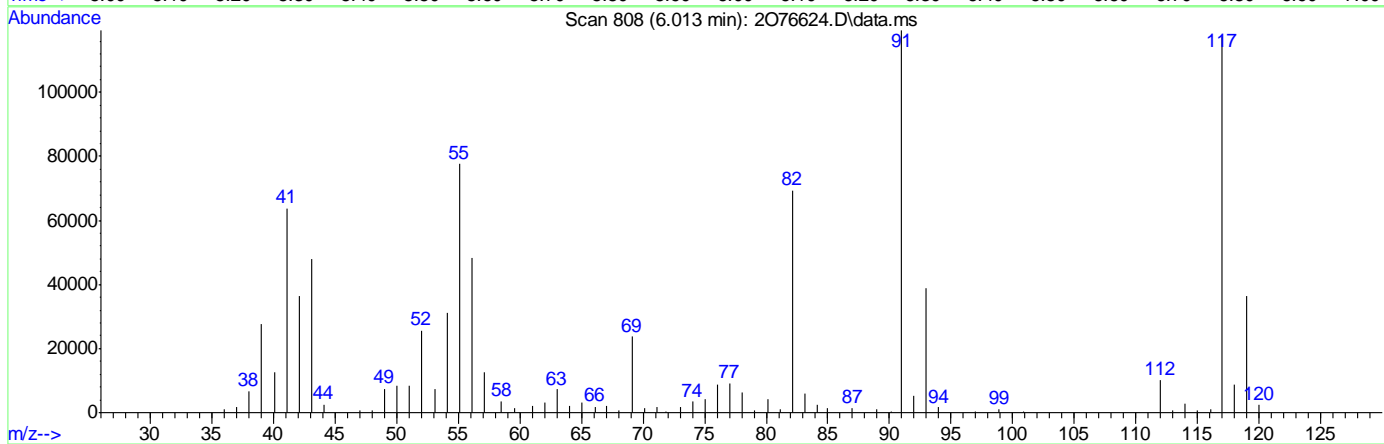
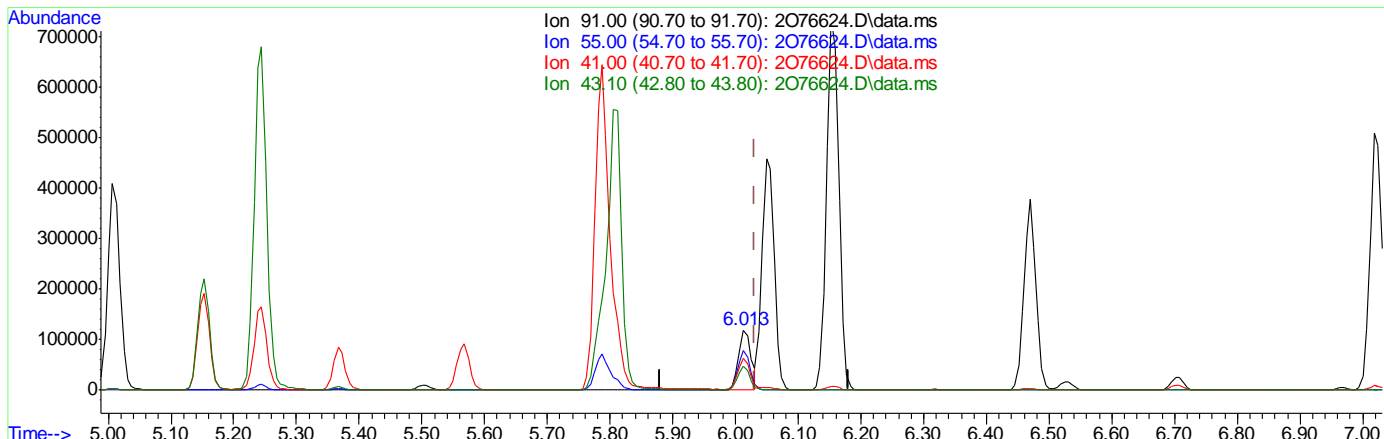
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	64.86
41.00	53.70	51.75
43.10	42.30	39.21

7.6.3.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076624.D  
 Acq On : 7 Jun 2023 12:13 pm  
 Operator : joannel  
 Sample : IC2981-6 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 07 14:46:15 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076624.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 60.86ug/L m  
 response 165854

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	64.97
41.00	53.70	53.44
43.10	42.30	40.11

7.6.3.5  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	433256	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	322297	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	172872	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	118111	49.18	ug/L	-0.01	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	98.36%	
50) 1,2-Dichloroethane-d4	3.855	65	149180	58.45	ug/L	-0.01	
Spiked Amount	50.000	Range 79	- 125	Recovery	=	116.90%	
63) Toluene-d8	4.976	98	426463	48.52	ug/L	-0.01	
Spiked Amount	50.000	Range 85	- 112	Recovery	=	97.04%	
86) 4-Bromofluorobenzene	6.921	174	126830	48.08	ug/L	-0.02	
Spiked Amount	50.000	Range 83	- 118	Recovery	=	96.16%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	154832	87.72	ug/L		99
3) Chloromethane	1.373	50	158001	82.79	ug/L		99
4) 1,3-butadiene	1.447	39	152254	79.57	ug/L		95
5) Vinyl Chloride	1.434	62	161177	85.05	ug/L		100
6) Bromomethane	1.666	94	138564	95.48	ug/L		97
7) Chloroethane	1.745	64	37255	Below Cal			98
8) Trichlorofluoromethane	1.843	101	273183	81.18	ug/L		100
9) Ethyl Ether	2.056	59	148178	99.26	ug/L		95
10) Ethanol	2.184	45	65160	1689.95	ug/L		86
11) 1,2-Dichlorotrifluoro...	2.178	67	209673	94.36	ug/L		96
12) 1,1-Dichloroethene	2.178	61	266847	93.50	ug/L		97
13) Freon 113	2.203	101	187646	98.76	ug/L		95
14) Carbon Disulfide	2.196	76	506075	91.29	ug/L		96
15) Iodomethane	2.270	142	194130	65.45	ug/L		94
16) Acrolein	2.385	56	250615	461.38	ug/L		99
17) Allyl chloride	2.465	41	195681	88.55	ug/L		95
18) Methylene Chloride	2.532	49	231703	92.70	ug/L		95
19) Acetone	2.562	43	488394	448.16	ug/L		99
20) Methyl acetate	2.629	43	1152477	459.90	ug/L		100
21) trans-1,2-Dichloroethene	2.629	61	264868	97.07	ug/L		99
22) Hexane	2.678	56	131823	91.47	ug/L		95
23) Methyl Tert Butyl Ether	2.690	73	562842	107.51	ug/L		98
24) Tert Butyl Alcohol	2.745	59	396953	850.50	ug/L		96
25) Acetonitrile	2.830	41	343309	836.54	ug/L		100
26) Di-isopropyl ether	2.910	45	544203	97.98	ug/L		96
27) Chloroprene	2.971	53	250987	96.13	ug/L		99
28) 1,1-Dichloroethane	2.983	63	349182	98.56	ug/L		99
29) Acrylonitrile	3.007	52	470696	445.96	ug/L		99
30) ETBE	3.117	59	540669	107.32	ug/L		98
31) Vinyl acetate	3.117	43	2036191	502.73	ug/L		99
32) cis-1,2-Dichloroethene	3.288	96	222184	100.95	ug/L		99
33) 2,2-Dichloropropane	3.355	77	250772	105.38	ug/L		98
34) Bromochloromethane	3.403	128	102826	86.66	ug/L		97
35) Cyclohexane	3.410	56	272861	93.21	ug/L		97



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	388206	101.16	ug/L	98
37) Ethyl acetate	3.501	43	1473279	462.98	ug/L	99
38) Tetrahydrofuran	3.532	42	98804	80.74	ug/L	99
40) Carbon Tetrachloride	3.532	117	272511m	113.39	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	323940	104.03	ug/L	99
42) 2-Butanone	3.611	43	782113	432.68	ug/L	100
43) 1,1-Dichloropropene	3.635	75	263726	98.13	ug/L	98
44) tert-Butyl formate	3.696	59	383901	434.88	ug/L #	84
45) Propionitrile	3.788	54	482356	899.20	ug/L #	69
46) Methacrylonitrile	3.794	41	1642400	904.56	ug/L	99
47) Benzene	3.775	78	777336	97.80	ug/L	92
48) TAME	3.836	73	526926	111.74	ug/L	97
49) Isobutyl alcohol	3.885	43	311768m	1655.53	ug/L	
51) 1,2-Dichloroethane	3.891	62	305567	107.91	ug/L	97
52) Tert Amyl Alcohol	3.946	59	304927	822.29	ug/L	97
53) Trichloroethene	4.117	95	221816	96.83	ug/L	96
54) Methylcyclohexane	4.117	83	284066	94.75	ug/L	98
55) Dibromomethane	4.367	93	149138	103.50	ug/L	97
56) 1,2-Dichloropropane	4.428	63	189407	101.62	ug/L	97
57) Bromodichloromethane	4.464	83	279284	109.42	ug/L	98
58) Methyl methacrylate	4.544	41	212851	102.10	ug/L	96
59) 1,4-Dioxane	4.592	88	81805	1872.87	ug/L	97
60) 2-Chloroethyl vinyl ether	4.806	63	769213	475.21	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	315045	98.50	ug/L	99
64) Toluene	5.007	91	837018	94.78	ug/L	98
65) 2-Nitropropane	5.153	41	377382	504.91	ug/L	95
66) 4-Methyl-2-pentanone	5.245	43	1396011	442.34	ug/L	97
67) trans-1,3-Dichloropropene	5.275	75	315849	100.62	ug/L	96
68) Tetrachloroethene	5.263	166	223153	89.16	ug/L	96
69) Ethyl methacrylate	5.367	69	267100	95.41	ug/L	96
70) 1,1,2-Trichloroethane	5.379	83	176175	98.85	ug/L	97
71) Dibromochloromethane	5.507	129	229177	97.70	ug/L	98
72) 1,3-Dichloropropane	5.568	76	330755	101.31	ug/L	98
73) 1,2-Dibromoethane	5.671	107	233268	104.59	ug/L	100
74) 3,3-dimethyl-1-butanol	5.787	57	2116704	4376.52	ug/L	97
75) 2-hexanone	5.812	43	1427082	455.18	ug/L	96
76) 1-Chlorohexane	6.013	91	255764m	91.99	ug/L	
77) Ethylbenzene	6.049	91	919962	96.57	ug/L	97
78) Chlorobenzene	6.037	112	581089	97.34	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.080	131	209239	111.93	ug/L	98
80) m,p-Xylene	6.153	91	1479333	199.54	ug/L	97
81) o-Xylene	6.470	91	764307	102.11	ug/L	98
82) Styrene	6.507	104	614748	104.52	ug/L	97
83) Bromoform	6.531	173	148273	93.22	ug/L	98
84) Isopropylbenzene	6.702	105	898177	99.52	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	75008	95.80	ug/L	89
88) n-Propylbenzene	7.019	91	1054008	98.35	ug/L	99
89) Bromobenzene	7.000	156	228969	96.27	ug/L	92
90) 1,1,2,2-Tetrachloroethane	7.067	83	340637	104.38	ug/L	99
91) 1,3,5-Trimethylbenzene	7.177	105	771187	101.92	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:48:37 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	726612	100.55	ug/L	96
93) trans-1,4-Dichloro-2-B...	7.208	53	70393	89.94	ug/L	98
94) 1,2,3-Trichloropropane	7.177	110	106047	98.75	ug/L	99
95) Cyclohexanone	7.214	55	68594	460.58	ug/L	97
96) 4-Chlorotoluene	7.275	91	693150	104.22	ug/L	99
97) tert-Butylbenzene	7.421	91	419726	102.68	ug/L	93
99) 1,2,4-Trimethylbenzene	7.476	105	780540	104.40	ug/L	97
100) Pentachloroethane	7.439	167	119983	97.43	ug/L #	88
101) sec-Butylbenzene	7.561	105	880243	97.19	ug/L	99
102) 4-Isopropyltoluene	7.671	119	782205	98.98	ug/L	98
103) 1,3-Dichlorobenzene	7.726	146	459390	97.75	ug/L	96
104) 1,2,3-Trimethylbenzene	7.811	105	811442	103.71	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	466203	97.92	ug/L	98
106) n-Butylbenzene	7.988	92	398030	95.72	ug/L	97
107) Benzyl Chloride	7.976	126	105960	89.51	ug/L #	84
108) 1,2-Dichlorobenzene	8.104	146	438925	98.98	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	79711	100.80	ug/L	84
110) Hexachlorobutadiene	9.134	225	83962	82.87	ug/L	95
111) 1,2,4-Trichlorobenzene	9.152	180	259138	96.26	ug/L	98
112) Naphthalene	9.372	128	1012965	106.35	ug/L	99
113) 1,2,3-Trichlorobenzene	9.500	180	248101	97.04	ug/L	98

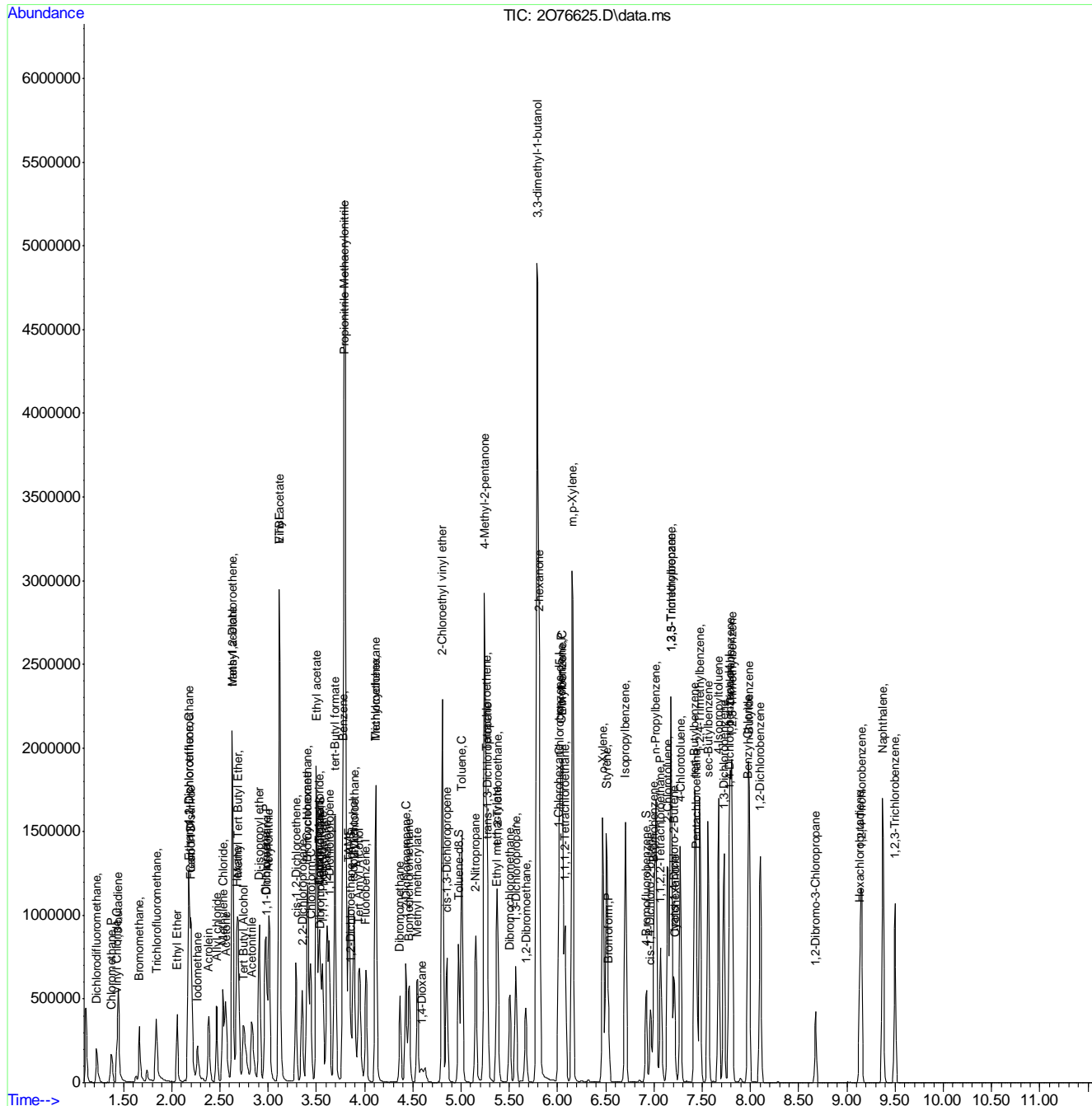
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
Data File : 2076625.D  
Acq On : 7 Jun 2023 12:38 pm  
Operator : joannel  
Sample : IC2981-7  
Misc : MS54147,V202981,,,,,  
ALS Vial : 8 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:48:37 2023  
Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Tue Apr 11 14:22:12 2023  
Response via : Initial Calibration



# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76625.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 12:38      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.89	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

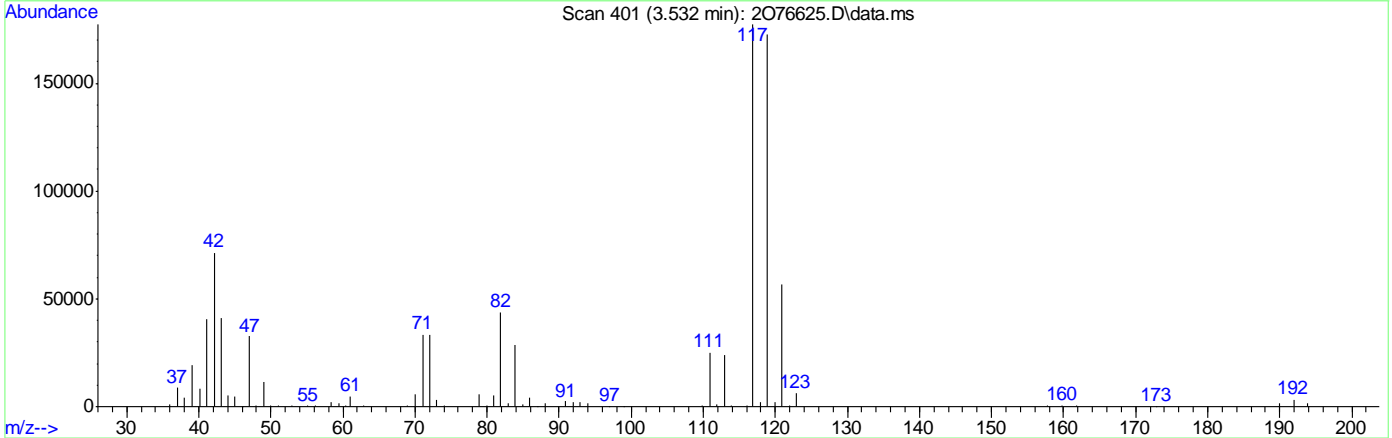
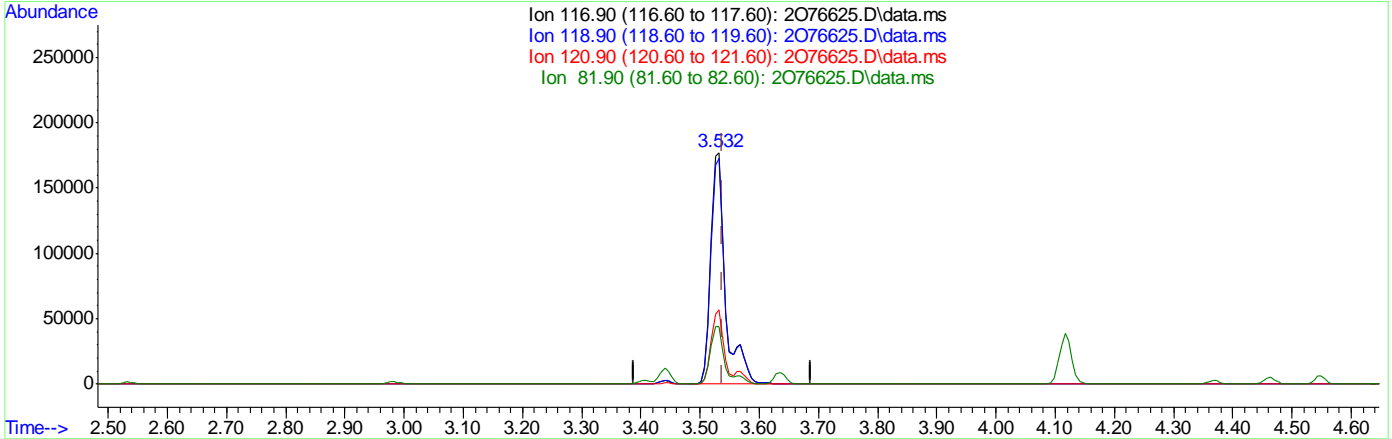
7.6.4.1

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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 129.25ug/L

response 310617

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.51
120.90	31.00	31.88
81.90	24.80	24.61

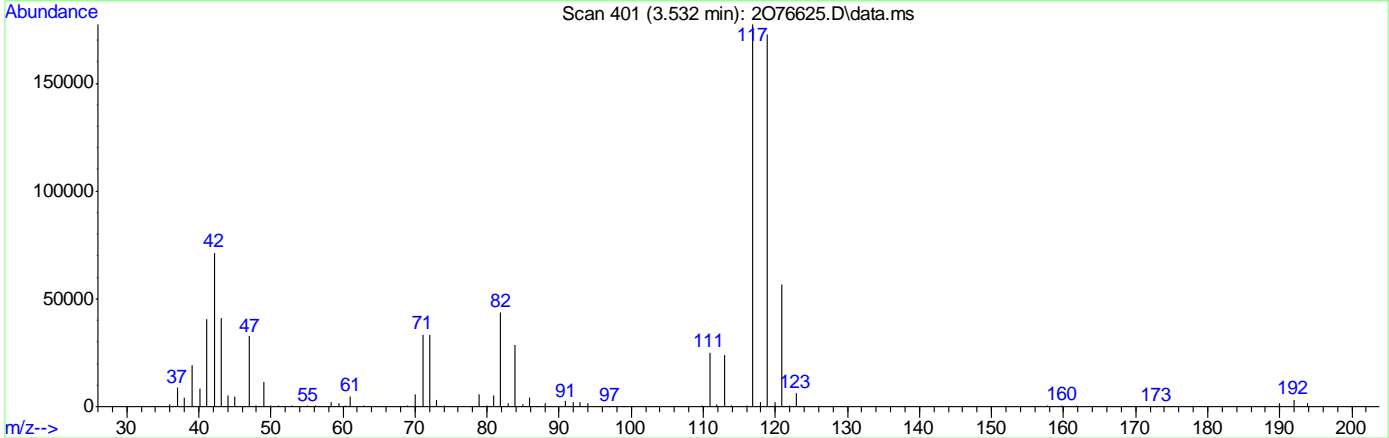
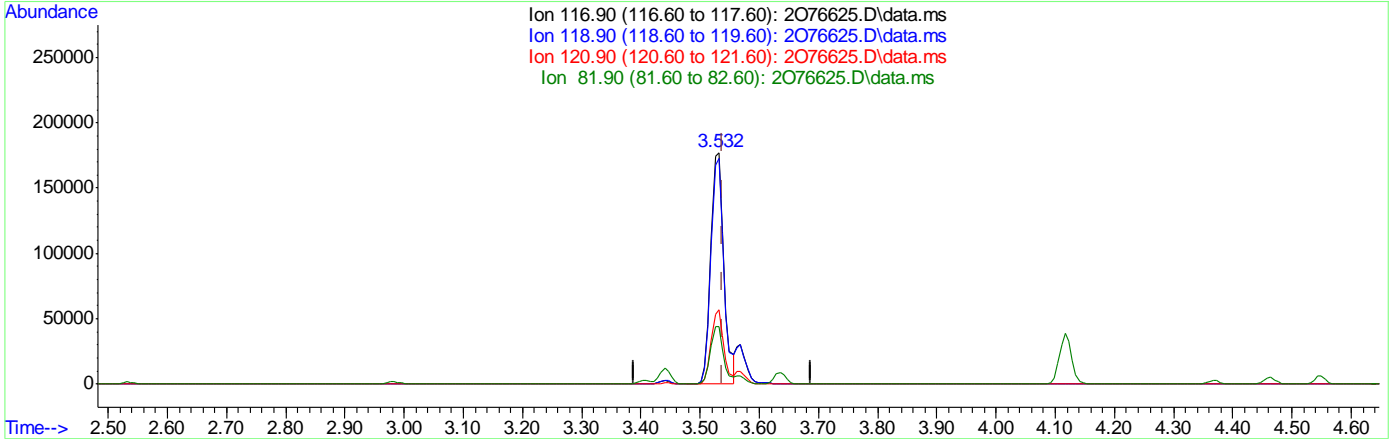
7.6.4.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (-0.006) 113.39ug/L m  
 response 272511

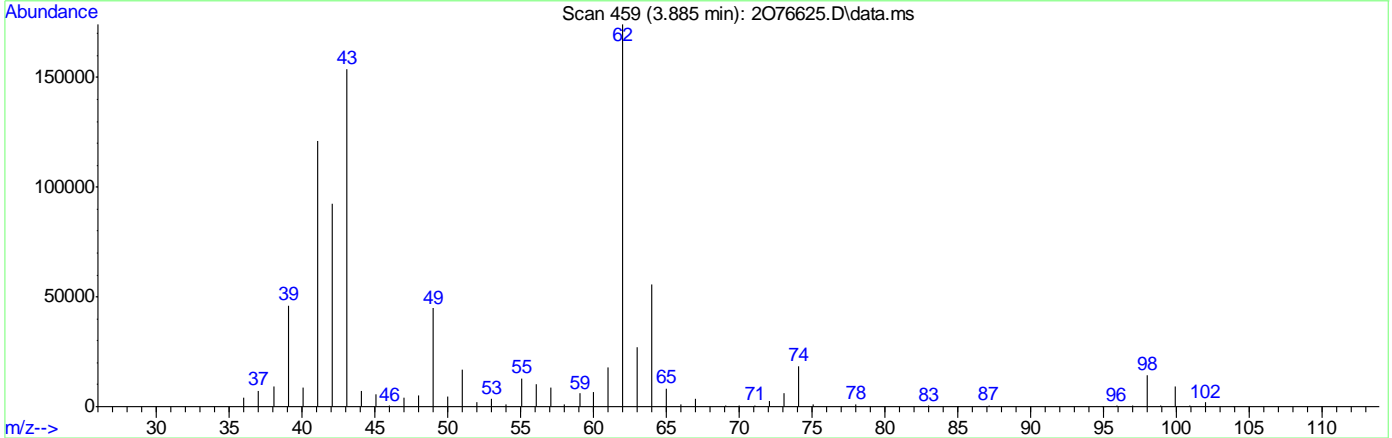
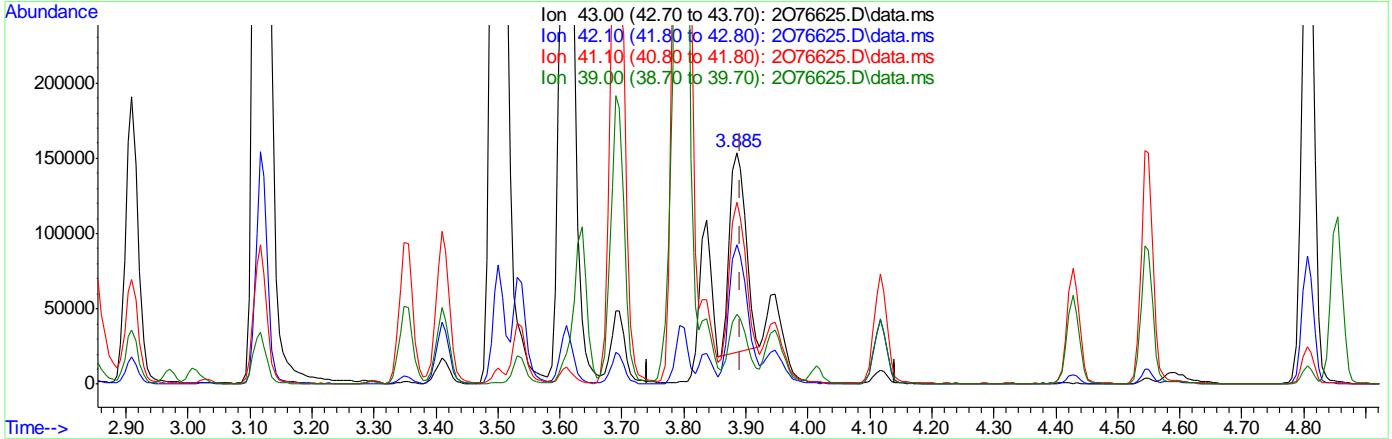
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.51
120.90	31.00	31.88
81.90	24.80	24.76

7.6.4.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

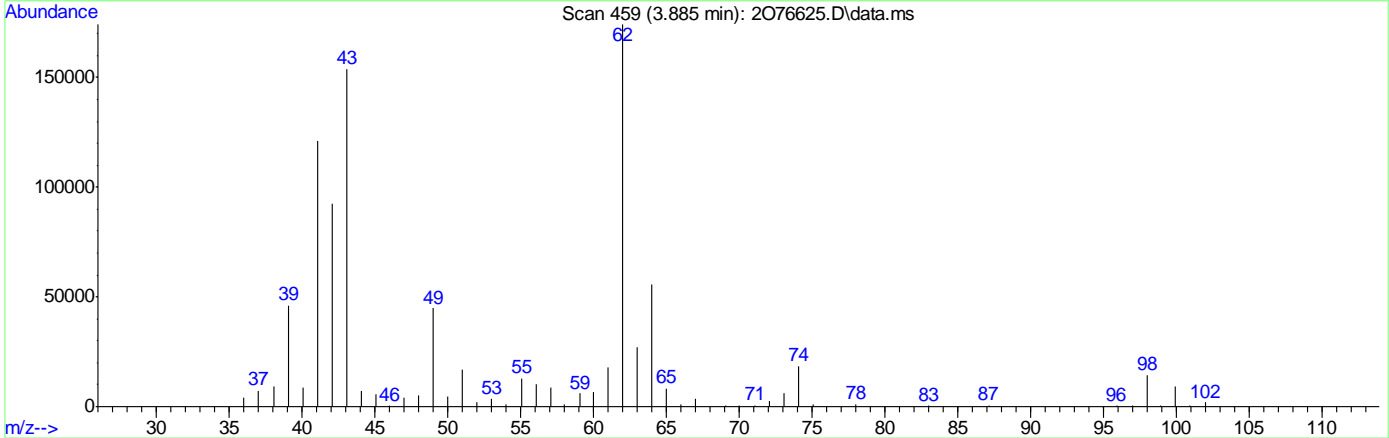
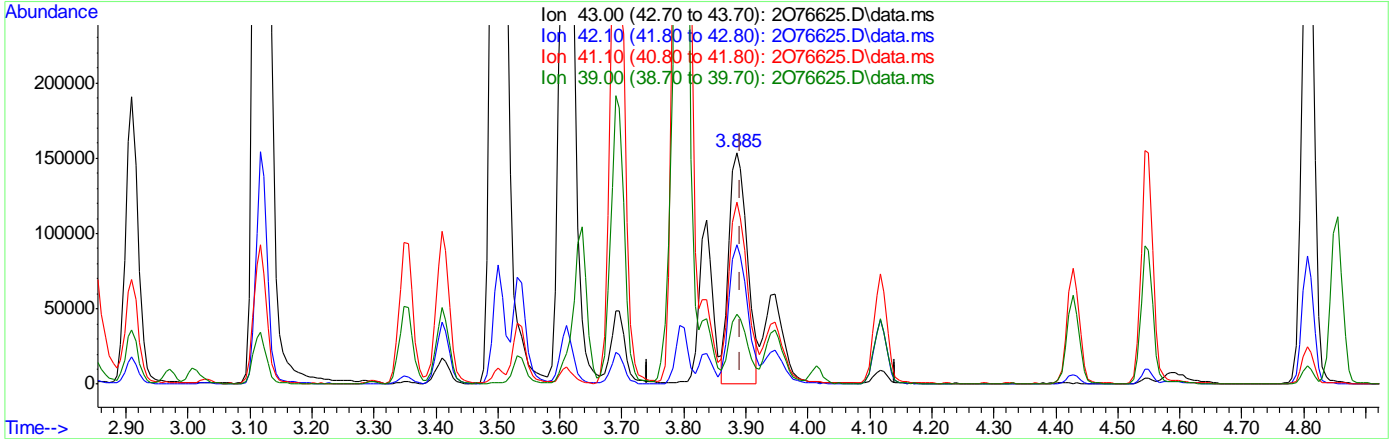
(49) Isobutyl alcohol  
 3.885min (-0.006) 1330.64ug/L  
 response 241376

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	64.63
41.10	73.50	78.41
39.00	30.20	26.55

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(49) Isobutyl alcohol  
 3.885min (-0.006) 1655.53ug/L m  
 response 311768

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	60.17
41.10	73.50	78.61
39.00	30.20	29.94

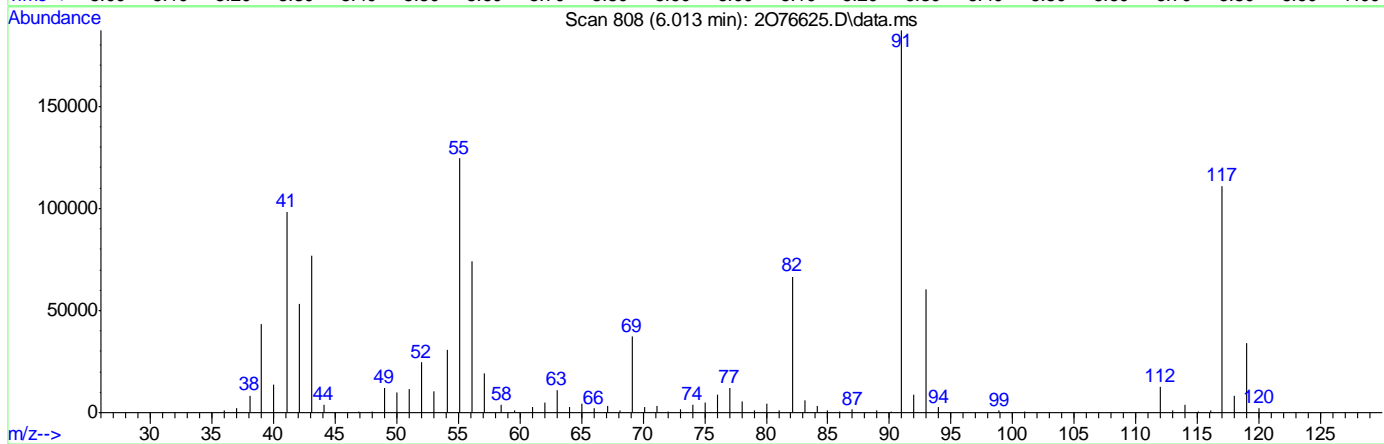
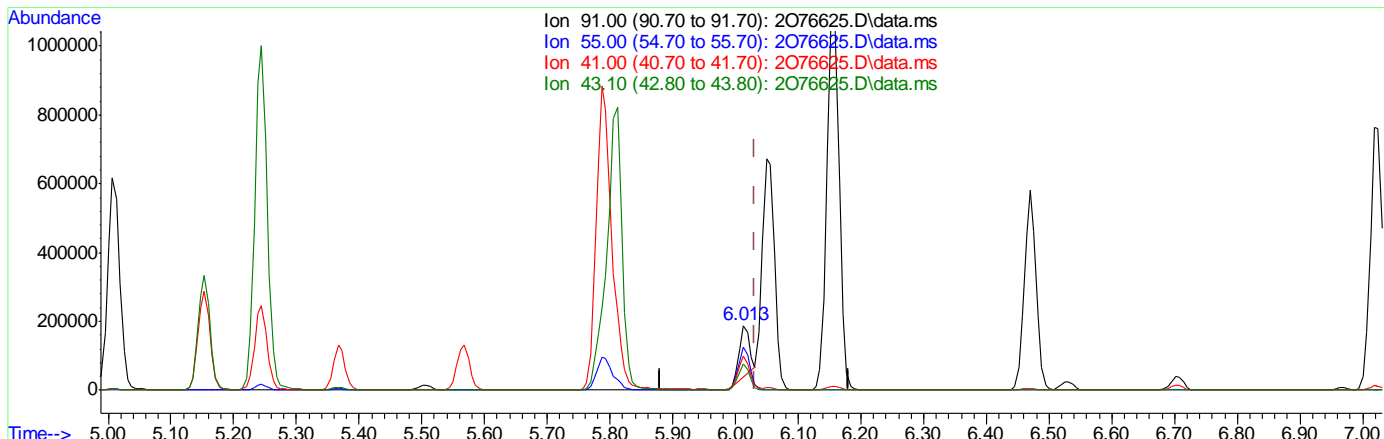
7.6.4.5  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 60.12ug/L  
 response 167144

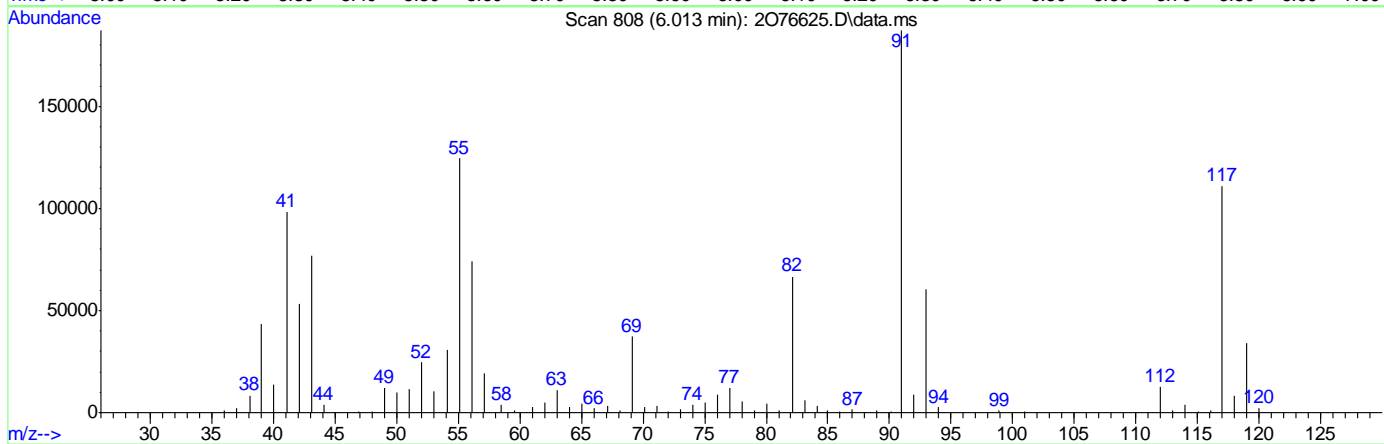
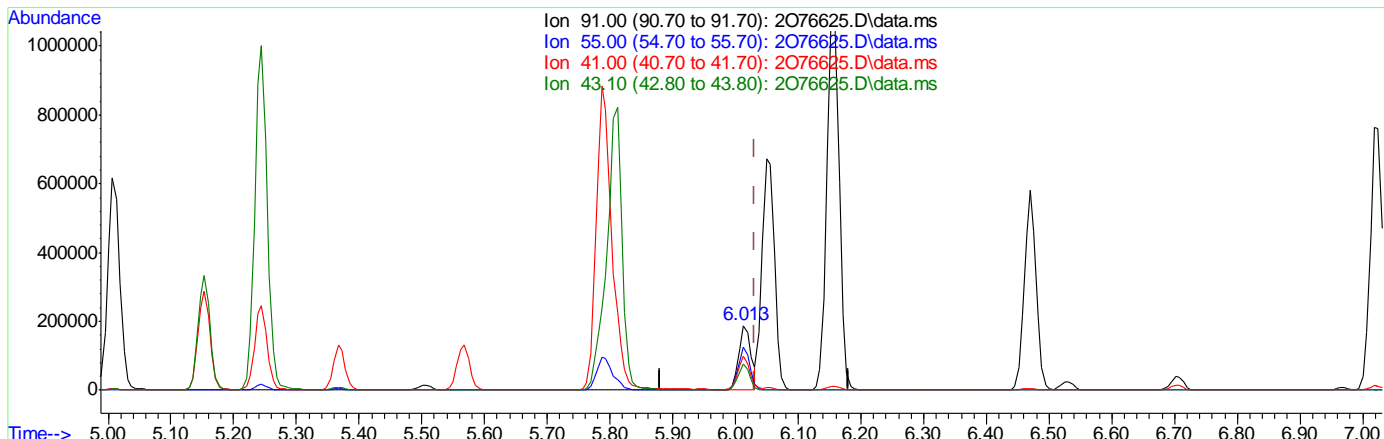
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.09
41.00	53.70	50.96
43.10	42.30	40.21

7.6.4.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076625.D  
 Acq On : 7 Jun 2023 12:38 pm  
 Operator : joannel  
 Sample : IC2981-7 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 07 14:46:18 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076625.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 91.99ug/L m  
 response 255764

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	66.54
41.00	53.70	52.36
43.10	42.30	40.96

7.6.4.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	428165	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	307214	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	160102	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	116102	48.92	ug/L	-0.01	
Spiked Amount	50.000	Range 83 - 118	Recovery =	97.84%			
50) 1,2-Dichloroethane-d4	3.849	65	131582	52.16	ug/L	-0.02	
Spiked Amount	50.000	Range 79 - 125	Recovery =	104.32%			
63) Toluene-d8	4.976	98	416094	49.67	ug/L	-0.01	
Spiked Amount	50.000	Range 85 - 112	Recovery =	99.34%			
86) 4-Bromofluorobenzene	6.921	174	117568	48.12	ug/L	-0.02	
Spiked Amount	50.000	Range 83 - 118	Recovery =	96.24%			
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.227	85	1700	0.97	ug/L		97
3) Chloromethane	1.373	50	2069	1.10	ug/L		97
4) 1,3-butadiene	1.447	39	1573	0.83	ug/L		86
5) Vinyl Chloride	1.434	62	1915	1.02	ug/L		98
6) Bromomethane	1.672	94	1849	1.29	ug/L		90
7) Chloroethane	1.757	64	1546	1.25	ug/L		86
8) Trichlorofluoromethane	1.855	101	3317	1.00	ug/L		99
9) Ethyl Ether	2.056	59	1702	1.15	ug/L		87
11) 1,2-Dichlorotrifluoro...	2.184	67	2227	1.01	ug/L		91
12) 1,1-Dichloroethene	2.184	61	2916	1.03	ug/L		95
13) Freon 113	2.209	101	1865	0.99	ug/L		89
14) Carbon Disulfide	2.196	76	7186	1.31	ug/L		95
15) Iodomethane	2.270	142	1590	0.54	ug/L		74
16) Acrolein	2.385	56	1611	3.00	ug/L		98
17) Allyl chloride	2.471	41	1454	0.67	ug/L		85
18) Methylene Chloride	2.532	49	4235	1.61	ug/L		96
19) Acetone	2.556	43	6359	5.90	ug/L		99
20) Methyl acetate	2.629	43	14487	5.85	ug/L		99
21) trans-1,2-Dichloroethene	2.629	61	3148	1.17	ug/L		91
22) Hexane	2.678	56	1515	1.06	ug/L	#	93
23) Methyl Tert Butyl Ether	2.690	73	5830	1.13	ug/L		86
24) Tert Butyl Alcohol	2.739	59	3128	8.08	ug/L		72
25) Acetonitrile	2.830	41	4273	10.54	ug/L		92
26) Di-isopropyl ether	2.910	45	5801	1.06	ug/L		95
27) Chloroprene	2.971	53	1581	0.61	ug/L		99
28) 1,1-Dichloroethane	2.983	63	3906	1.12	ug/L		96
29) Acrylonitrile	3.007	52	5847	5.61	ug/L		98
30) ETBE	3.117	59	5182	1.04	ug/L		96
31) Vinyl acetate	3.117	43	16712	4.18	ug/L		97
32) cis-1,2-Dichloroethene	3.288	96	2828	1.30	ug/L		94
33) 2,2-Dichloropropane	3.355	77	2480	1.05	ug/L		90
34) Bromochloromethane	3.403	128	1270	1.08	ug/L		92
35) Cyclohexane	3.416	56	2479	0.86	ug/L		87
36) Chloroform	3.440	83	4440	1.17	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Ethyl acetate	3.501	43	13756	4.37	ug/L	97
38) Tetrahydrofuran	3.538	42	1146m	0.95	ug/L	
40) Carbon Tetrachloride	3.531	117	2585m	1.09	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	3173	1.03	ug/L	96
42) 2-Butanone	3.611	43	9107	5.10	ug/L	98
43) 1,1-Dichloropropene	3.635	75	2701	1.02	ug/L	92
44) tert-Butyl formate	3.690	59	2305	3.49	ug/L #	80
45) Propionitrile	3.781	54	3736	7.05	ug/L	89
46) Methacrylonitrile	3.794	41	12708	7.08	ug/L	96
47) Benzene	3.775	78	8983	1.14	ug/L	91
48) TAME	3.830	73	4674	1.00	ug/L	92
49) Isobutyl alcohol	3.879	43	1455m	9.61	ug/L	
51) 1,2-Dichloroethane	3.891	62	4105	1.47	ug/L	97
52) Tert Amyl Alcohol	3.940	59	2208	7.24	ug/L #	73
53) Trichloroethene	4.117	95	2693	1.19	ug/L	92
54) Methylcyclohexane	4.117	83	2864	0.97	ug/L #	80
55) Dibromomethane	4.373	93	1995	1.40	ug/L	83
56) 1,2-Dichloropropane	4.428	63	2100	1.14	ug/L	85
57) Bromodichloromethane	4.458	83	2799	1.11	ug/L	85
58) Methyl methacrylate	4.543	41	1176	0.57	ug/L	90
59) 1,4-Dioxane	4.580	88	1015	26.70	ug/L	91
60) 2-Chloroethyl vinyl ether	4.806	63	6568	4.11	ug/L	93
61) cis-1,3-Dichloropropene	4.854	75	2660	0.95	ug/L	97
64) Toluene	5.007	91	9766	1.16	ug/L	86
65) 2-Nitropropane	5.153	41	2241	4.74	ug/L	86
66) 4-Methyl-2-pentanone	5.245	43	13337	4.43	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	2896	1.07	ug/L	87
68) Tetrachloroethene	5.263	166	2351	0.99	ug/L	87
69) Ethyl methacrylate	5.367	69	1023	0.43	ug/L #	80
70) 1,1,2-Trichloroethane	5.379	83	1901	1.12	ug/L	93
71) Dibromochloromethane	5.507	129	1730	0.91	ug/L	83
72) 1,3-Dichloropropane	5.562	76	3964	1.27	ug/L	95
73) 1,2-Dibromoethane	5.671	107	2842	1.34	ug/L	78
74) 3,3-dimethyl-1-butanol	5.781	57	11841	30.52	ug/L	92
75) 2-hexanone	5.812	43	12444	4.16	ug/L	92
76) 1-Chlorohexane	6.013	91	3099m	1.17	ug/L	
77) Ethylbenzene	6.049	91	10384	1.14	ug/L	94
78) Chlorobenzene	6.037	112	6915	1.22	ug/L	87
79) 1,1,1,2-Tetrachloroethane	6.080	131	1672	0.94	ug/L	94
80) m,p-Xylene	6.153	91	15842	2.24	ug/L	95
81) o-Xylene	6.470	91	7854	1.10	ug/L	94
82) Styrene	6.507	104	5136	0.92	ug/L	97
83) Bromoform	6.531	173	1072	0.91	ug/L	76
84) Isopropylbenzene	6.702	105	8417	0.98	ug/L	92
88) n-Propylbenzene	7.019	91	11289	1.14	ug/L	93
89) Bromobenzene	7.000	156	2690	1.22	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	3728	1.23	ug/L	97
91) 1,3,5-Trimethylbenzene	7.171	105	7530	1.07	ug/L	97
92) 2-Chlorotoluene	7.141	91	7586	1.13	ug/L	95
94) 1,2,3-Trichloropropane	7.177	110	1238m	1.24	ug/L	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:51:34 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 4-Chlorotoluene	7.275	91	7838	1.27	ug/L	97
97) tert-Butylbenzene	7.421	91	4206	1.11	ug/L	95
99) 1,2,4-Trimethylbenzene	7.476	105	7425	1.07	ug/L	92
100) Pentachloroethane	7.439	167	393m	0.44	ug/L	
101) sec-Butylbenzene	7.561	105	8780	1.05	ug/L	93
102) 4-Isopropyltoluene	7.671	119	6975	0.95	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	5336	1.23	ug/L	99
104) 1,2,3-Trimethylbenzene	7.811	105	8355	1.15	ug/L	97
105) 1,4-Dichlorobenzene	7.793	146	6071m	1.38	ug/L	
106) n-Butylbenzene	7.982	92	3935	1.09	ug/L	96
107) Benzyl Chloride	7.970	126	559m	0.76	ug/L	
108) 1,2-Dichlorobenzene	8.104	146	4976	1.21	ug/L	89
109) 1,2-Dibromo-3-Chloropr...	8.677	75	505m	0.85	ug/L	
110) Hexachlorobutadiene	9.134	225	1664	1.91	ug/L	92
111) 1,2,4-Trichlorobenzene	9.152	180	3526	1.41	ug/L	86
112) Naphthalene	9.372	128	9536	1.08	ug/L	98
113) 1,2,3-Trichlorobenzene	9.500	180	3072	1.30	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed



# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76627.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 13:55      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Tetrahydrofuran	109-99-9		3.54	Missed peak
Isobutyl Alcohol	78-83-1		3.88	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline
1,2,3-Trichloropropane	96-18-4		7.18	Missed peak
Pentachloroethane	76-01-7		7.44	Missed peak
1,4-Dichlorobenzene	106-46-7		7.79	Missed peak
Benzyl Chloride	100-44-7		7.97	Missed peak
1,2-Dibromo-3-chloropropane	96-12-8		8.68	Missed peak

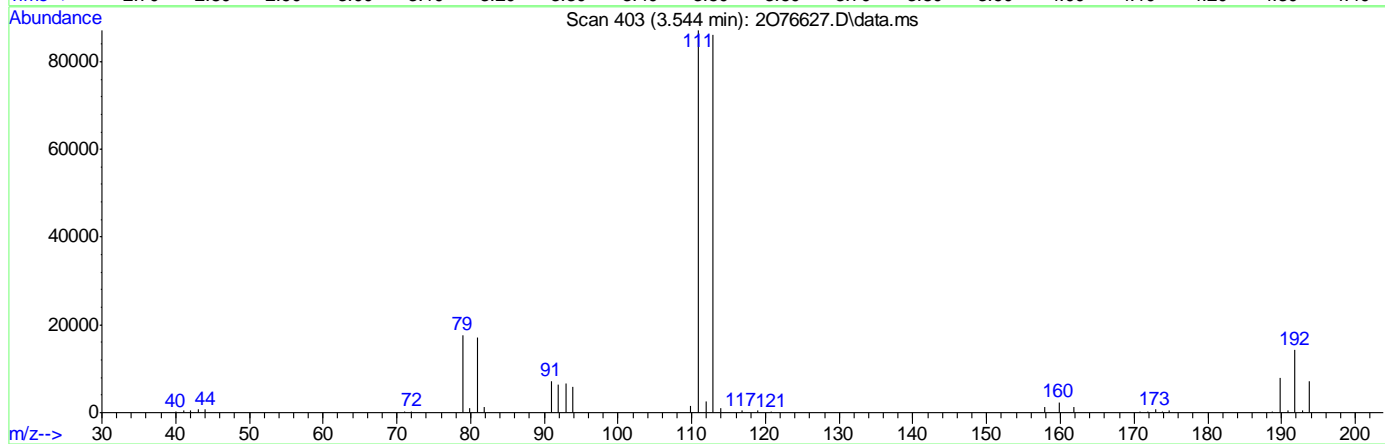
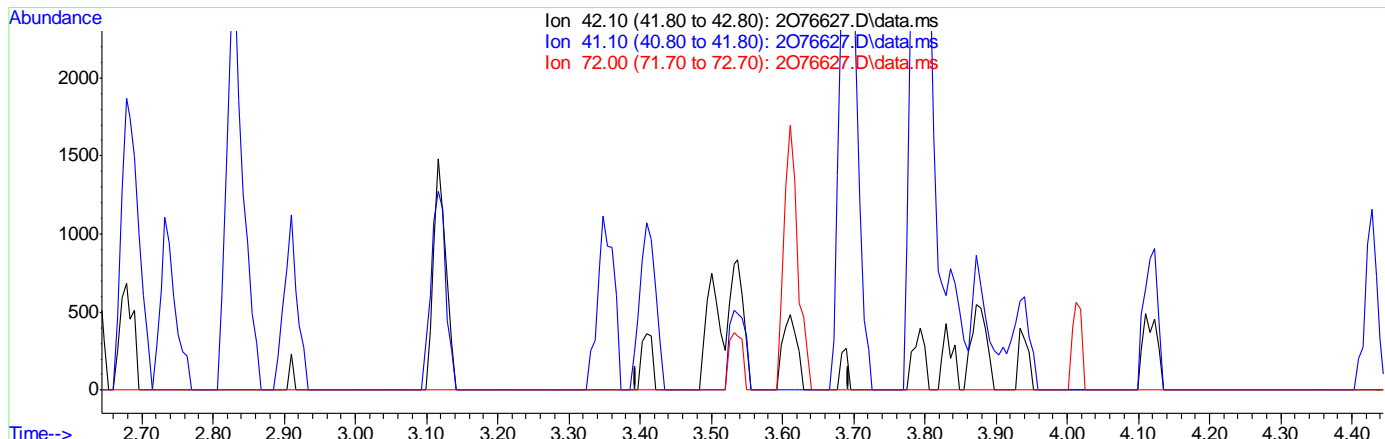
7.6.5.1  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(38) Tetrahydrofuran  
 3.544min (-3.544) 0.00ug/L  
 response 0

Ion	Exp%	Act%
42.10	100	0.00
41.10	55.90	0.00#
72.00	47.60	0.00#
0.00	0.00	0.00

7.6.5.2  
7

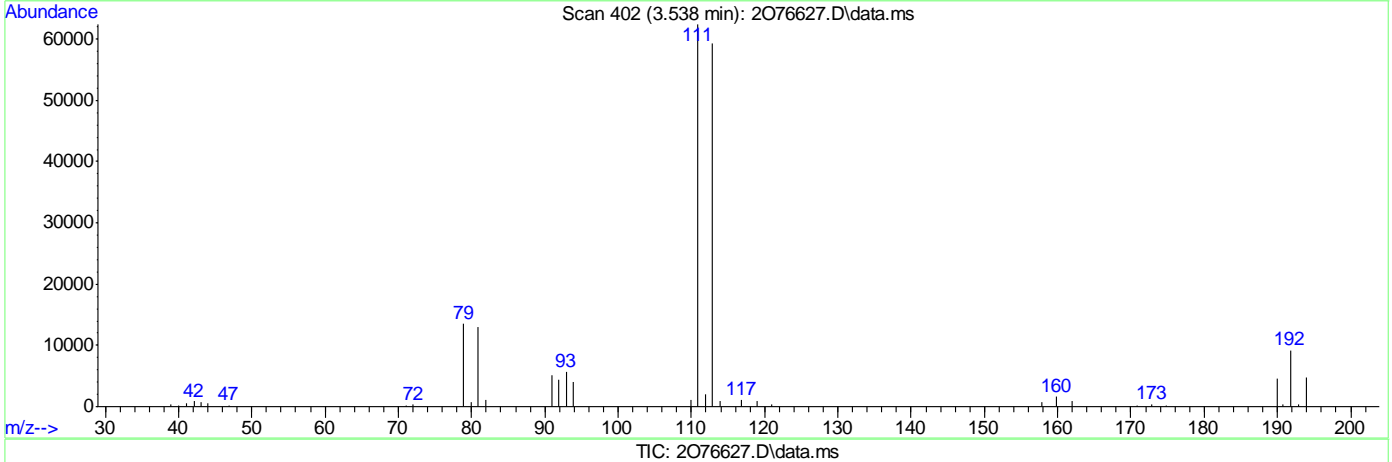
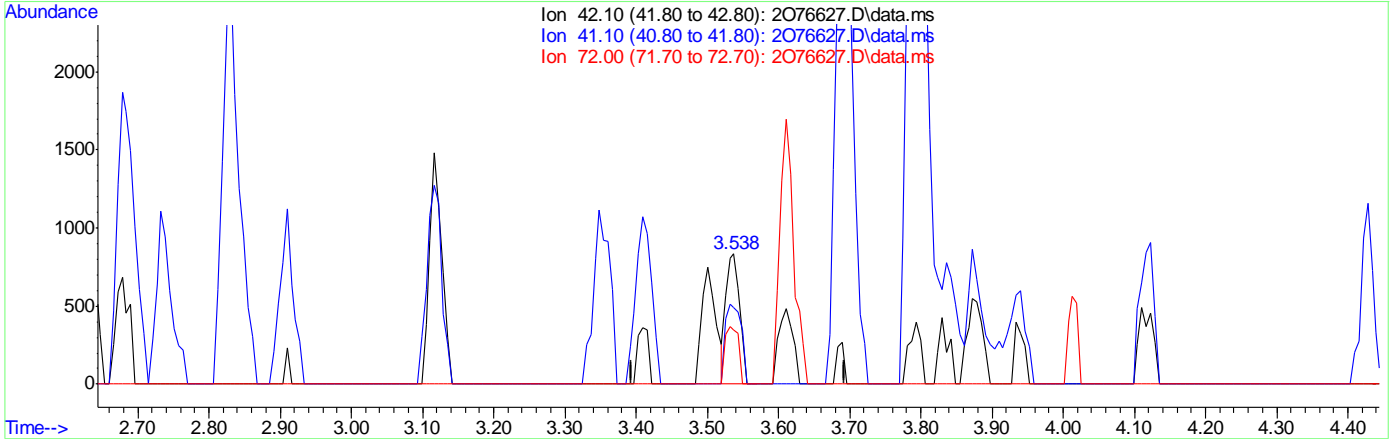


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(38) Tetrahydrofuran  
 3.538min (-0.006) 0.95ug/L m  
 response 1146

Ion	Exp%	Act%
42.10	100	100
41.10	55.90	58.99
72.00	47.60	41.73
0.00	0.00	0.00

7.6.5.3

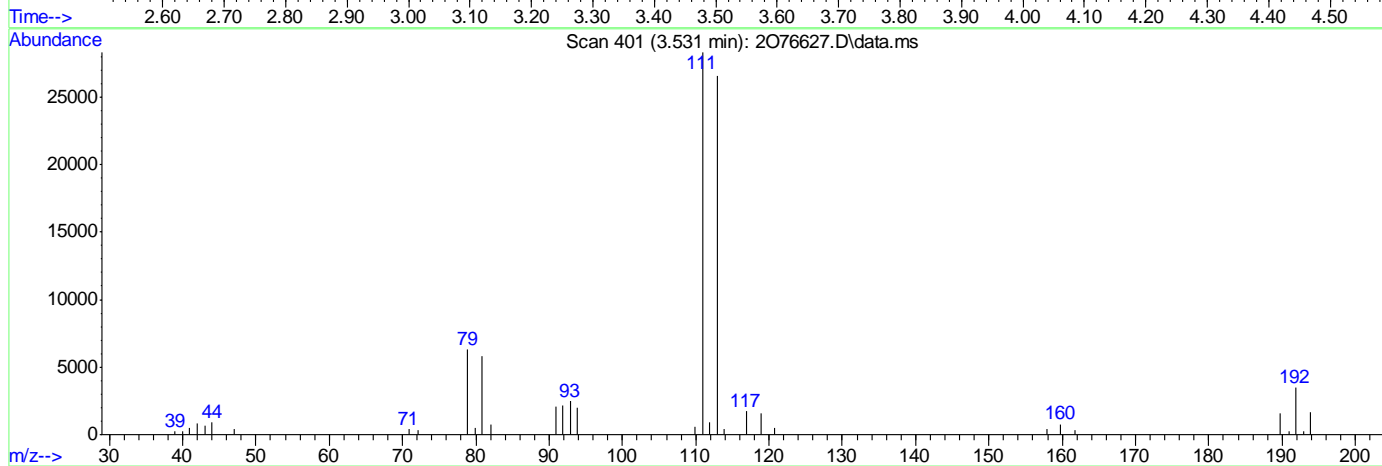
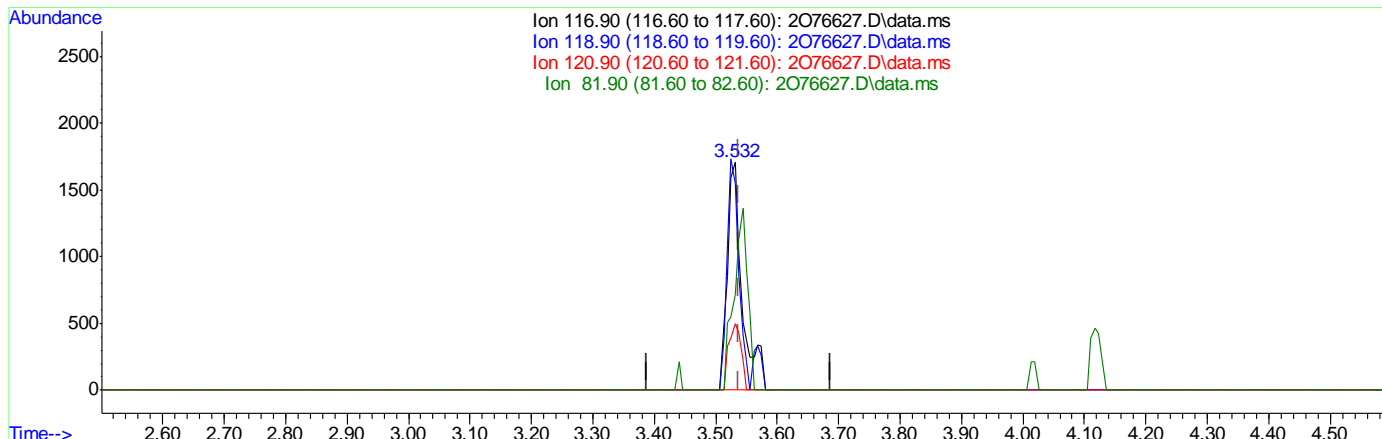
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.006) 1.19ug/L

response 2830

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	90.46
120.90	31.00	29.26
81.90	24.80	42.01

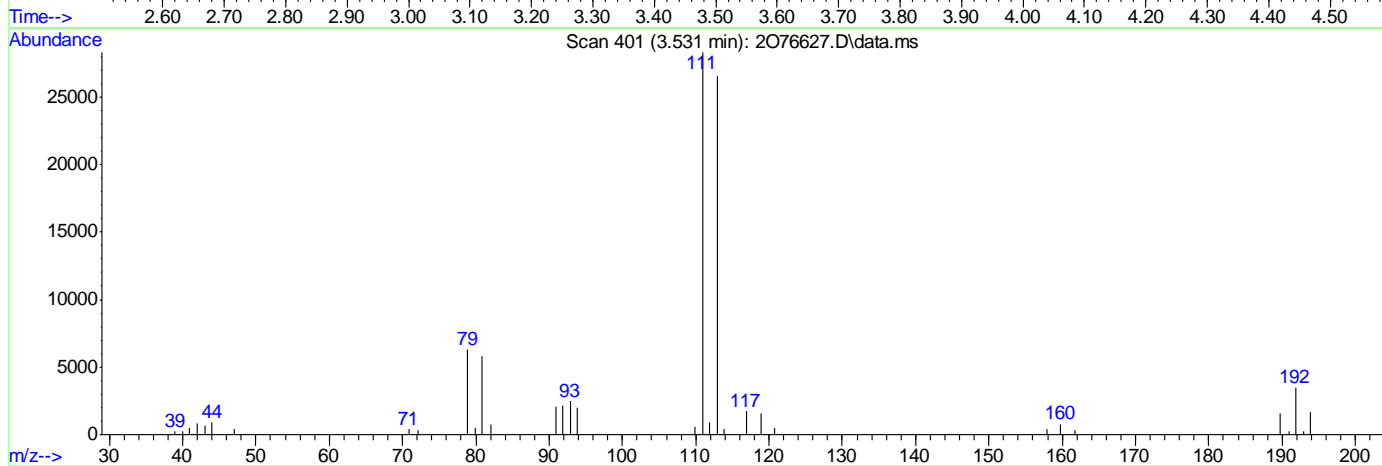
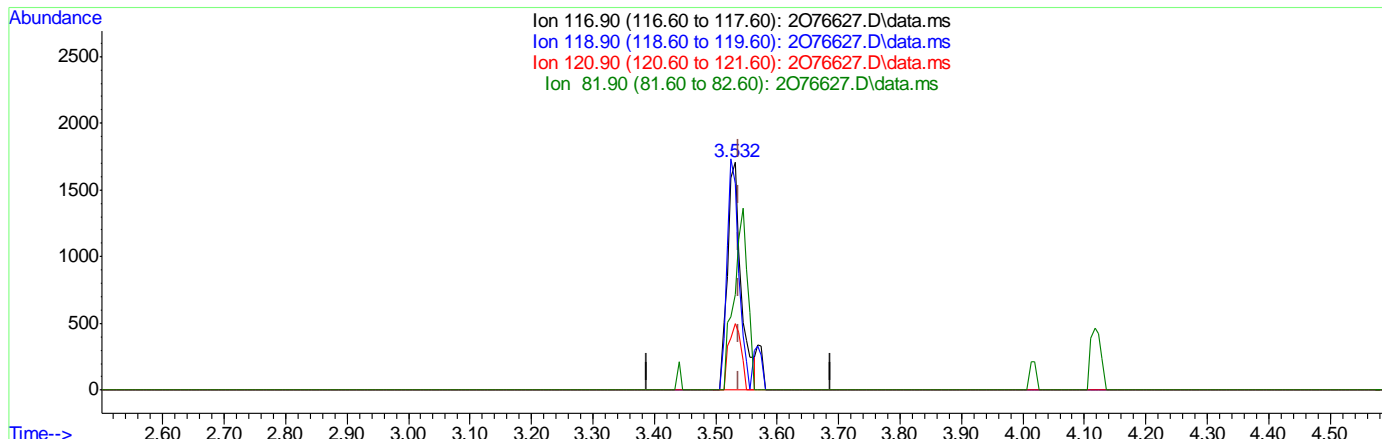
7.6.5.4  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(40) Carbon Tetrachloride ( )

3.531min (-0.006) 1.09ug/L m

response 2585

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	90.46
120.90	31.00	29.26
81.90	24.80	42.01

7.6.5.5

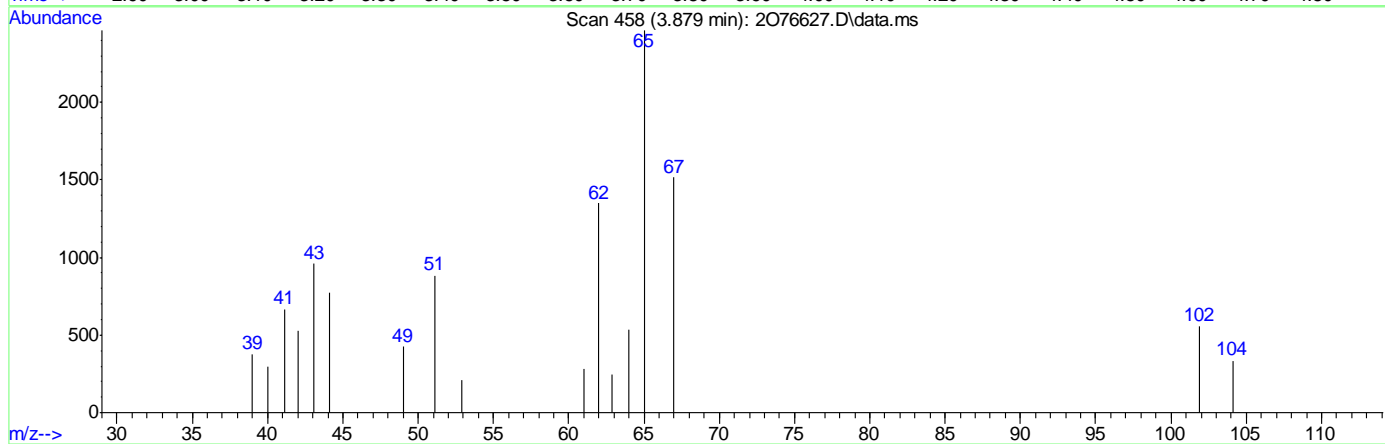
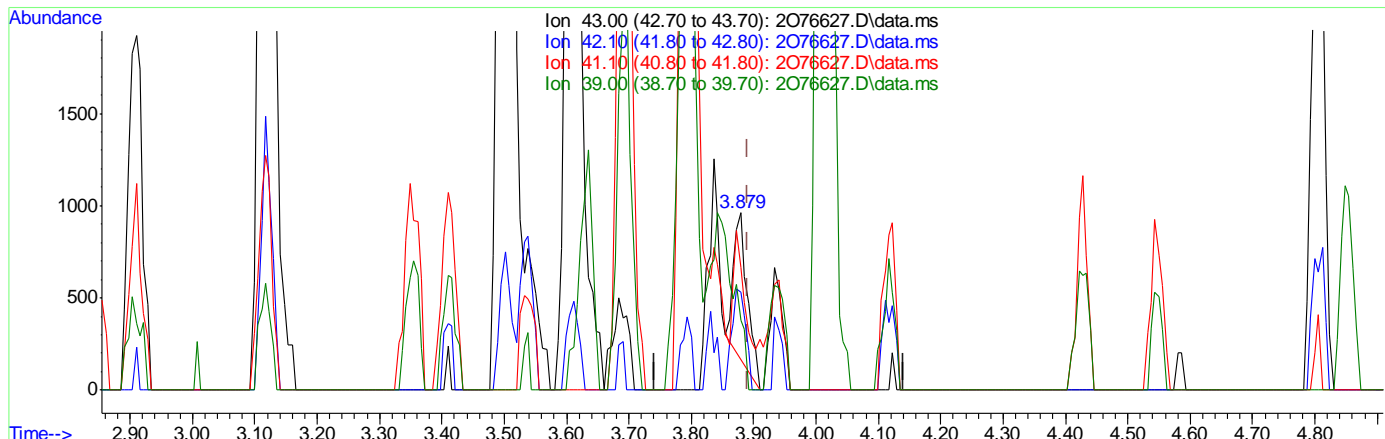
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 7.60ug/L  
 response 1150

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.10
41.10	73.50	40.52
39.00	30.20	39.48

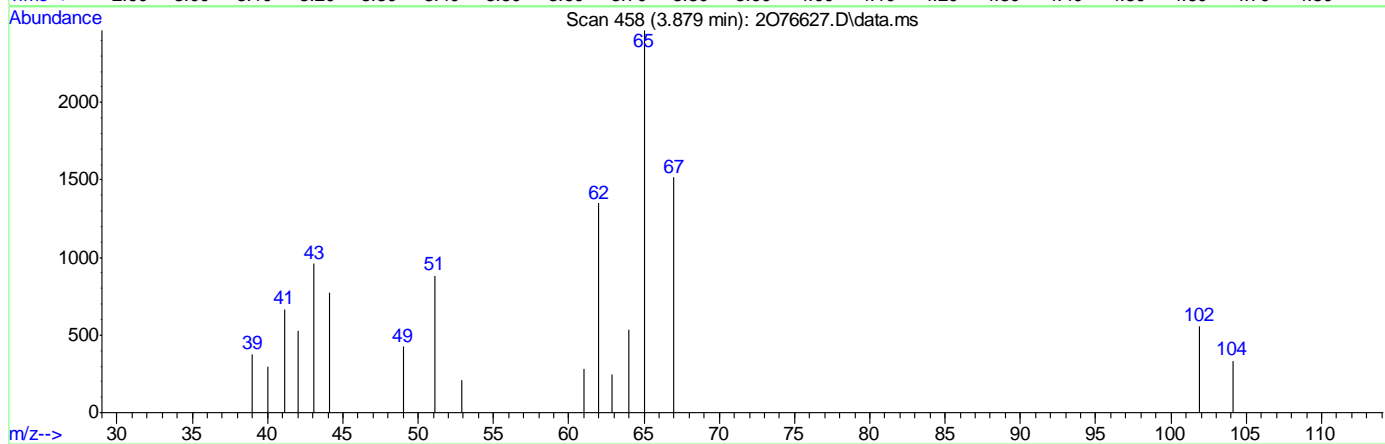
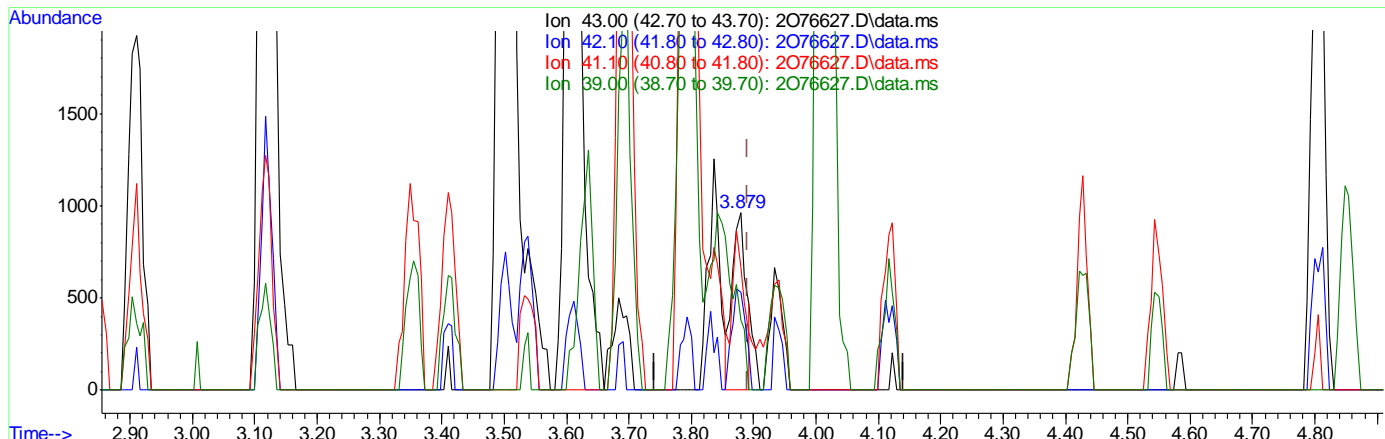
7.6.5.6  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(49) Isobutyl alcohol  
 3.879min (-0.012) 9.61ug/L m  
 response 1455

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.10
41.10	73.50	69.48
39.00	30.20	39.48

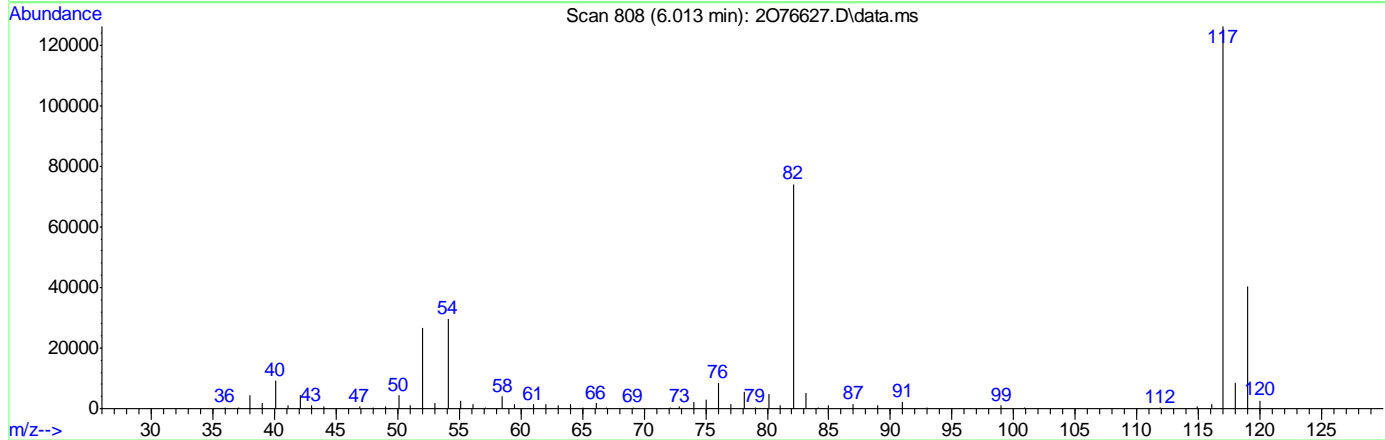
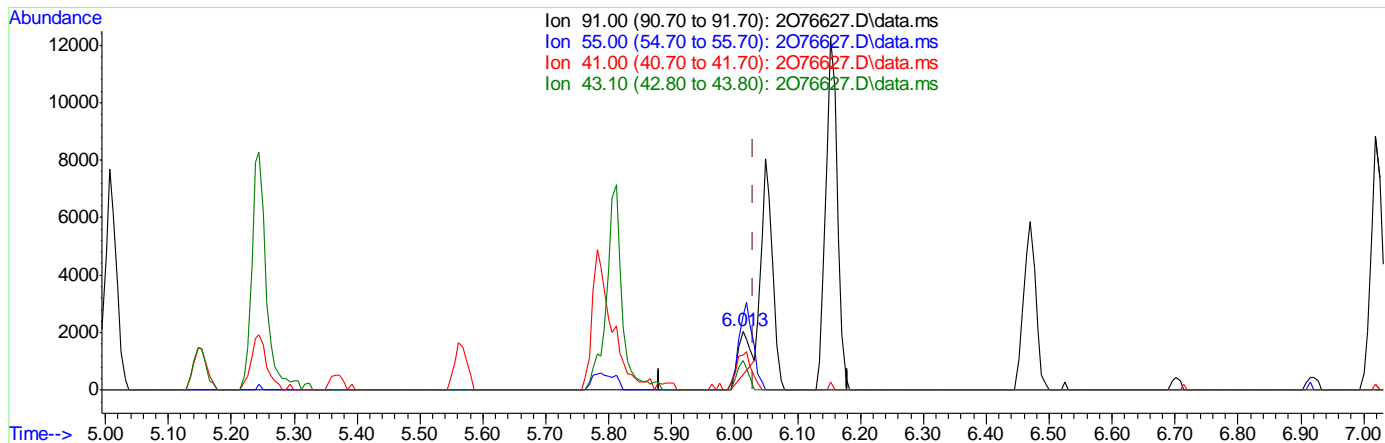
7.6.5.7  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(76) 1-Chlorohexane

6.013min (-0.018) 0.75ug/L

response 1986

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	115.79#
41.00	53.70	47.12
43.10	42.30	49.32

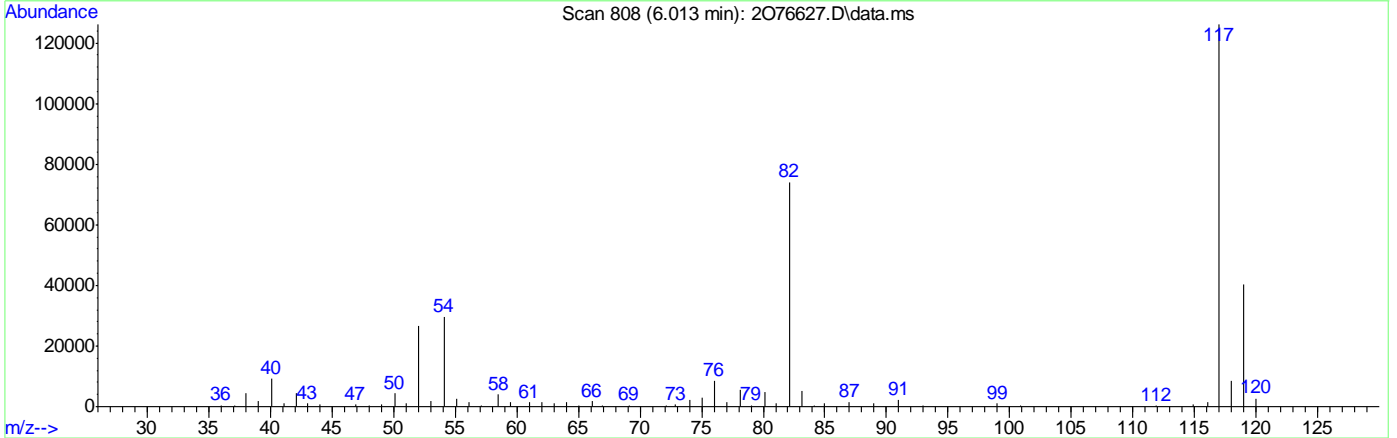
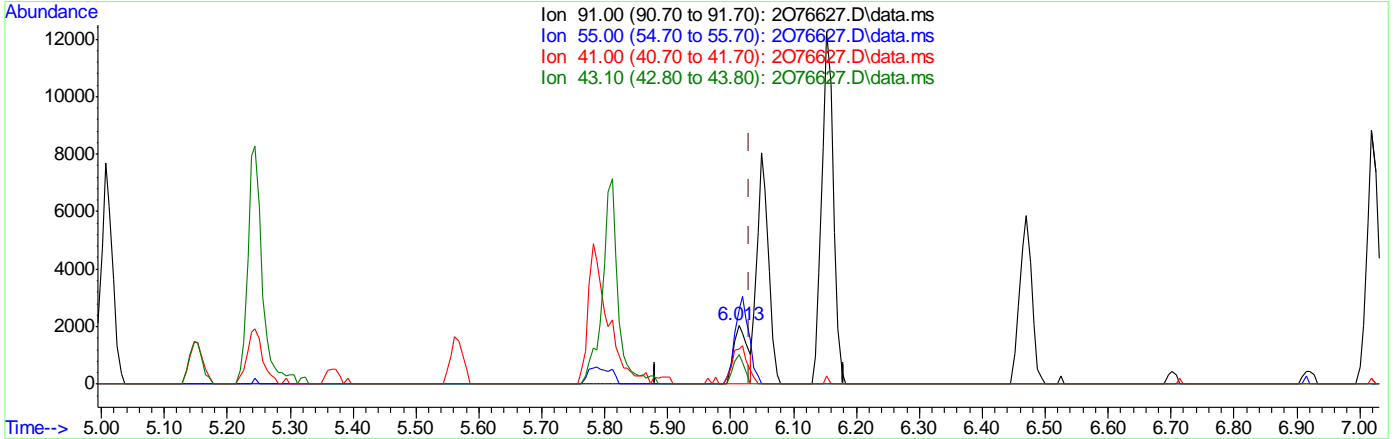
7.6.5.8  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 1.17ug/L m  
 response 3099

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	125.93#
41.00	53.70	59.99
43.10	42.30	49.32

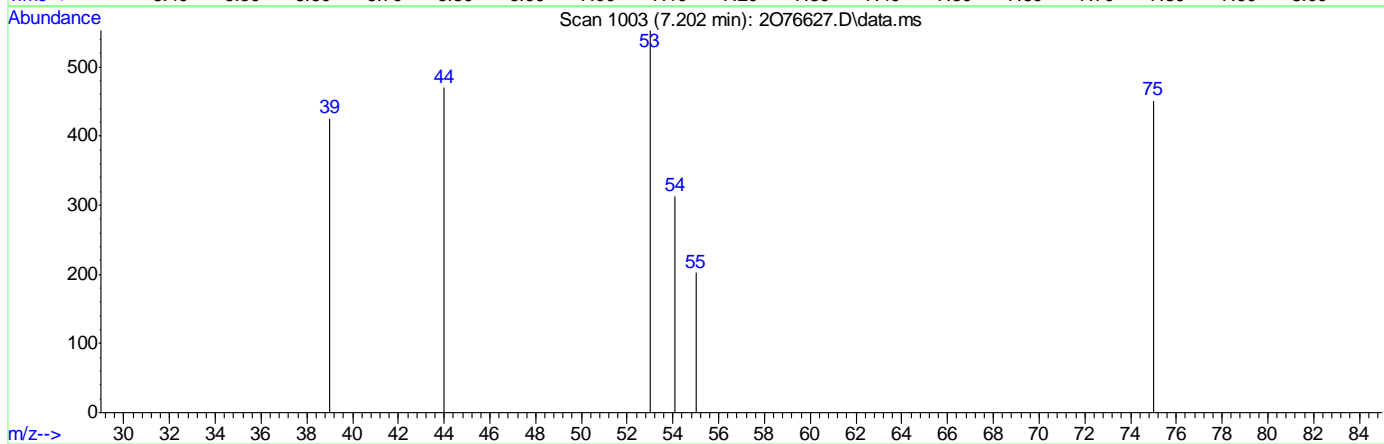
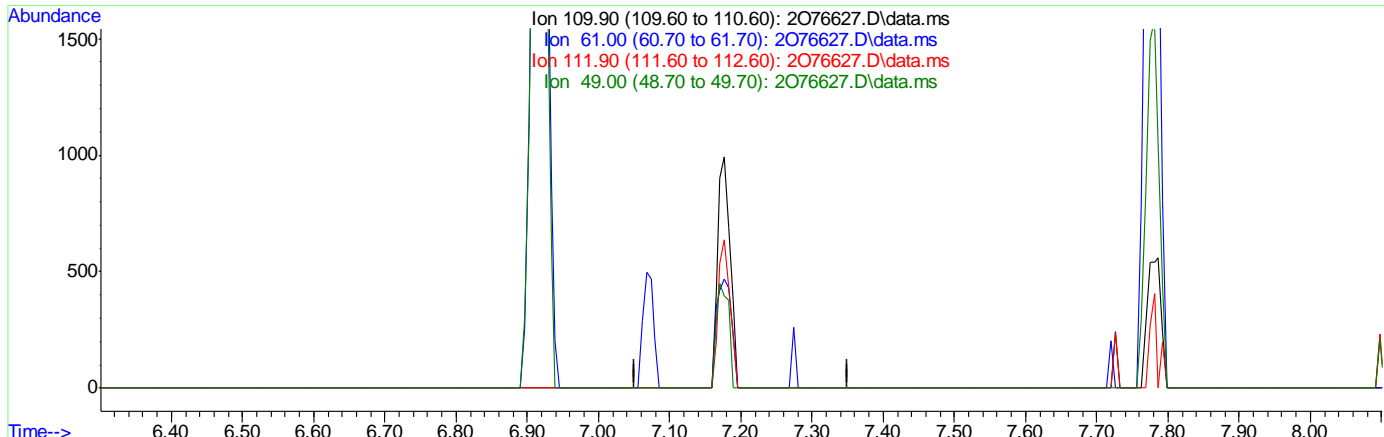
7.65.9  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(94) 1,2,3-Trichloropropane ( )

7.201min (-7.201) 0.00ug/L

response 0

Ion	Exp%	Act%
109.90	100	0.00
61.00	63.10	0.00#
111.90	64.70	0.00#
49.00	47.70	0.00#

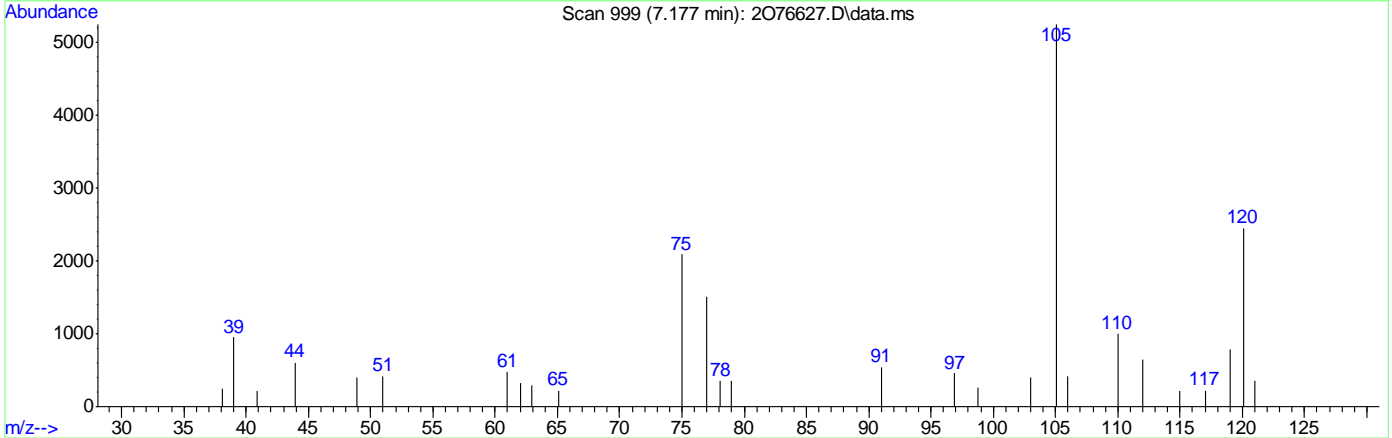
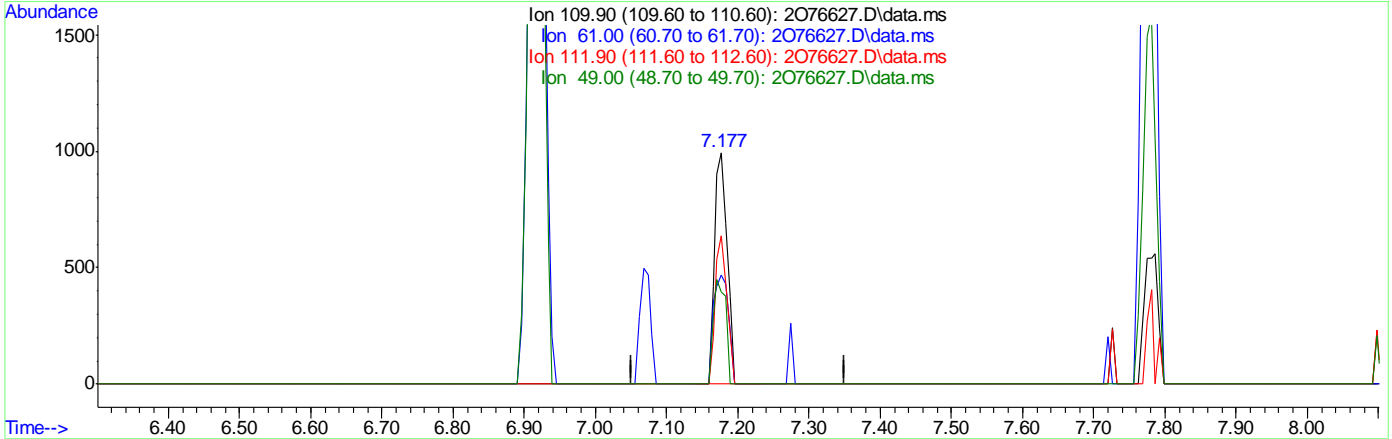
7.65.10  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(94) 1,2,3-Trichloropropane ( )  
 7.177min (-0.024) 1.24ug/L m  
 response 1238

Ion	Exp%	Act%
109.90	100	100
61.00	63.10	47.28
111.90	64.70	64.29
49.00	47.70	39.84

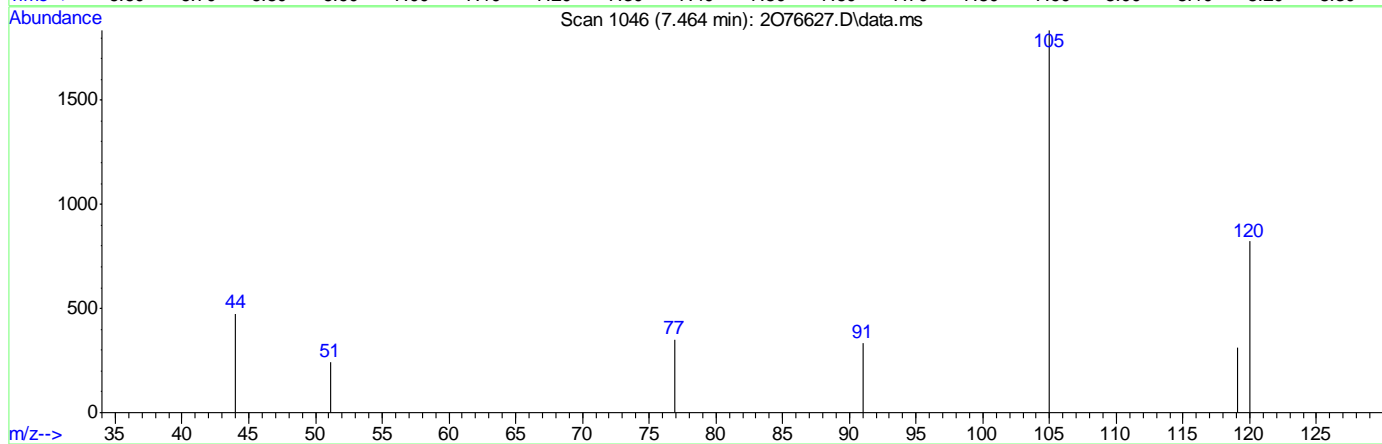
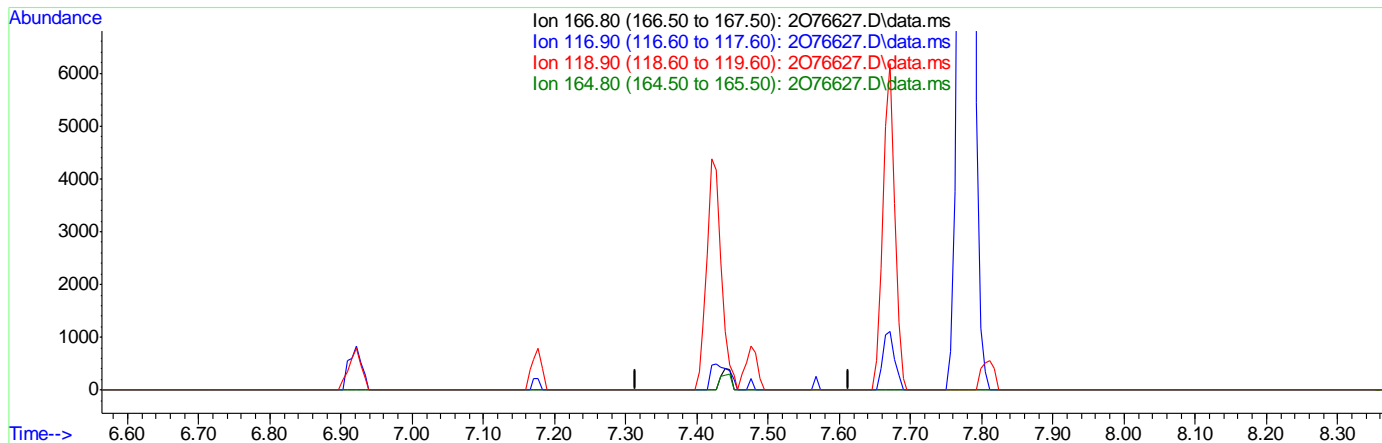
7.6.5.11  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(100) Pentachloroethane ( )

7.464min (-7.464) 0.00ug/L

response 0

Ion	Exp%	Act%
166.80	100	0.00
116.90	99.80	0.00#
118.90	210.50	0.00#
164.80	79.80	0.00#

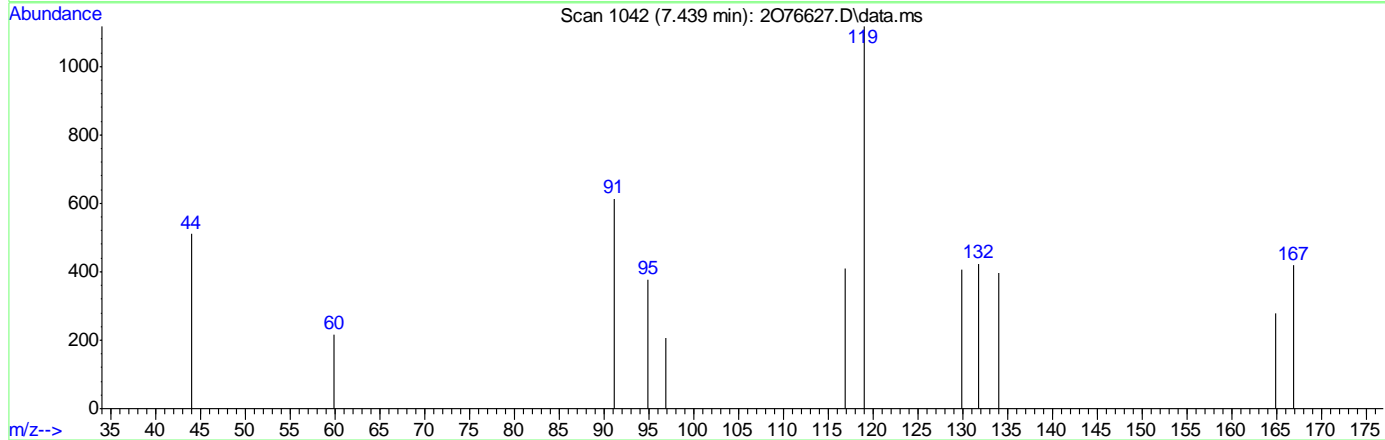
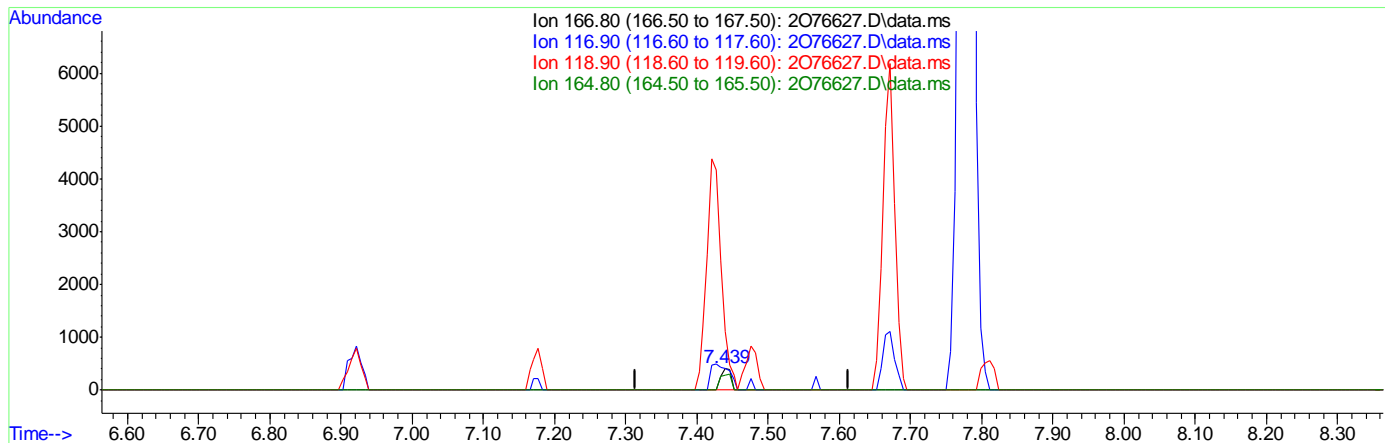
7.65.12  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
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 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(100) Pentachloroethane ( )  
 7.439min (-0.025) 0.44ug/L m  
 response 393

Ion	Exp%	Act%
166.80	100	100
116.90	99.80	97.39
118.90	210.50	265.32#
164.80	79.80	66.51

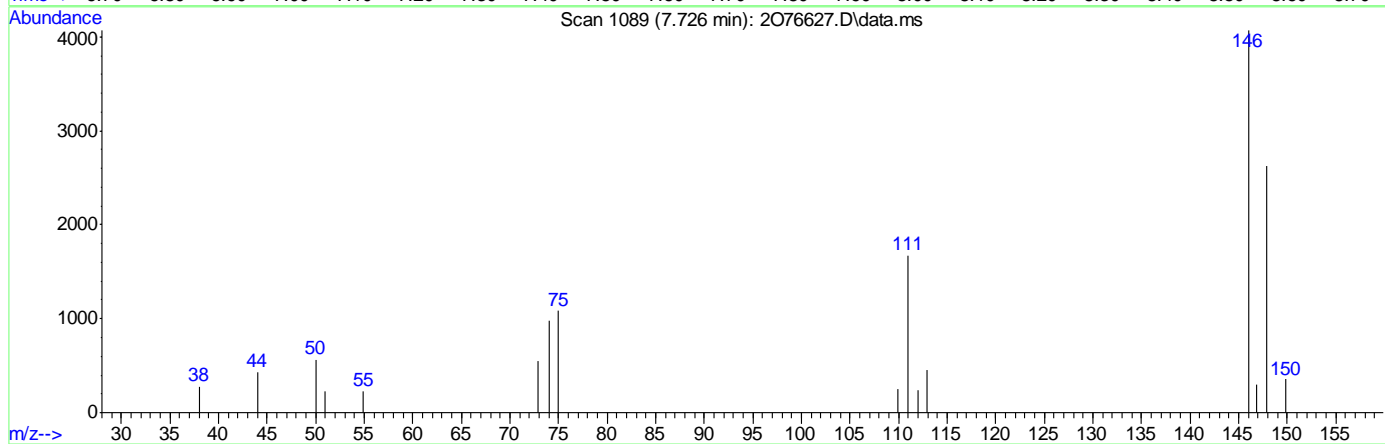
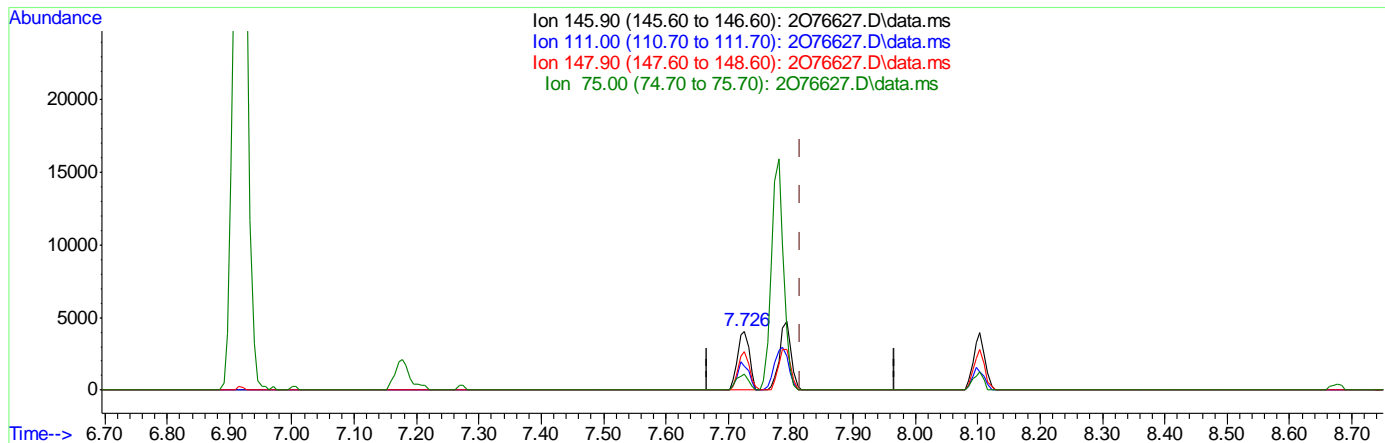
7.65.13  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(105) 1,4-Dichlorobenzene  
 7.726min (-0.091) 1.21ug/L  
 response 5336

Ion	Exp%	Act%
145.90	100	100
111.00	38.60	41.12
147.90	64.50	64.39
75.00	30.40	26.64

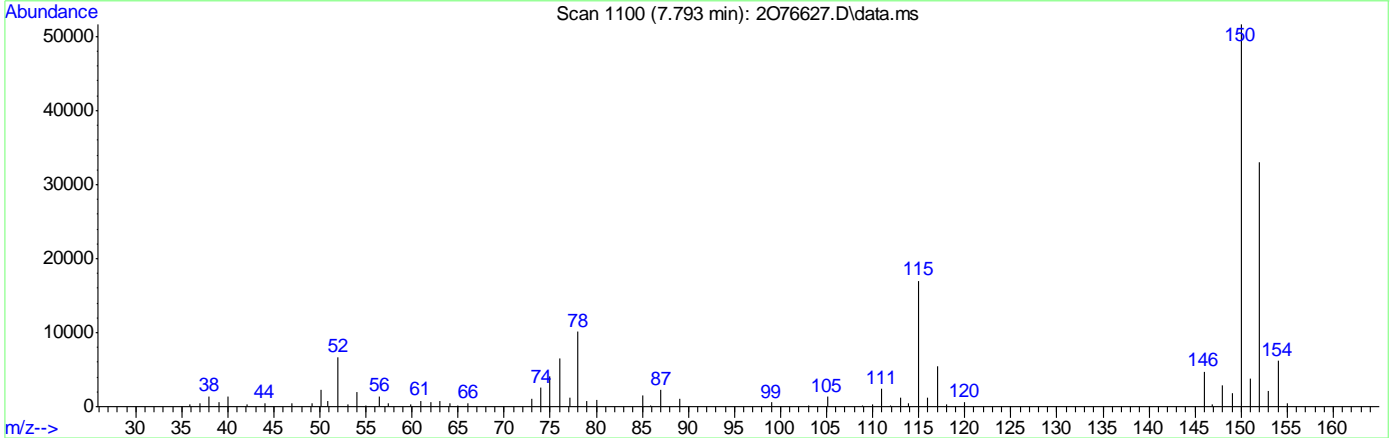
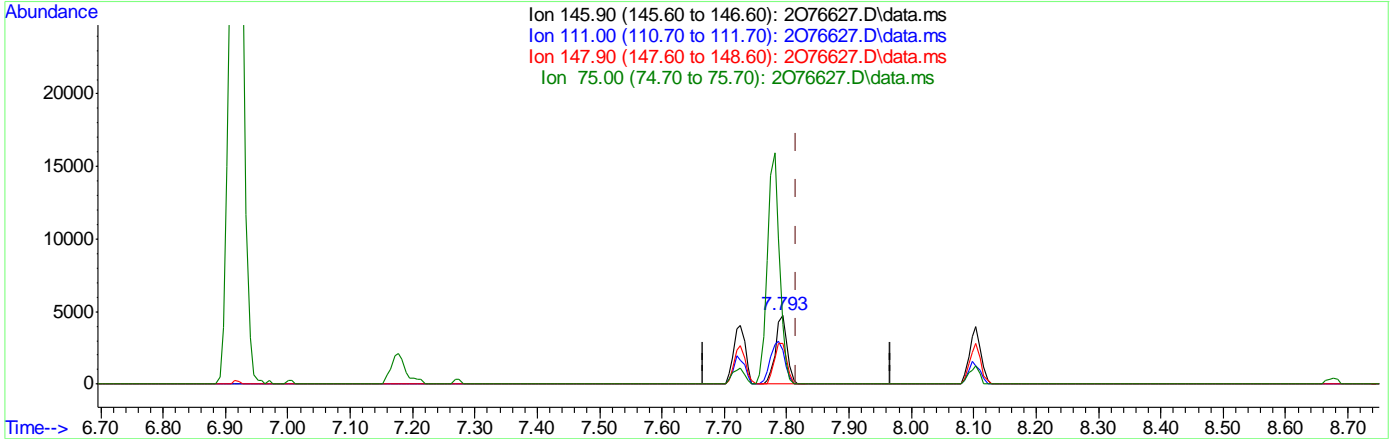
7.6.5.14  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(105) 1,4-Dichlorobenzene  
 7.793min (-0.024) 1.38ug/L m  
 response 6071

Ion	Exp%	Act%
145.90	100	100
111.00	38.60	49.56
147.90	64.50	59.62
75.00	30.40	87.12#

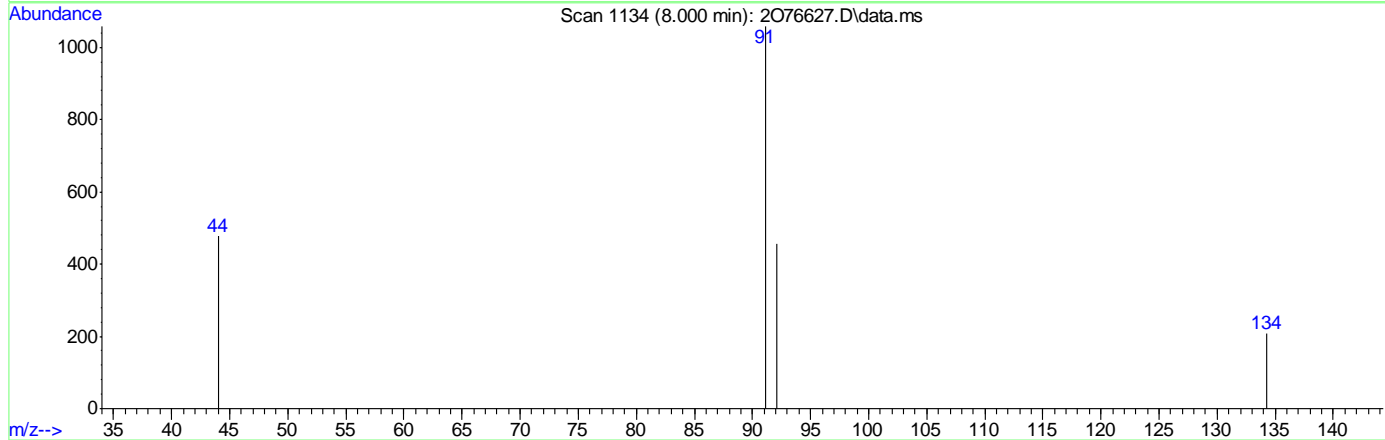
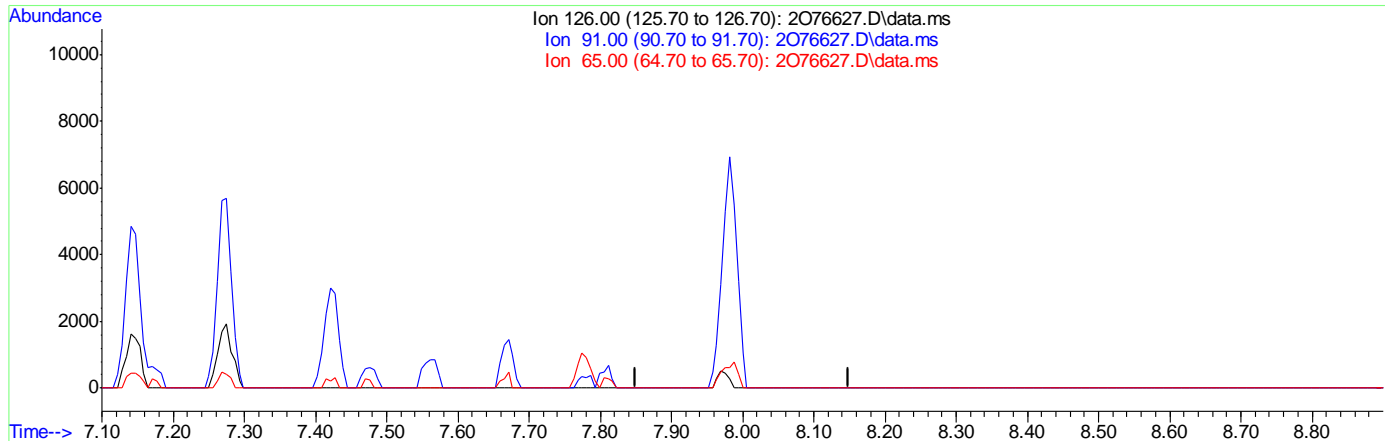
7.6.5.15  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(107) Benzyl Chloride

8.000min (-8.000) 0.00ug/L

response 0

Ion	Exp%	Act%
126.00	100	0.00
91.00	690.00	0.00#
65.00	76.80	0.00#
0.00	0.00	0.00

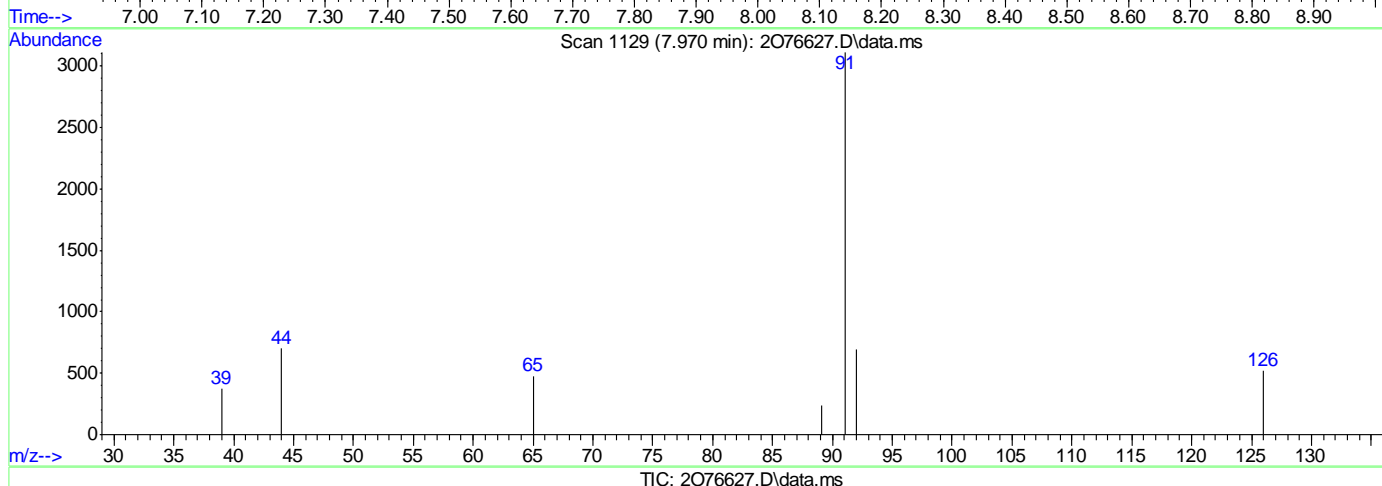
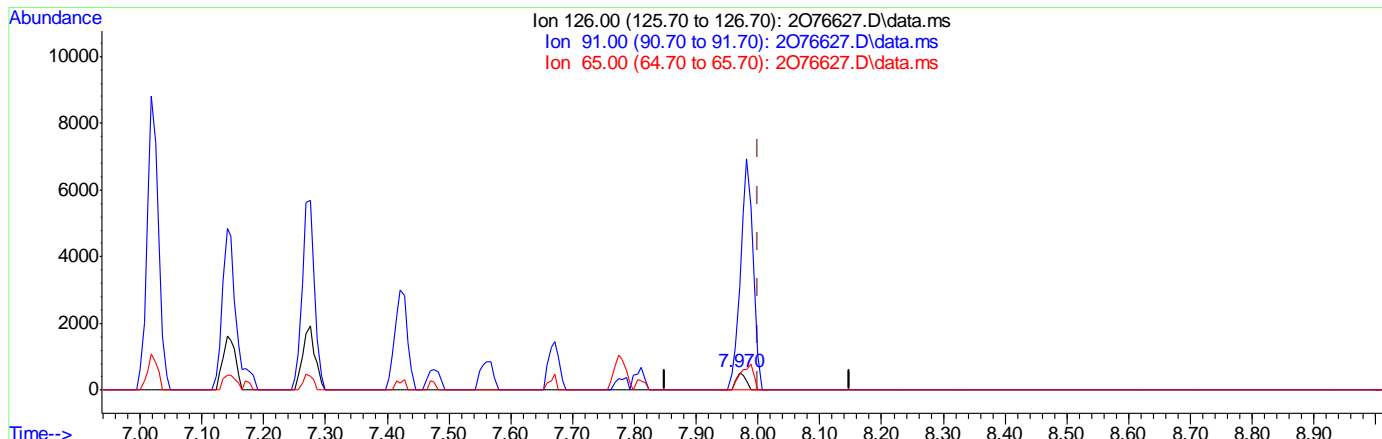
7.6.5.16  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(107) Benzyl Chloride  
 7.970min (-0.030) 0.76ug/L m  
 response 559

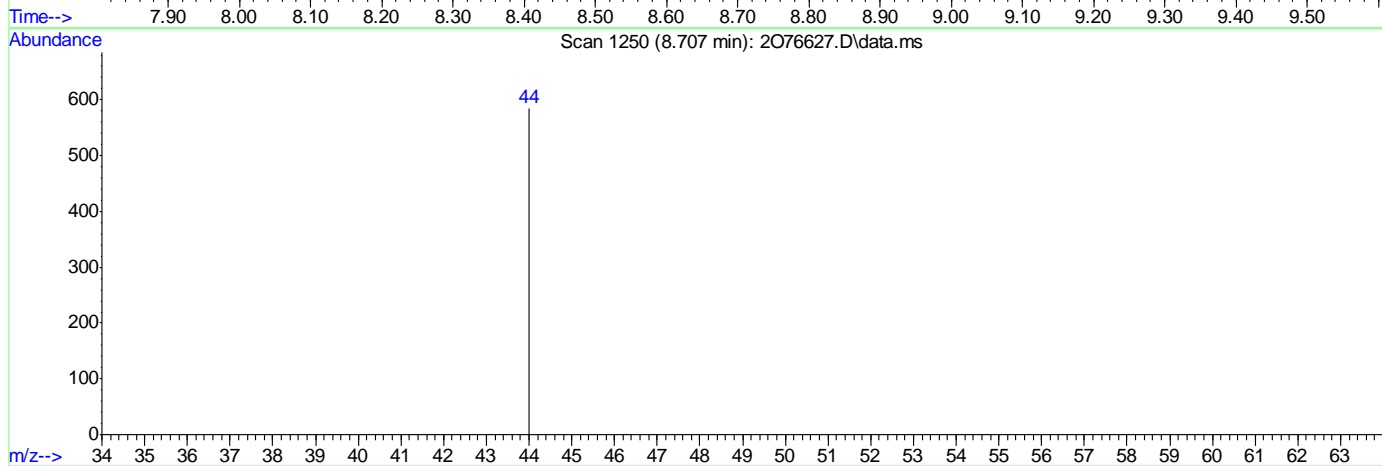
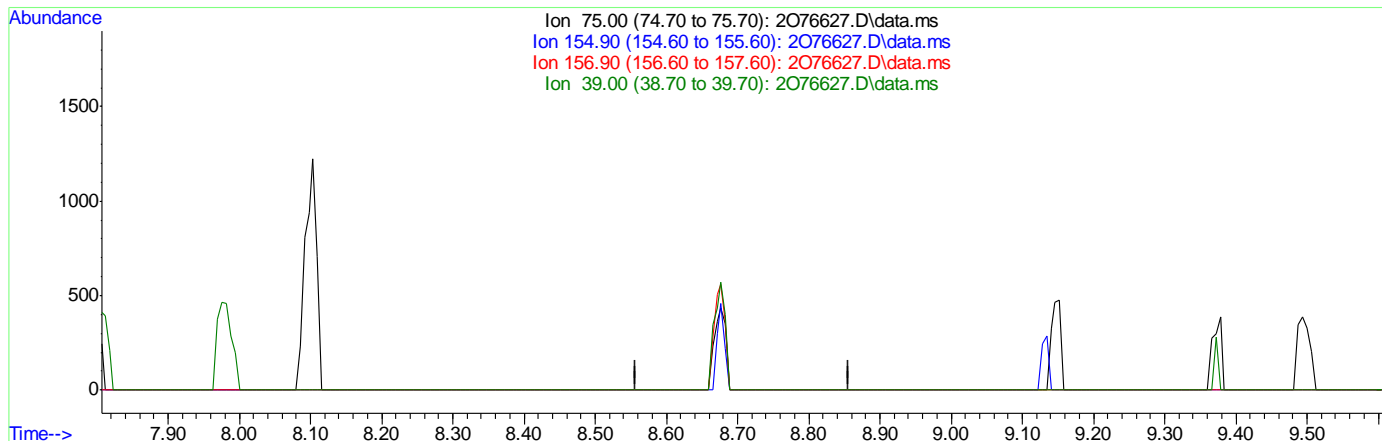
Ion	Exp%	Act%
126.00	100	100
91.00	690.00	602.13#
65.00	76.80	91.88
0.00	0.00	0.00

7.65.17  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



(109) 1,2-Dibromo-3-Chloropropane

8.707min (-8.707) 0.00ug/L

response 0

Ion	Exp%	Act%
75.00	100	0.00
154.90	105.60	0.00#
156.90	135.20	0.00#
39.00	68.40	0.00#

7.6.5.18  
7

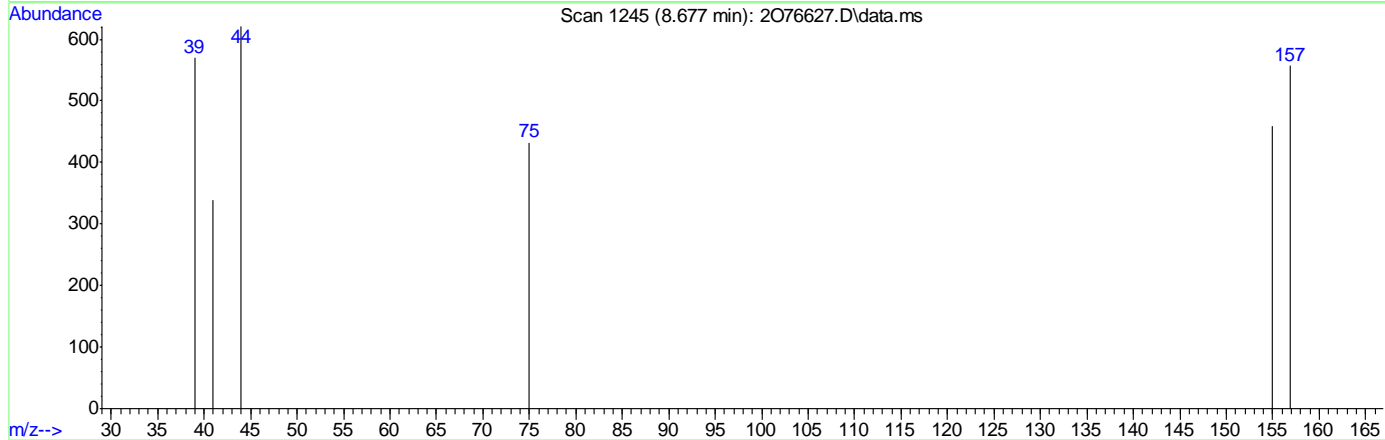
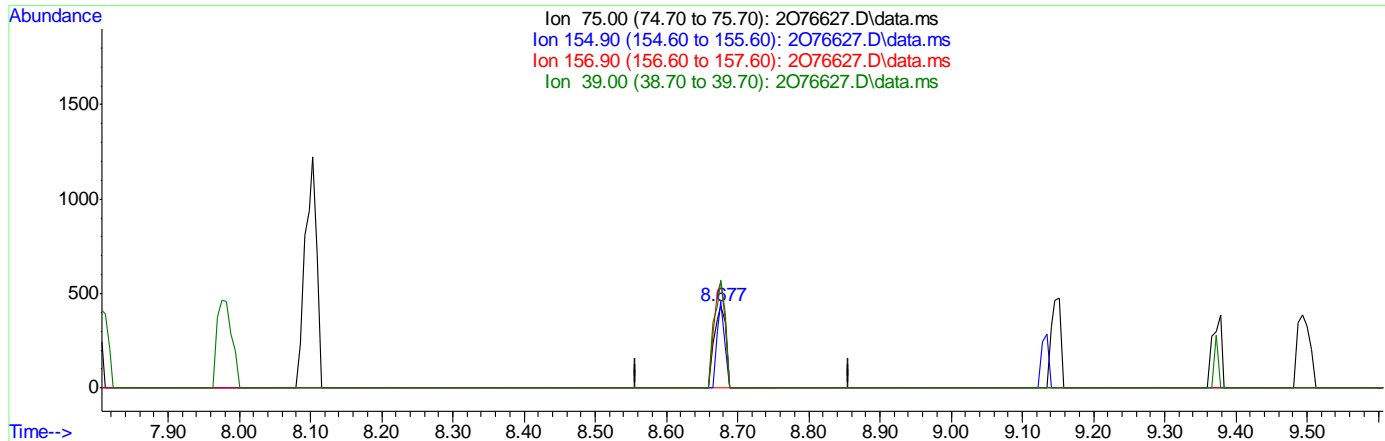


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076627.D  
 Acq On : 7 Jun 2023 1:55 pm  
 Operator : joannel  
 Sample : IC2981-1  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:21 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076627.D\data.ms

(109) 1,2-Dibromo-3-Chloropropane

8.677min (-0.030) 0.85ug/L m

response 505

Ion	Exp%	Act%
75.00	100	100
154.90	105.60	106.25
156.90	135.20	128.94
39.00	68.40	131.94#

7.6.5.19  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	404974	50.00	ug/L	-0.01
62) Chlorobenzene-d5	6.025	117	293790	50.00	ug/L	-0.02
85) 1,4-Dichlorobenzene-d4	7.781	152	152816	50.00	ug/L	-0.02
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	109996	49.00	ug/L	-0.01
Spiked Amount	50.000	Range 83 - 118	Recovery =	98.00%		
50) 1,2-Dichloroethane-d4	3.855	65	132234	55.42	ug/L	-0.01
Spiked Amount	50.000	Range 79 - 125	Recovery =	110.84%		
63) Toluene-d8	4.976	98	394450	49.23	ug/L	-0.01
Spiked Amount	50.000	Range 85 - 112	Recovery =	98.46%		
86) 4-Bromofluorobenzene	6.921	174	111883	47.98	ug/L	-0.02
Spiked Amount	50.000	Range 83 - 118	Recovery =	95.96%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	7833	4.75	ug/L	99
3) Chloromethane	1.373	50	7470	4.19	ug/L	91
4) 1,3-butadiene	1.447	39	8856	4.95	ug/L	99
5) Vinyl Chloride	1.434	62	7803	4.41	ug/L	94
6) Bromomethane	1.666	94	5879	4.33	ug/L	100
7) Chloroethane	1.751	64	5968	4.76	ug/L	98
8) Trichlorofluoromethane	1.849	101	15769	5.01	ug/L	98
9) Ethyl Ether	2.056	59	6040	4.33	ug/L	97
10) Ethanol	2.160	45	3321	90.69	ug/L	94
11) 1,2-Dichlorotrifluoro...	2.178	67	8809	4.24	ug/L	97
12) 1,1-Dichloroethene	2.178	61	10848	4.07	ug/L	97
13) Freon 113	2.209	101	7935	4.47	ug/L	91
14) Carbon Disulfide	2.196	76	19764	3.81	ug/L	99
15) Iodomethane	2.270	142	5249	1.89	ug/L	96
16) Acrolein	2.385	56	13631	26.85	ug/L	98
17) Allyl chloride	2.471	41	8953	4.33	ug/L	92
18) Methylene Chloride	2.532	49	11616	4.67	ug/L	99
19) Acetone	2.556	43	23604	23.17	ug/L	100
20) Methyl acetate	2.629	43	49410	21.09	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	11325	4.44	ug/L	97
22) Hexane	2.678	56	6143	4.56	ug/L	94
23) Methyl Tert Butyl Ether	2.690	73	22102	4.52	ug/L	91
24) Tert Butyl Alcohol	2.739	59	12733	34.58	ug/L	89
25) Acetonitrile	2.830	41	19659	51.25	ug/L	98
26) Di-isopropyl ether	2.910	45	21277	4.10	ug/L	96
27) Chloroprene	2.971	53	11340	4.65	ug/L	94
28) 1,1-Dichloroethane	2.983	63	14544	4.39	ug/L	98
29) Acrylonitrile	3.007	52	22009	22.31	ug/L	100
30) ETBE	3.117	59	19708	4.19	ug/L	98
31) Vinyl acetate	3.117	43	82271	21.73	ug/L	98
32) cis-1,2-Dichloroethene	3.288	96	9466	4.60	ug/L	97
33) 2,2-Dichloropropane	3.355	77	8959	4.03	ug/L	98
34) Bromochloromethane	3.404	128	4890	4.41	ug/L	84
35) Cyclohexane	3.416	56	11174	4.08	ug/L	94

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	16498	4.60	ug/L	96
37) Ethyl acetate	3.501	43	64391	21.65	ug/L	99
38) Tetrahydrofuran	3.538	42	4436	3.88	ug/L	94
40) Carbon Tetrachloride	3.532	117	9351m	4.16	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	12462	4.28	ug/L	93
42) 2-Butanone	3.611	43	35957	21.28	ug/L	96
43) 1,1-Dichloropropene	3.635	75	10732	4.27	ug/L	97
44) tert-Butyl formate	3.690	59	12320	19.49	ug/L #	77
45) Propionitrile	3.781	54	23175	46.22	ug/L	92
46) Methacrylonitrile	3.794	41	78381	46.18	ug/L	98
47) Benzene	3.775	78	32310	4.35	ug/L	98
48) TAME	3.836	73	18478	4.19	ug/L	92
49) Isobutyl alcohol	3.873	43	11227m	77.64	ug/L	
51) 1,2-Dichloroethane	3.891	62	13495	5.10	ug/L	92
52) Tert Amyl Alcohol	3.940	59	8507	29.33	ug/L #	80
53) Trichloroethene	4.117	95	9455	4.42	ug/L	92
54) Methylcyclohexane	4.117	83	11432	4.08	ug/L	93
55) Dibromomethane	4.367	93	6316	4.69	ug/L	98
56) 1,2-Dichloropropane	4.428	63	7491	4.30	ug/L	94
57) Bromodichloromethane	4.464	83	9966	4.18	ug/L	93
58) Methyl methacrylate	4.550	41	7997	4.10	ug/L	99
59) 1,4-Dioxane	4.586	88	2887	79.98	ug/L	96
60) 2-Chloroethyl vinyl ether	4.806	63	35209	23.27	ug/L	98
61) cis-1,3-Dichloropropene	4.854	75	10809	4.06	ug/L	97
64) Toluene	5.007	91	35293	4.38	ug/L	100
65) 2-Nitropropane	5.153	41	8493	18.53	ug/L	89
66) 4-Methyl-2-pentanone	5.245	43	59486	20.68	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	10498	4.06	ug/L	85
68) Tetrachloroethene	5.263	166	9103	3.99	ug/L	91
69) Ethyl methacrylate	5.367	69	10009	4.39	ug/L	93
70) 1,1,2-Trichloroethane	5.379	83	7435	4.58	ug/L	95
71) Dibromochloromethane	5.501	129	7348	4.03	ug/L	95
72) 1,3-Dichloropropane	5.568	76	14290	4.80	ug/L	98
73) 1,2-Dibromoethane	5.671	107	8935	4.39	ug/L	97
74) 3,3-dimethyl-1-butanol	5.781	57	72595	194.30	ug/L	94
75) 2-hexanone	5.812	43	60258	21.08	ug/L	95
76) 1-Chlorohexane	6.013	91	10472m	4.13	ug/L	
77) Ethylbenzene	6.049	91	37797	4.35	ug/L	95
78) Chlorobenzene	6.037	112	24419	4.49	ug/L	95
79) 1,1,1,2-Tetrachloroethane	6.080	131	7128	4.18	ug/L	96
80) m,p-Xylene	6.153	91	59021	8.73	ug/L	94
81) o-Xylene	6.470	91	28758	4.21	ug/L	98
82) Styrene	6.507	104	21432	4.00	ug/L	96
83) Bromoform	6.531	173	3863	3.40	ug/L	94
84) Isopropylbenzene	6.702	105	33556	4.08	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	2472	3.57	ug/L #	70
88) n-Propylbenzene	7.019	91	39938	4.22	ug/L	95
89) Bromobenzene	7.006	156	9088	4.32	ug/L	95
90) 1,1,2,2-Tetrachloroethane	7.067	83	12854	4.46	ug/L	96
91) 1,3,5-Trimethylbenzene	7.177	105	28027	4.19	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:52:29 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	29666	4.64	ug/L	93
93) trans-1,4-Dichloro-2-B...	7.208	53	2065	3.54	ug/L #	70
94) 1,2,3-Trichloropropane	7.177	110	4283	4.51	ug/L	92
95) Cyclohexanone	7.208	55	2144	16.29	ug/L	93
96) 4-Chlorotoluene	7.275	91	26547	4.52	ug/L	99
97) tert-Butylbenzene	7.421	91	15692	4.34	ug/L	94
99) 1,2,4-Trimethylbenzene	7.476	105	27462	4.16	ug/L	97
100) Pentachloroethane	7.439	167	3906	4.56	ug/L #	71
101) sec-Butylbenzene	7.561	105	32879	4.11	ug/L	98
102) 4-Isopropyltoluene	7.671	119	26924	3.85	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	18090	4.35	ug/L	96
104) 1,2,3-Trimethylbenzene	7.811	105	30267	4.38	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	19119	4.54	ug/L	89
106) n-Butylbenzene	7.988	92	13411	3.87	ug/L	99
107) Benzyl Chloride	7.976	126	2087	2.92	ug/L #	10
108) 1,2-Dichlorobenzene	8.104	146	18119	4.62	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	2348	4.11	ug/L #	71
110) Hexachlorobutadiene	9.134	225	3550	4.25	ug/L	82
111) 1,2,4-Trichlorobenzene	9.152	180	9849	4.14	ug/L	96
112) Naphthalene	9.372	128	31987	3.80	ug/L	96
113) 1,2,3-Trichlorobenzene	9.500	180	9876	4.37	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed



# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76628.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 14:20      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

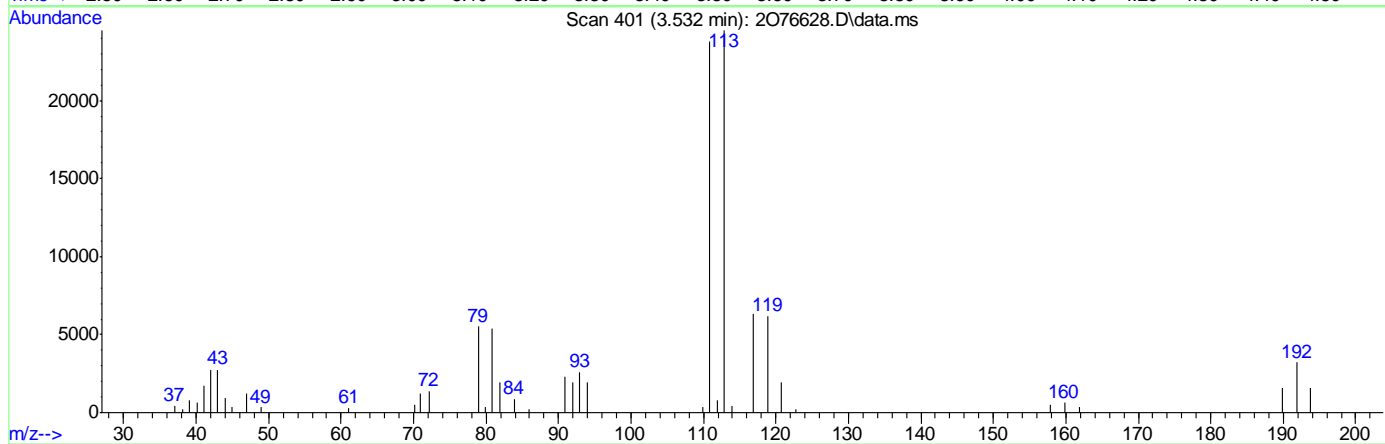
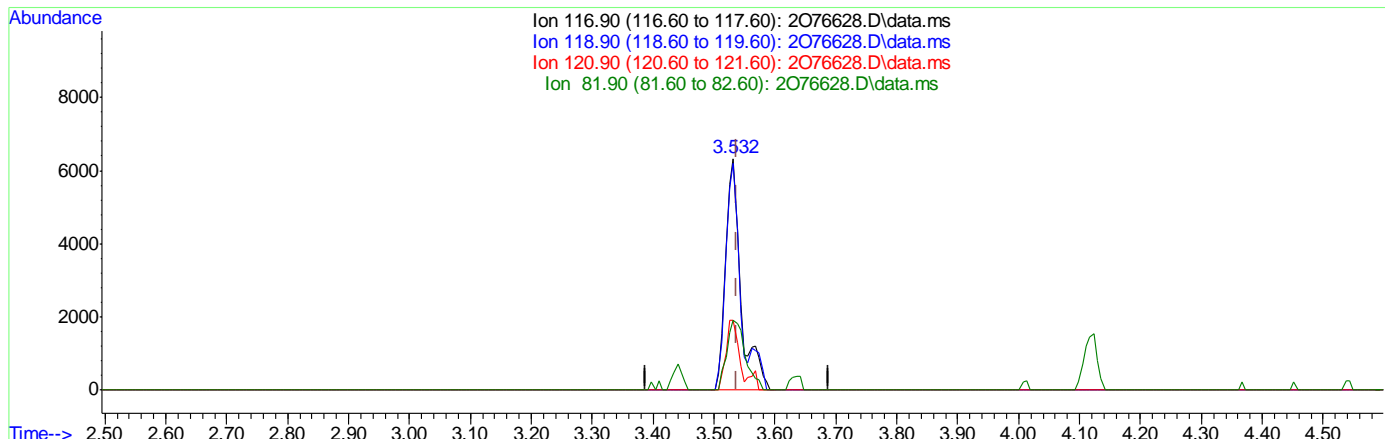
7.6.6.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 4.95ug/L

response 11113

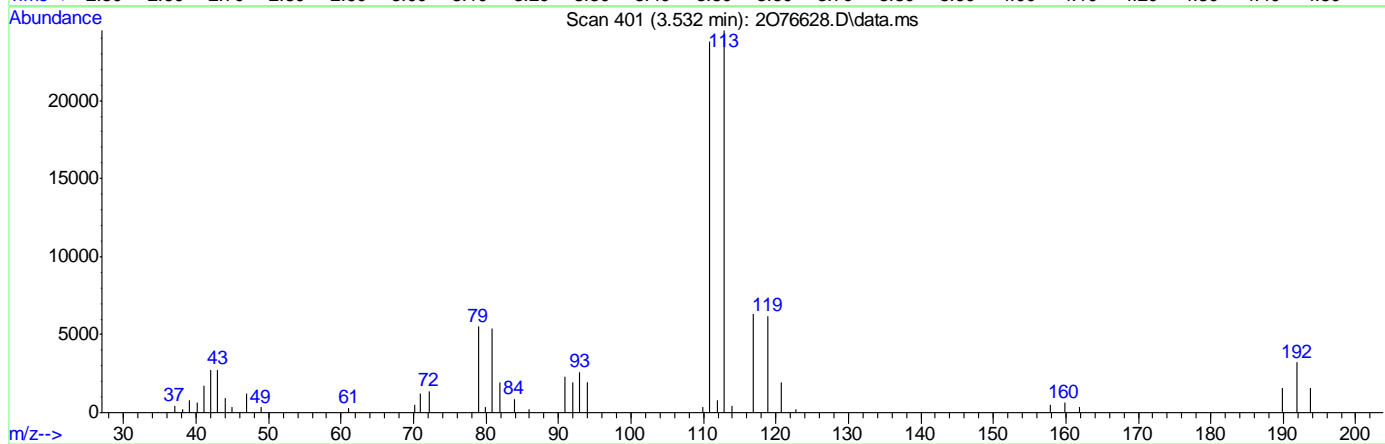
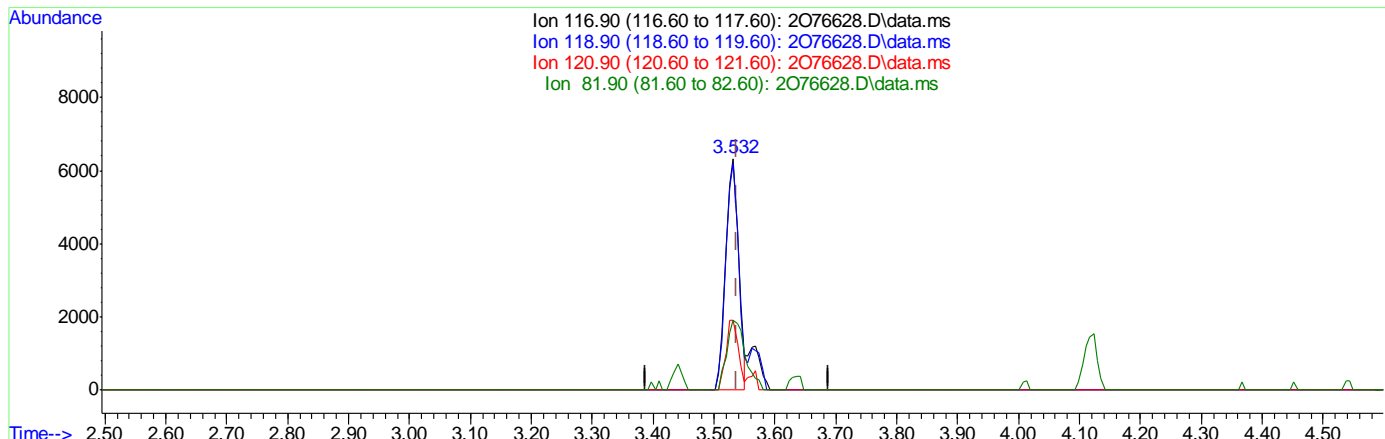
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.85
120.90	31.00	30.31
81.90	24.80	30.21

7.6.6.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 4.16ug/L m

response 9351

Ion	Exp%	Act%
116.90	100	100
118.90	97.60	97.85
120.90	31.00	30.31
81.90	24.80	30.21

7.6.6.3  
7

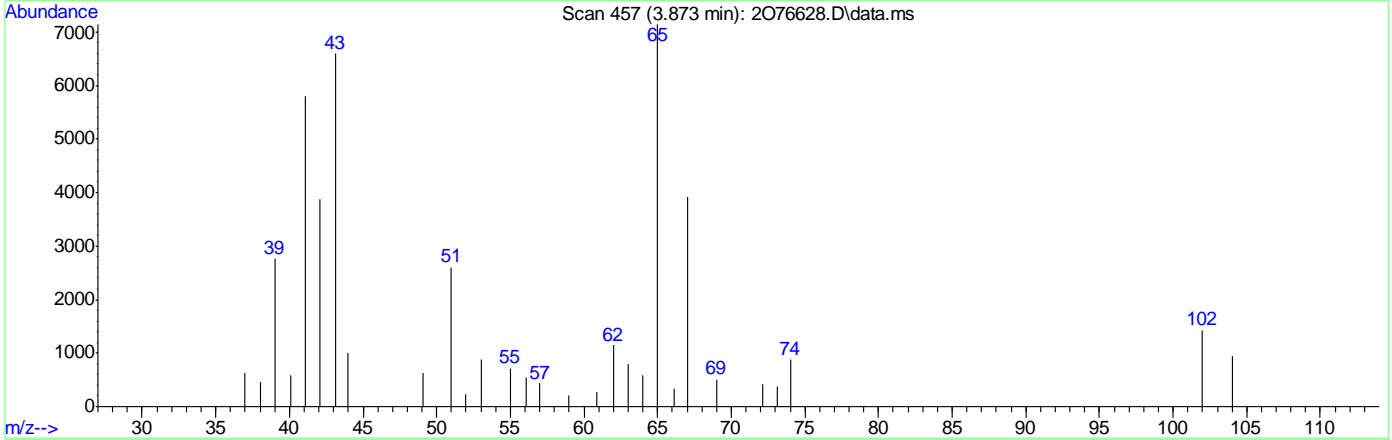
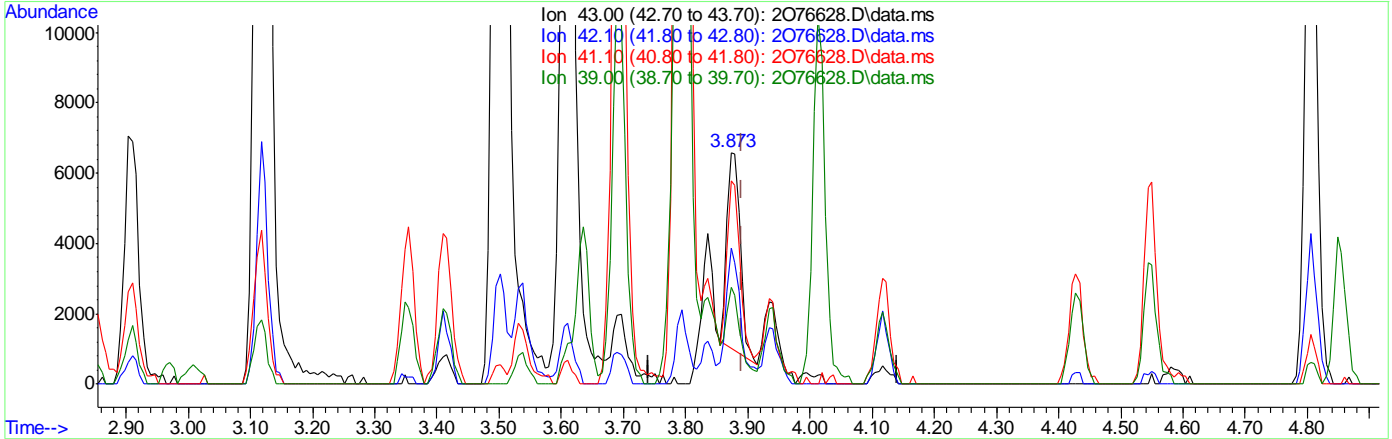


Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 56.50ug/L  
 response 8147

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	57.01
41.10	73.50	81.97
39.00	30.20	39.92

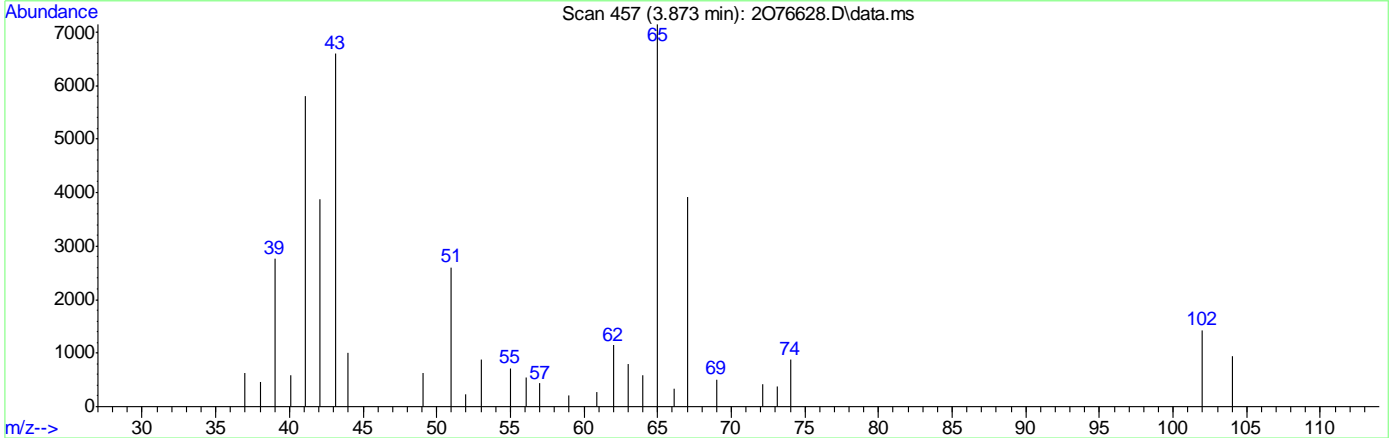
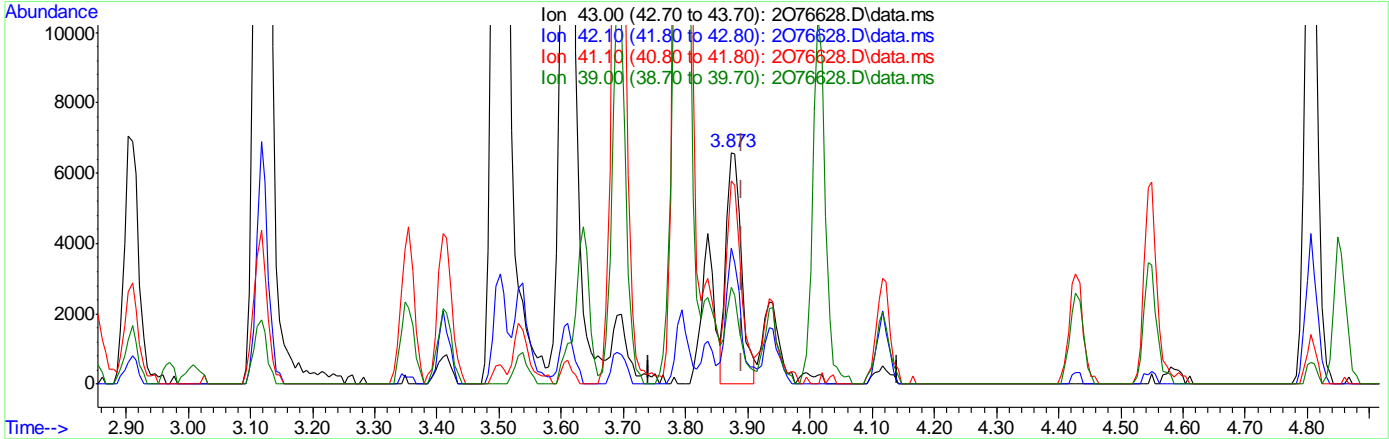
7.6.6.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 77.64ug/L m  
 response 11227

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	58.68
41.10	73.50	87.95
39.00	30.20	41.83

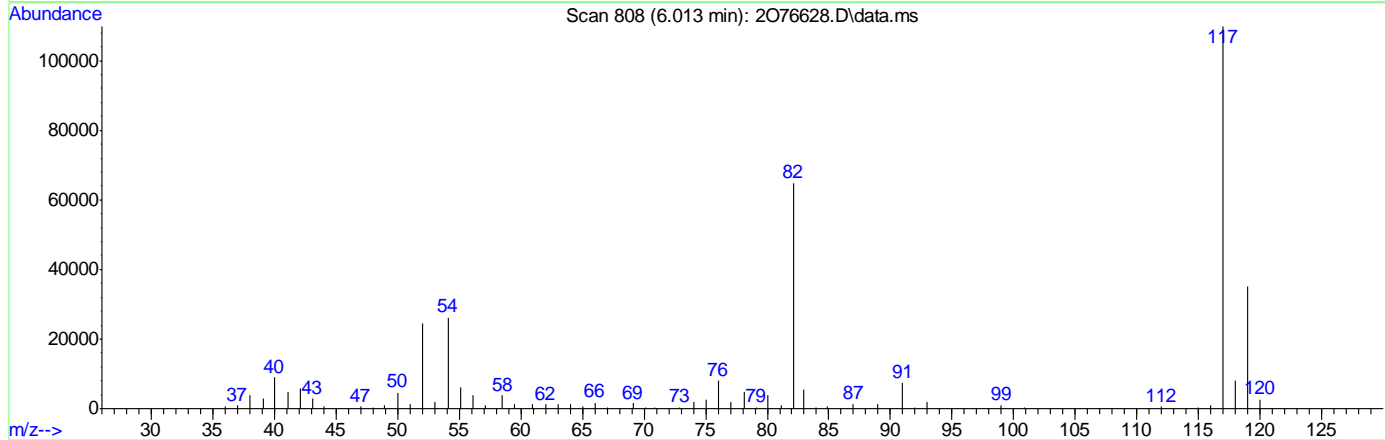
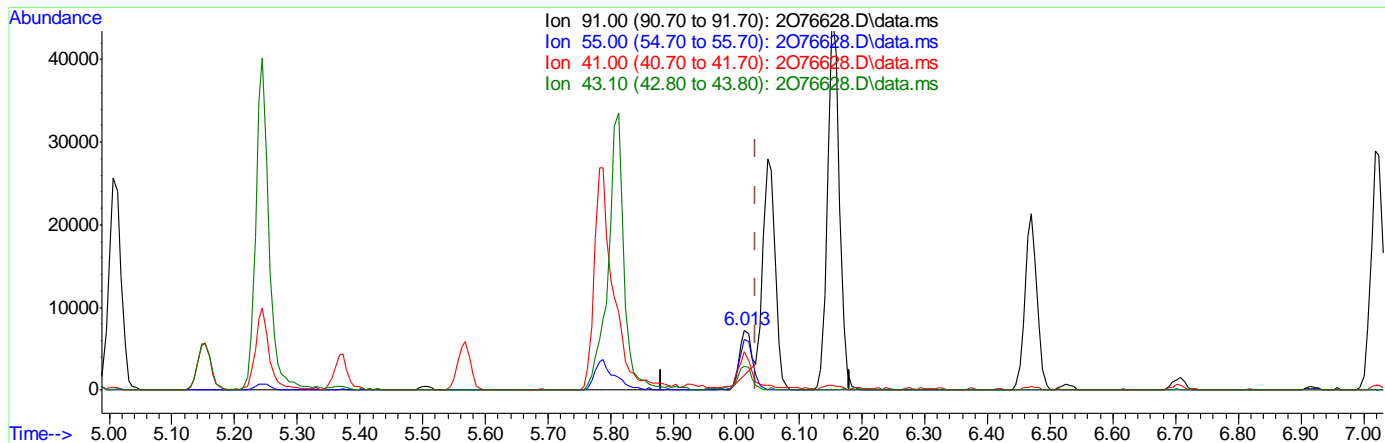
7.6.6.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 2.53ug/L  
 response 6422

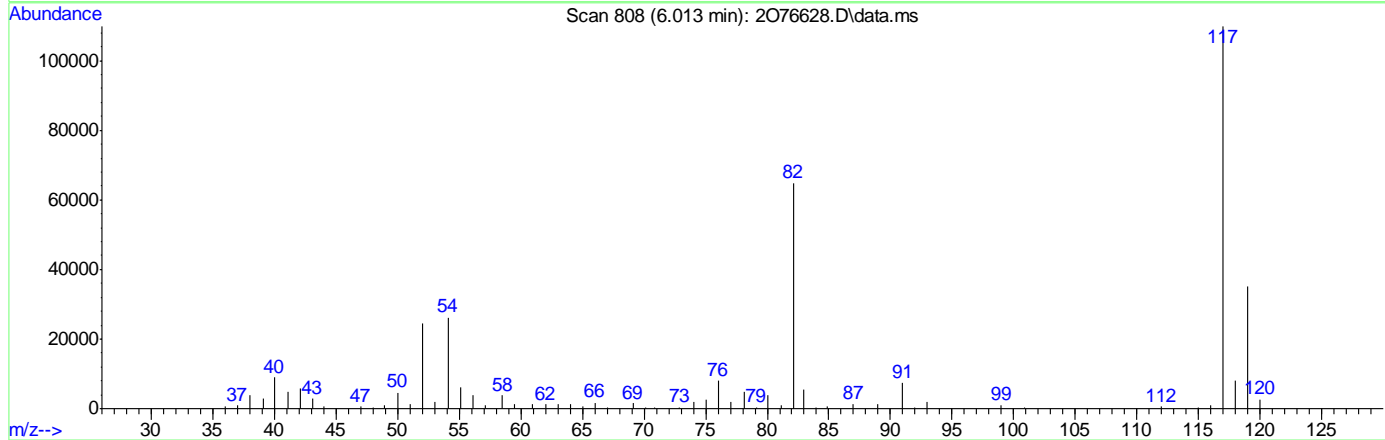
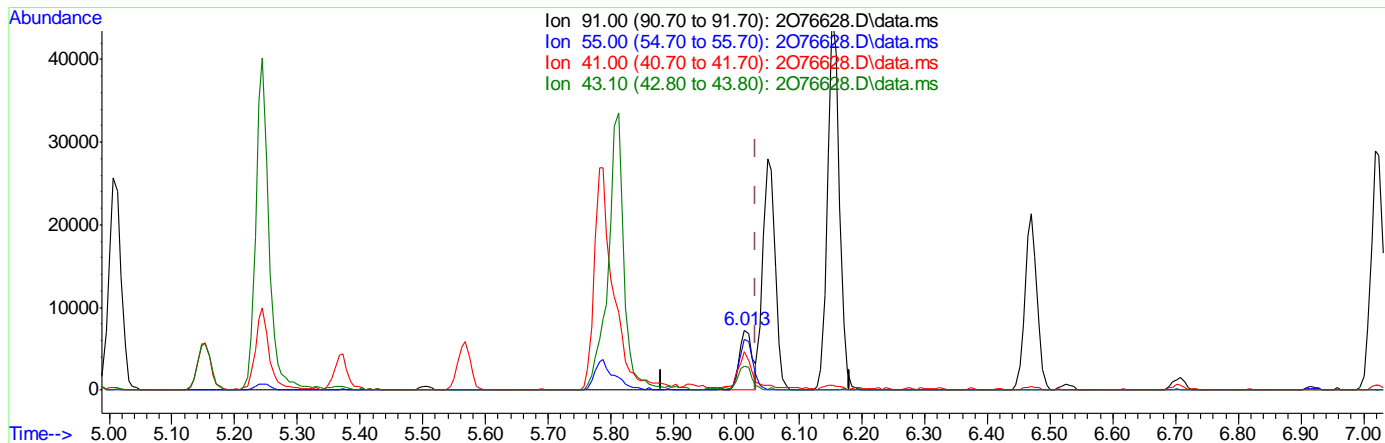
Ion	Exp%	Act%
91.00	100	100
55.00	66.30	84.71
41.00	53.70	58.66
43.10	42.30	35.75

7.6.6.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076628.D  
 Acq On : 7 Jun 2023 2:20 pm  
 Operator : joannel  
 Sample : IC2981-2 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 07 14:46:23 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076628.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 4.13ug/L m  
 response 10472

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	84.71
41.00	53.70	64.64
43.10	42.30	38.82

7.6.6.7  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	4.013	96	419369	50.00	ug/L	-0.01	
62) Chlorobenzene-d5	6.025	117	299387	50.00	ug/L	-0.02	
85) 1,4-Dichlorobenzene-d4	7.781	152	147990	50.00	ug/L	-0.02	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	112256	48.29	ug/L	-0.01	
Spiked Amount	50.000	Range 83 - 118	Recovery =	96.58%			
50) 1,2-Dichloroethane-d4	3.855	65	124045	50.21	ug/L	-0.01	
Spiked Amount	50.000	Range 79 - 125	Recovery =	100.42%			
63) Toluene-d8	4.976	98	410567	50.29	ug/L	-0.01	
Spiked Amount	50.000	Range 85 - 112	Recovery =	100.58%			
86) 4-Bromofluorobenzene	6.921	174	110051	48.73	ug/L	-0.02	
Spiked Amount	50.000	Range 83 - 118	Recovery =	97.46%			
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	14159	8.29	ug/L		96
3) Chloromethane	1.373	50	14281	7.73	ug/L		99
4) 1,3-butadiene	1.447	39	21966	11.86	ug/L		95
5) Vinyl Chloride	1.434	62	14841	8.09	ug/L		98
6) Bromomethane	1.666	94	12790	9.10	ug/L		96
7) Chloroethane	1.751	64	11531	9.22	ug/L		99
8) Trichlorofluoromethane	1.855	101	28857	8.86	ug/L		98
9) Ethyl Ether	2.056	59	14179	9.81	ug/L		97
10) Ethanol	2.148	45	7388	195.03	ug/L		92
11) 1,2-Dichlorotrifluoro...	2.178	67	21269	9.89	ug/L		98
12) 1,1-Dichloroethene	2.178	61	25545	9.25	ug/L		98
13) Freon 113	2.209	101	18242	9.92	ug/L		97
14) Carbon Disulfide	2.196	76	46458	8.66	ug/L		100
15) Iodomethane	2.270	142	11838	4.12	ug/L		96
16) Acrolein	2.385	56	21680	41.23	ug/L		100
17) Allyl chloride	2.471	41	23205	10.85	ug/L		93
18) Methylene Chloride	2.532	49	23368	9.09	ug/L		93
19) Acetone	2.556	43	40200	38.11	ug/L		95
20) Methyl acetate	2.629	43	106505	43.91	ug/L		97
21) trans-1,2-Dichloroethene	2.629	61	24876	9.42	ug/L		98
22) Hexane	2.678	56	12980	9.30	ug/L		93
23) Methyl Tert Butyl Ether	2.690	73	48734	9.62	ug/L		84
24) Tert Butyl Alcohol	2.739	59	28264	73.48	ug/L		96
25) Acetonitrile	2.830	41	46242	116.41	ug/L		98
26) Di-isopropyl ether	2.910	45	49704	9.25	ug/L		97
27) Chloroprene	2.971	53	30419	12.04	ug/L		97
28) 1,1-Dichloroethane	2.983	63	33210	9.68	ug/L		98
29) Acrylonitrile	3.007	52	41694	40.81	ug/L		98
30) ETBE	3.117	59	45529	9.34	ug/L		98
31) Vinyl acetate	3.117	43	165022	42.09	ug/L		98
32) cis-1,2-Dichloroethene	3.288	96	21594	10.14	ug/L		97
33) 2,2-Dichloropropane	3.355	77	21489	9.33	ug/L		96
34) Bromochloromethane	3.404	128	10910	9.50	ug/L		97
35) Cyclohexane	3.416	56	26719	9.43	ug/L		96

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.440	83	37057	9.98	ug/L	95
37) Ethyl acetate	3.501	43	122718	39.84	ug/L	99
38) Tetrahydrofuran	3.538	42	9442	7.97	ug/L	94
40) Carbon Tetrachloride	3.532	117	23413m	10.06	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	28685	9.52	ug/L	92
42) 2-Butanone	3.611	43	58985	33.71	ug/L	99
43) 1,1-Dichloropropene	3.635	75	25268	9.71	ug/L	97
44) tert-Butyl formate	3.696	59	27466	41.29	ug/L	91
45) Propionitrile	3.782	54	54691	105.33	ug/L	98
46) Methacrylonitrile	3.794	41	197008	112.10	ug/L	100
47) Benzene	3.782	78	73822	9.60	ug/L	75
48) TAME	3.836	73	42714	9.36	ug/L	93
49) Isobutyl alcohol	3.873	43	29288m	192.54	ug/L	
51) 1,2-Dichloroethane	3.891	62	29670	10.83	ug/L	99
52) Tert Amyl Alcohol	3.940	59	19883	65.61	ug/L	89
53) Trichloroethene	4.117	95	21676	9.78	ug/L	93
54) Methylcyclohexane	4.117	83	26689	9.20	ug/L	98
55) Dibromomethane	4.367	93	14206	10.19	ug/L	95
56) 1,2-Dichloropropane	4.428	63	18144	10.06	ug/L	98
57) Bromodichloromethane	4.464	83	23459	9.50	ug/L	99
58) Methyl methacrylate	4.550	41	22857	11.33	ug/L	96
59) 1,4-Dioxane	4.586	88	7119	188.95	ug/L	98
60) 2-Chloroethyl vinyl ether	4.806	63	73491	46.91	ug/L	97
61) cis-1,3-Dichloropropene	4.854	75	25420	9.16	ug/L	95
64) Toluene	5.007	91	78741	9.60	ug/L	98
65) 2-Nitropropane	5.153	41	20315	42.48	ug/L	93
66) 4-Methyl-2-pentanone	5.245	43	103323	35.24	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	24400	9.20	ug/L	93
68) Tetrachloroethene	5.263	166	21010	9.04	ug/L	97
69) Ethyl methacrylate	5.373	69	26356	11.25	ug/L	91
70) 1,1,2-Trichloroethane	5.379	83	16938	10.23	ug/L	94
71) Dibromochloromethane	5.507	129	17360	9.25	ug/L	95
72) 1,3-Dichloropropane	5.568	76	30797	10.15	ug/L	95
73) 1,2-Dibromoethane	5.671	107	20754	10.02	ug/L	96
74) 3,3-dimethyl-1-butanol	5.787	57	152612	397.35	ug/L	98
75) 2-hexanone	5.812	43	110591	37.97	ug/L	95
76) 1-Chlorohexane	6.013	91	24148m	9.35	ug/L	
77) Ethylbenzene	6.055	91	87245	9.86	ug/L	99
78) Chlorobenzene	6.037	112	54505	9.83	ug/L	97
79) 1,1,1,2-Tetrachloroethane	6.080	131	17412	10.03	ug/L	98
80) m,p-Xylene	6.153	91	137392	19.95	ug/L	97
81) o-Xylene	6.470	91	67805	9.75	ug/L	96
82) Styrene	6.507	104	51434	9.41	ug/L	96
83) Bromoform	6.525	173	9671	8.23	ug/L	97
84) Isopropylbenzene	6.702	105	78509	9.36	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.964	53	6848	10.22	ug/L #	71
88) n-Propylbenzene	7.019	91	93508	10.19	ug/L	97
89) Bromobenzene	7.000	156	20705	10.17	ug/L	94
90) 1,1,2,2-Tetrachloroethane	7.067	83	29986	10.73	ug/L	98
91) 1,3,5-Trimethylbenzene	7.177	105	67336	10.40	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.141	91	66021	10.67	ug/L	97
93) trans-1,4-Dichloro-2-B...	7.208	53	5426	9.48	ug/L #	67
94) 1,2,3-Trichloropropane	7.177	110	9480	10.31	ug/L	95
95) Cyclohexanone	7.208	55	4201	32.95	ug/L	94
96) 4-Chlorotoluene	7.275	91	62474	10.97	ug/L	98
97) tert-Butylbenzene	7.427	91	35635	10.18	ug/L	98
99) 1,2,4-Trimethylbenzene	7.476	105	67842	10.60	ug/L	97
100) Pentachloroethane	7.439	167	10863	12.80	ug/L #	60
101) sec-Butylbenzene	7.561	105	76471	9.86	ug/L	98
102) 4-Isopropyltoluene	7.671	119	65044	9.61	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	41222	10.25	ug/L	98
104) 1,2,3-Trimethylbenzene	7.811	105	71503	10.68	ug/L	98
105) 1,4-Dichlorobenzene	7.793	146	42137	10.34	ug/L	93
106) n-Butylbenzene	7.988	92	32655	9.70	ug/L	90
107) Benzyl Chloride	7.976	126	5378	7.59	ug/L #	11
108) 1,2-Dichlorobenzene	8.104	146	39720	10.46	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	5193	9.27	ug/L	82
110) Hexachlorobutadiene	9.134	225	7668	9.44	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	22216	9.64	ug/L	99
112) Naphthalene	9.372	128	76182	9.34	ug/L	97
113) 1,2,3-Trichlorobenzene	9.500	180	21519	9.83	ug/L	96

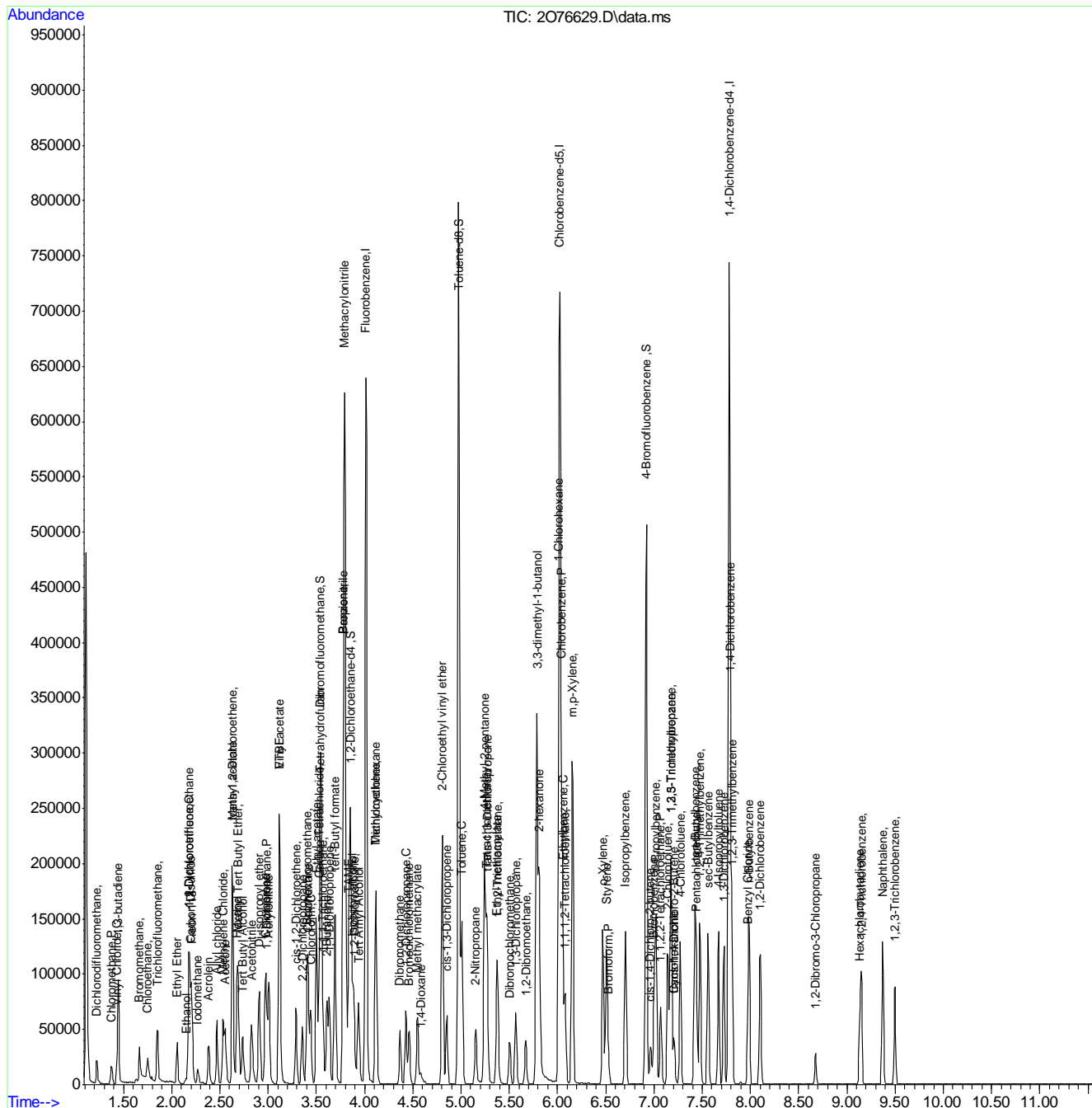
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:10:12 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



7.6.7



# Manual Integration Approval Summary

**Sample Number:** V2O2981-IC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76629.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 14:46      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

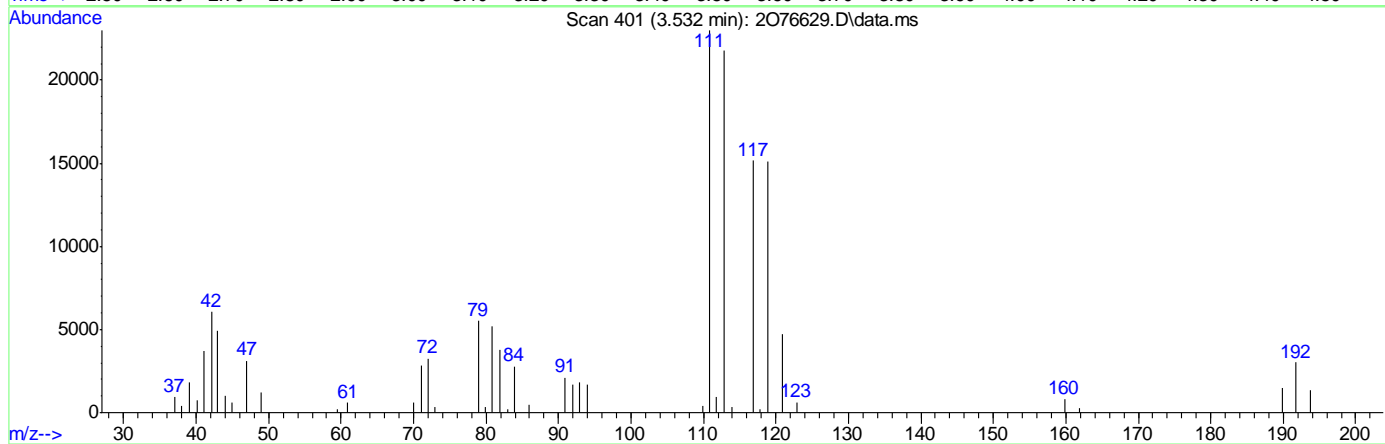
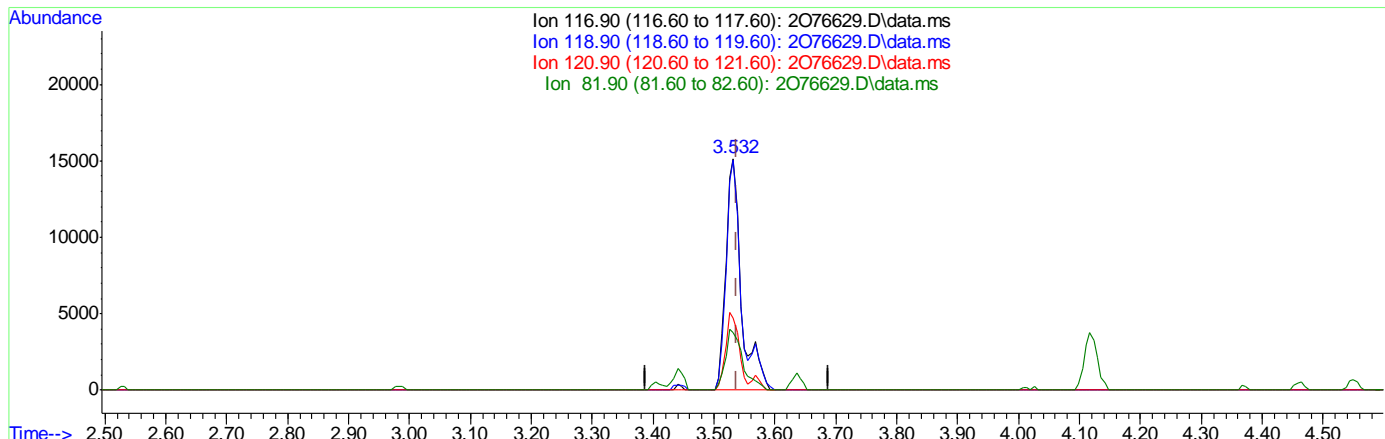
7.6.7.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (-0.006) 11.53ug/L

response 26818

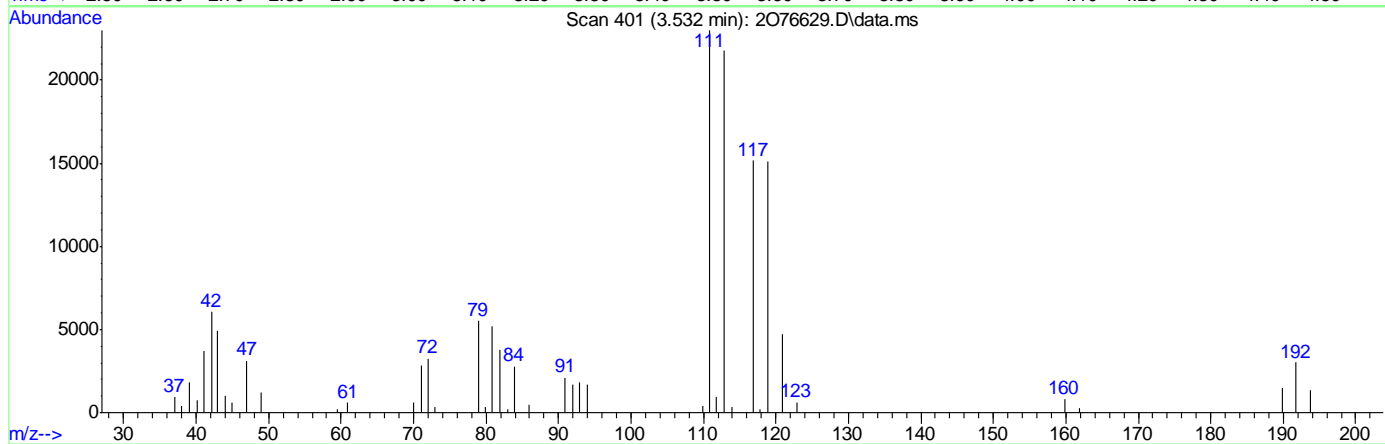
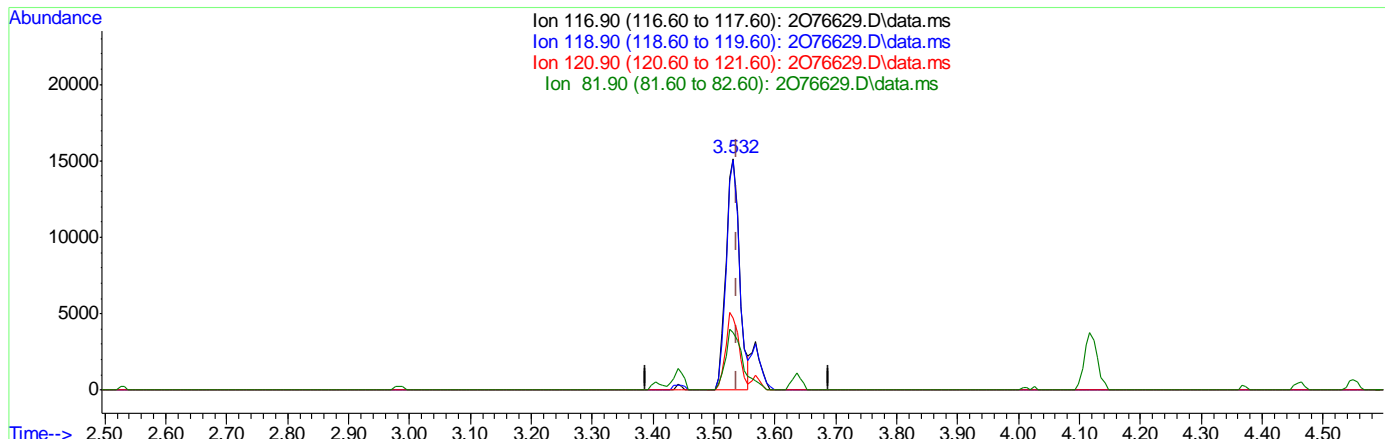
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.52
120.90	31.00	30.95
81.90	24.80	25.02

7.6.7.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.532min (-0.006) 10.06ug/L m  
 response 23413

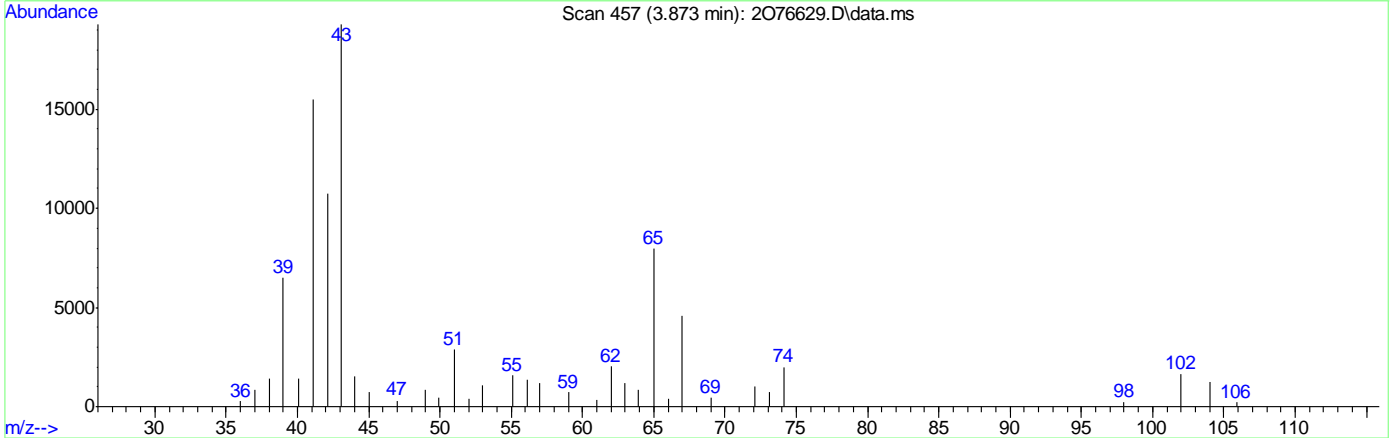
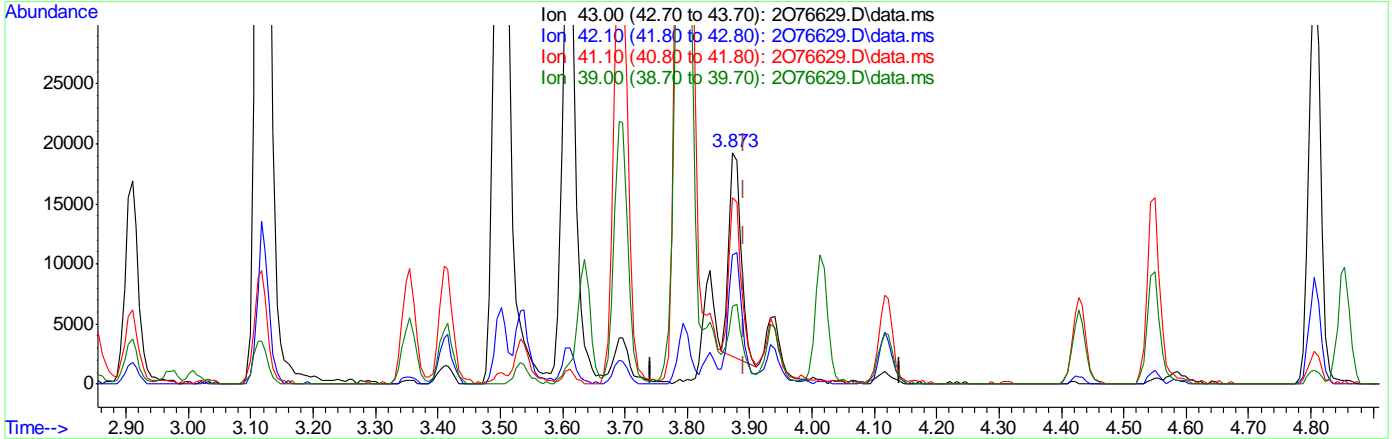
Ion	Exp%	Act%
116.90	100	100
118.90	97.60	99.52
120.90	31.00	30.95
81.90	24.80	25.02

7.6.7.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 151.46ug/L  
 response 22911

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.61
41.10	73.50	77.53
39.00	30.20	32.15

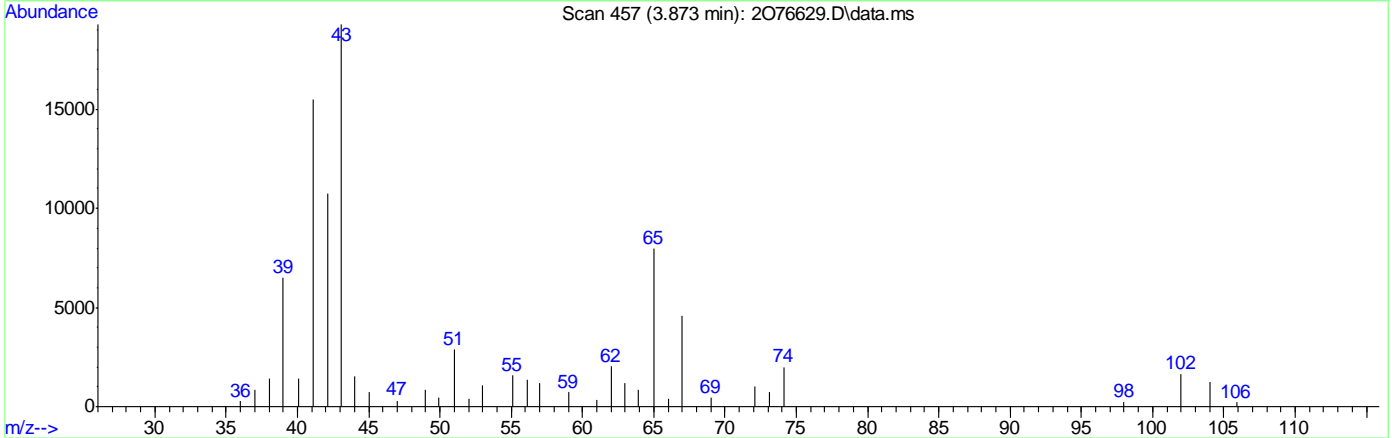
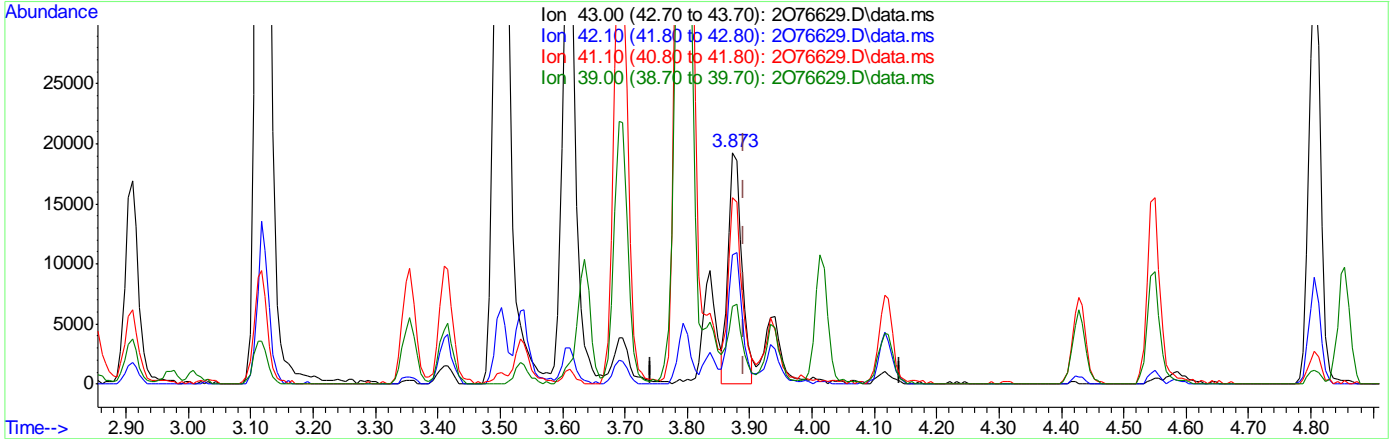
7.6.7.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.018) 192.54ug/L m  
 response 29288

Ion	Exp%	Act%
43.00	100	100
42.10	60.00	55.79
41.10	73.50	80.30
39.00	30.20	33.64

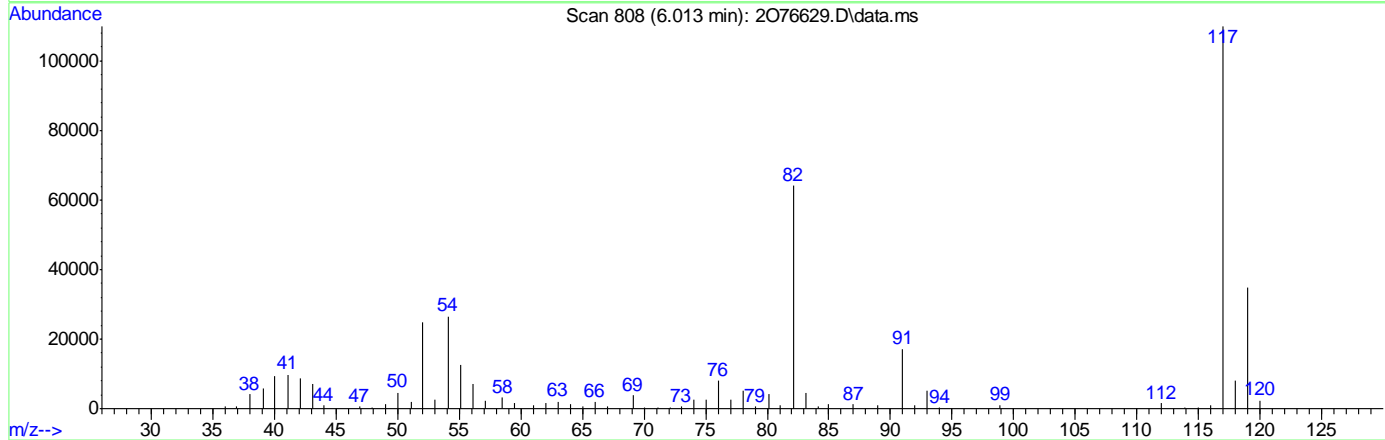
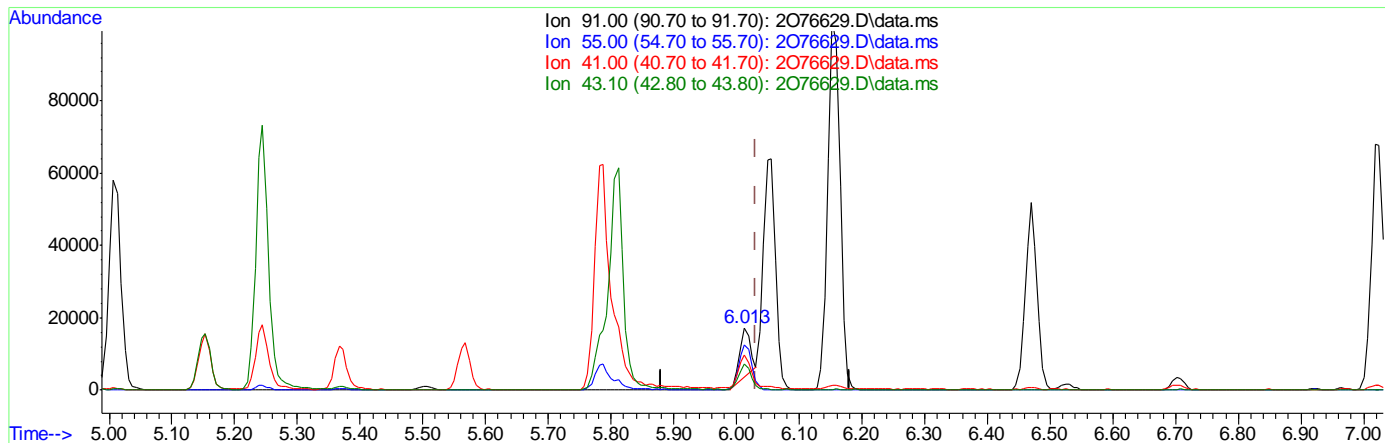
7.6.7.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 6.23ug/L  
 response 16093

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	70.62
41.00	53.70	52.35
43.10	42.30	40.47

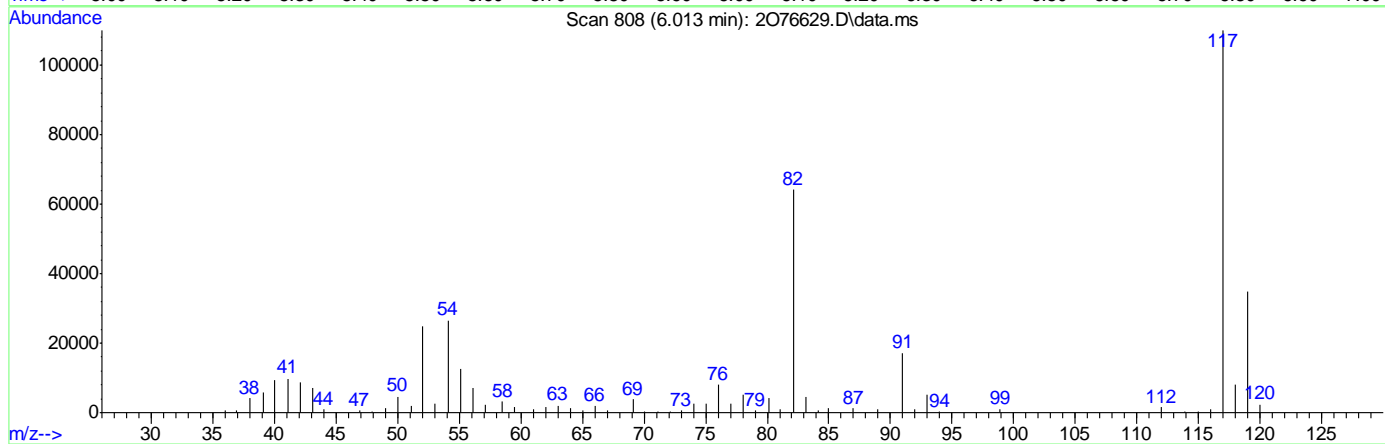
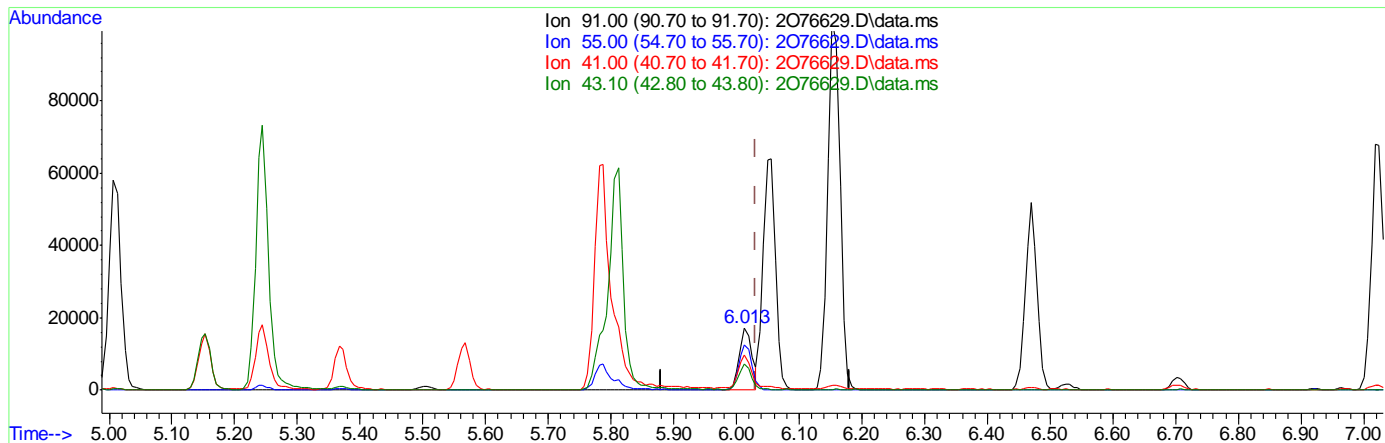
7.6.7.6  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076629.D  
 Acq On : 7 Jun 2023 2:46 pm  
 Operator : joannel  
 Sample : IC2981-3  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 12 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 07 15:09:33 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Tue Apr 11 14:22:12 2023  
 Response via : Initial Calibration



TIC: 2076629.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.018) 9.35ug/L m  
 response 24148

Ion	Exp%	Act%
91.00	100	100
55.00	66.30	72.69
41.00	53.70	56.97
43.10	42.30	42.13

7.6.7.7  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076631.D  
 Acq On : 7 Jun 2023 3:37 pm  
 Operator : joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:25:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	414377	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.025	117	305712	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	159068	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	112991	50.14	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	100.28%		
50) 1,2-Dichloroethane-d4	3.849	65	136161	50.90	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery =	101.80%		
63) Toluene-d8	4.976	98	409736	50.27	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery =	100.54%		
86) 4-Bromofluorobenzene	6.921	174	115966	49.89	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery =	99.78%		
Target Compounds						Qvalue
10) Ethanol	2.160	45	24410	756.97	ug/L	100
17) Allyl chloride	2.471	41	88294	47.59	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

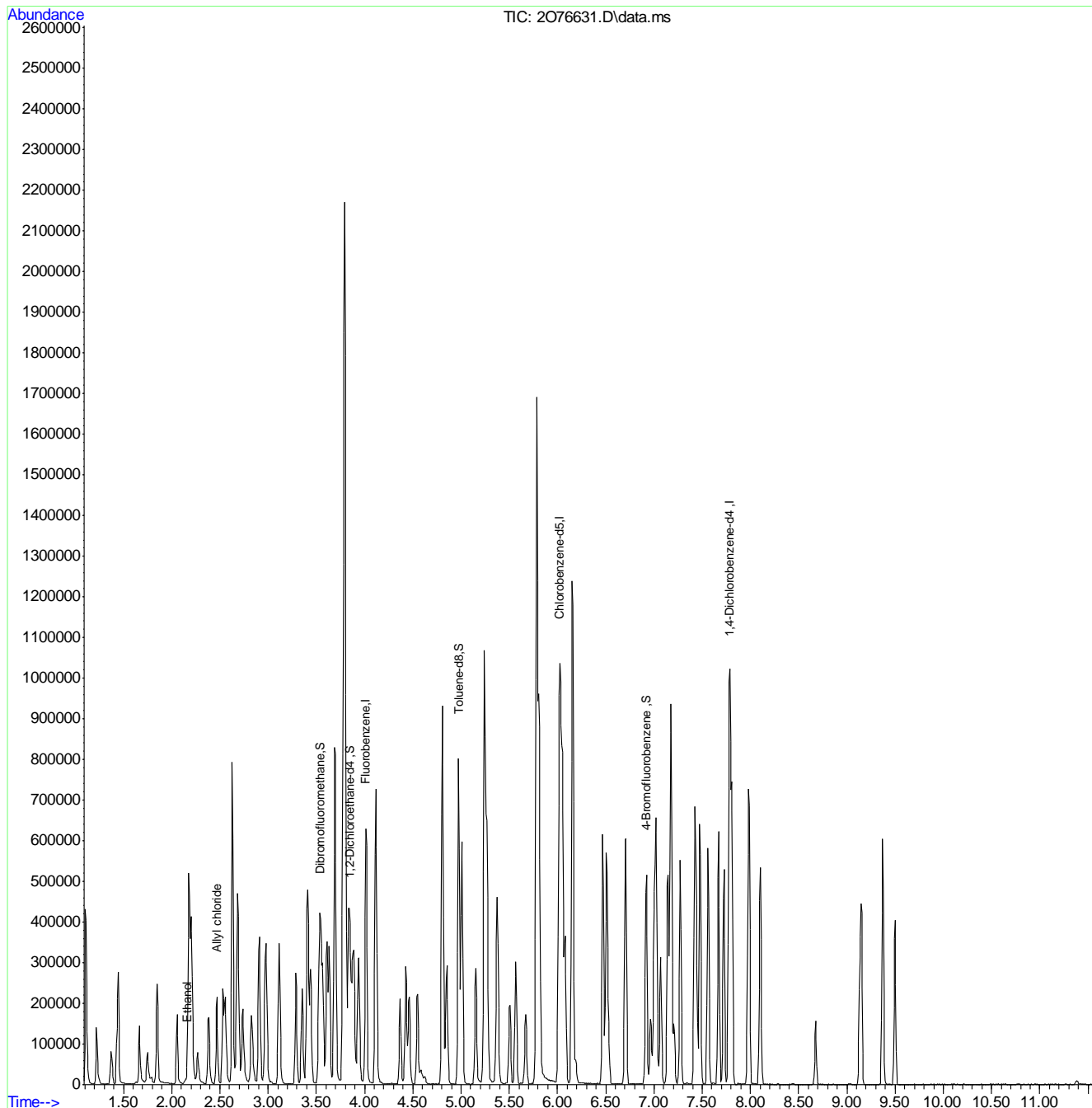
7.6.8  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076631.D  
 Acq On : 7 Jun 2023 3:37 pm  
 Operator : joannel  
 Sample : ICV2981-5 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 09:25:27 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



7  
8  
9  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	434499	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.025	117	314063	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.781	152	164053	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	117403	49.69	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	99.38%	
50) 1,2-Dichloroethane-d4	3.855	65	139463	49.72	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	99.44%	
63) Toluene-d8	4.976	98	422814	50.49	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	100.98%	
86) 4-Bromofluorobenzene	6.921	174	120391	50.22	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.44%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.221	85	51906	32.36	ug/L	99
3) Chloromethane	1.373	50	43187	26.41	ug/L	100
4) 1,3-butadiene	1.447	39	41003	21.92	ug/L	95
5) Vinyl Chloride	1.434	62	44975	26.66	ug/L	96
6) Bromomethane	1.666	94	36676	27.91	ug/L	96
7) Chloroethane	1.751	64	29437	25.00	ug/L	99
8) Trichlorofluoromethane	1.849	101	81676	25.66	ug/L	100
9) Ethyl Ether	2.056	59	38463	25.66	ug/L	98
11) 1,2-Dichlorotrifluoro...	2.178	67	54683	25.73	ug/L	97
12) 1,1-Dichloroethene	2.178	61	63160	23.66	ug/L	97
13) Freon 113	2.209	101	47591	25.37	ug/L	97
14) Carbon Disulfide	2.196	76	118183	23.81	ug/L	96
15) Iodomethane	2.270	142	43251	26.12	ug/L	97
16) Acrolein	2.385	56	65058	134.32	ug/L	99
18) Methylene Chloride	2.532	49	59696	24.75	ug/L	99
19) Acetone	2.556	43	107290	107.03	ug/L	99
20) Methyl acetate	2.629	43	259378	109.58	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	64538	23.93	ug/L	98
22) Hexane	2.678	56	33073	24.11	ug/L	89
23) Methyl Tert Butyl Ether	2.690	73	135498	24.98	ug/L	96
24) Tert Butyl Alcohol	2.739	59	87323	259.99	ug/L	97
25) Acetonitrile	2.830	41	109096	279.25	ug/L	97
26) Di-isopropyl ether	2.910	45	131496	24.63	ug/L	99
27) Chloroprene	2.971	53	62282	23.54	ug/L	99
28) 1,1-Dichloroethane	2.983	63	83520	23.83	ug/L	99
29) Acrylonitrile	3.007	52	112368	116.10	ug/L	98
30) ETBE	3.117	59	129966	25.60	ug/L	98
31) Vinyl acetate	3.117	43	502881	132.19	ug/L	99
32) cis-1,2-Dichloroethene	3.288	96	52859	23.01	ug/L	99
33) 2,2-Dichloropropane	3.355	77	61403	26.21	ug/L	99
34) Bromochloromethane	3.404	128	27768	24.84	ug/L	99
35) Cyclohexane	3.410	56	64486	24.11	ug/L	95
36) Chloroform	3.440	83	97415	24.60	ug/L	98
37) Ethyl acetate	3.501	43	342089	120.13	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) Tetrahydrofuran	3.532	42	25353	24.85	ug/L	96
40) Carbon Tetrachloride	3.532	117	61822m	24.23	ug/L	
41) 1,1,1-Trichloroethane	3.568	97	76053	24.34	ug/L	97
42) 2-Butanone	3.611	43	174158	112.37	ug/L	99
43) 1,1-Dichloropropene	3.635	75	64684	24.69	ug/L	99
44) tert-Butyl formate	3.696	59	107277	156.33	ug/L	97
45) Propionitrile	3.781	54	136267	283.86	ug/L	96
46) Methacrylonitrile	3.794	41	468555	280.69	ug/L	99
47) Benzene	3.775	78	197107	24.93	ug/L	91
48) TAME	3.836	73	121922	25.32	ug/L	97
49) Isobutyl alcohol	3.873	43	83094m	579.85	ug/L	
51) 1,2-Dichloroethane	3.891	62	77228	23.74	ug/L	99
52) Tert Amyl Alcohol	3.934	59	65294	254.65	ug/L	96
53) Trichloroethene	4.117	95	55159	24.05	ug/L	99
54) Methylcyclohexane	4.117	83	66202	23.51	ug/L	98
55) Dibromomethane	4.367	93	37951	24.29	ug/L	98
56) 1,2-Dichloropropane	4.428	63	49034	25.92	ug/L	98
57) Bromodichloromethane	4.464	83	62970	23.77	ug/L	98
58) Methyl methacrylate	4.544	41	53894	26.72	ug/L	94
59) 1,4-Dioxane	4.586	88	19559	523.96	ug/L	96
60) 2-Chloroethyl vinyl ether	4.806	63	187668	121.32	ug/L	100
61) cis-1,3-Dichloropropene	4.854	75	71611	25.01	ug/L	99
64) Toluene	5.007	91	208862	24.89	ug/L	99
65) 2-Nitropropane	5.153	41	68827	117.09	ug/L	97
66) 4-Methyl-2-pentanone	5.245	43	302502	116.01	ug/L	98
67) trans-1,3-Dichloropropene	5.269	75	67505	23.83	ug/L	98
68) Tetrachloroethene	5.263	166	55189	25.31	ug/L	98
69) Ethyl methacrylate	5.367	69	71866	29.50	ug/L	94
70) 1,1,2-Trichloroethane	5.379	83	42838	24.30	ug/L	98
71) Dibromochloromethane	5.507	129	52800	26.63	ug/L	96
72) 1,3-Dichloropropane	5.568	76	87707	26.07	ug/L	99
73) 1,2-Dibromoethane	5.671	107	56995	24.81	ug/L	98
74) 3,3-dimethyl-1-butanol	5.781	57	448429	1246.19	ug/L	99
75) 2-hexanone	5.806	43	318910	121.17	ug/L	98
76) 1-Chlorohexane	6.013	91	60872m	23.69	ug/L	
77) Ethylbenzene	6.049	91	228923	24.97	ug/L	99
78) Chlorobenzene	6.037	112	143264	24.56	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.080	131	48188	25.82	ug/L	99
80) m,p-Xylene	6.153	91	369005	50.94	ug/L	99
81) o-Xylene	6.470	91	181223	24.90	ug/L	98
82) Styrene	6.507	104	144580	26.06	ug/L	98
83) Bromoform	6.531	173	29057	24.14	ug/L	97
84) Isopropylbenzene	6.708	105	212056	25.31	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.964	53	19486	30.40	ug/L	95
88) n-Propylbenzene	7.019	91	250828	24.90	ug/L	99
89) Bromobenzene	7.000	156	57862	25.60	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.067	83	81620	24.97	ug/L	97
91) 1,3,5-Trimethylbenzene	7.177	105	187322	26.01	ug/L	99
92) 2-Chlorotoluene	7.141	91	178452	25.29	ug/L	99
93) trans-1,4-Dichloro-2-B...	7.208	53	14036	23.78	ug/L	87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) 1,2,3-Trichloropropane	7.177	110	27000	25.78	ug/L	98
95) Cyclohexanone	7.214	55	17531	157.50	ug/L	98
96) 4-Chlorotoluene	7.275	91	166304	24.77	ug/L	98
97) tert-Butylbenzene	7.421	91	97959	25.05	ug/L	97
99) 1,2,4-Trimethylbenzene	7.476	105	185479	25.72	ug/L	99
100) Pentachloroethane	7.439	167	29310	28.47	ug/L	94
101) sec-Butylbenzene	7.561	105	196044	23.74	ug/L	99
102) 4-Isopropyltoluene	7.671	119	177046	25.11	ug/L	99
103) 1,3-Dichlorobenzene	7.726	146	106601	23.74	ug/L	99
104) 1,2,3-Trimethylbenzene	7.811	105	186647	24.35	ug/L	99
105) 1,4-Dichlorobenzene	7.793	146	112223	25.03	ug/L	98
106) n-Butylbenzene	7.988	92	94229	26.08	ug/L #	79
107) Benzyl Chloride	7.976	126	18518	24.86	ug/L	98
108) 1,2-Dichlorobenzene	8.104	146	102598	23.87	ug/L	97
109) 1,2-Dibromo-3-Chloropr...	8.677	75	16521	25.42	ug/L	98
110) Hexachlorobutadiene	9.134	225	19188	23.74	ug/L	96
111) 1,2,4-Trichlorobenzene	9.152	180	60217	24.53	ug/L	98
112) Naphthalene	9.372	128	224336	25.08	ug/L	100
113) 1,2,3-Trichlorobenzene	9.500	180	58055	23.80	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

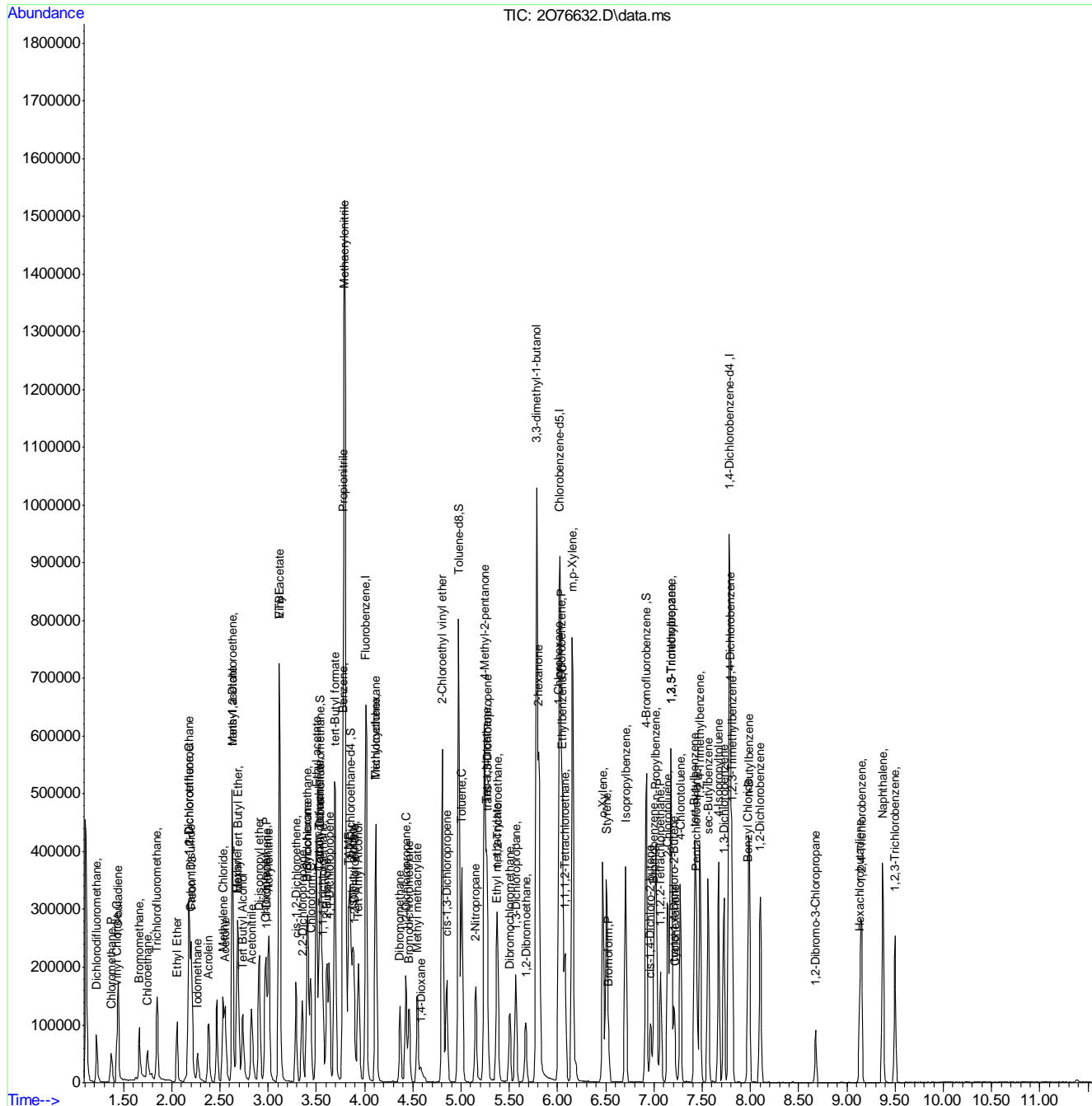
7.6.9  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jun 08 09:28:26 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



# Manual Integration Approval Summary

**Sample Number:** V2O2981-ICV2981      **Method:** SW846 8260D  
**Lab FileID:** 2O76632.D      **Analyst approved:** 06/08/23 09:30 Adelard Lefebvre  
**Injection Time:** 06/07/23 16:02      **Supervisor approved:** 06/08/23 11:20 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

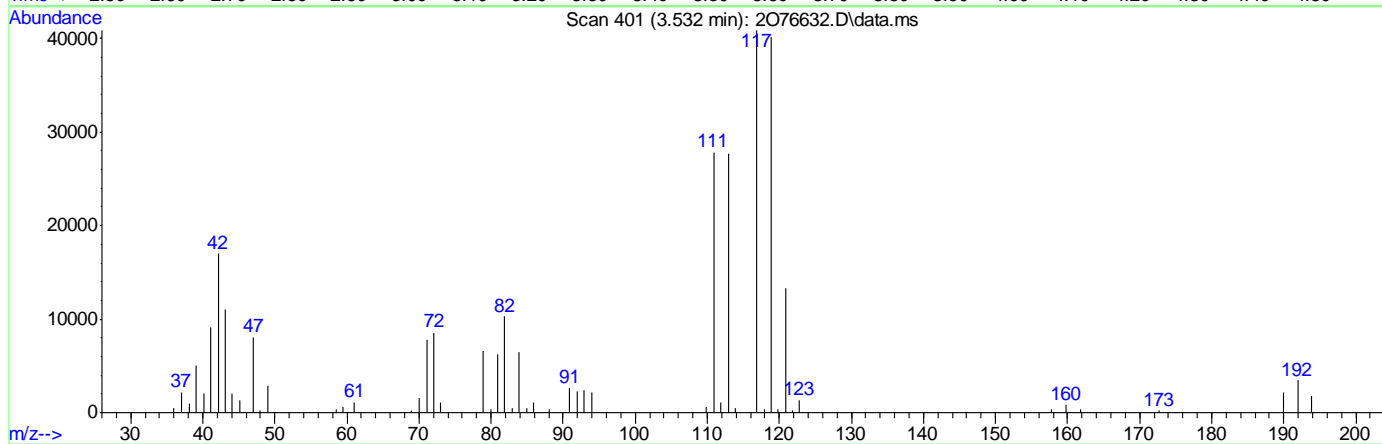
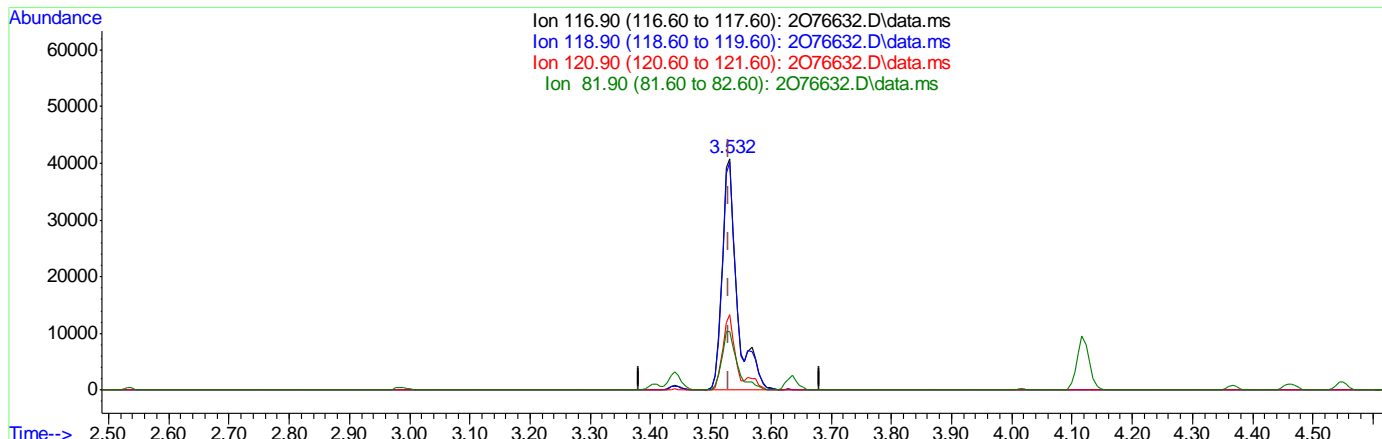
7.6.9.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

3.532min (+0.001) 27.85ug/L

response 71074

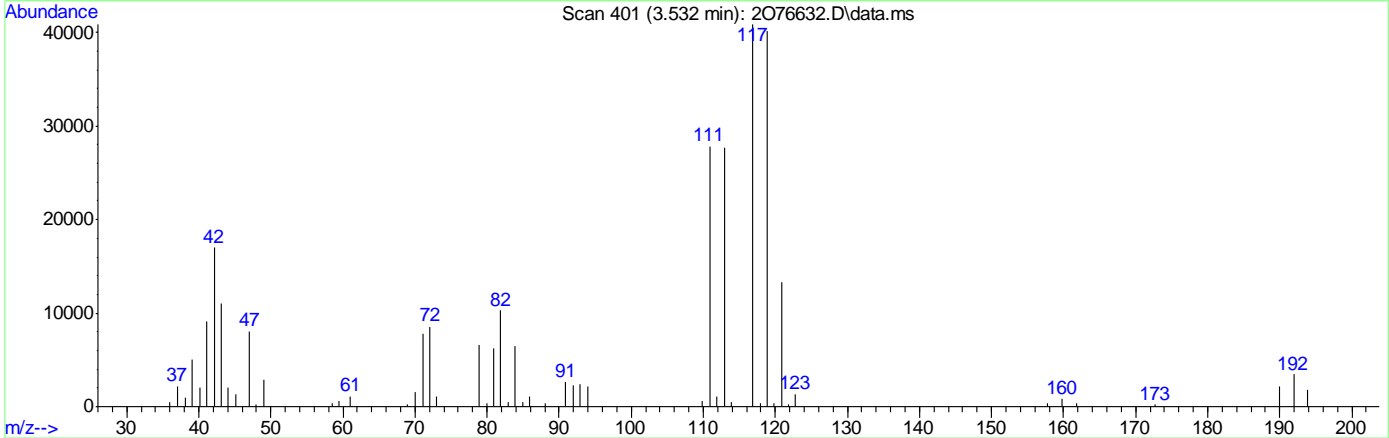
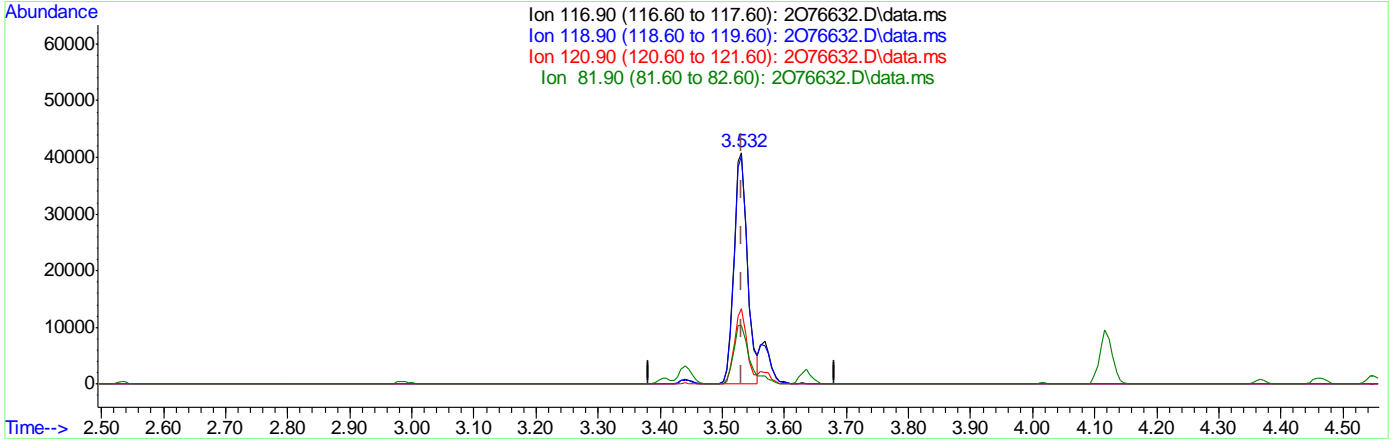
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.18
120.90	31.50	32.63
81.90	24.40	25.16

7.6.9.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(40) Carbon Tetrachloride ( )

3.532min (+0.001) 24.23ug/L m

response 61822

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	98.18
120.90	31.50	32.63
81.90	24.40	25.16

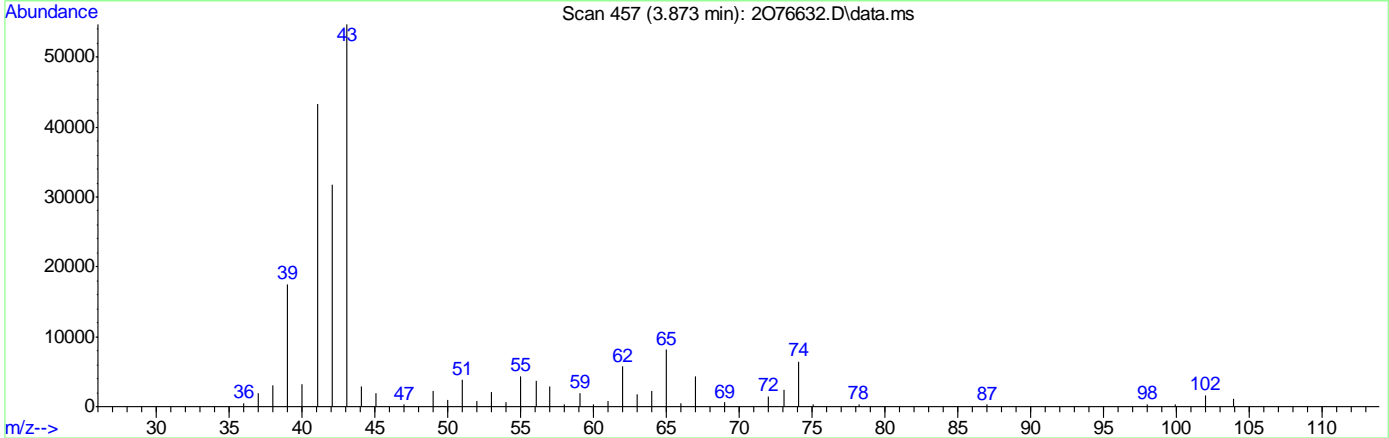
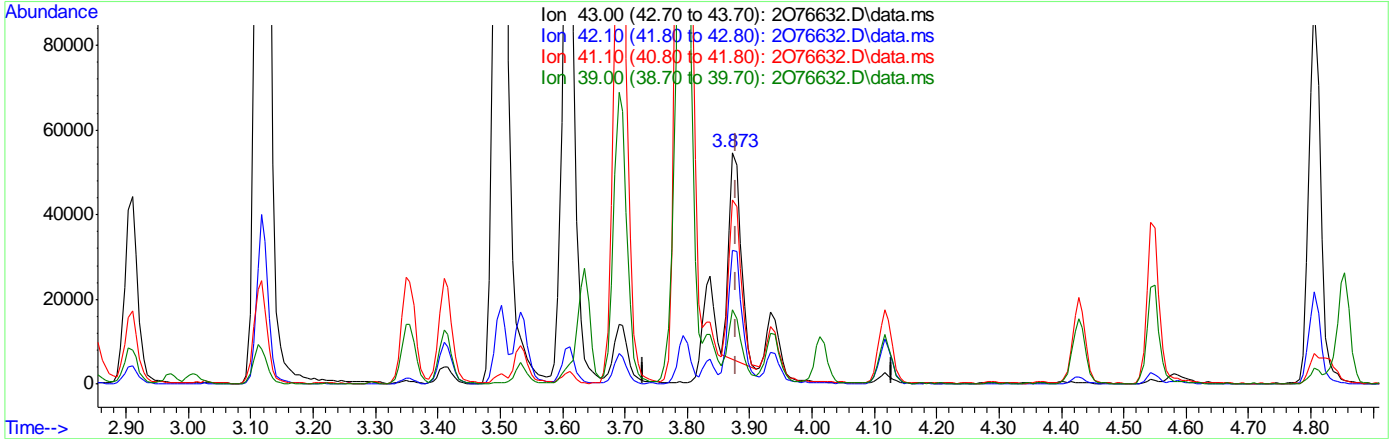
7.69.3  
7



Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 460.72ug/L  
 response 65408

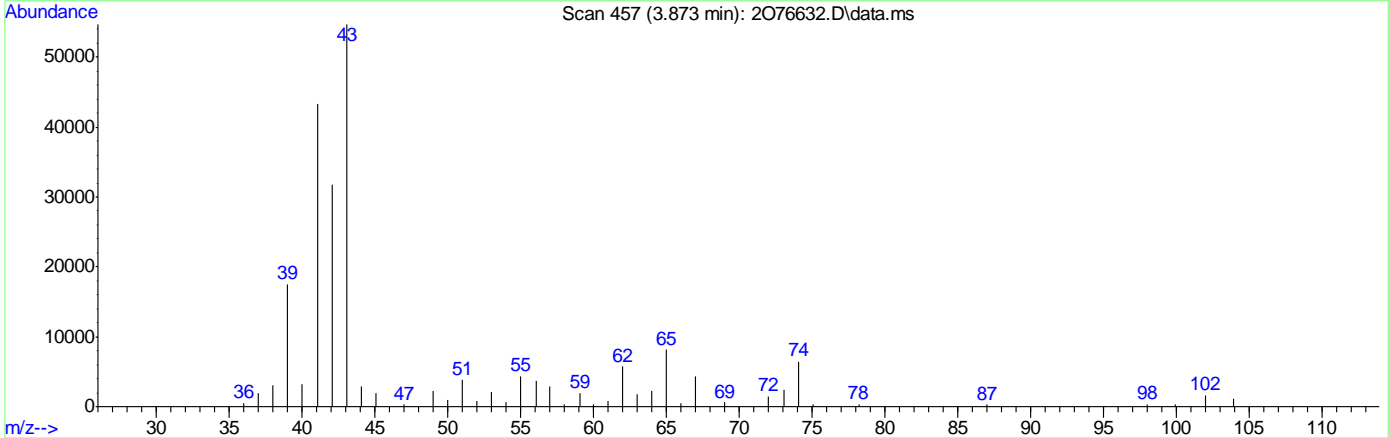
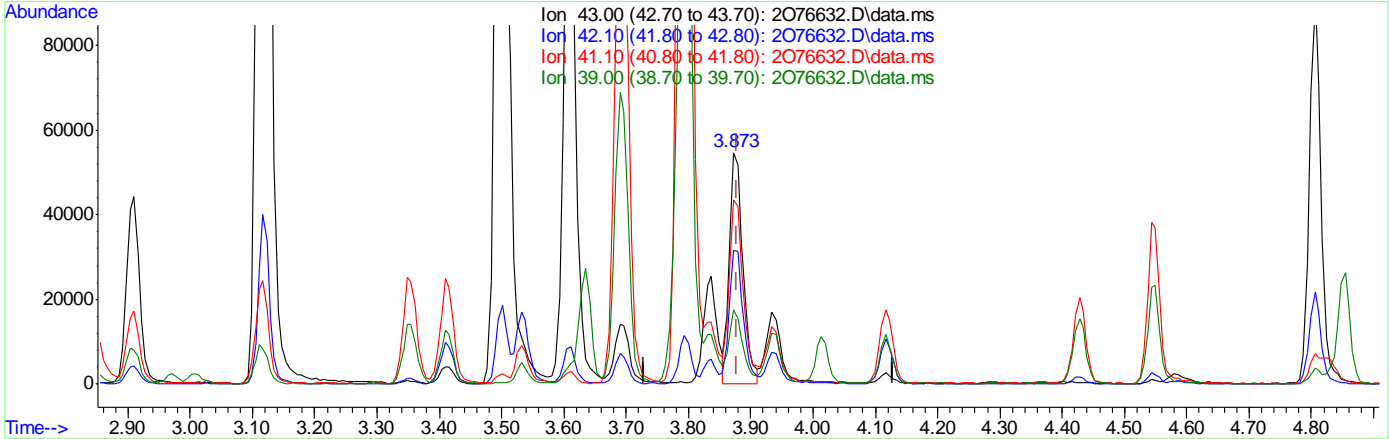
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.41
41.10	77.50	76.57
39.00	31.30	30.33

7.6.9.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 579.85ug/L m  
 response 83094

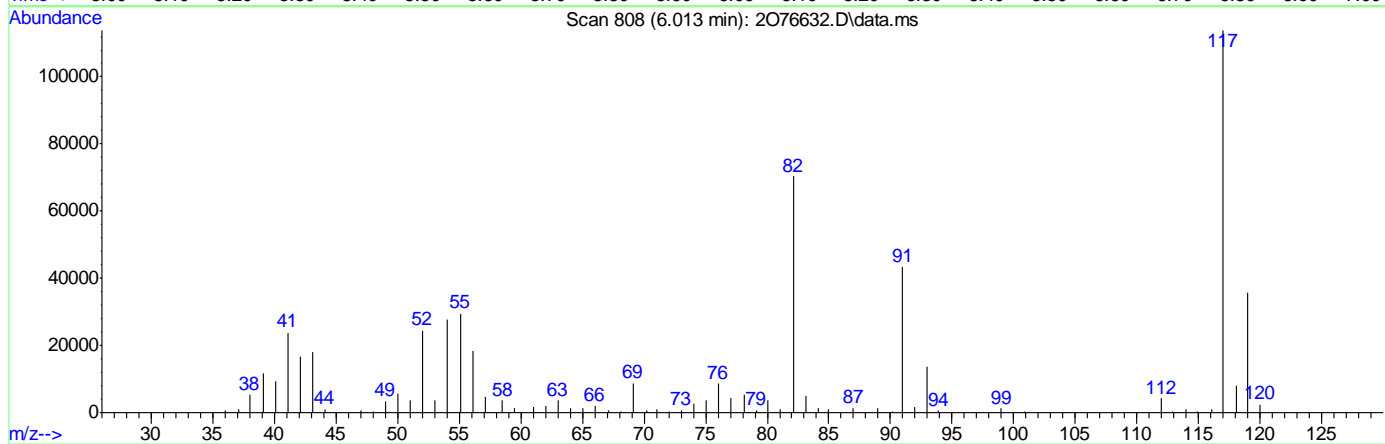
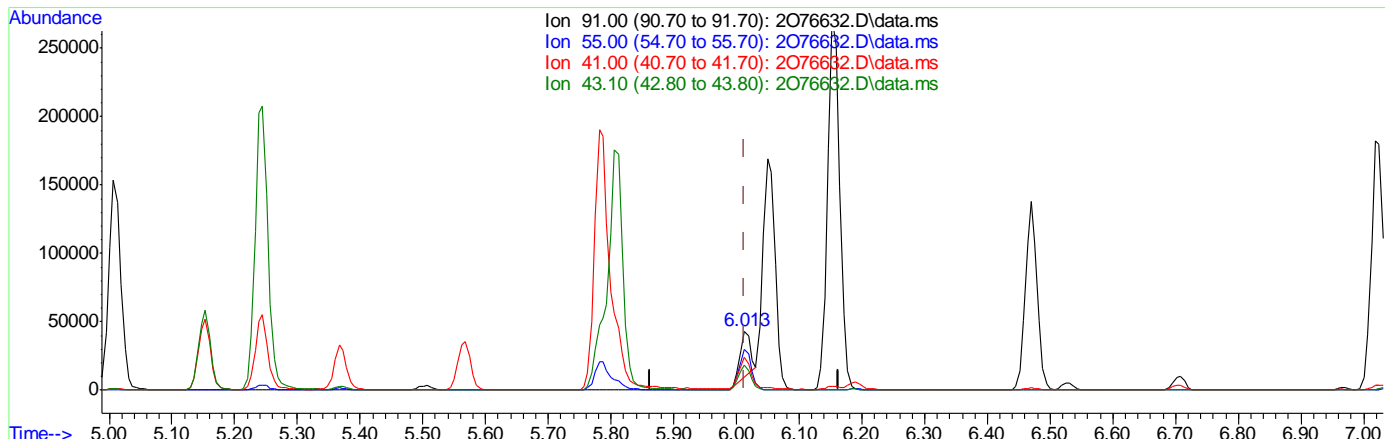
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.98
41.10	77.50	79.32
39.00	31.30	32.06

7.69.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 14.98ug/L  
 response 38485

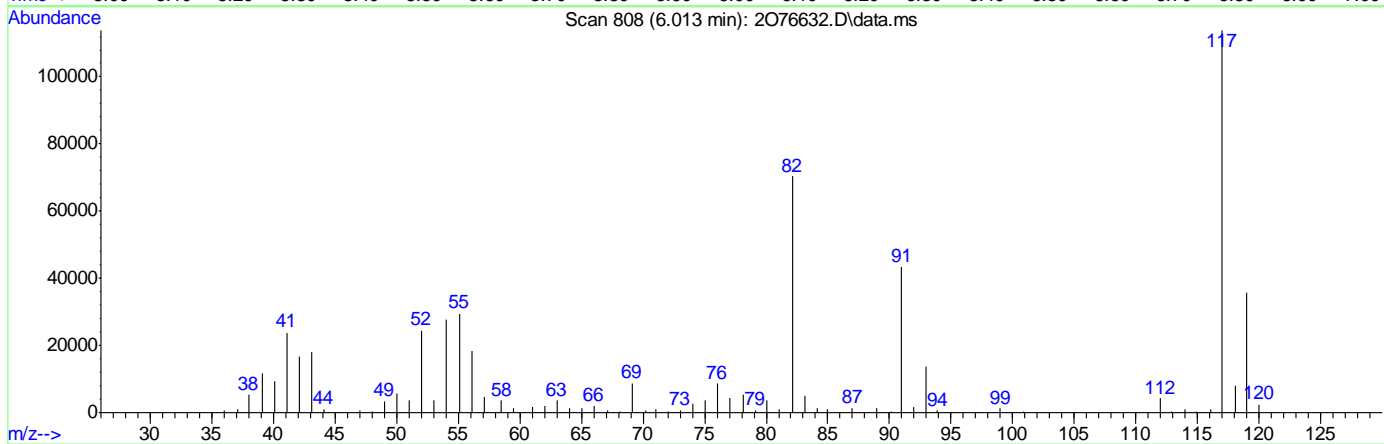
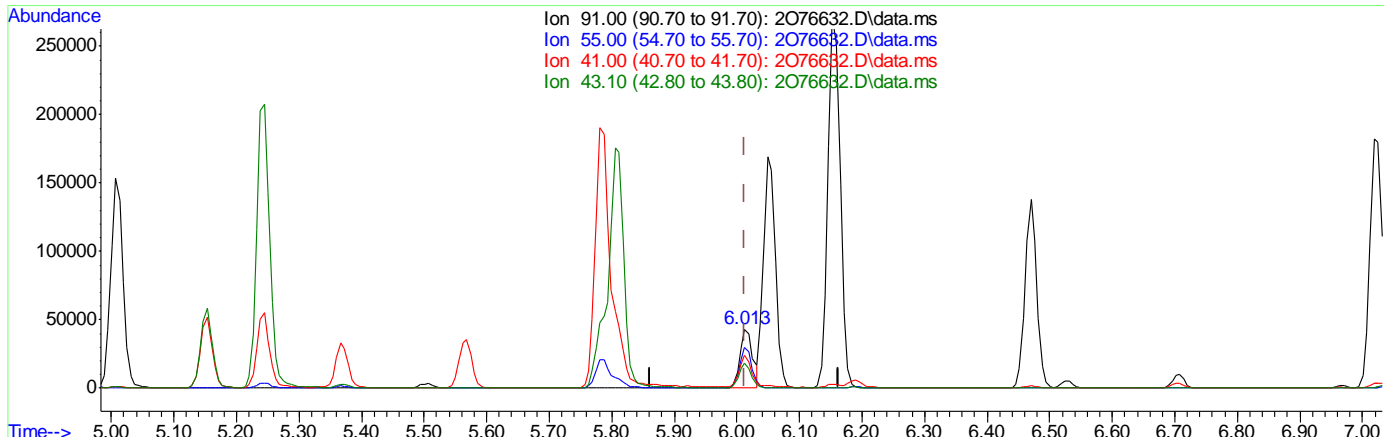
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	67.37
41.00	55.00	52.25
43.10	42.40	40.71

7.696  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-06-07\  
 Data File : 2076632.D  
 Acq On : 7 Jun 2023 4:02 pm  
 Operator : joannel  
 Sample : ICV2981-4 Inst : MSVOA12  
 Misc : MS54147,V202981,,,,,  
 ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 08 09:18:01 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:12:55 2023  
 Response via : Initial Calibration



TIC: 2076632.D\data.ms

(76) 1-Chlorohexane  
 6.013min (-0.000) 23.69ug/L m  
 response 60872

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	68.21
41.00	55.00	54.95
43.10	42.40	41.76

7.697  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	4.013	96	359075	50.00	ug/L	0.00
62) Chlorobenzene-d5	6.019	117	259734	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	7.768	152	128361	50.00	ug/L	-0.01
System Monitoring Compounds						
39) Dibromofluoromethane	3.544	113	100836	51.64	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	103.28%	
50) 1,2-Dichloroethane-d4	3.849	65	120787	52.11	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	104.22%	
63) Toluene-d8	4.970	98	341285	49.28	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.56%	
86) 4-Bromofluorobenzene	6.915	174	90117	48.04	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	96.08%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.227	85	36776	27.75	ug/L	99
3) Chloromethane	1.379	50	34292	25.37	ug/L	99
4) 1,3-butadiene	1.447	39	34214	22.14	ug/L	99
5) Vinyl Chloride	1.434	62	37922	27.20	ug/L	98
6) Bromomethane	1.666	94	23493	21.72	ug/L	97
7) Chloroethane	1.751	64	31306	41.99	ug/L	95
8) Trichlorofluoromethane	1.849	101	79765	30.33	ug/L	98
9) Ethyl Ether	2.056	59	27105	21.88	ug/L	99
10) Ethanol	2.154	45	13286	475.46	ug/L	87
11) 1,2-Dichlorotrifluoro...	2.178	67	44543	25.36	ug/L	99
12) 1,1-Dichloroethene	2.178	61	53241	24.14	ug/L	99
13) Freon 113	2.209	101	39034	25.18	ug/L	96
14) Carbon Disulfide	2.196	76	105032	25.60	ug/L	94
15) Iodomethane	2.270	142	28983	21.45	ug/L	98
16) Acrolein	2.379	56	39190	98.32	ug/L	98
17) Allyl chloride	2.471	41	40241	25.03	ug/L	97
18) Methylene Chloride	2.532	49	48292	24.22	ug/L	99
19) Acetone	2.556	43	120547	145.51	ug/L	99
20) Methyl acetate	2.629	43	236493	120.89	ug/L	98
21) trans-1,2-Dichloroethene	2.629	61	51212	22.98	ug/L	98
22) Hexane	2.678	56	26784	23.63	ug/L	93
23) Methyl Tert Butyl Ether	2.690	73	99101	22.11	ug/L	93
24) Tert Butyl Alcohol	2.733	59	63848	230.03	ug/L #	70
25) Acetonitrile	2.824	41	81491	252.40	ug/L	99
26) Di-isopropyl ether	2.904	45	95261	21.59	ug/L	94
27) Chloroprene	2.971	53	44340	20.21	ug/L	99
28) 1,1-Dichloroethane	2.983	63	69067	23.84	ug/L	99
29) Acrylonitrile	3.001	52	88705	110.90	ug/L	98
30) ETBE	3.111	59	97631	23.27	ug/L	97
31) Vinyl acetate	3.117	43	370226	117.76	ug/L	98
32) cis-1,2-Dichloroethene	3.288	96	40904	21.55	ug/L	99
33) 2,2-Dichloropropane	3.349	77	49039	25.33	ug/L	98
34) Bromochloromethane	3.397	128	22966	24.86	ug/L	95
35) Cyclohexane	3.410	56	49295	22.30	ug/L	95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
36) Chloroform	3.434	83	77080	23.55	ug/L	99
37) Ethyl acetate	3.495	43	268742	114.20	ug/L	99
38) Tetrahydrofuran	3.525	42	18979	22.51	ug/L	96
40) Carbon Tetrachloride	3.525	117	54740m	25.96	ug/L	
41) 1,1,1-Trichloroethane	3.562	97	62200	24.09	ug/L	96
42) 2-Butanone	3.605	43	149158	116.46	ug/L	99
43) 1,1-Dichloropropene	3.629	75	51145	23.63	ug/L	99
44) tert-Butyl formate	3.690	59	83075	147.10	ug/L	94
45) Propionitrile	3.775	54	102824	259.19	ug/L	88
46) Methacrylonitrile	3.788	41	358586	259.93	ug/L	99
47) Benzene	3.775	78	158651	24.28	ug/L	98
48) TAME	3.830	73	96643	24.29	ug/L	97
49) Isobutyl alcohol	3.873	43	60071m	510.02	ug/L	
51) 1,2-Dichloroethane	3.885	62	61447	22.85	ug/L	98
52) Tert Amyl Alcohol	3.934	59	51240	242.60	ug/L	97
53) Trichloroethene	4.111	95	44568	23.51	ug/L	96
54) Methylcyclohexane	4.117	83	52643	22.62	ug/L	99
55) Dibromomethane	4.367	93	28949	22.42	ug/L	96
56) 1,2-Dichloropropane	4.422	63	37216	23.81	ug/L	98
57) Bromodichloromethane	4.458	83	55540	25.37	ug/L	98
58) Methyl methacrylate	4.543	41	35637	21.47	ug/L	95
59) 1,4-Dioxane	4.580	88	12569	410.81	ug/L	95
60) 2-Chloroethyl vinyl ether	4.800	63	144487	113.02	ug/L	99
61) cis-1,3-Dichloropropene	4.848	75	58470	24.71	ug/L	97
64) Toluene	5.001	91	162032	23.35	ug/L	98
65) 2-Nitropropane	5.147	41	66770	135.49	ug/L	100
66) 4-Methyl-2-pentanone	5.238	43	264040	122.44	ug/L	99
67) trans-1,3-Dichloropropene	5.263	75	60555	25.85	ug/L	98
68) Tetrachloroethene	5.257	166	41279	22.89	ug/L	97
69) Ethyl methacrylate	5.360	69	43411	21.71	ug/L	94
70) 1,1,2-Trichloroethane	5.373	83	36185	24.82	ug/L	94
71) Dibromochloromethane	5.495	129	41488	25.30	ug/L	97
72) 1,3-Dichloropropane	5.562	76	63095	22.67	ug/L	99
73) 1,2-Dibromoethane	5.665	107	42087	22.15	ug/L	97
74) 3,3-dimethyl-1-butanol	5.775	57	355330	1196.78	ug/L	99
75) 2-hexanone	5.799	43	271695	124.83	ug/L	96
76) 1-Chlorohexane	6.007	91	44844m	21.10	ug/L	
77) Ethylbenzene	6.043	91	174289	22.99	ug/L	98
78) Chlorobenzene	6.031	112	112227	23.26	ug/L	99
79) 1,1,1,2-Tetrachloroethane	6.074	131	40110	25.98	ug/L	98
80) m,p-Xylene	6.147	91	272347	45.46	ug/L	99
81) o-Xylene	6.464	91	124713	20.72	ug/L	99
82) Styrene	6.500	104	101499	22.12	ug/L	98
83) Bromoform	6.525	173	25356	25.38	ug/L	96
84) Isopropylbenzene	6.696	105	143703	20.74	ug/L	98
87) cis-1,4-Dichloro-2-butene	6.958	53	10902	21.74	ug/L	95
88) n-Propylbenzene	7.013	91	177075	22.46	ug/L	100
89) Bromobenzene	6.994	156	40121	22.69	ug/L	97
90) 1,1,2,2-Tetrachloroethane	7.061	83	61807	24.17	ug/L	98
91) 1,3,5-Trimethylbenzene	7.165	105	125533	22.28	ug/L	100

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 2-Chlorotoluene	7.134	91	122659	22.21	ug/L	100
93) trans-1,4-Dichloro-2-B...	7.195	53	9888	21.41	ug/L	92
94) 1,2,3-Trichloropropane	7.171	110	19355	23.62	ug/L	97
95) Cyclohexanone	7.202	55	9559	109.76	ug/L	97
96) 4-Chlorotoluene	7.262	91	116172	22.12	ug/L	98
97) tert-Butylbenzene	7.415	91	64581	21.11	ug/L	99
99) 1,2,4-Trimethylbenzene	7.470	105	124938	22.14	ug/L	99
100) Pentachloroethane	7.433	167	21745	27.05	ug/L #	74
101) sec-Butylbenzene	7.555	105	138844	21.49	ug/L	98
102) 4-Isopropyltoluene	7.665	119	116282	21.08	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	79231	22.55	ug/L	99
104) 1,2,3-Trimethylbenzene	7.799	105	132899	22.16	ug/L	99
105) 1,4-Dichlorobenzene	7.781	146	81447	23.20	ug/L	94
106) n-Butylbenzene	7.976	92	61934	21.91	ug/L	94
107) Benzyl Chloride	7.970	126	17122	28.81	ug/L	99
108) 1,2-Dichlorobenzene	8.092	146	74197	22.06	ug/L	98
109) 1,2-Dibromo-3-Chloropr...	8.665	75	12160	24.00	ug/L	94
110) Hexachlorobutadiene	9.128	225	14151	22.36	ug/L	93
111) 1,2,4-Trichlorobenzene	9.140	180	38243	19.91	ug/L	95
112) Naphthalene	9.366	128	135341	19.34	ug/L	98
113) 1,2,3-Trichlorobenzene	9.488	180	39338	20.61	ug/L	94

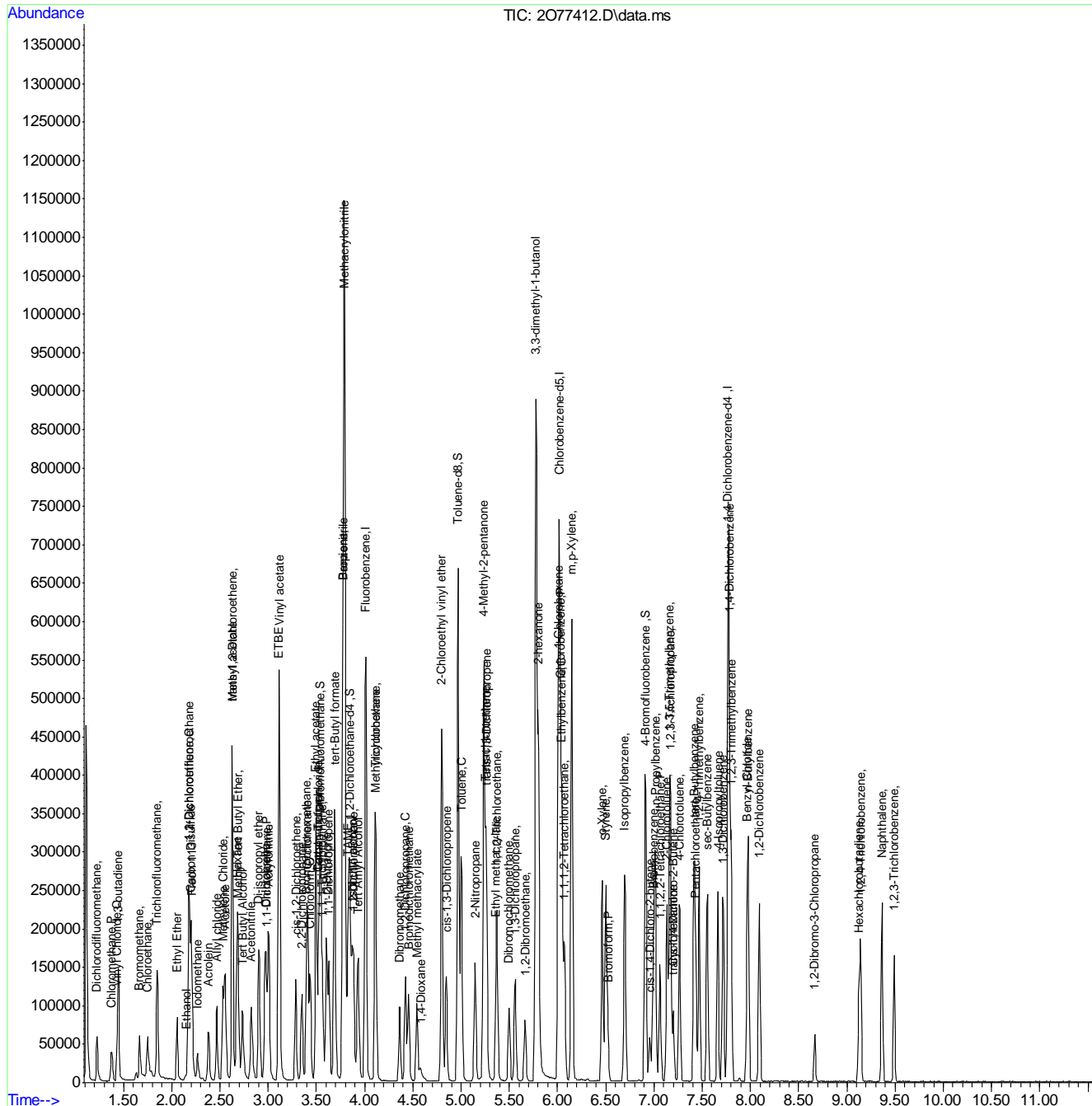
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Inst : MSVOA12

Quant Time: Jul 05 08:49:11 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7  
2023-07-10



# Manual Integration Approval Summary

**Sample Number:** V2O3017-CC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O77412.D      **Analyst approved:** 07/05/23 09:17 Jenifer Willis  
**Injection Time:** 07/05/23 08:36      **Supervisor approved:** 07/06/23 13:22 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poorly defined baseline
1-Chlorohexane	544-10-5		6.01	Poorly defined baseline

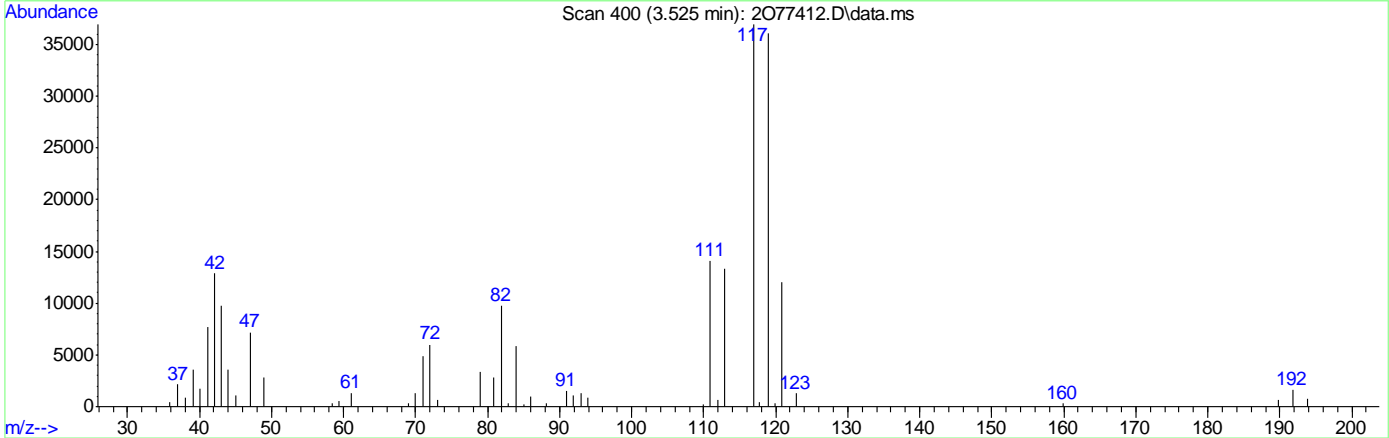
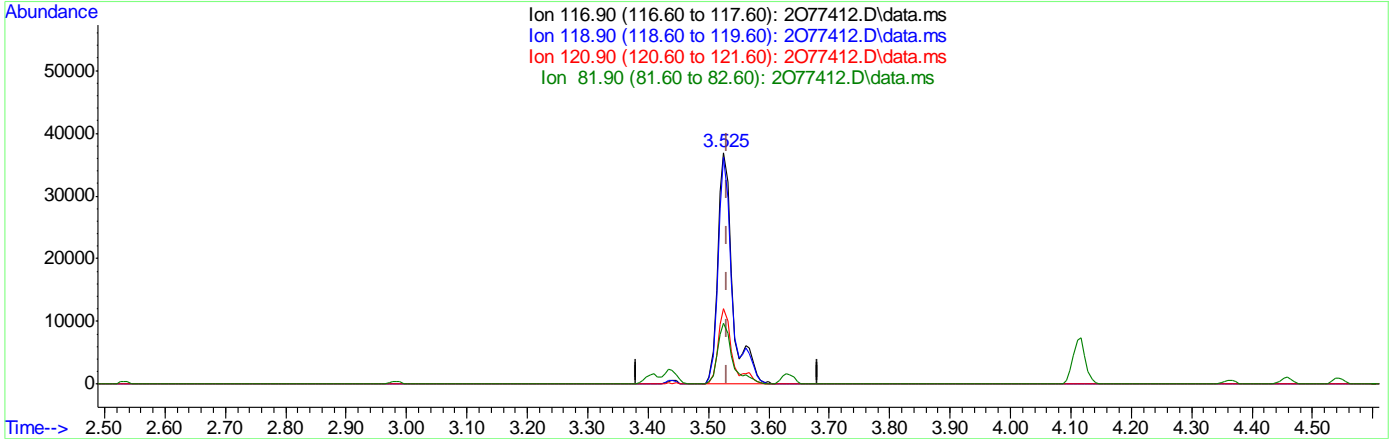
7.6.10.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.88ug/L

response 63002

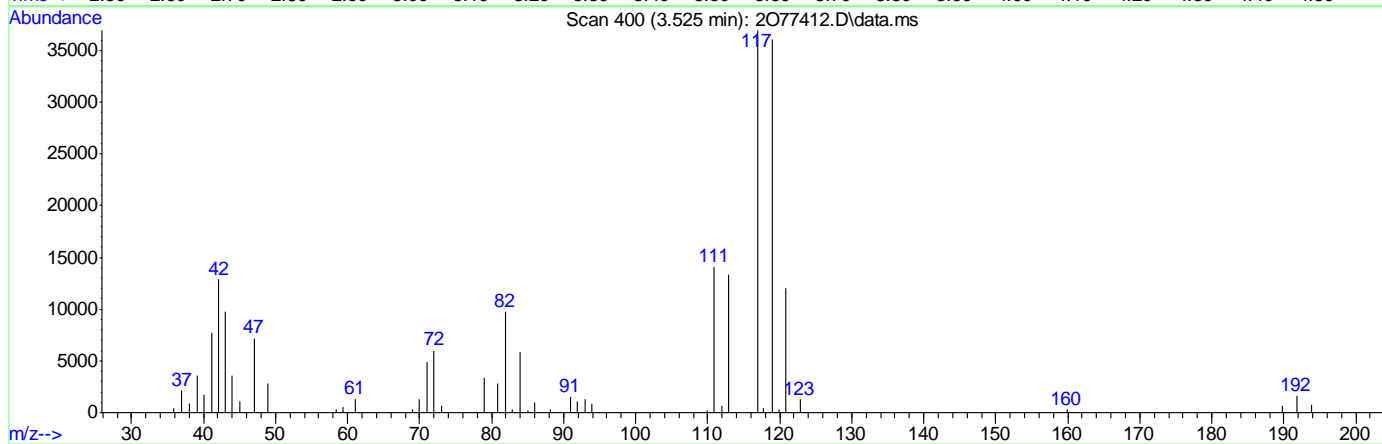
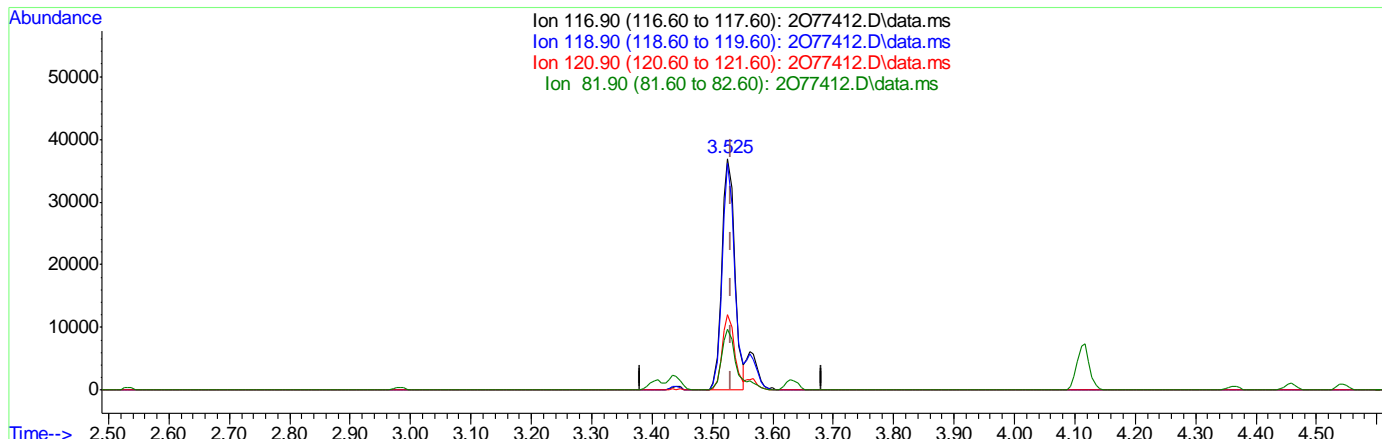
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.68
120.90	31.50	32.42
81.90	24.40	26.33

7.6.10.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(40) Carbon Tetrachloride ( )  
 3.525min (-0.006) 25.96ug/L m  
 response 54740

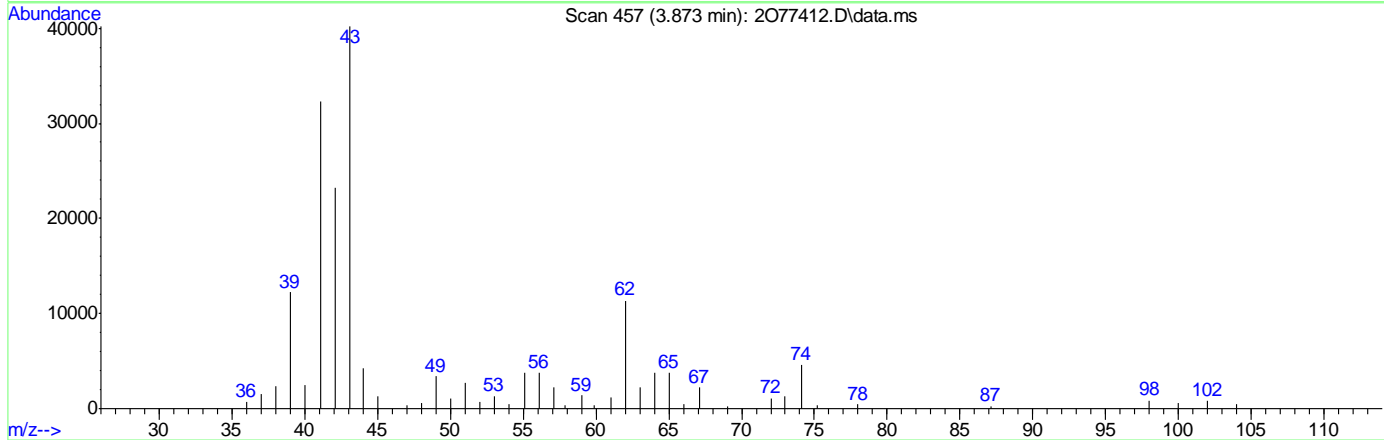
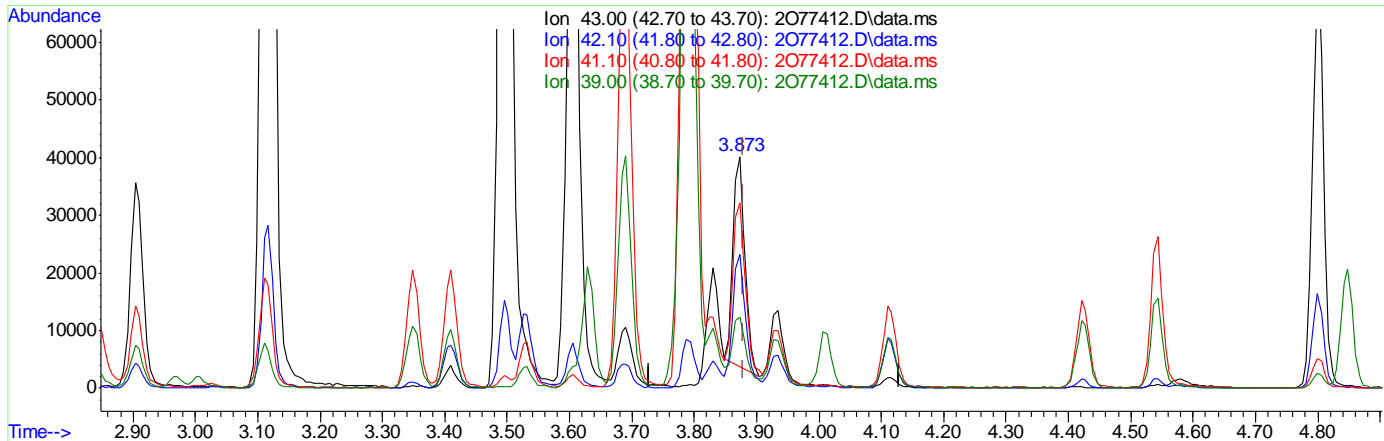
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	97.68
120.90	31.50	32.42
81.90	24.40	26.33

7.6.10.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 404.80ug/L  
 response 47284

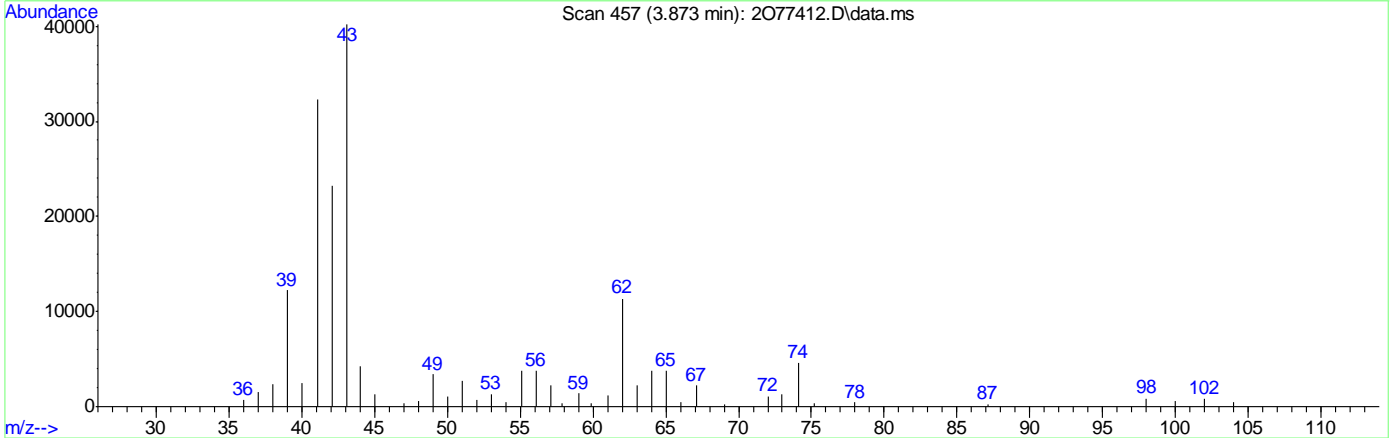
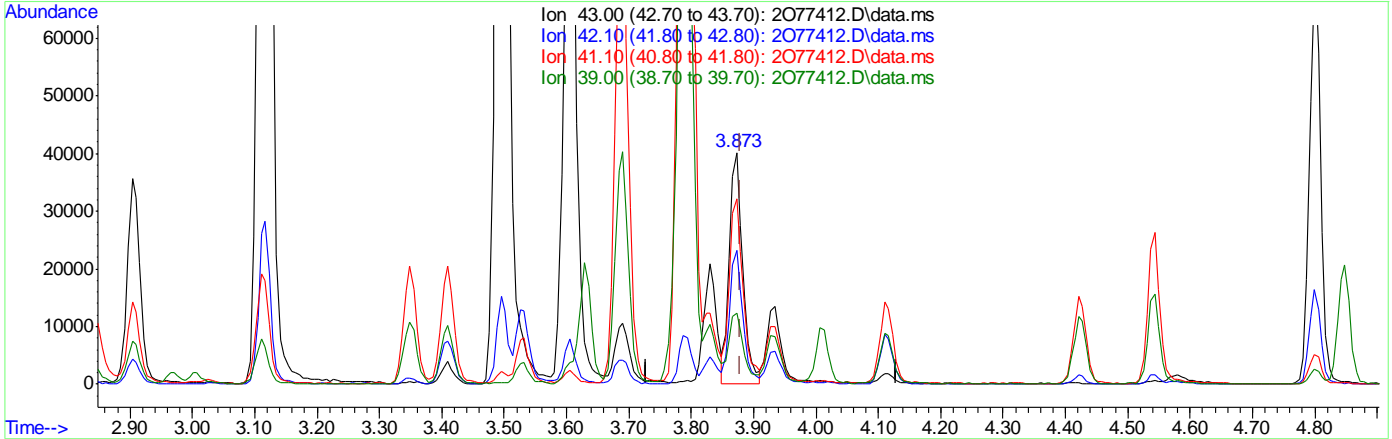
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.19
41.10	77.50	76.44
39.00	31.30	28.04

7.6.10.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(49) Isobutyl alcohol  
 3.873min (-0.006) 510.02ug/L m  
 response 60071

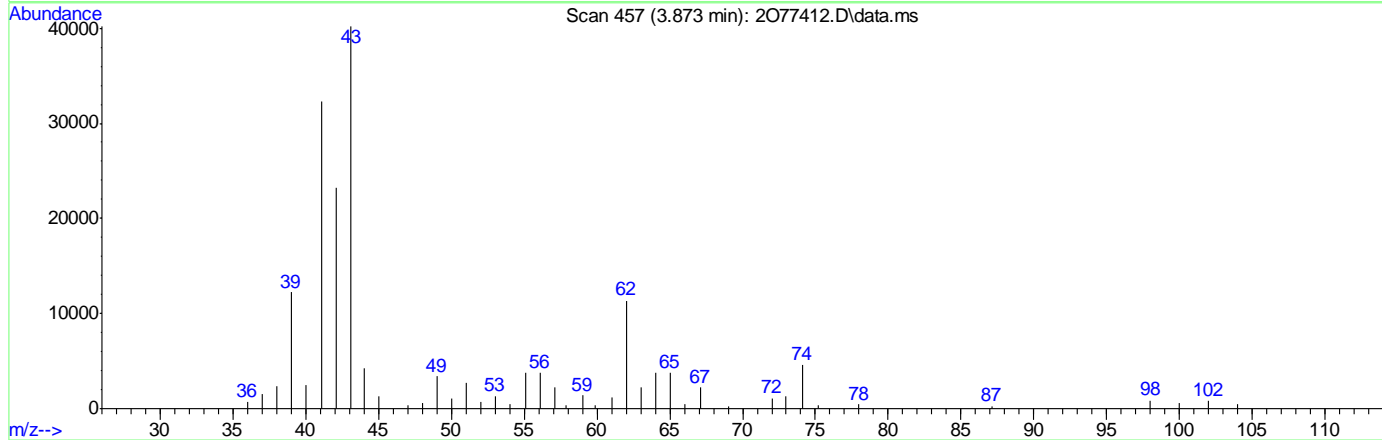
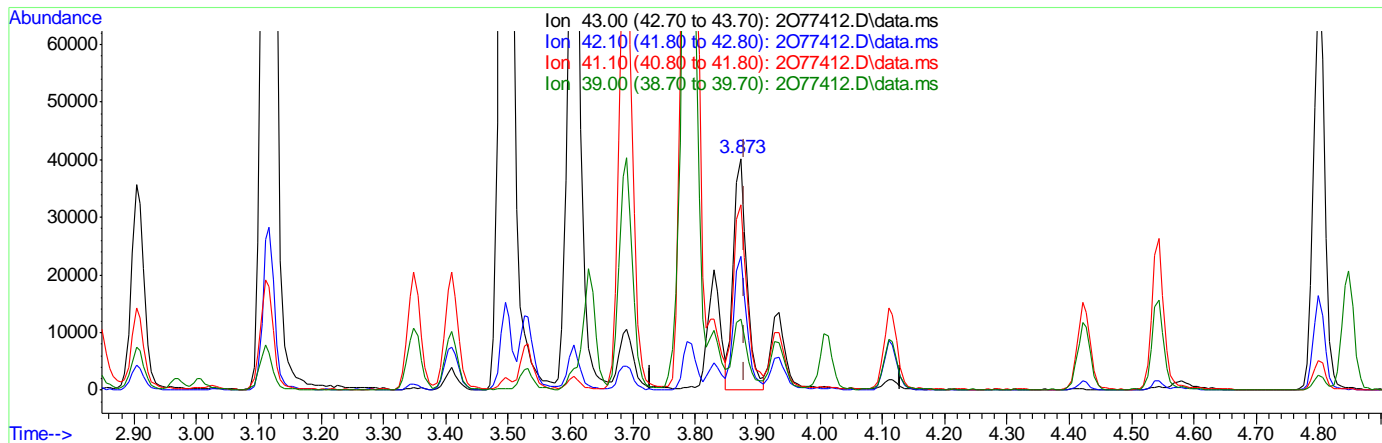
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.90
41.10	77.50	80.21
39.00	31.30	30.48

7.6.10.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(49) Isobutyl alcohol

3.873min (-0.006) 510.02ug/L m

response 60071

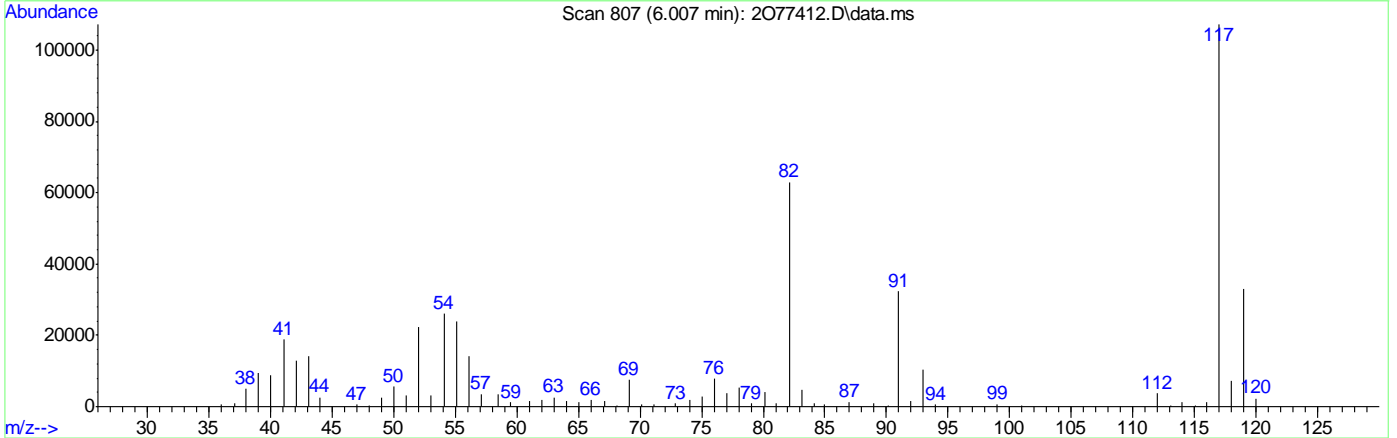
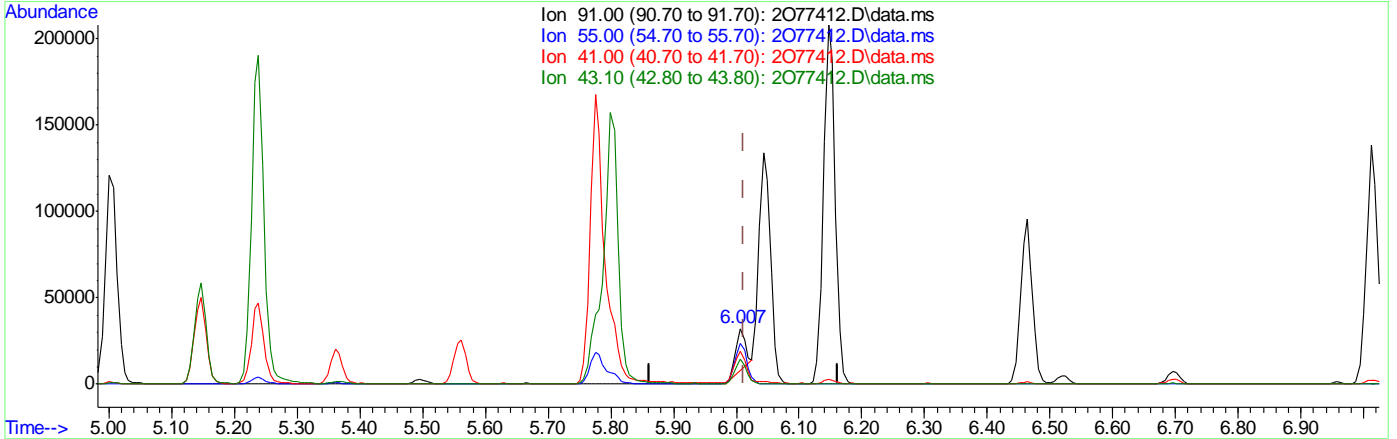
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	57.90
41.10	77.50	80.21
39.00	31.30	30.48

7.6.10.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 12.48ug/L  
 response 26513

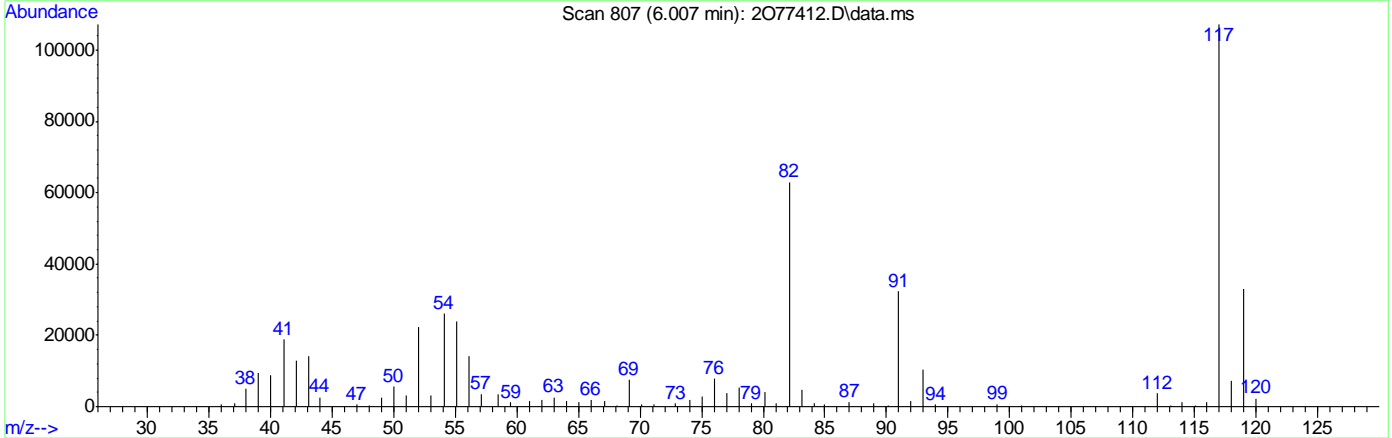
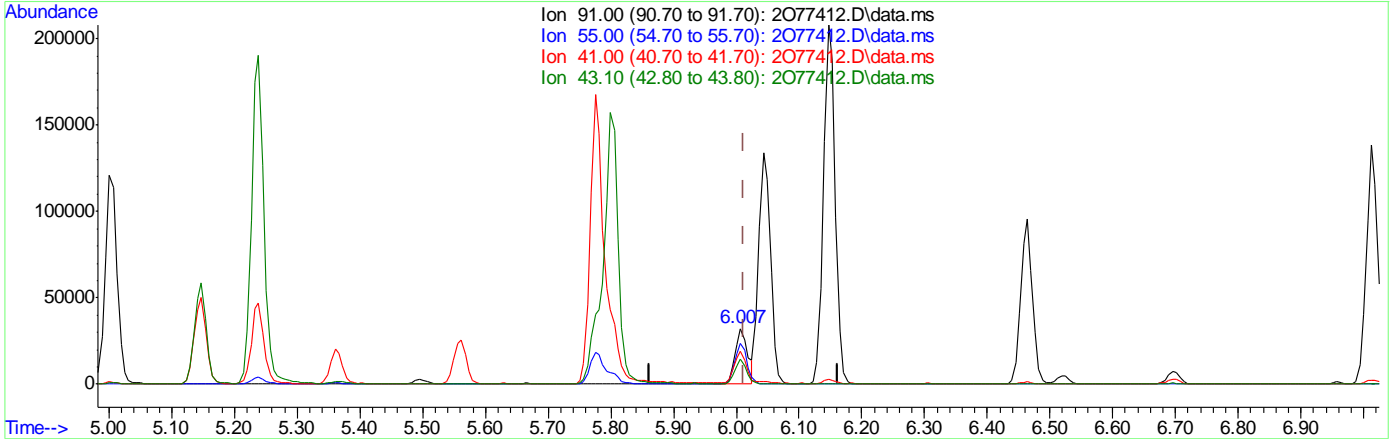
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.01
41.00	55.00	55.98
43.10	42.40	43.37

7.6.10.7  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\2\data\2023-07-05\  
 Data File : 2077412.D  
 Acq On : 5 Jul 2023 8:36 am  
 Operator : jeniferw  
 Sample : CC2981-4 Inst : MSVOA12  
 Misc : MS54349,V203017,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 05 08:48:35 2023  
 Quant Method : C:\msdchem\2\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077412.D\data.ms

(76) 1-Chlorohexane  
 6.007min (-0.006) 21.10ug/L m  
 response 44844

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.72
41.00	55.00	58.38
43.10	42.40	44.10

7.6.10.8  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	4.013	96	346718	50.00	ug/L	0.00	
62) Chlorobenzene-d5	6.019	117	252321	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	7.775	152	125188	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	3.544	113	94924	50.34	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.68%		
50) 1,2-Dichloroethane-d4	3.849	65	114361	51.09	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	102.18%		
63) Toluene-d8	4.970	98	330256	49.09	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	98.18%		
86) 4-Bromofluorobenzene	6.915	174	88725	48.50	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.00%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	1.221	85	37693	29.45	ug/L		100
3) Chloromethane	1.373	50	37594	28.81	ug/L		97
4) 1,3-butadiene	1.440	39	35317	23.78	ug/L		99
5) Vinyl Chloride	1.428	62	41242	30.63	ug/L		100
6) Bromomethane	1.666	94	25105	24.00	ug/L		98
7) Chloroethane	1.745	64	33047	Below	Cal		97
8) Trichlorofluoromethane	1.849	101	83875	33.03	ug/L		99
9) Ethyl Ether	2.050	59	26203	21.90	ug/L		99
10) Ethanol	2.148	45	12800	474.40	ug/L		89
11) 1,2-Dichlorotrifluoro...	2.178	67	42502	25.06	ug/L		97
12) 1,1-Dichloroethene	2.178	61	49417	23.20	ug/L		98
13) Freon 113	2.203	101	35935	24.01	ug/L		98
14) Carbon Disulfide	2.196	76	95614	24.14	ug/L		97
15) Iodomethane	2.270	142	32956	25.02	ug/L		98
16) Acrolein	2.379	56	39938	103.71	ug/L		99
17) Allyl chloride	2.465	41	38831	25.01	ug/L		96
18) Methylene Chloride	2.532	49	47913	24.89	ug/L		98
19) Acetone	2.550	43	100931	126.17	ug/L		99
20) Methyl acetate	2.629	43	247856	131.22	ug/L		98
21) trans-1,2-Dichloroethene	2.623	61	50615	23.52	ug/L		95
22) Hexane	2.678	56	24681	22.55	ug/L	#	87
23) Methyl Tert Butyl Ether	2.684	73	95935	22.16	ug/L		89
24) Tert Butyl Alcohol	2.733	59	60682	226.42	ug/L	#	76
25) Acetonitrile	2.824	41	73459	235.63	ug/L		98
26) Di-isopropyl ether	2.904	45	94336	22.14	ug/L		97
27) Chloroprene	2.971	53	45756	21.63	ug/L		96
28) 1,1-Dichloroethane	2.977	63	69186	24.73	ug/L		98
29) Acrylonitrile	3.001	52	94014	121.73	ug/L		97
30) ETBE	3.111	59	92863	22.92	ug/L		99
31) Vinyl acetate	3.117	43	325053	107.08	ug/L		99
32) cis-1,2-Dichloroethene	3.288	96	40392	22.04	ug/L		97
33) 2,2-Dichloropropane	3.349	77	43641	23.35	ug/L		98
34) Bromochloromethane	3.397	128	21197	23.76	ug/L		91
35) Cyclohexane	3.410	56	49385	23.14	ug/L		95
36) Chloroform	3.434	83	74401	23.54	ug/L		98
37) Ethyl acetate	3.495	43	265464	116.83	ug/L		100
38) Tetrahydrofuran	3.525	42	18274	22.44	ug/L		95
40) Carbon Tetrachloride	3.525	117	51906m	25.49	ug/L		
41) 1,1,1-Trichloroethane	3.562	97	61113	24.51	ug/L		95
42) 2-Butanone	3.605	43	153690	124.28	ug/L		99
43) 1,1-Dichloropropene	3.629	75	50951	24.38	ug/L		97
44) tert-Butyl formate	3.690	59	81748	149.74	ug/L		94

7.6.11  
 7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	3.775	54	99919	260.84	ug/L	89
46) Methacrylonitrile	3.788	41	357408	268.31	ug/L	99
47) Benzene	3.775	78	154160	24.44	ug/L	98
48) TAME	3.830	73	90247	23.49	ug/L	95
49) Isobutyl alcohol	3.873	43	56507m	497.35	ug/L	
51) 1,2-Dichloroethane	3.885	62	59237	22.82	ug/L	97
52) Tert Amyl Alcohol	3.934	59	45570	224.54	ug/L	98
53) Trichloroethene	4.111	95	43255	23.63	ug/L	96
54) Methylcyclohexane	4.117	83	51391	22.87	ug/L	99
55) Dibromomethane	4.367	93	28595	22.94	ug/L	97
56) 1,2-Dichloropropane	4.422	63	36813	24.39	ug/L	96
57) Bromodichloromethane	4.458	83	51461	24.34	ug/L	98
58) Methyl methacrylate	4.544	41	38063	23.71	ug/L	95
59) 1,4-Dioxane	4.580	88	12850	434.22	ug/L	97
60) 2-Chloroethyl vinyl ether	4.800	63	147595	119.57	ug/L	98
61) cis-1,3-Dichloropropene	4.848	75	55045	24.09	ug/L	98
64) Toluene	5.007	91	164058	24.34	ug/L	100
65) 2-Nitropropane	5.147	41	59333	124.91	ug/L	97
66) 4-Methyl-2-pentanone	5.239	43	287940	137.45	ug/L	99
67) trans-1,3-Dichloropropene	5.269	75	57756	25.38	ug/L	96
68) Tetrachloroethene	5.263	166	43771	24.99	ug/L	98
69) Ethyl methacrylate	5.367	69	44072	22.66	ug/L	88
70) 1,1,2-Trichloroethane	5.373	83	34528	24.38	ug/L	95
71) Dibromochloromethane	5.501	129	38103	23.92	ug/L	98
72) 1,3-Dichloropropane	5.562	76	61058	22.59	ug/L	95
73) 1,2-Dibromoethane	5.665	107	40349	21.86	ug/L	100
74) 3,3-dimethyl-1-butanol	5.781	57	374517	1292.66	ug/L	98
75) 2-hexanone	5.805	43	291954	138.08	ug/L	94
76) 1-Chlorohexane	6.007	91	44408m	21.51	ug/L	
77) Ethylbenzene	6.049	91	173087	23.50	ug/L	98
78) Chlorobenzene	6.031	112	110005	23.47	ug/L	98
79) 1,1,1,2-Tetrachloroethane	6.074	131	37785	25.20	ug/L	96
80) m,p-Xylene	6.153	91	274549	47.18	ug/L	98
81) o-Xylene	6.464	91	126289	21.60	ug/L	99
82) Styrene	6.500	104	100053	22.45	ug/L	98
83) Bromoform	6.525	173	22707	23.52	ug/L	96
84) Isopropylbenzene	6.702	105	146641	21.78	ug/L	99
87) cis-1,4-Dichloro-2-butene	6.958	53	9416	19.25	ug/L	94
88) n-Propylbenzene	7.019	91	181476	23.60	ug/L	100
89) Bromobenzene	6.994	156	39327	22.80	ug/L	93
90) 1,1,2,2-Tetrachloroethane	7.061	83	60497	24.26	ug/L	99
91) 1,3,5-Trimethylbenzene	7.171	105	128685	23.42	ug/L	99
92) 2-Chlorotoluene	7.141	91	125905	23.38	ug/L	98
93) trans-1,4-Dichloro-2-B...	7.202	53	8594	19.08	ug/L	89
94) 1,2,3-Trichloropropane	7.171	110	19033	23.82	ug/L	97
95) Cyclohexanone	7.208	55	10181	119.86	ug/L	92
96) 4-Chlorotoluene	7.269	91	117976	23.03	ug/L	98
97) tert-Butylbenzene	7.421	91	66788	22.38	ug/L	97
99) 1,2,4-Trimethylbenzene	7.470	105	125579	22.82	ug/L	99
100) Pentachloroethane	7.433	167	19978	25.53	ug/L	92
101) sec-Butylbenzene	7.555	105	143032	22.70	ug/L	98
102) 4-Isopropyltoluene	7.665	119	119649	22.24	ug/L	99
103) 1,3-Dichlorobenzene	7.720	146	79343	23.16	ug/L	99
104) 1,2,3-Trimethylbenzene	7.805	105	134735	23.04	ug/L	99
105) 1,4-Dichlorobenzene	7.787	146	81444	23.79	ug/L	97
106) n-Butylbenzene	7.982	92	62179	22.55	ug/L #	78
107) Benzyl Chloride	7.970	126	13478	23.84	ug/L #	89
108) 1,2-Dichlorobenzene	8.098	146	73995	22.56	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,2-Dibromo-3-Chloropr...	8.671	75	11038	22.42	ug/L	94
110) Hexachlorobutadiene	9.128	225	14779	23.96	ug/L	97
111) 1,2,4-Trichlorobenzene	9.146	180	39378	21.02	ug/L	97
112) Naphthalene	9.366	128	134671	19.73	ug/L	99
113) 1,2,3-Trichlorobenzene	9.494	180	39132	21.02	ug/L	98

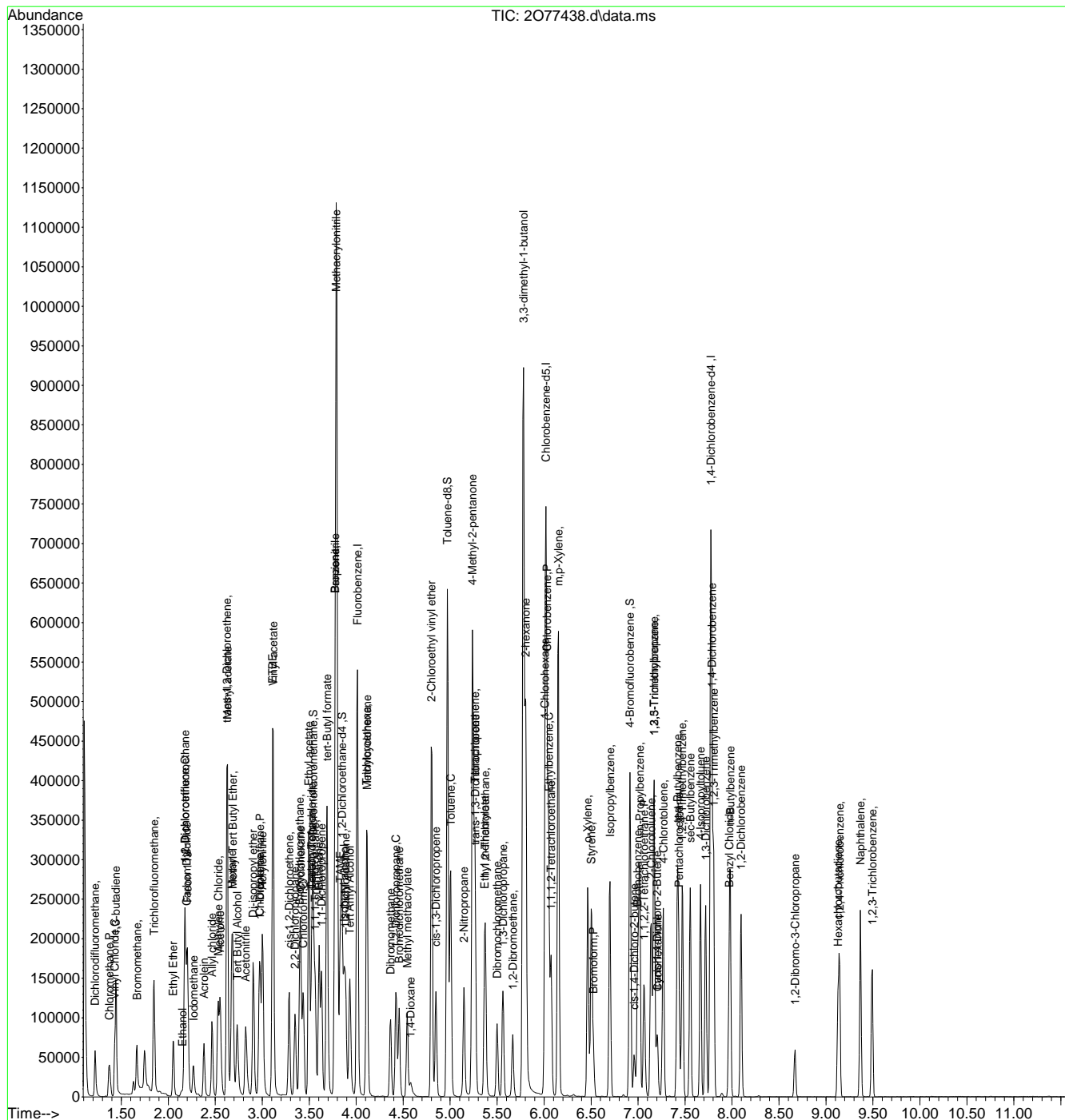
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.11  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:11:39 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



7.6.11  
7

# Manual Integration Approval Summary

**Sample Number:** V2O3017-ECC2981      **Method:** SW846 8260D  
**Lab FileID:** 2O77438.D      **Analyst approved:** 07/05/23 21:25 Celine Celis  
**Injection Time:** 07/05/23 19:38      **Supervisor approved:** 07/06/23 13:23 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		3.53	Overlapping peak
Isobutyl Alcohol	78-83-1		3.87	Poor instrument integration
1-Chlorohexane	544-10-5		6.01	Poor instrument integration

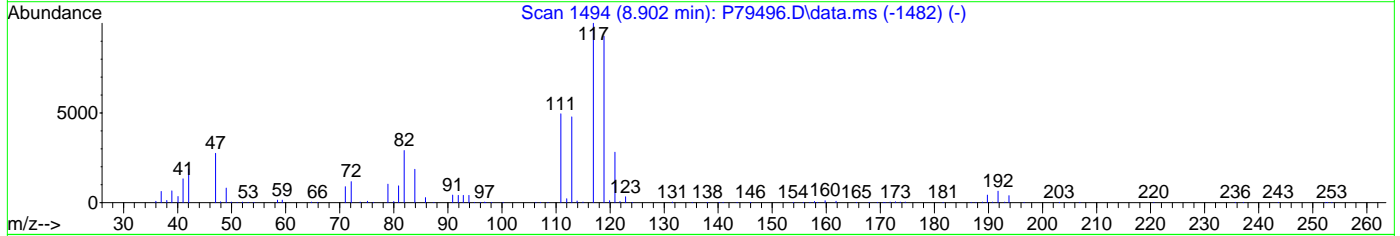
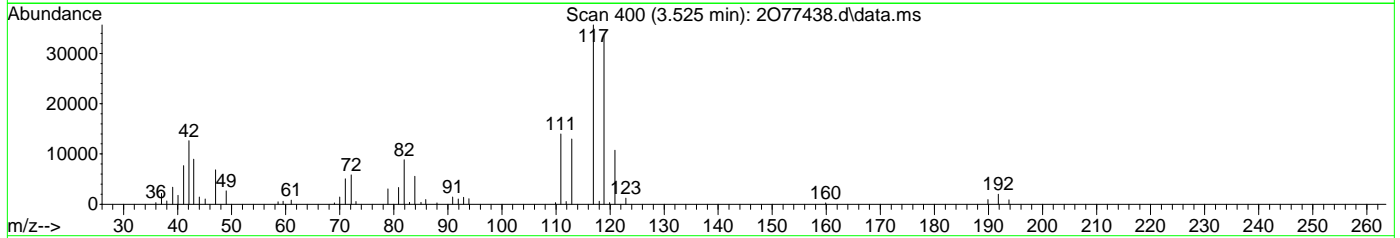
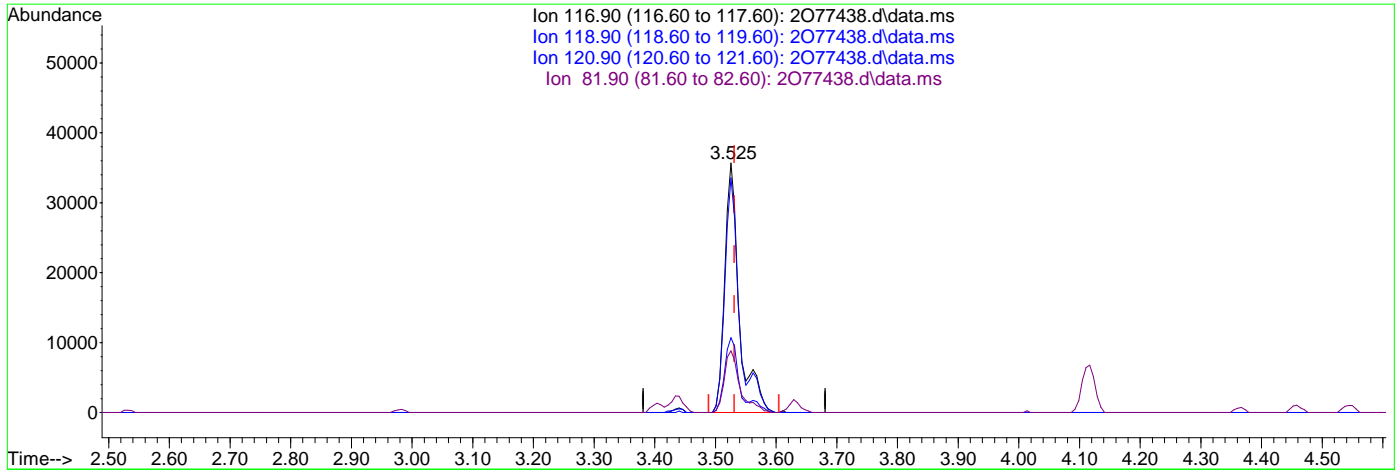
7.6.11.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



TIC: 2077438.d\data.ms

(40) Carbon Tetrachloride ( )

3.525min (-0.006) 29.40ug/L

response 59873

Ion Exp% Act%

116.90 100 100

118.90 99.30 93.95

120.90 31.50 30.01

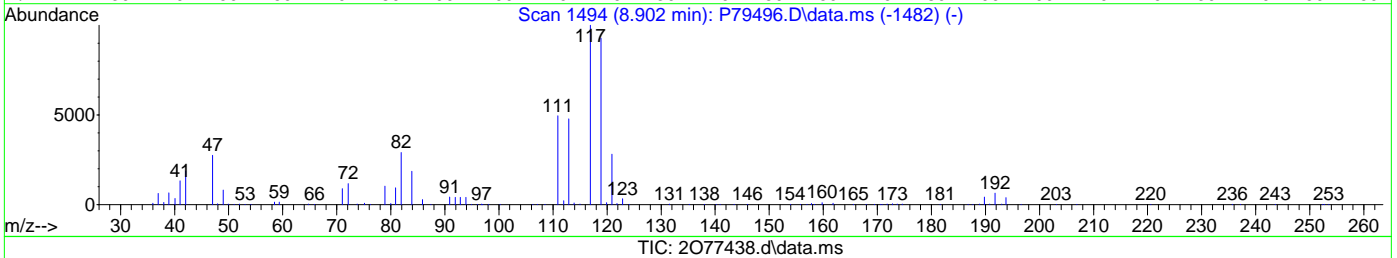
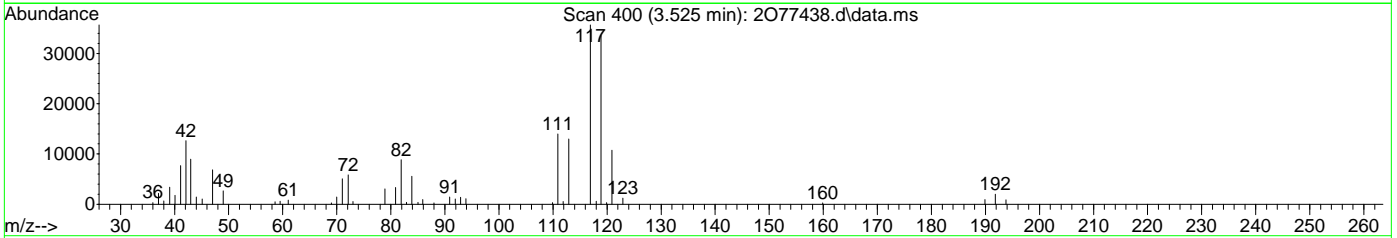
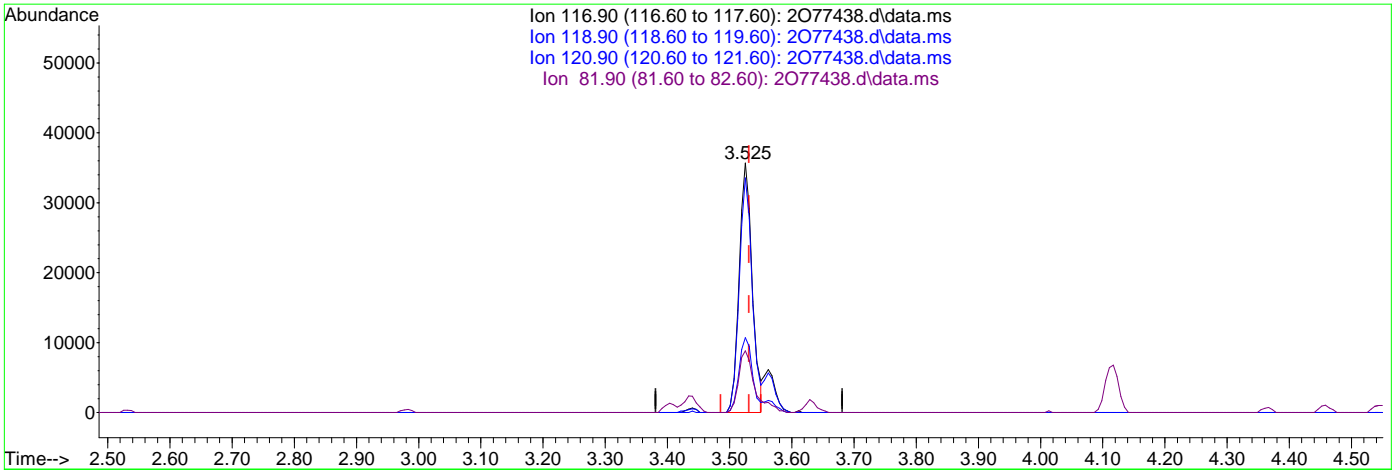
81.90 24.40 24.73

7.6.11.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



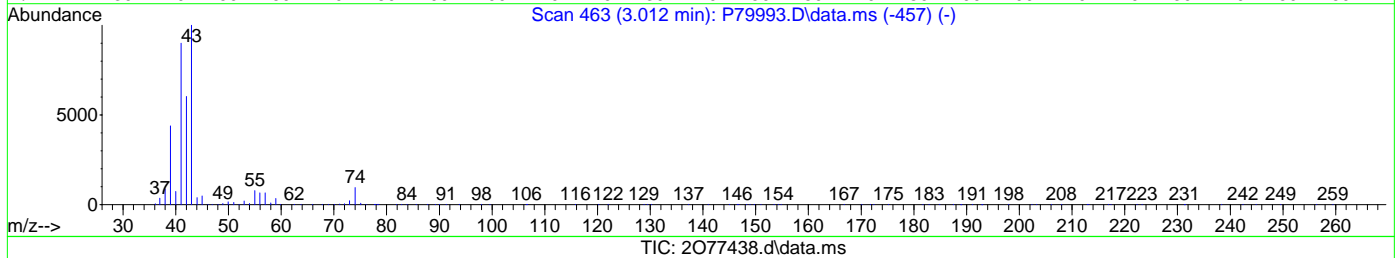
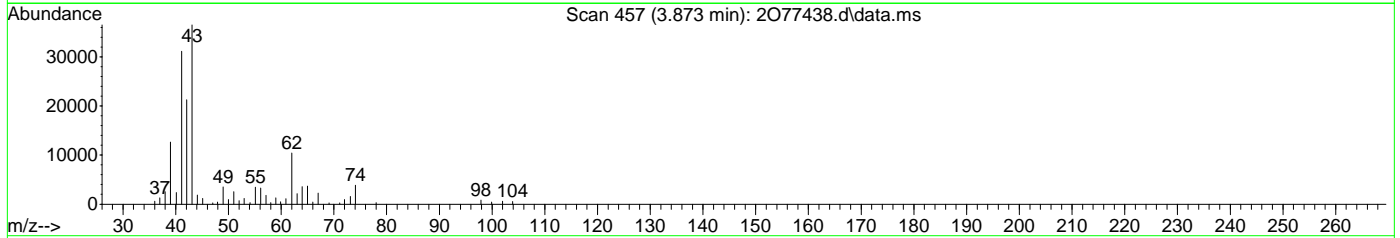
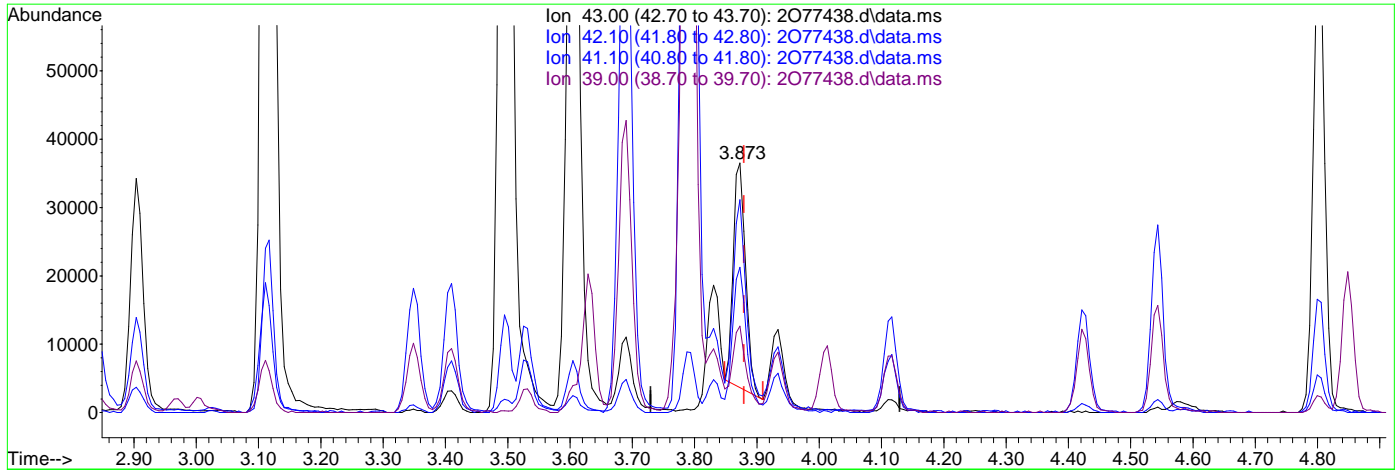
(40) Carbon Tetrachloride ( )  
 3.525min (-0.006) 25.49ug/L m  
 response 51906

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	93.95
120.90	31.50	30.01
81.90	24.40	24.73

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.873min (-0.006) 392.31ug/L  
 response 44205

Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.19
41.10	77.50	82.94
39.00	31.30	32.61

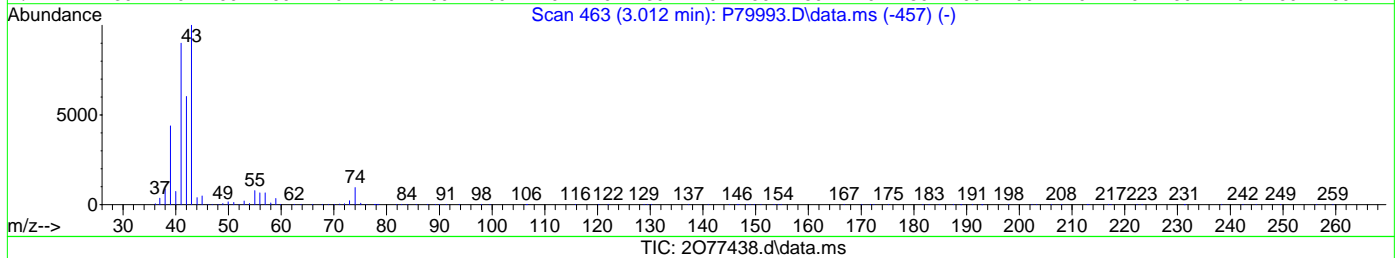
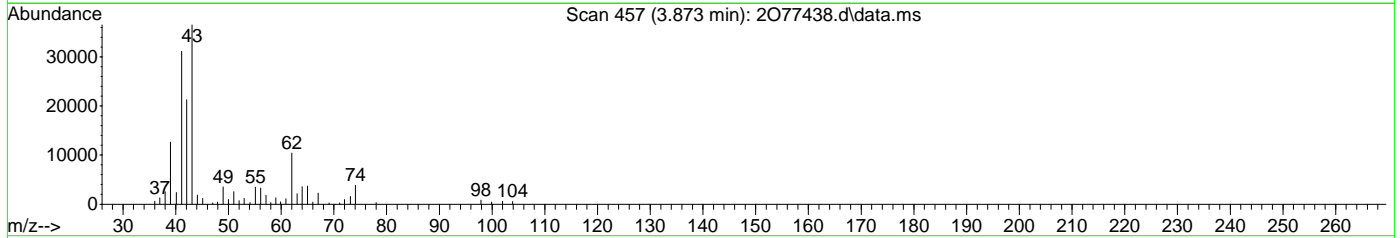
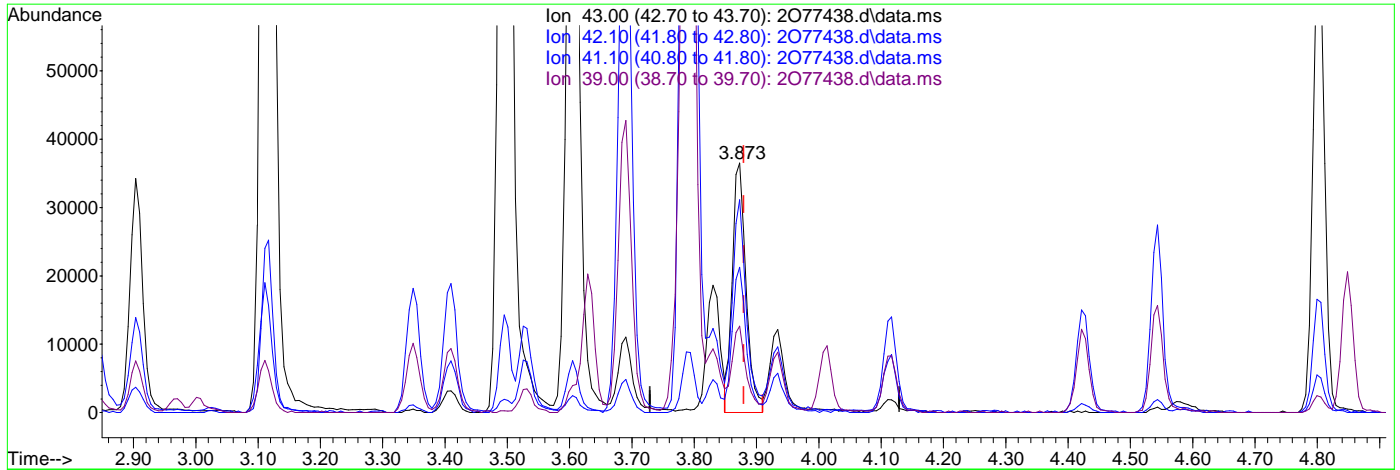
7.6.11.4  
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(49) Isobutyl alcohol  
 3.873min (-0.006) 497.35ug/L m  
 response 56507

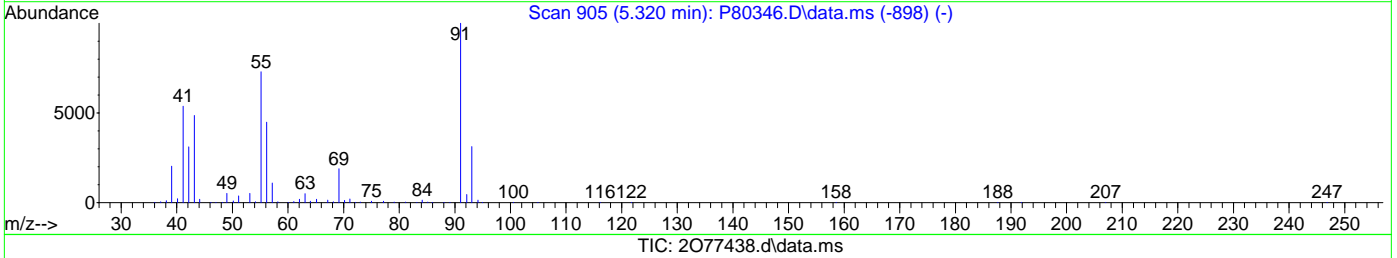
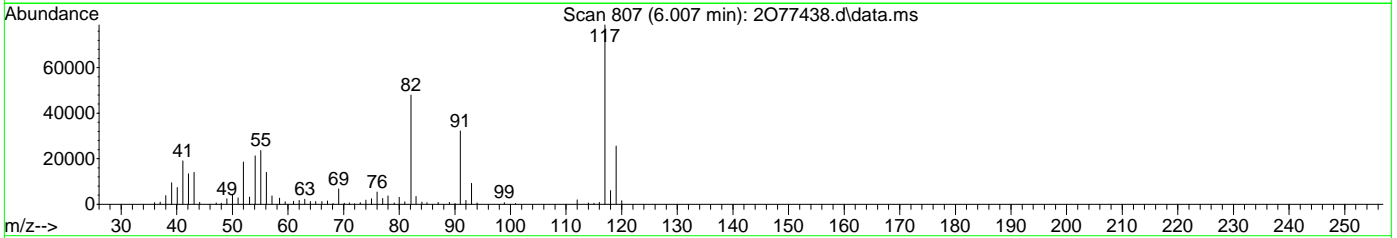
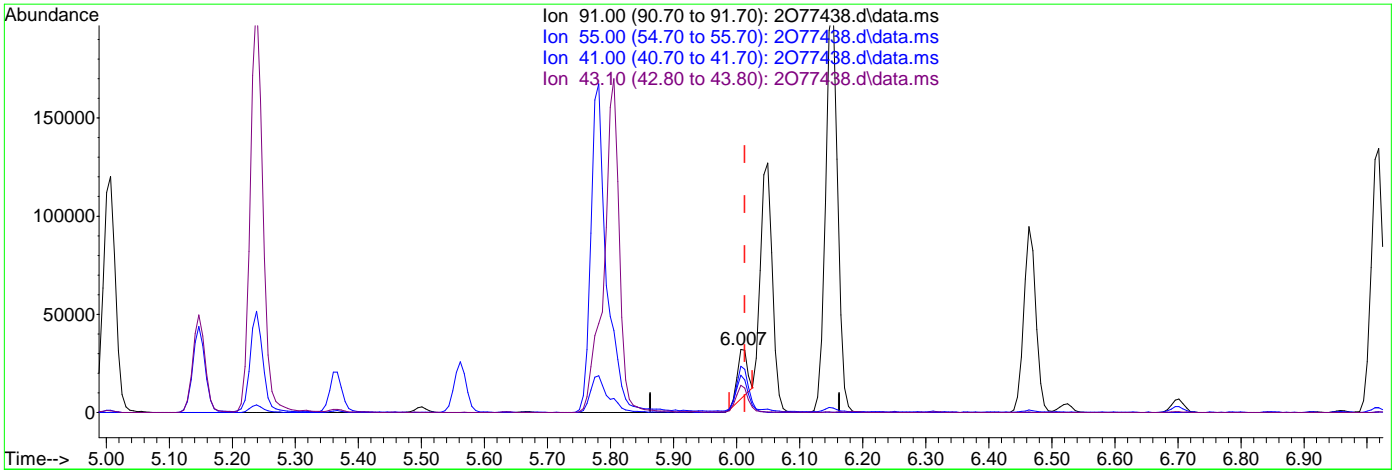
Ion	Exp%	Act%
43.00	100	100
42.10	58.50	58.20
41.10	77.50	85.24
39.00	31.30	34.57

7.6.11.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane  
 6.007min (-0.006) 14.05ug/L  
 response 29016

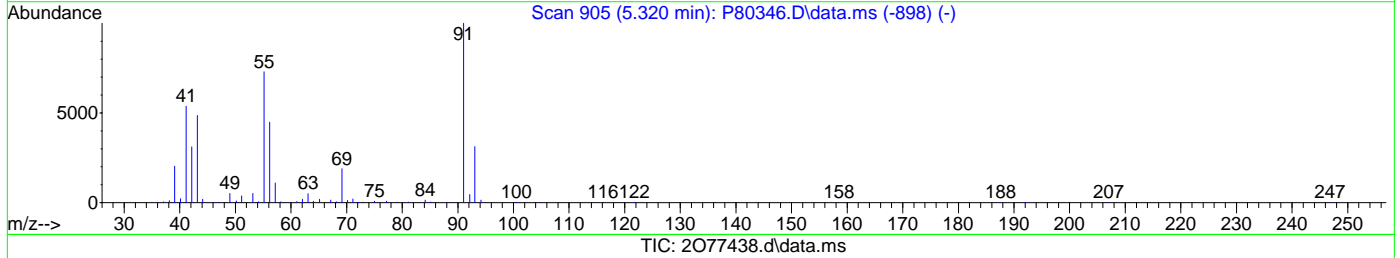
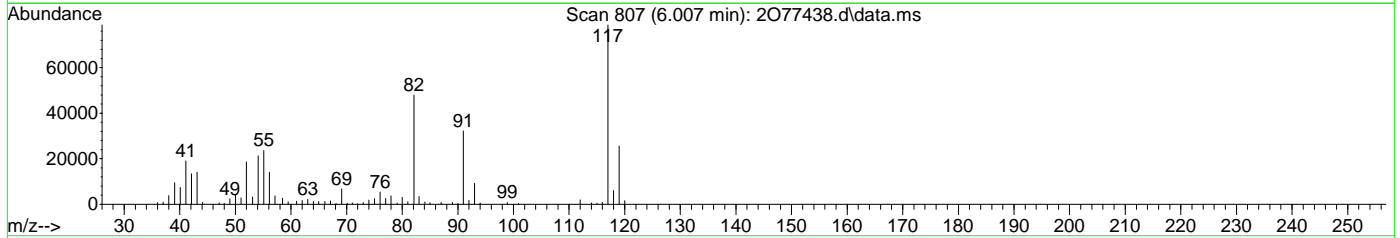
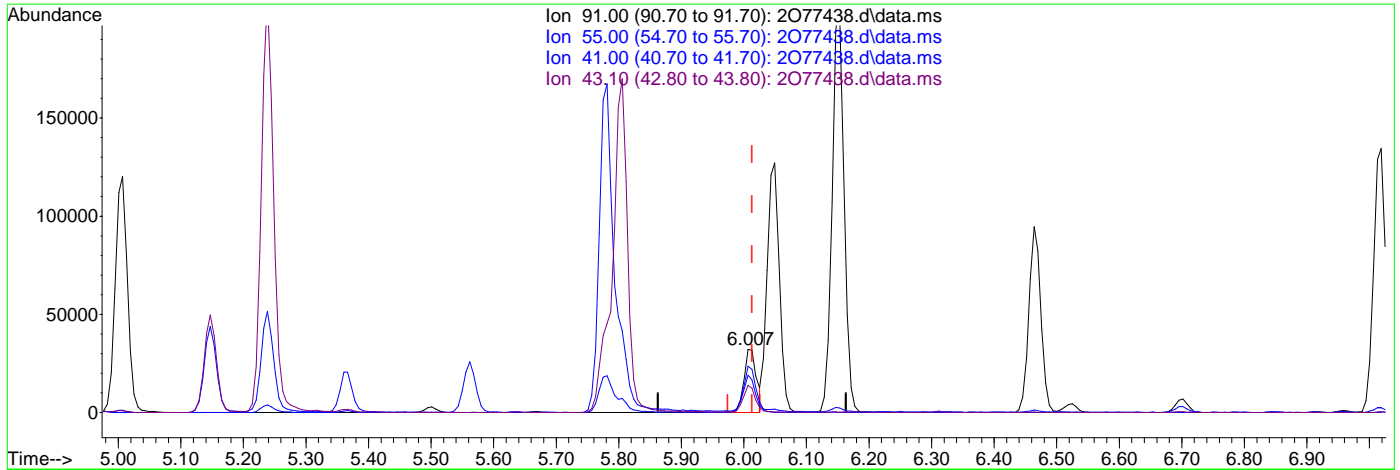
Ion	Exp%	Act%
91.00	100	100
55.00	67.60	72.09
41.00	55.00	55.63
43.10	42.40	42.18

7.6.11.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-05-2023\V203017\  
 Data File : 2077438.d  
 Acq On : 5 Jul 2023 7:38 pm  
 Operator : jeniferw  
 Sample : ECC2981-4  
 Misc : MS54357,V203017,,,,,  
 ALS Vial : 28 Sample Multiplier: 1

Quant Time: Jul 05 21:05:29 2023  
 Quant Method : C:\msdchem\1\methods\V20\_06-07-2023.M  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 08 09:01:58 2023  
 Response via : Initial Calibration



(76) 1-Chlorohexane  
 6.007min (-0.006) 21.51ug/L m  
 response 44408

Ion	Exp%	Act%
91.00	100	100
55.00	67.60	73.50
41.00	55.00	59.02
43.10	42.40	43.38

7.6.11.7  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1182769	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	892319	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	524006	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	328612	48.80	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	97.60%		
49) 1,2-Dichloroethane-d4	7.555	65	306960	50.29	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	100.58%		
63) Toluene-d8	9.439	98	1222137	48.22	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	96.44%		
86) 4-Bromofluorobenzene	12.219	174	433734	49.01	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	98.02%		
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	5442	1.73	ug/L		93
3) Chloromethane	2.635	50	7772	1.61	ug/L		91
4) Vinyl Chloride	2.763	62	5352	1.21	ug/L #		42
5) 1,3-Butadiene	2.800	39	5688	1.25	ug/L		85
6) Bromomethane	3.233	94	6666	3.92	ug/L		95
7) Chloroethane	3.391	64	5521	1.89	ug/L		93
8) Trichlorofluoromethane	3.604	101	7518	1.22	ug/L		95
9) Ethyl Ether	4.013	59	3699	0.98	ug/L		94
10) 1,2-Dichlorotrifluoro...	4.245	67	4964	1.01	ug/L		85
11) 1,1-Dichloroethene	4.269	61	6373	0.98	ug/L		92
12) Ethanol	4.184	45	5721	32.84	ug/L		94
13) Freon 113	4.318	101	3859	1.00	ug/L		79
14) Carbon Disulfide	4.330	76	15138	1.14	ug/L		99
15) Iodomethane	4.458	142	2662	0.82	ug/L		90
16) Acrolein	4.684	56	11013	6.68	ug/L		99
17) Allyl chloride	4.854	41	7625	1.31	ug/L		96
18) Methylene Chloride	4.976	49	13096	1.71	ug/L		96
19) Acetone	5.025	43	24855	7.63	ug/L		95
20) Methyl acetate	5.177	43	30948	4.48	ug/L		97
21) trans-1,2-Dichloroethene	5.183	61	6808	1.00	ug/L		94
22) Hexane	5.281	56	3591	1.10	ug/L		91
23) Methyl Tert Butyl Ether	5.293	73	14557	0.98	ug/L		63
24) Tert butyl alcohol	5.379	59	19025	8.86	ug/L		96
25) Acetonitrile	5.568	41	28590	23.81	ug/L		93
26) Di-isopropyl ether	5.732	45	15246	1.00	ug/L		90
27) Chloroprene	5.878	53	6526	1.10	ug/L		90
28) 1,1-Dichloroethane	5.891	63	8483	0.94	ug/L		98
29) Acrylonitrile	5.976	53	14041	4.43	ug/L		94
30) ETBE	6.147	59	14803	0.99	ug/L		90
31) Vinyl acetate	6.189	43	39427m	4.80	ug/L		
32) cis-1,2-Dichloroethene	6.519	96	5193	0.98	ug/L		97
33) 2,2-Dichloropropane	6.622	77	6951	1.01	ug/L		94
34) Bromochloromethane	6.750	128	2871	1.05	ug/L #		82
35) Cyclohexane	6.750	56	7322	1.03	ug/L		97
36) Chloroform	6.799	83	9792	1.04	ug/L		94
37) Ethyl acetate	6.915	43	30834	3.92	ug/L		99
38) Tetrahydrofuran	6.982	42	4003	1.01	ug/L		83
40) Carbon Tetrachloride	6.982	117	6470m	0.94	ug/L		
41) 1,1,1-Trichloroethane	7.031	97	7655	0.98	ug/L		91
42) 2-Butanone	7.159	43	19868m	4.44	ug/L		
43) 1,1-Dichloropropene	7.183	75	5478	0.89	ug/L		94
44) tert-Butyl Formate	7.256	59	17629	4.53	ug/L		89

7.6.12  
7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.439	54	14969	10.18	ug/L #	16
46) Methacrylonitrile	7.457	41	48988	11.36	ug/L	93
47) Benzene	7.445	78	18678	0.99	ug/L	88
48) TAME	7.531	73	14856	1.03	ug/L	96
50) Isobutyl alcohol	7.604	42	9073	22.09	ug/L	90
51) 1,2-Dichloroethane	7.652	62	7067	1.08	ug/L	86
52) Tert Amyl Alcohol	7.707	59	14687	8.25	ug/L	92
53) Trichloroethene	8.061	95	6218	1.20	ug/L #	78
54) Methylcyclohexane	8.055	83	6362	0.98	ug/L	95
55) Dibromomethane	8.500	93	3501	1.03	ug/L #	63
56) 1,2-Dichloropropane	8.585	63	4878	1.00	ug/L	93
57) Bromodichloromethane	8.640	83	6240	0.90	ug/L	85
58) Methyl methacrylate	8.823	41	1262	0.26	ug/L #	65
59) 1,4-Dioxane	8.860	88	2137	14.12	ug/L	77
60) 2-Chloroethyl vinyl ether	9.207	63	8760	3.38	ug/L	80
61) cis-1,3-Dichloropropene	9.280	75	6754	0.89	ug/L	86
64) Toluene	9.506	91	20555	0.97	ug/L	97
65) 2-Nitropropane	9.707	41	8460	3.60	ug/L	84
66) 4-Methyl-2-pentanone	9.841	43	42494	5.02	ug/L	98
67) trans-1,3-Dichloropropene	9.951	75	3720	0.54	ug/L	81
68) Tetrachloroethene	9.914	166	6086	0.96	ug/L	92
69) Ethyl methacrylate	10.079	69	3454	0.59	ug/L #	28
70) 1,1,2-Trichloroethane	10.079	83	4227	0.98	ug/L	94
71) Dibromochloromethane	10.268	129	5544	0.90	ug/L	89
72) 1,3-Dichloropropane	10.359	76	6447	0.86	ug/L	95
73) 1,2-Dibromoethane	10.554	107	5181	0.93	ug/L	86
74) 3,3-dimethyl-1-butanol	10.615	57	55872	32.70	ug/L	96
75) 2-hexanone	10.682	43	26377	4.05	ug/L	88
76) 1-Chlorohexane	10.975	91	6171	1.04	ug/L	91
77) Ethylbenzene	11.042	91	23310	1.05	ug/L	90
78) Chlorobenzene	11.024	112	13208	0.94	ug/L	98
79) 1,1,1,2-Tetrachloroethane	11.079	131	5447	0.99	ug/L #	15
80) m,p-Xylene	11.182	91	30687	1.80	ug/L	93
81) o-Xylene	11.621	91	17884	0.98	ug/L	96
82) Styrene	11.731	104	8879	0.71	ug/L	82
83) Bromoform	11.725	173	4336	0.82	ug/L	84
84) Isopropylbenzene	11.920	105	20851	0.98	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.298	53	1588	1.00	ug/L #	33
88) n-Propylbenzene	12.347	91	23298	0.99	ug/L	89
89) Bromobenzene	12.353	156	5937	0.96	ug/L #	81
90) 1,1,2,2-Tetrachloroethane	12.395	83	8662	1.01	ug/L	95
91) 1,3,5-Trimethylbenzene	12.523	105	16216	0.95	ug/L	99
92) 2-Chlorotoluene	12.536	91	15888	0.99	ug/L	97
93) trans-1,4-Dichloro-2-B...	12.609	53	1127	0.60	ug/L #	33
94) 1,2,3-Trichloropropene	12.554	110	2400	0.93	ug/L	90
95) Cyclohexanone	12.621	55	3155	5.92	ug/L	94
96) 4-Chlorotoluene	12.712	91	14017	0.94	ug/L	93
97) tert-Butylbenzene	12.859	91	8894	0.98	ug/L	89
98) 1,2,4-Trimethylbenzene	12.938	105	16247	0.97	ug/L	93
99) Pentachloroethane	12.895	167	3551	1.02	ug/L #	75
100) sec-Butylbenzene	13.048	105	20668	1.05	ug/L	98
101) 4-Isopropyltoluene	13.176	119	15691	0.92	ug/L	95
102) 1,3-Dichlorobenzene	13.322	146	9751	0.91	ug/L	93
103) 1,2,3-Trimethylbenzene	13.389	105	18145	1.03	ug/L	90
104) 1,4-Dichlorobenzene	13.389	146	12189	1.06	ug/L	97
105) n-Butylbenzene	13.645	92	7013	0.82	ug/L #	71
106) Benzyl Chloride	13.657	126	2168	0.73	ug/L #	89
107) 1,2-Dichlorobenzene	13.840	146	9910	0.95	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.596	75	1993	0.88	ug/L	90
109) Hexachlorobutadiene	15.151	225	3519	0.97	ug/L	94
110) 1,2,4-Trichlorobenzene	15.212	180	7144	0.92	ug/L	85
111) Naphthalene	15.480	128	21732	0.89	ug/L	98
112) 1,2,3-Trichlorobenzene	15.645	180	7600	0.97	ug/L	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

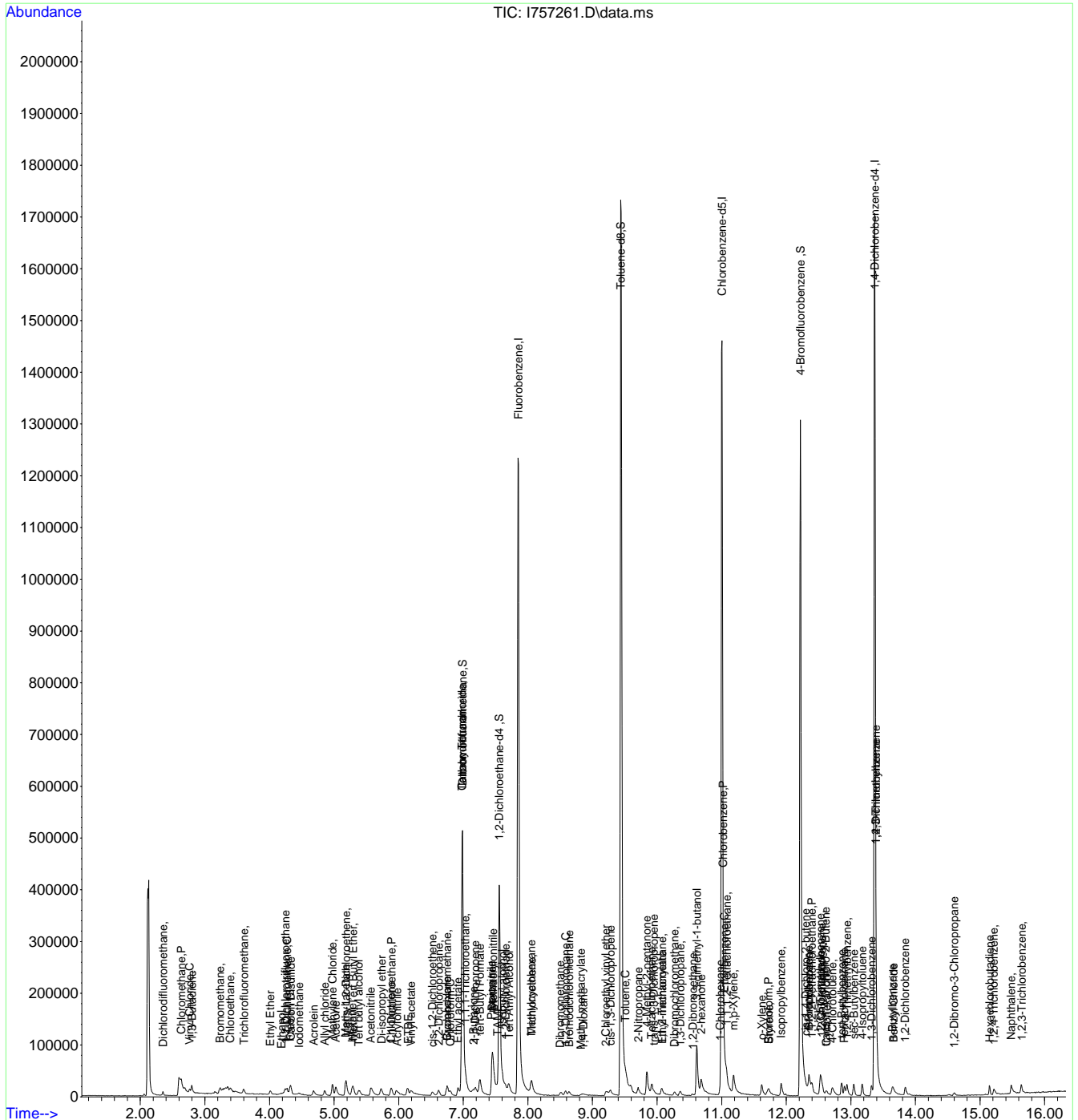
7.6.12  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:21:07 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



7.6.12  
7



# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757261.D  
**Injection Time:** 06/15/23 10:43

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Vinyl Acetate	108-05-4		6.19	Missed peak
Carbon Tetrachloride	56-23-5		6.98	Missed peak
2-Butanone (MEK)	78-93-3		7.16	Missed peak

7.6.12.1

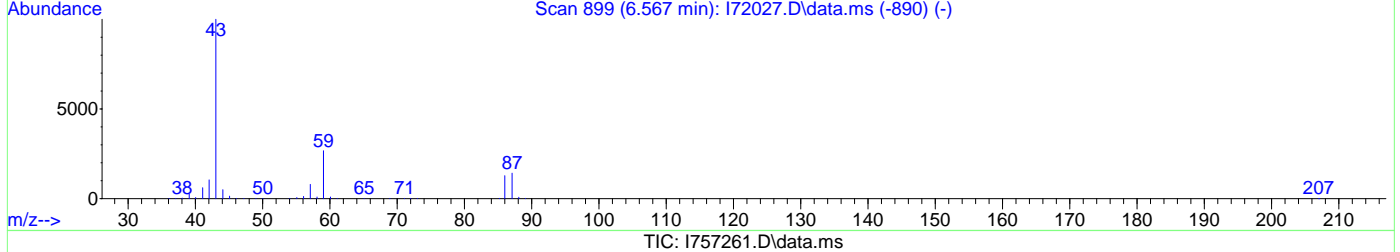
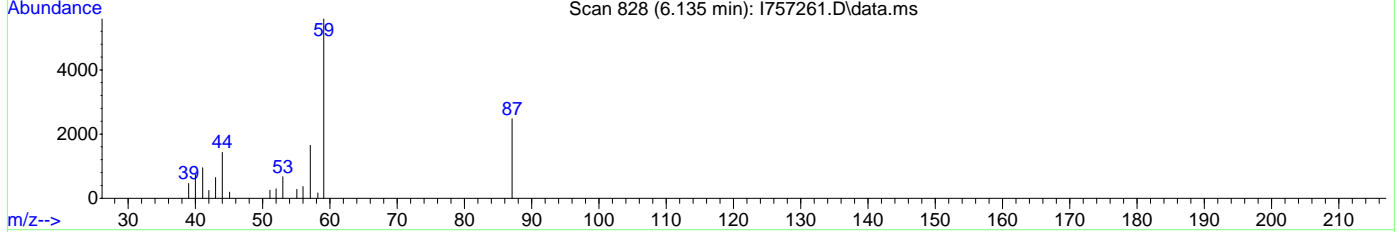
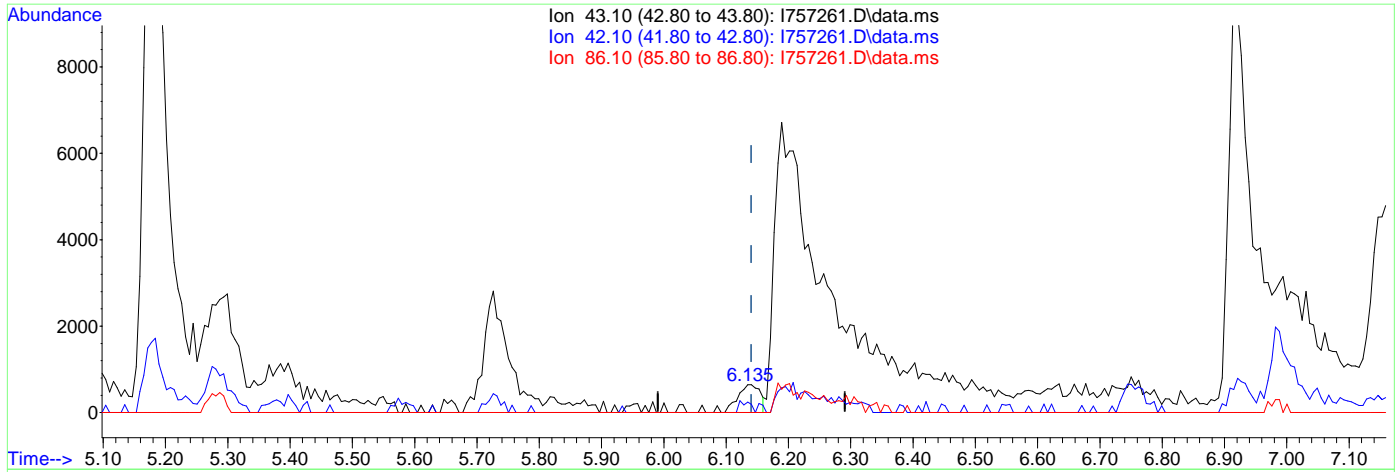
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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(31) Vinyl acetate

6.135min (-0.006) 0.20ug/L

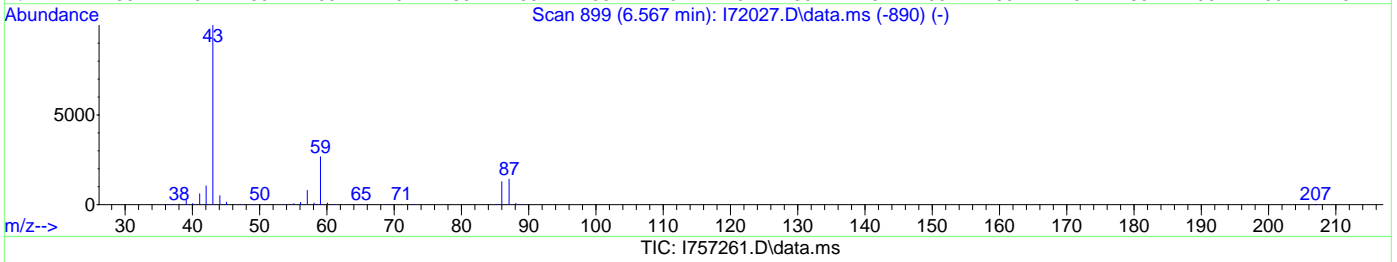
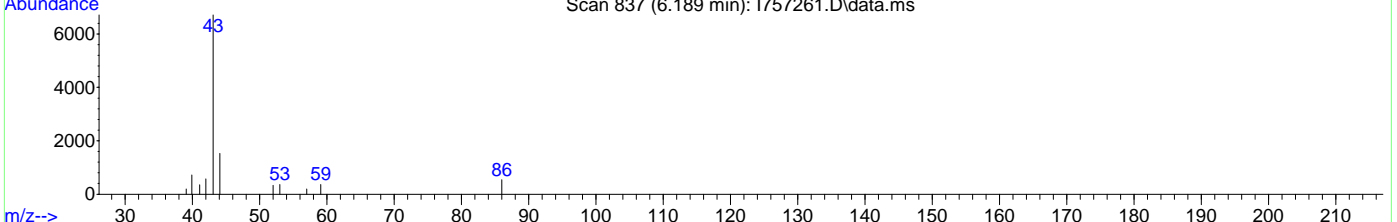
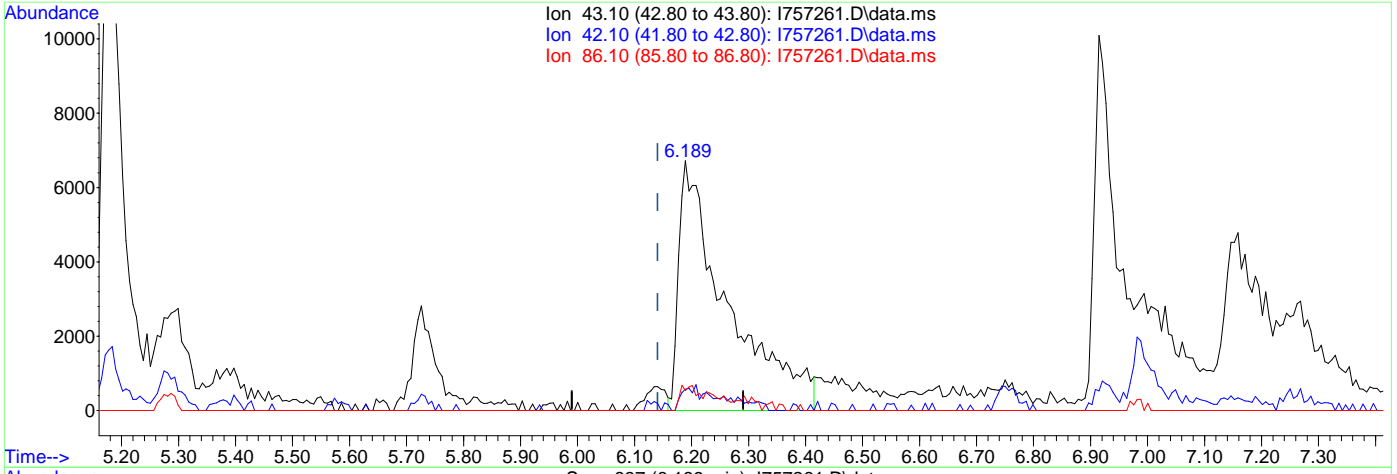
response 1610

Ion	Exp%	Act%
43.10	100	100
42.10	8.60	37.31
86.10	9.80	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(31) Vinyl acetate  
 6.189min (+0.049) 4.80ug/L m  
 response 39427

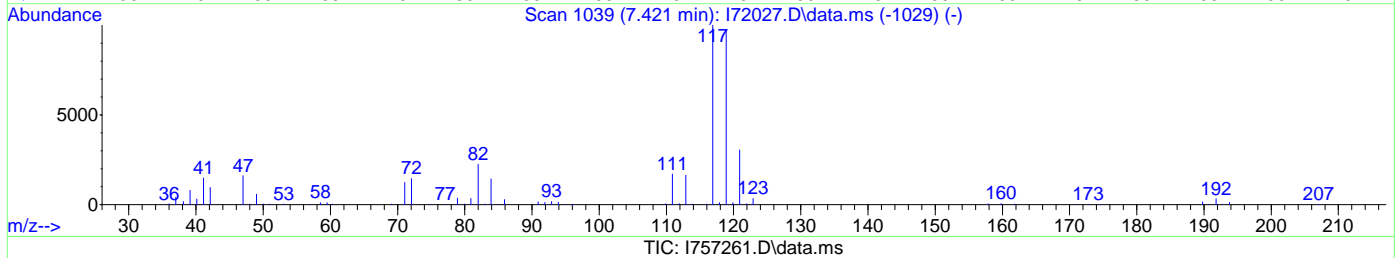
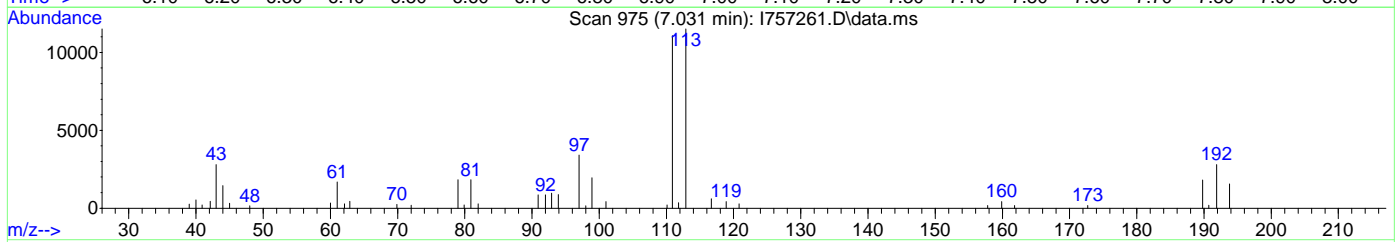
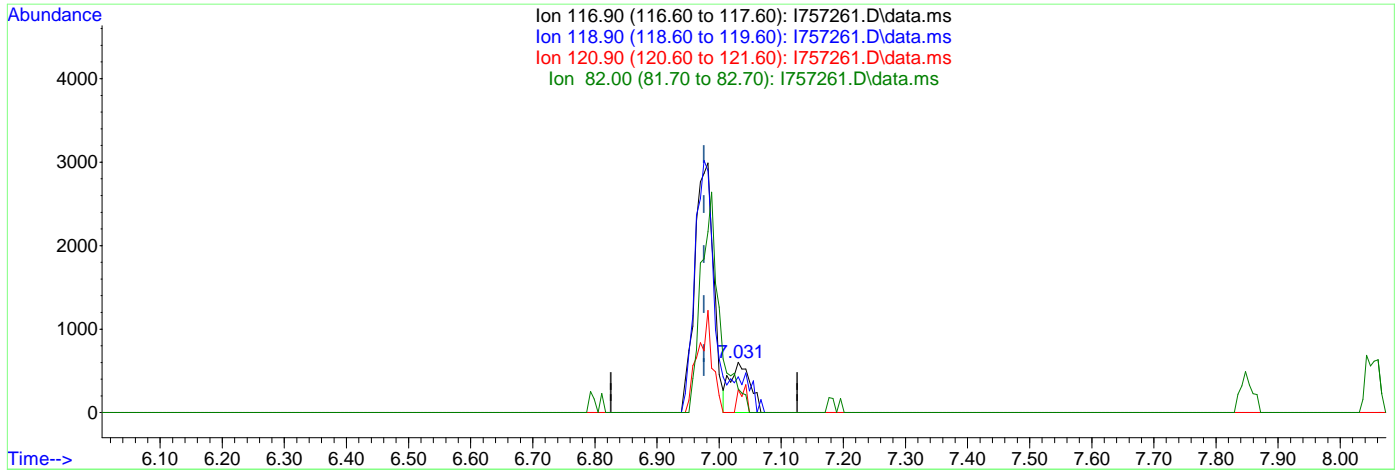
Ion	Exp%	Act%
43.10	100	100
42.10	8.60	8.56
86.10	9.80	8.02
0.00	0.00	0.00

7.6.12.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

7.031min (+0.055) 0.20ug/L

response 1371

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	71.14
120.90	32.80	45.61
82.00	23.90	46.77

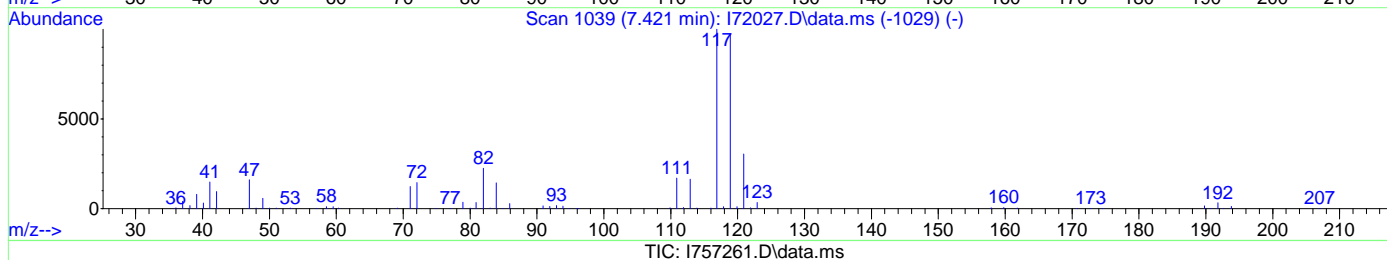
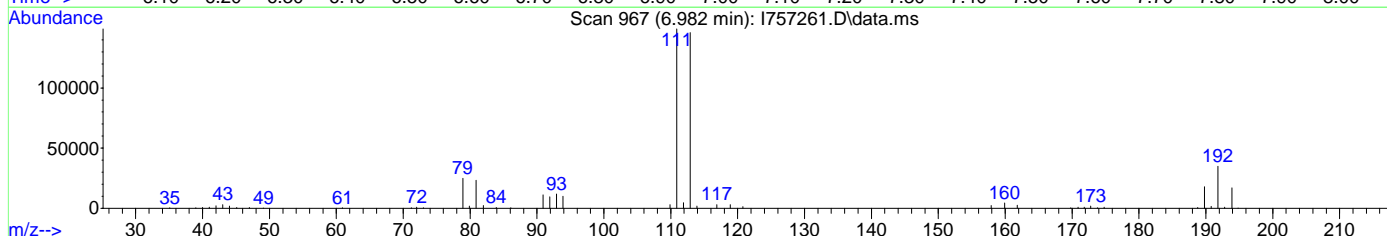
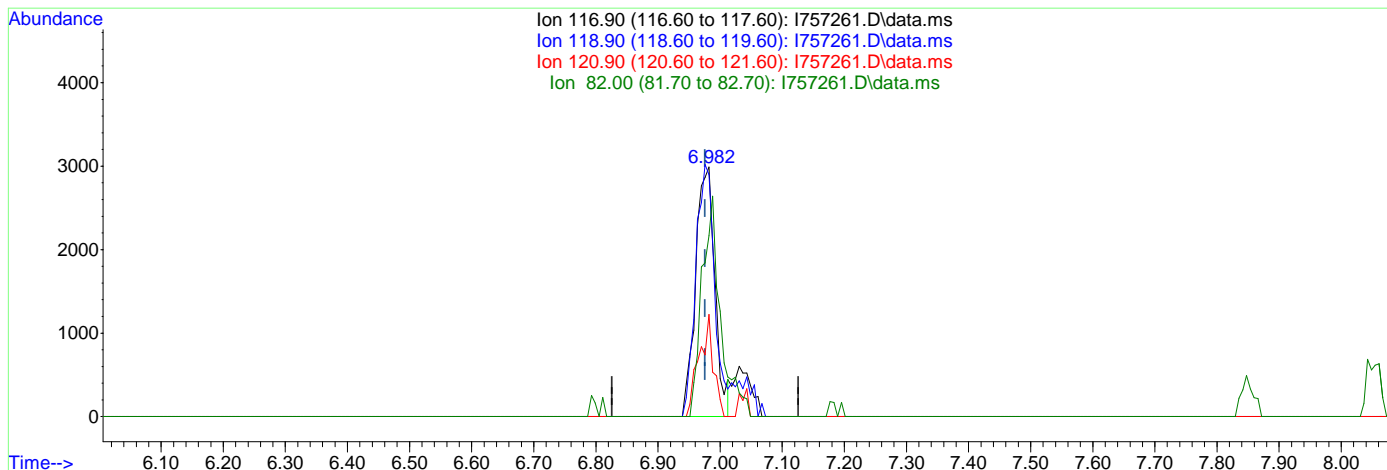
7.6.12.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:17:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(40) Carbon Tetrachloride ( )

6.982min (+0.006) 0.94ug/L m

response 6470

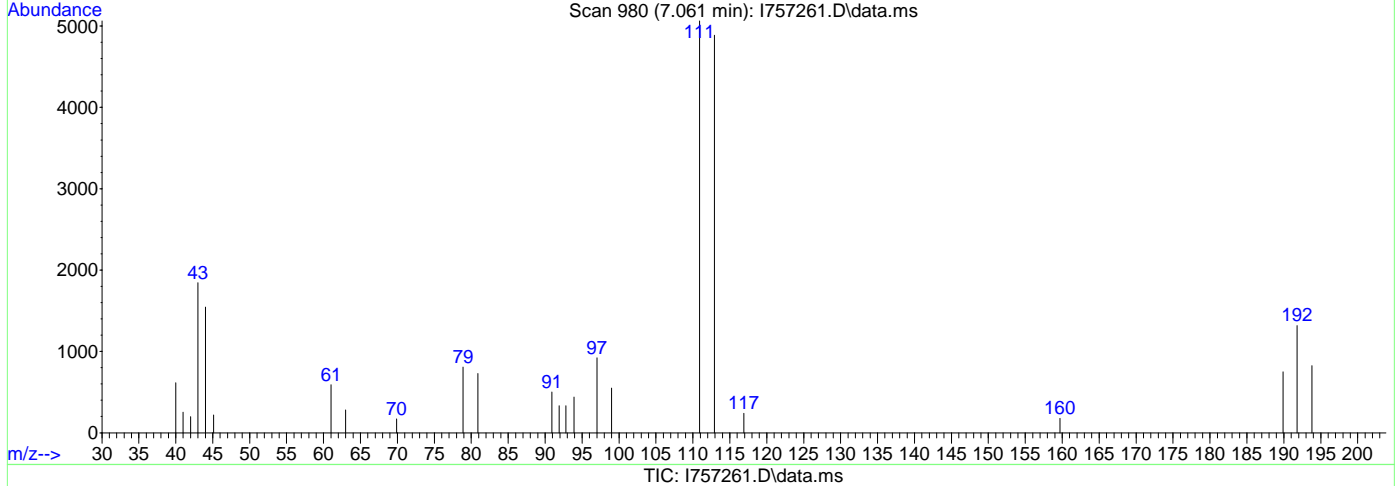
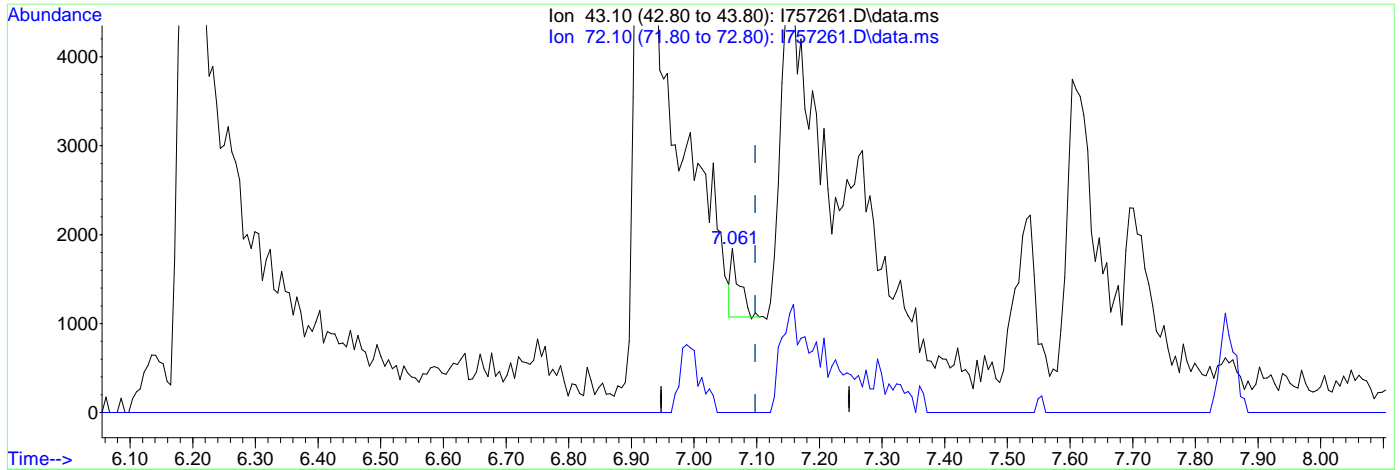
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	96.92
120.90	32.80	40.89
82.00	23.90	72.42#

7.6.12.5  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:20:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(42) 2-Butanone  
 7.061min (-0.037) 0.16ug/L  
 response 709

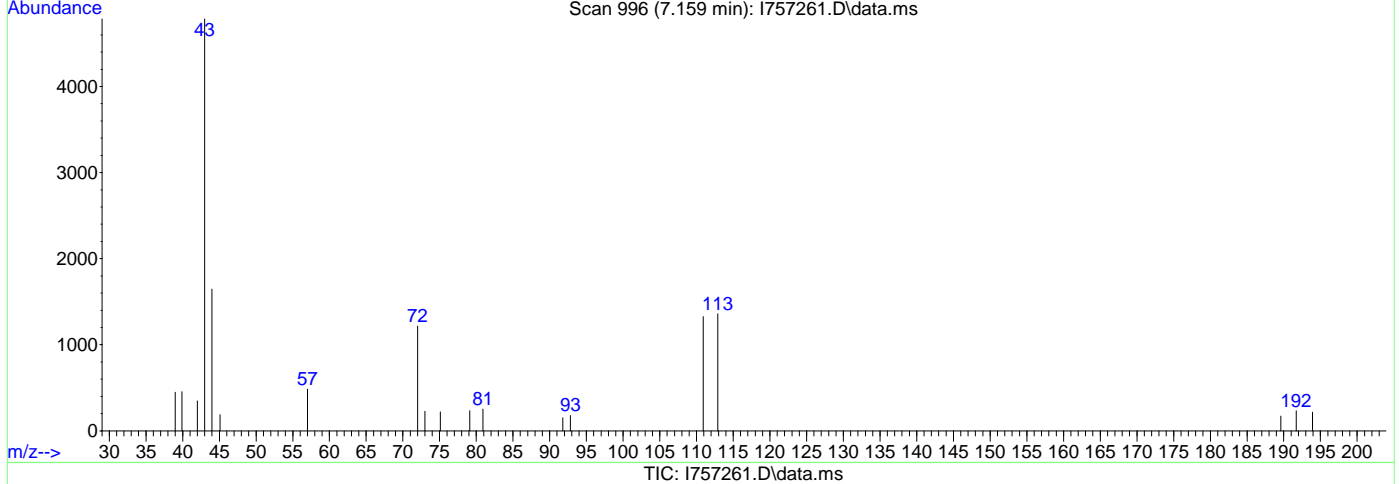
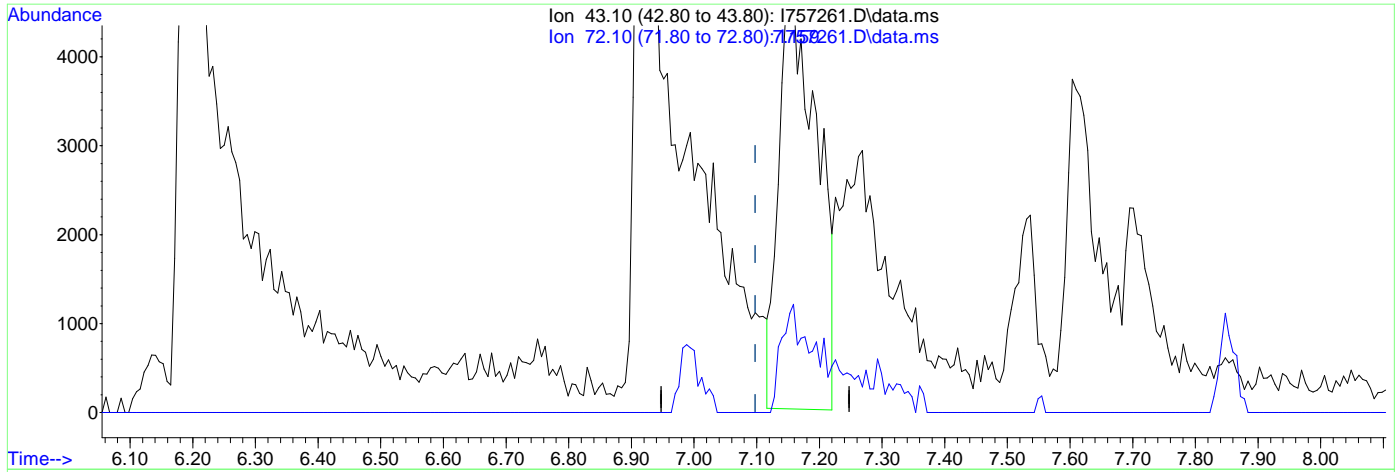
Ion	Exp%	Act%
43.10	100	100
72.10	25.20	0.00
0.00	0.00	0.00
0.00	0.00	0.00

7.6.12.6  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757261.D  
 Acq On : 15 Jun 2023 10:43 am  
 Operator : joannel  
 Sample : IC2948-1  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 12:20:30 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(42) 2-Butanone

7.159min (+0.061) 4.44ug/L m

response 19868

Ion	Exp%	Act%
43.10	100	100
72.10	25.20	25.43
0.00	0.00	0.00
0.00	0.00	0.00

7.6.12.7

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1165649	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	889602	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	505367	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	325283	49.02	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.04%	
49) 1,2-Dichloroethane-d4	7.561	65	298097	49.55	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	99.10%	
63) Toluene-d8	9.445	98	1209637	47.87	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	95.74%	
86) 4-Bromofluorobenzene	12.219	174	424991	49.79	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.58%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	27386	8.82	ug/L		99
3) Chloromethane	2.635	50	32237	6.79	ug/L		98
4) Vinyl Chloride	2.763	62	29478	6.74	ug/L		92
5) 1,3-Butadiene	2.794	39	30328	6.79	ug/L		97
6) Bromomethane	3.227	94	12706	7.58	ug/L		92
7) Chloroethane	3.397	64	18474	6.43	ug/L		93
8) Trichlorofluoromethane	3.599	101	38170	6.30	ug/L		97
9) Ethyl Ether	4.013	59	17548	4.71	ug/L		94
10) 1,2-Dichlorotrifluoro...	4.239	67	25007	5.19	ug/L		91
11) 1,1-Dichloroethene	4.269	61	32815	5.12	ug/L		99
12) Ethanol	4.190	45	21259	123.82	ug/L		100
13) Freon 113	4.318	101	20080	5.27	ug/L		96
14) Carbon Disulfide	4.330	76	67756	5.19	ug/L		97
15) Iodomethane	4.452	142	9749	3.03	ug/L		90
16) Acrolein	4.684	56	34013	20.92	ug/L		95
17) Allyl chloride	4.848	41	40712	7.09	ug/L		93
18) Methylene Chloride	4.976	49	37948	5.01	ug/L		95
19) Acetone	5.025	43	64352	20.03	ug/L		96
20) Methyl acetate	5.171	43	145110	21.31	ug/L		99
21) trans-1,2-Dichloroethene	5.184	61	35419	5.26	ug/L		93
22) Hexane	5.275	56	16338	5.08	ug/L		94
23) Methyl Tert Butyl Ether	5.293	73	67195	4.60	ug/L		79
24) Tert butyl alcohol	5.379	59	81165	38.35	ug/L		93
25) Acetonitrile	5.562	41	82345	69.59	ug/L		99
26) Di-isopropyl ether	5.726	45	72889	4.85	ug/L		99
27) Chloroprene	5.872	53	40481	6.91	ug/L		97
28) 1,1-Dichloroethane	5.885	63	47851	5.37	ug/L		99
29) Acrylonitrile	5.940	53	65417	20.92	ug/L		100
30) ETBE	6.135	59	72629	4.94	ug/L		98
31) Vinyl acetate	6.153	43	173852	21.46	ug/L		98
32) cis-1,2-Dichloroethene	6.513	96	27700	5.29	ug/L		95
33) 2,2-Dichloropropane	6.622	77	35630	5.24	ug/L		95
34) Bromochloromethane	6.744	128	13940	5.16	ug/L		92
35) Cyclohexane	6.756	56	36114	5.17	ug/L		95
36) Chloroform	6.793	83	48112	5.20	ug/L		94
37) Ethyl acetate	6.897	43	137371m	17.74	ug/L		
38) Tetrahydrofuran	6.988	42	17138	4.40	ug/L		92
40) Carbon Tetrachloride	6.970	117	32968	4.84	ug/L		93
41) 1,1,1-Trichloroethane	7.037	97	39468	5.12	ug/L		94
42) 2-Butanone	7.116	43	79492	18.01	ug/L		93
43) 1,1-Dichloropropene	7.177	75	31403	5.15	ug/L		95
44) tert-Butyl Formate	7.256	59	84861	22.12	ug/L		88

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	88024	60.74	ug/L	92
46) Methacrylonitrile	7.439	41	276916	65.19	ug/L	98
47) Benzene	7.433	78	96713	5.20	ug/L	99
48) TAME	7.525	73	69750	4.90	ug/L	94
50) Isobutyl alcohol	7.592	42	37775	93.33	ug/L	95
51) 1,2-Dichloroethane	7.640	62	31609	4.89	ug/L	95
52) Tert Amyl Alcohol	7.695	59	62297	35.52	ug/L	93
53) Trichloroethene	8.055	95	24957	4.88	ug/L	93
54) Methylcyclohexane	8.049	83	32907	5.17	ug/L	96
55) Dibromomethane	8.500	93	15603	4.64	ug/L	93
56) 1,2-Dichloropropane	8.573	63	23524	4.91	ug/L	95
57) Bromodichloromethane	8.634	83	32071	4.71	ug/L	98
58) Methyl methacrylate	8.768	41	23862	5.00	ug/L	92
59) 1,4-Dioxane	8.829	88	12289	82.40	ug/L	93
60) 2-Chloroethyl vinyl ether	9.171	63	65292	25.55	ug/L	97
61) cis-1,3-Dichloropropene	9.262	75	35643	4.75	ug/L	96
64) Toluene	9.506	91	103423	4.91	ug/L	99
65) 2-Nitropropane	9.701	41	36331	15.52	ug/L #	90
66) 4-Methyl-2-pentanone	9.829	43	167971	19.90	ug/L	96
67) trans-1,3-Dichloropropene	9.914	75	31240	4.54	ug/L	86
68) Tetrachloroethene	9.914	166	30996	4.89	ug/L	97
69) Ethyl methacrylate	10.024	69	32508	5.60	ug/L	99
70) 1,1,2-Trichloroethane	10.067	83	20499	4.75	ug/L	95
71) Dibromochloromethane	10.262	129	26106	4.27	ug/L	95
72) 1,3-Dichloropropane	10.347	76	33945	4.55	ug/L	96
73) 1,2-Dibromoethane	10.530	107	23931	4.32	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	266330	156.37	ug/L	97
75) 2-hexanone	10.664	43	122777	18.92	ug/L	93
76) 1-Chlorohexane	10.969	91	27619	4.68	ug/L	98
77) Ethylbenzene	11.030	91	110351	4.97	ug/L	100
78) Chlorobenzene	11.024	112	69283	4.96	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	25168	4.61	ug/L	87
80) m,p-Xylene	11.170	91	165014	9.71	ug/L	99
81) o-Xylene	11.609	91	88560	4.86	ug/L	99
82) Styrene	11.670	104	55606	4.43	ug/L	93
83) Bromoform	11.719	173	21204	4.01	ug/L	96
84) Isopropylbenzene	11.914	105	105927	4.97	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.274	53	8862	5.80	ug/L #	83
88) n-Propylbenzene	12.341	91	119399	5.27	ug/L	99
89) Bromobenzene	12.359	156	29784	5.01	ug/L	93
90) 1,1,2,2-Tetrachloroethane	12.389	83	39047	4.73	ug/L	98
91) 1,3,5-Trimethylbenzene	12.518	105	86054	5.23	ug/L	97
92) 2-Chlorotoluene	12.524	91	81376	5.25	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.591	53	7092	3.93	ug/L	86
94) 1,2,3-Trichloropropane	12.548	110	12093	4.86	ug/L	96
95) Cyclohexanone	12.615	55	11436	22.25	ug/L	92
96) 4-Chlorotoluene	12.694	91	70286	4.90	ug/L	98
97) tert-Butylbenzene	12.853	91	45274	5.16	ug/L	96
98) 1,2,4-Trimethylbenzene	12.932	105	83406	5.16	ug/L	97
99) Pentachloroethane	12.902	167	20473	6.08	ug/L	97
100) sec-Butylbenzene	13.042	105	99567	5.23	ug/L	98
101) 4-Isopropyltoluene	13.170	119	85840	5.20	ug/L	98
102) 1,3-Dichlorobenzene	13.310	146	50680	4.92	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	87732	5.18	ug/L	93
104) 1,4-Dichlorobenzene	13.389	146	54988	4.95	ug/L	98
105) n-Butylbenzene	13.627	92	40581	4.95	ug/L	90
106) Benzyl Chloride	13.633	126	11834	4.15	ug/L #	73
107) 1,2-Dichlorobenzene	13.834	146	50054	4.97	ug/L	96



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

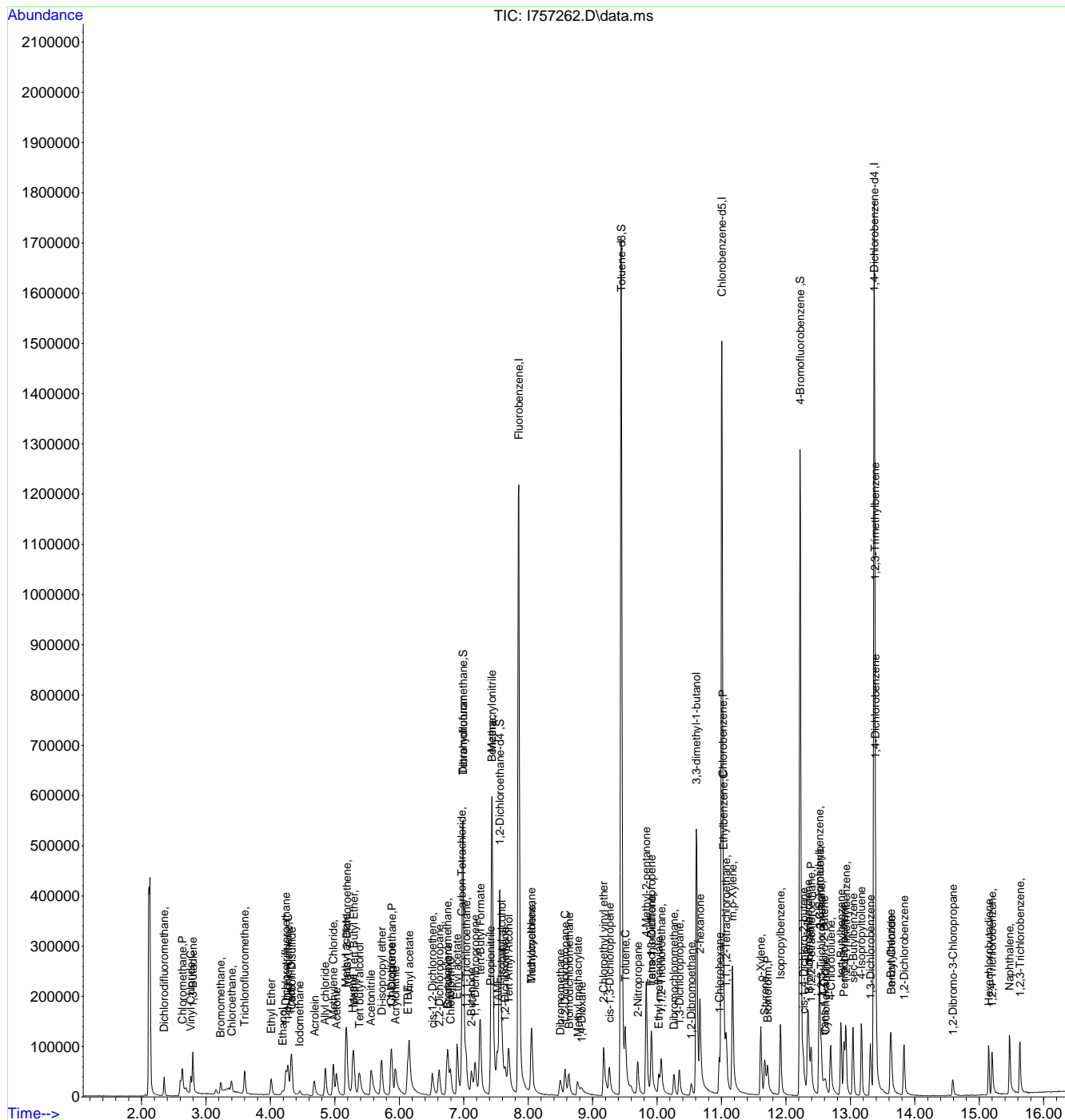
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.590	75	8368	3.85	ug/L	95
109) Hexachlorobutadiene	15.151	225	17626	5.04	ug/L	98
110) 1,2,4-Trichlorobenzene	15.200	180	36439	4.84	ug/L	98
111) Naphthalene	15.468	128	102592	4.38	ug/L	98
112) 1,2,3-Trichlorobenzene	15.633	180	36500	4.84	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:23:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



7.6.13  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757262.D  
**Injection Time:** 06/15/23 11:16

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.90	Poor instrument integration

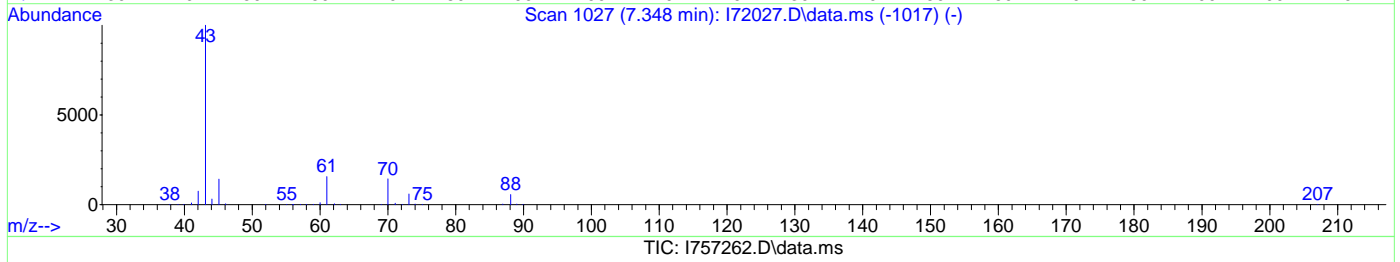
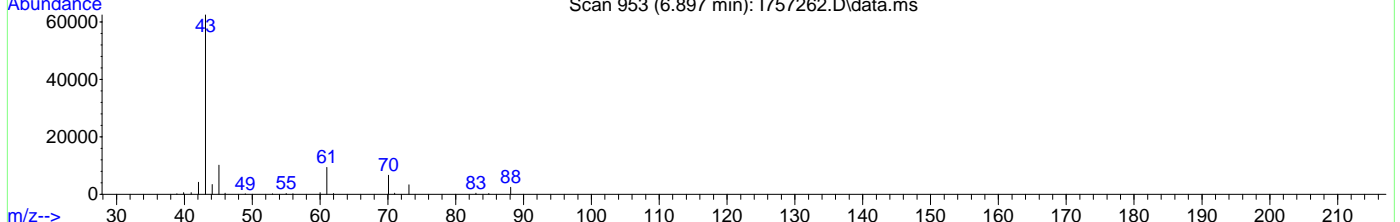
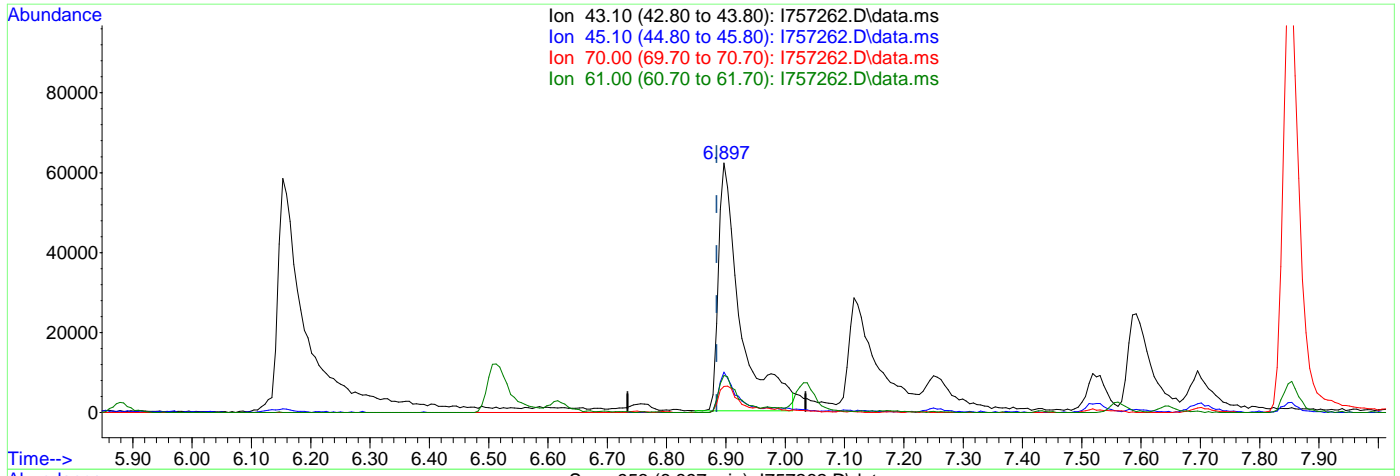
7.6.13.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:17:32 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.897min (+0.012) 20.52ug/L  
 response 158851

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	16.33
70.00	11.10	10.57
61.00	15.10	14.97

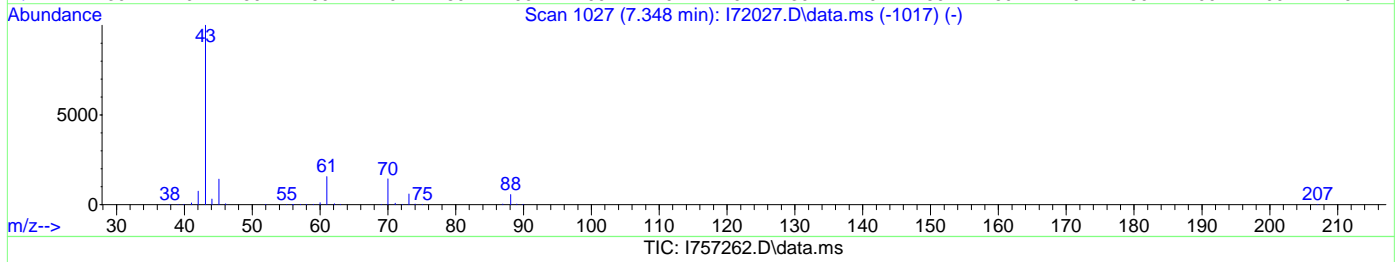
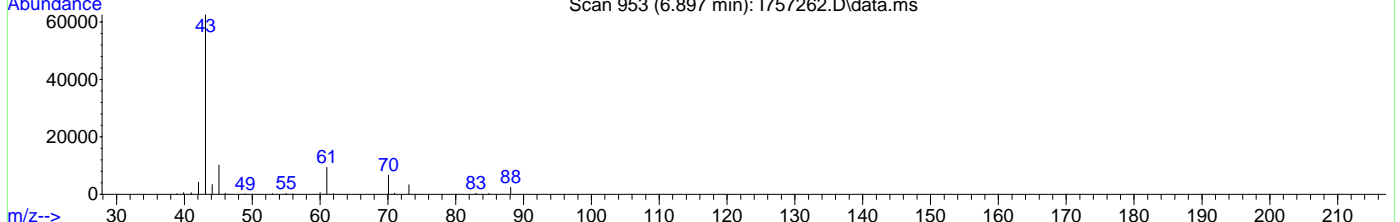
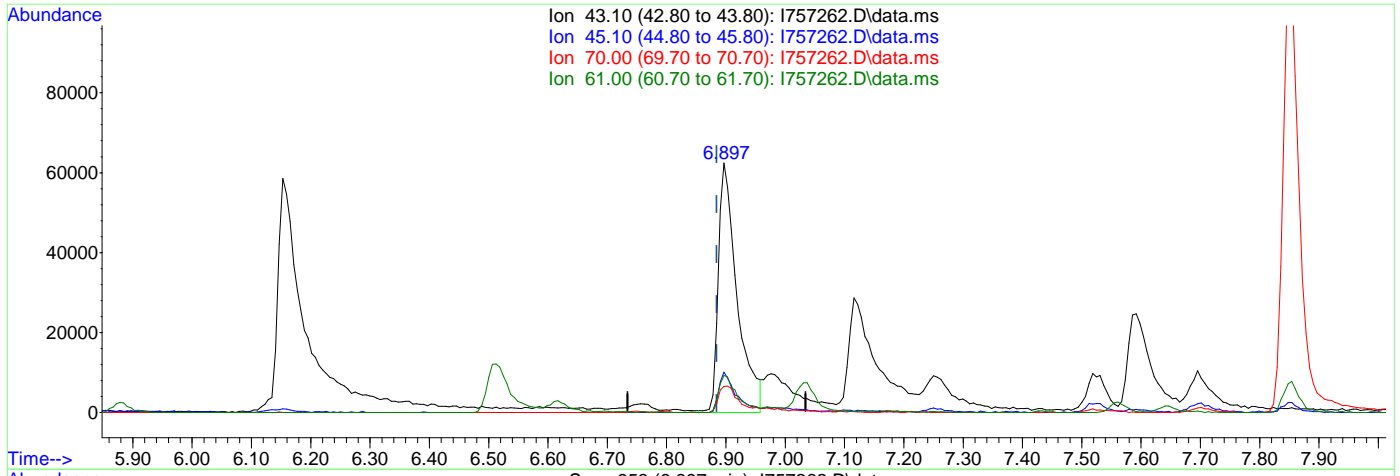
7.6.13.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757262.D  
 Acq On : 15 Jun 2023 11:16 am  
 Operator : joannel  
 Sample : IC2948-2  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 12:17:32 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.897min (+0.012) 17.74ug/L m

response 137371

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	16.20
70.00	11.10	10.49
61.00	15.10	14.86

7.6.13.3

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1170277	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	851480	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	514226	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	327625	49.17	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.34%	
49) 1,2-Dichloroethane-d4	7.561	65	304694	50.45	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	100.90%	
63) Toluene-d8	9.445	98	1220760	50.48	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	100.96%	
86) 4-Bromofluorobenzene	12.219	174	428509	49.34	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	98.68%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	50867	16.31	ug/L		99
3) Chloromethane	2.641	50	54614	11.47	ug/L		98
4) Vinyl Chloride	2.769	62	50988	11.62	ug/L		96
5) 1,3-Butadiene	2.800	39	45402	10.12	ug/L		100
6) Bromomethane	3.233	94	17396	10.34	ug/L		92
7) Chloroethane	3.397	64	27335	9.48	ug/L		92
8) Trichlorofluoromethane	3.605	101	70922	11.65	ug/L		98
9) Ethyl Ether	4.019	59	32290	8.64	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	45018	9.30	ug/L		98
11) 1,1-Dichloroethene	4.275	61	57814	8.99	ug/L		98
12) Ethanol	4.202	45	36754	213.22	ug/L		90
13) Freon 113	4.324	101	37005	9.67	ug/L		94
14) Carbon Disulfide	4.336	76	114753	8.75	ug/L		99
15) Iodomethane	4.458	142	18992	5.88	ug/L		99
16) Acrolein	4.678	56	86223	52.83	ug/L		96
17) Allyl chloride	4.860	41	59002	10.23	ug/L		97
18) Methylene Chloride	4.982	49	60337	7.94	ug/L		97
19) Acetone	5.025	43	184931	57.34	ug/L		95
20) Methyl acetate	5.171	43	300019	43.88	ug/L		99
21) trans-1,2-Dichloroethene	5.190	61	59576	8.81	ug/L		97
22) Hexane	5.281	56	28978	8.98	ug/L		86
23) Methyl Tert Butyl Ether	5.299	73	127238	8.69	ug/L		90
24) Tert butyl alcohol	5.391	59	175816	82.74	ug/L		96
25) Acetonitrile	5.568	41	138301	116.42	ug/L		99
26) Di-isopropyl ether	5.726	45	132488	8.79	ug/L		97
27) Chloroprene	5.872	53	61364	10.43	ug/L		94
28) 1,1-Dichloroethane	5.885	63	78260	8.74	ug/L		99
29) Acrylonitrile	5.933	53	161854	51.57	ug/L		97
30) ETBE	6.141	59	125270	8.50	ug/L		99
31) Vinyl acetate	6.147	43	418057	51.39	ug/L		99
32) cis-1,2-Dichloroethene	6.513	96	46021	8.75	ug/L		91
33) 2,2-Dichloropropane	6.622	77	59693	8.74	ug/L		96
34) Bromochloromethane	6.738	128	24652	9.08	ug/L		90
35) Cyclohexane	6.763	56	67766	9.67	ug/L		96
36) Chloroform	6.799	83	81335	8.75	ug/L		99
37) Ethyl acetate	6.897	43	352467m	45.34	ug/L		
38) Tetrahydrofuran	6.988	42	34187	8.74	ug/L		97
40) Carbon Tetrachloride	6.976	117	56831	8.31	ug/L		96
41) 1,1,1-Trichloroethane	7.037	97	68120	8.80	ug/L		97
42) 2-Butanone	7.110	43	268871	60.66	ug/L		99
43) 1,1-Dichloropropene	7.177	75	55032	9.00	ug/L		97
44) tert-Butyl Formate	7.256	59	168473	43.74	ug/L		95

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	152952	105.12	ug/L	95
46) Methacrylonitrile	7.439	41	458306	107.46	ug/L	98
47) Benzene	7.433	78	168632	9.03	ug/L	98
48) TAME	7.525	73	121623	8.51	ug/L	99
50) Isobutyl alcohol	7.592	42	75064	184.72	ug/L	98
51) 1,2-Dichloroethane	7.646	62	57615	8.88	ug/L	99
52) Tert Amyl Alcohol	7.701	59	143320	81.40	ug/L	97
53) Trichloroethene	8.055	95	44437	8.66	ug/L	93
54) Methylcyclohexane	8.055	83	61576	9.63	ug/L	94
55) Dibromomethane	8.494	93	28982	8.58	ug/L	91
56) 1,2-Dichloropropane	8.573	63	42298	8.80	ug/L	95
57) Bromodichloromethane	8.628	83	58550	8.56	ug/L	99
58) Methyl methacrylate	8.756	41	43238	9.03	ug/L	97
59) 1,4-Dioxane	8.823	88	27052	180.67	ug/L	90
60) 2-Chloroethyl vinyl ether	9.164	63	135939	52.97	ug/L	99
61) cis-1,3-Dichloropropene	9.256	75	64922	8.62	ug/L	99
64) Toluene	9.506	91	177013	8.78	ug/L	99
65) 2-Nitropropane	9.701	41	76063	33.94	ug/L #	89
66) 4-Methyl-2-pentanone	9.829	43	504936	62.51	ug/L	99
67) trans-1,3-Dichloropropene	9.908	75	56069	8.51	ug/L	90
68) Tetrachloroethene	9.908	166	55047	9.07	ug/L	95
69) Ethyl methacrylate	10.024	69	54525	9.81	ug/L	97
70) 1,1,2-Trichloroethane	10.061	83	36759	8.91	ug/L	95
71) Dibromochloromethane	10.262	129	48493	8.29	ug/L	95
72) 1,3-Dichloropropane	10.341	76	62625	8.77	ug/L	98
73) 1,2-Dibromoethane	10.524	107	46419	8.76	ug/L	97
74) 3,3-dimethyl-1-butanol	10.609	57	680895	417.66	ug/L	99
75) 2-hexanone	10.658	43	398553	64.16	ug/L	98
76) 1-Chlorohexane	10.969	91	50488	8.93	ug/L	99
77) Ethylbenzene	11.030	91	192534	9.06	ug/L	98
78) Chlorobenzene	11.024	112	119704	8.95	ug/L	96
79) 1,1,1,2-Tetrachloroethane	11.073	131	44223	8.46	ug/L	93
80) m,p-Xylene	11.170	91	290829	17.88	ug/L	99
81) o-Xylene	11.609	91	157079	9.01	ug/L	96
82) Styrene	11.664	104	104123	8.68	ug/L	97
83) Bromoform	11.713	173	40786	8.05	ug/L	97
84) Isopropylbenzene	11.914	105	183878	9.02	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.268	53	16022	10.30	ug/L #	84
88) n-Propylbenzene	12.335	91	204965	8.89	ug/L	99
89) Bromobenzene	12.353	156	52703	8.72	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	72475	8.63	ug/L	98
91) 1,3,5-Trimethylbenzene	12.517	105	149136	8.91	ug/L	98
92) 2-Chlorotoluene	12.524	91	143165	9.07	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.578	53	15072	8.20	ug/L #	84
94) 1,2,3-Trichloropropane	12.548	110	22730	8.98	ug/L	95
95) Cyclohexanone	12.609	55	26818	51.28	ug/L	97
96) 4-Chlorotoluene	12.688	91	126546	8.67	ug/L	97
97) tert-Butylbenzene	12.853	91	80686	9.04	ug/L	95
98) 1,2,4-Trimethylbenzene	12.926	105	143502	8.72	ug/L	97
99) Pentachloroethane	12.902	167	30722	8.97	ug/L	97
100) sec-Butylbenzene	13.042	105	175674	9.06	ug/L	97
101) 4-Isopropyltoluene	13.170	119	148157	8.82	ug/L	98
102) 1,3-Dichlorobenzene	13.310	146	89376	8.53	ug/L	97
103) 1,2,3-Trimethylbenzene	13.383	105	150887	8.76	ug/L	98
104) 1,4-Dichlorobenzene	13.389	146	96932	8.58	ug/L	98
105) n-Butylbenzene	13.621	92	72015	8.63	ug/L	91
106) Benzyl Chloride	13.633	126	22829	7.88	ug/L #	73
107) 1,2-Dichlorobenzene	13.828	146	88799	8.66	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	17681	7.99	ug/L	97
109) Hexachlorobutadiene	15.145	225	30612	8.61	ug/L	97
110) 1,2,4-Trichlorobenzene	15.194	180	63602	8.31	ug/L	98
111) Naphthalene	15.468	128	199734	8.37	ug/L	100
112) 1,2,3-Trichlorobenzene	15.633	180	62659	8.16	ug/L	97

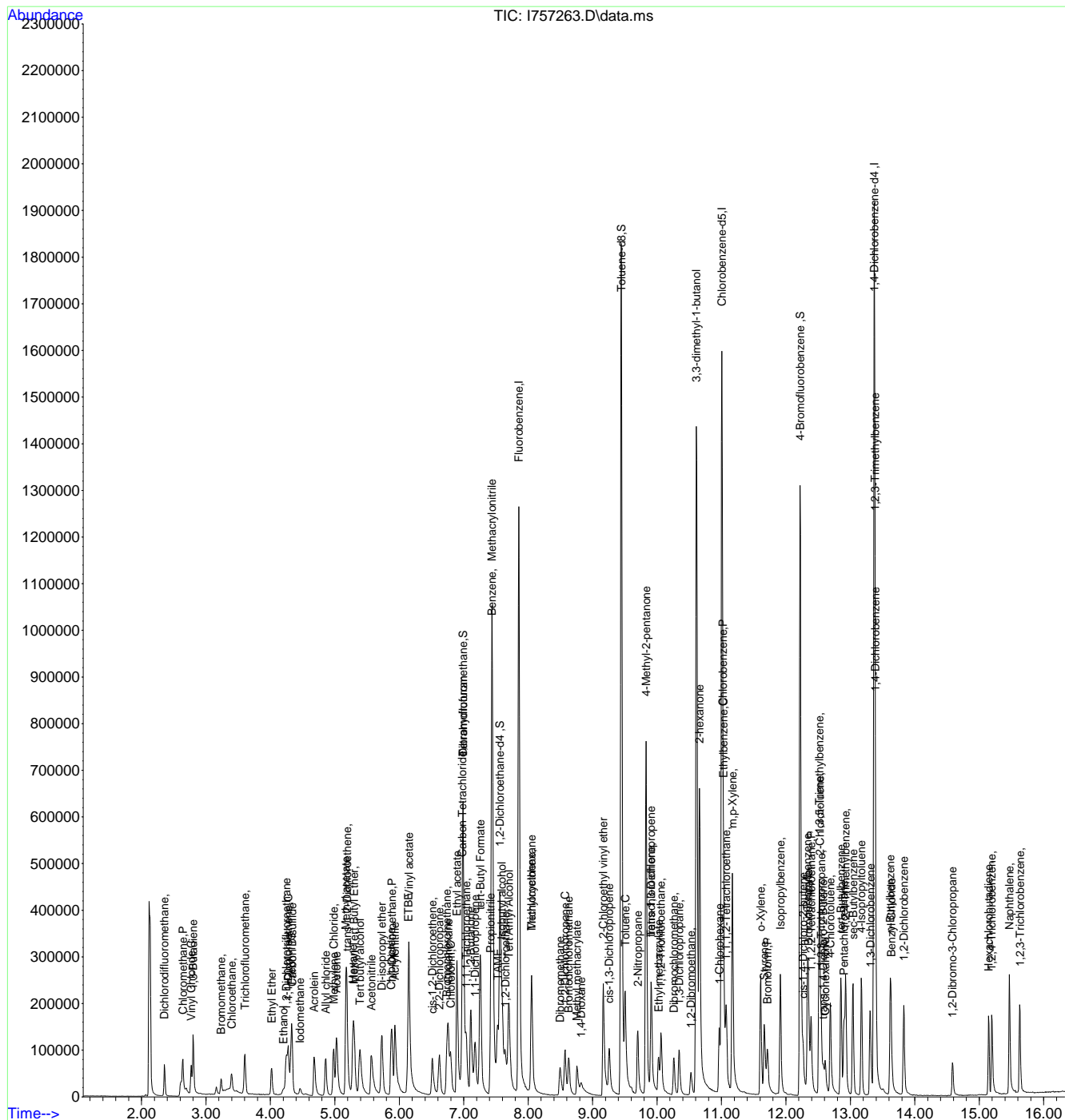
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:26:40 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



7.6.14  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757263.D  
**Injection Time:** 06/15/23 11:40

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.90	Poor instrument integration

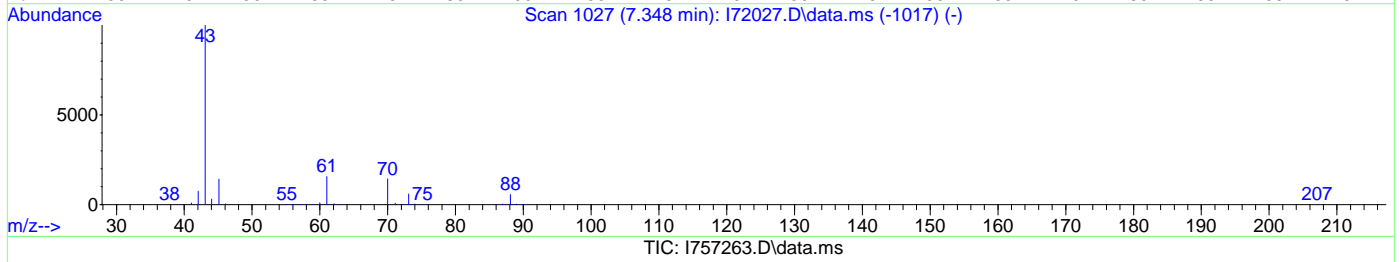
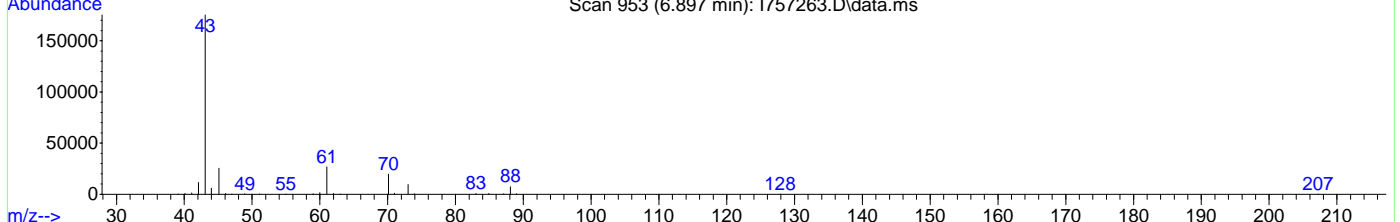
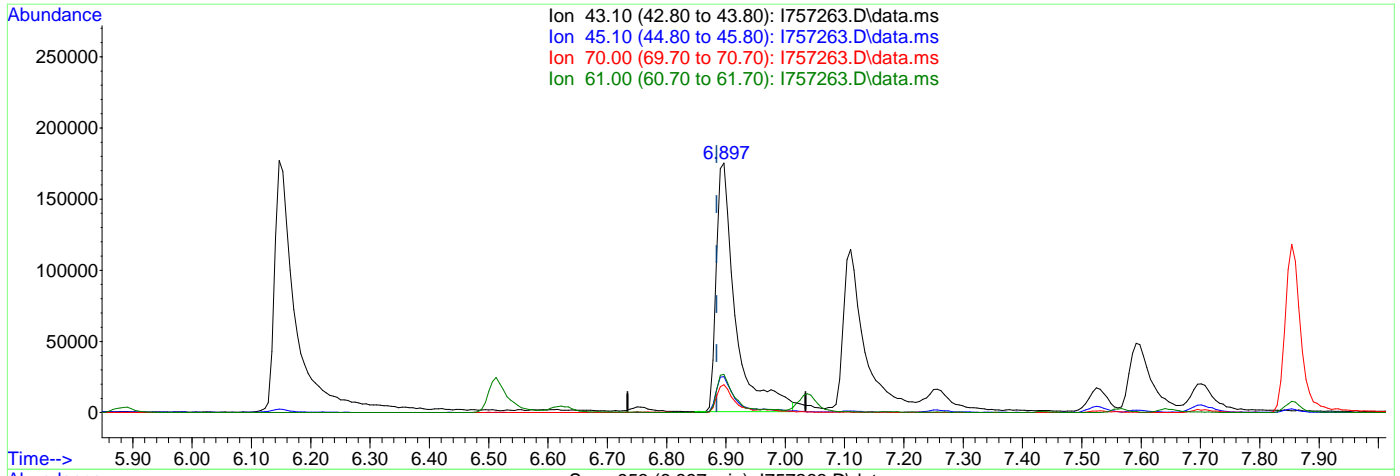
7.6.14.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:17:34 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.897min (+0.012) 50.83ug/L  
 response 395126

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.44
70.00	11.10	11.24
61.00	15.10	15.26

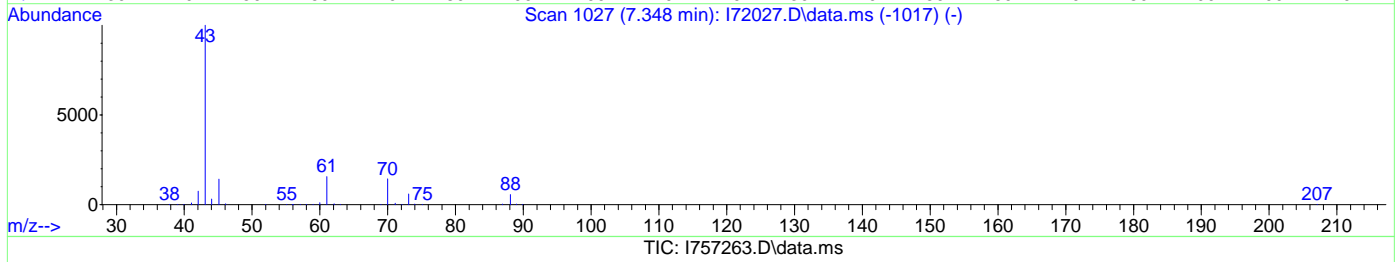
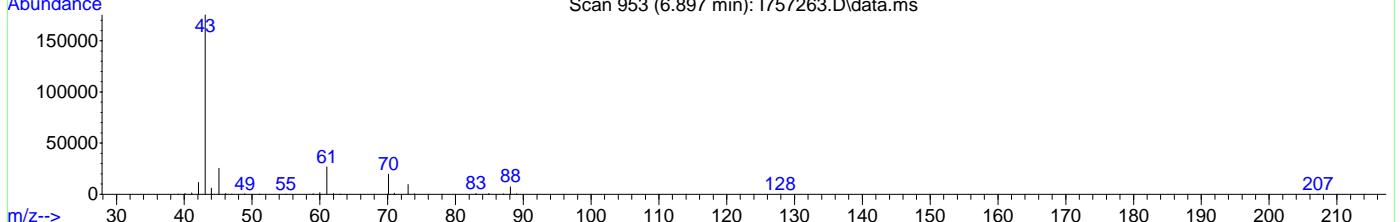
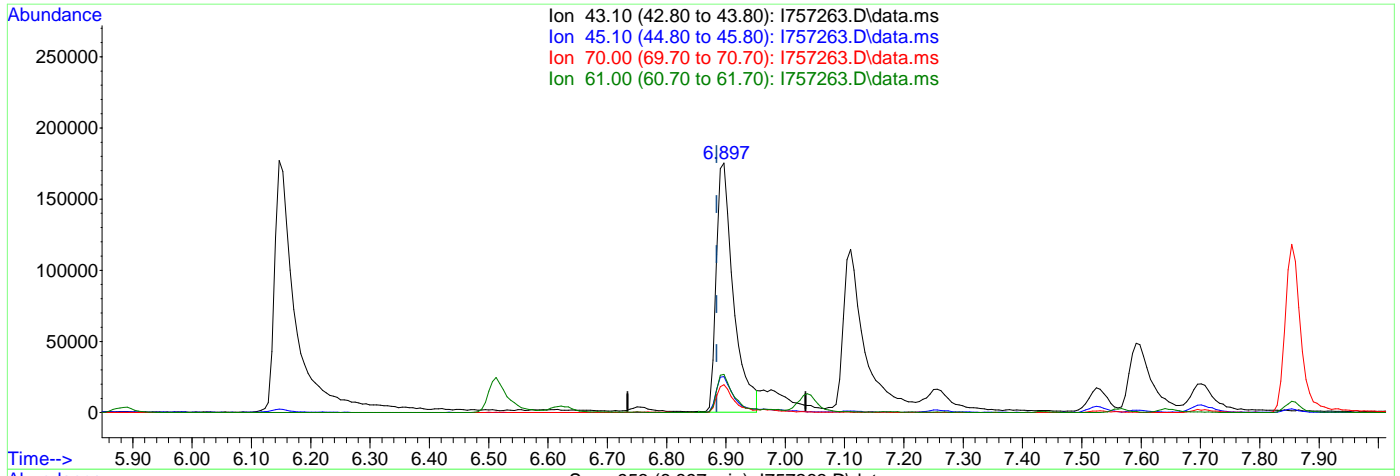
7.6.14.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757263.D  
 Acq On : 15 Jun 2023 11:40 am  
 Operator : joannel  
 Sample : IC2948-3  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 12:17:34 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 07:44:06 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.897min (+0.012) 45.34ug/L m

response 352467

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.39
70.00	11.10	11.20
61.00	15.10	15.30

7.6.14.3

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1142073	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	841453	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	519559	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	331108	50.92	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.84%	
49) 1,2-Dichloroethane-d4	7.561	65	307520	52.18	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	104.36%	
63) Toluene-d8	9.445	98	1216135	50.88	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	101.76%	
86) 4-Bromofluorobenzene	12.219	174	435484	49.63	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.26%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	123401	40.54	ug/L		98
3) Chloromethane	2.635	50	122259	26.30	ug/L		97
4) Vinyl Chloride	2.763	62	120249	28.08	ug/L		99
5) 1,3-Butadiene	2.794	39	116957	26.71	ug/L		94
6) Bromomethane	3.233	94	39672	24.16	ug/L		96
7) Chloroethane	3.391	64	54467	19.36	ug/L		99
8) Trichlorofluoromethane	3.598	101	165259	27.82	ug/L		99
9) Ethyl Ether	4.013	59	87674	24.04	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.245	67	118357	25.05	ug/L		97
11) 1,1-Dichloroethene	4.275	61	157664	25.12	ug/L		100
12) Ethanol	4.208	45	88728	527.45	ug/L		99
13) Freon 113	4.318	101	98252	26.32	ug/L		96
14) Carbon Disulfide	4.330	76	310548	24.26	ug/L		99
15) Iodomethane	4.458	142	75491	23.95	ug/L		95
16) Acrolein	4.671	56	203351	127.67	ug/L		97
17) Allyl chloride	4.854	41	149089	26.48	ug/L		98
18) Methylene Chloride	4.976	49	152960	20.63	ug/L		97
19) Acetone	5.025	43	367279	116.69	ug/L		98
20) Methyl acetate	5.165	43	829278	124.29	ug/L		100
21) trans-1,2-Dichloroethene	5.183	61	159712	24.21	ug/L		97
22) Hexane	5.275	56	83397	26.49	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	343713	24.04	ug/L		82
24) Tert butyl alcohol	5.385	59	487856	235.26	ug/L		99
25) Acetonitrile	5.561	41	320957	276.85	ug/L		97
26) Di-isopropyl ether	5.726	45	358030	24.33	ug/L		99
27) Chloroprene	5.866	53	159981	27.86	ug/L		99
28) 1,1-Dichloroethane	5.885	63	212657	24.35	ug/L		100
29) Acrylonitrile	5.921	53	432255	141.12	ug/L		98
30) ETBE	6.135	59	341706	23.74	ug/L		99
31) Vinyl acetate	6.141	43	1183685	149.11	ug/L		100
32) cis-1,2-Dichloroethene	6.506	96	126101	24.58	ug/L		96
33) 2,2-Dichloropropane	6.622	77	159756	23.98	ug/L		98
34) Bromochloromethane	6.732	128	65120	24.58	ug/L		95
35) Cyclohexane	6.756	56	181525	26.54	ug/L		97
36) Chloroform	6.793	83	216996	23.92	ug/L		95
37) Ethyl acetate	6.884	43	987700m	130.20	ug/L		
38) Tetrahydrofuran	6.976	42	88860	23.29	ug/L		98
40) Carbon Tetrachloride	6.976	117	157358	23.58	ug/L		96
41) 1,1,1-Trichloroethane	7.037	97	183726	24.32	ug/L		98
42) 2-Butanone	7.104	43	566161	130.89	ug/L		99
43) 1,1-Dichloropropene	7.171	75	147933	24.78	ug/L		97
44) tert-Butyl Formate	7.256	59	428195	113.90	ug/L		97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	401271	282.59	ug/L	99
46) Methacrylonitrile	7.439	41	1114582	267.79	ug/L	99
47) Benzene	7.433	78	439315	24.11	ug/L	96
48) TAME	7.524	73	328029	23.53	ug/L	99
50) Isobutyl alcohol	7.585	42	207501	523.25	ug/L	100
51) 1,2-Dichloroethane	7.634	62	151370	23.90	ug/L	96
52) Tert Amyl Alcohol	7.695	59	405886	236.21	ug/L	99
53) Trichloroethene	8.049	95	119791	23.91	ug/L	99
54) Methylcyclohexane	8.049	83	163775	26.25	ug/L	98
55) Dibromomethane	8.488	93	76487	23.19	ug/L	96
56) 1,2-Dichloropropane	8.567	63	111693	23.80	ug/L	98
57) Bromodichloromethane	8.628	83	155691	23.33	ug/L	95
58) Methyl methacrylate	8.744	41	129240	27.67	ug/L	98
59) 1,4-Dioxane	8.817	88	75260	515.05	ug/L	97
60) 2-Chloroethyl vinyl ether	9.158	63	340084	135.80	ug/L	99
61) cis-1,3-Dichloropropene	9.256	75	177893	24.19	ug/L	100
64) Toluene	9.500	91	471742	23.67	ug/L	99
65) 2-Nitropropane	9.695	41	224988	101.59	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	1021421	127.95	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	163612	25.12	ug/L	92
68) Tetrachloroethene	9.908	166	145008	24.19	ug/L	97
69) Ethyl methacrylate	10.012	69	156321	28.46	ug/L	100
70) 1,1,2-Trichloroethane	10.061	83	96404	23.64	ug/L	94
71) Dibromochloromethane	10.256	129	136522	23.61	ug/L	99
72) 1,3-Dichloropropane	10.341	76	173025	24.53	ug/L	98
73) 1,2-Dibromoethane	10.518	107	127526	24.36	ug/L	96
74) 3,3-dimethyl-1-butanol	10.609	57	1847436m	1146.73	ug/L	
75) 2-hexanone	10.658	43	813108	132.46	ug/L	98
76) 1-Chlorohexane	10.963	91	134403	24.06	ug/L	98
77) Ethylbenzene	11.024	91	508587	24.23	ug/L	99
78) Chlorobenzene	11.024	112	315624	23.89	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	121277	23.49	ug/L	98
80) m,p-Xylene	11.164	91	778912	48.47	ug/L	99
81) o-Xylene	11.603	91	410697	23.84	ug/L	99
82) Styrene	11.658	104	295497	24.91	ug/L	98
83) Bromoform	11.713	173	114341	22.84	ug/L	97
84) Isopropylbenzene	11.914	105	489514	24.29	ug/L	98
87) cis-1,4-Dichloro-2-butene	12.261	53	45480	28.94	ug/L	96
88) n-Propylbenzene	12.335	91	555114	23.84	ug/L	99
89) Bromobenzene	12.347	156	141780	23.21	ug/L	94
90) 1,1,2,2-Tetrachloroethane	12.389	83	194524	22.93	ug/L	99
91) 1,3,5-Trimethylbenzene	12.517	105	398464	23.57	ug/L	97
92) 2-Chlorotoluene	12.517	91	381256	23.91	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.572	53	48134	25.92	ug/L	91
94) 1,2,3-Trichloropropane	12.548	110	61620	24.09	ug/L	98
95) Cyclohexanone	12.609	55	70530	133.49	ug/L	95
96) 4-Chlorotoluene	12.682	91	338272	22.94	ug/L	98
97) tert-Butylbenzene	12.853	91	208752	23.16	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	389813	23.44	ug/L	98
99) Pentachloroethane	12.901	167	86066	24.86	ug/L	97
100) sec-Butylbenzene	13.036	105	457129	23.34	ug/L	100
101) 4-Isopropyltoluene	13.170	119	398818	23.49	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	246261	23.25	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	399815	22.97	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	258090	22.61	ug/L	99
105) n-Butylbenzene	13.615	92	201890	23.95	ug/L	87
106) Benzyl Chloride	13.627	126	68414	23.36	ug/L #	78
107) 1,2-Dichlorobenzene	13.828	146	238098	22.98	ug/L	97

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

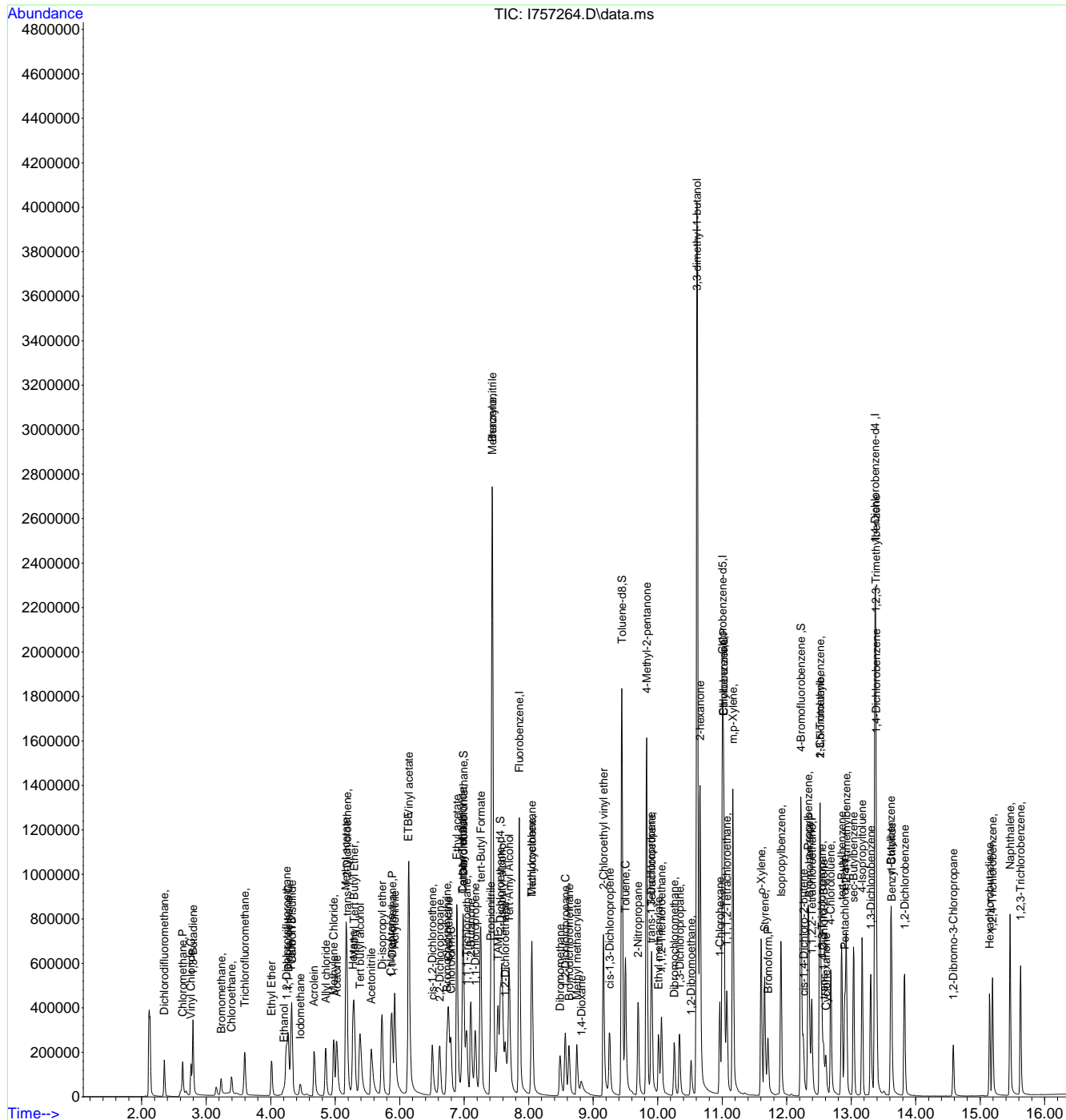
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	49786	22.27	ug/L	88
109) Hexachlorobutadiene	15.145	225	81164	22.60	ug/L	95
110) 1,2,4-Trichlorobenzene	15.194	180	175341	22.66	ug/L	98
111) Naphthalene	15.462	128	565147	23.44	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	174154	22.44	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:53:52 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7.6.15  
7



# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757264.D  
**Injection Time:** 06/15/23 12:04

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.61	Overlapping peak

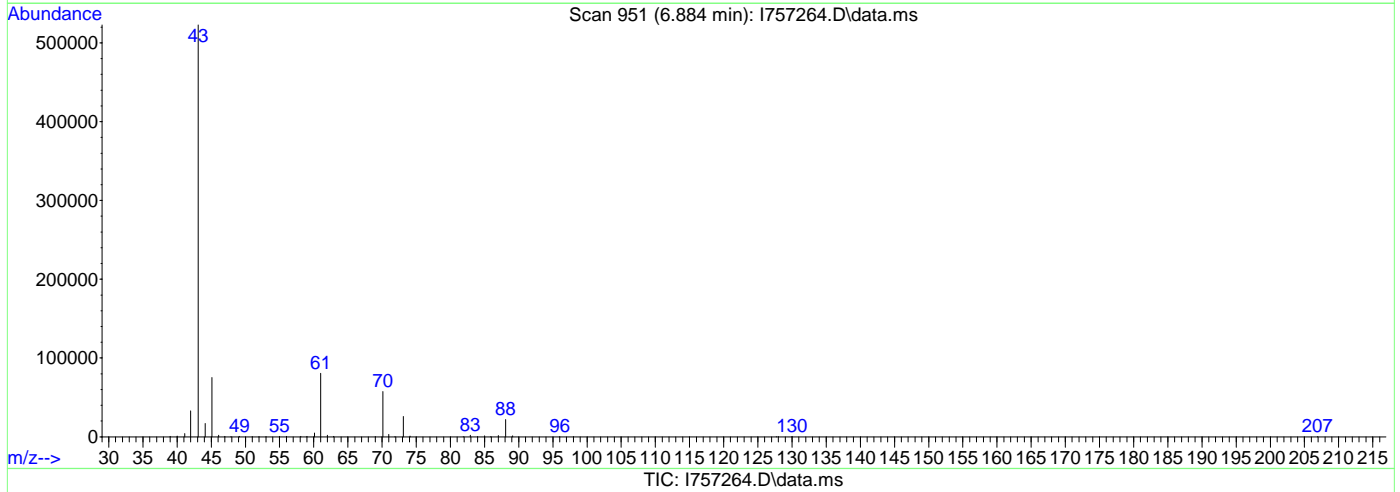
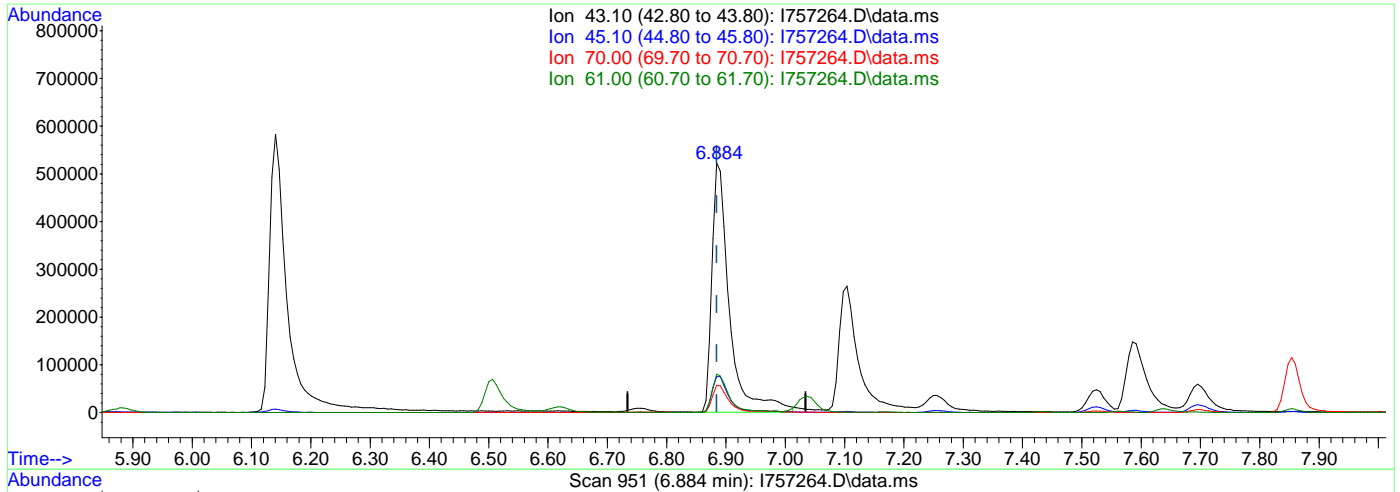
7.6.15.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 140.54ug/L

response 1066129

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.41
70.00	11.10	11.01
61.00	15.10	15.43

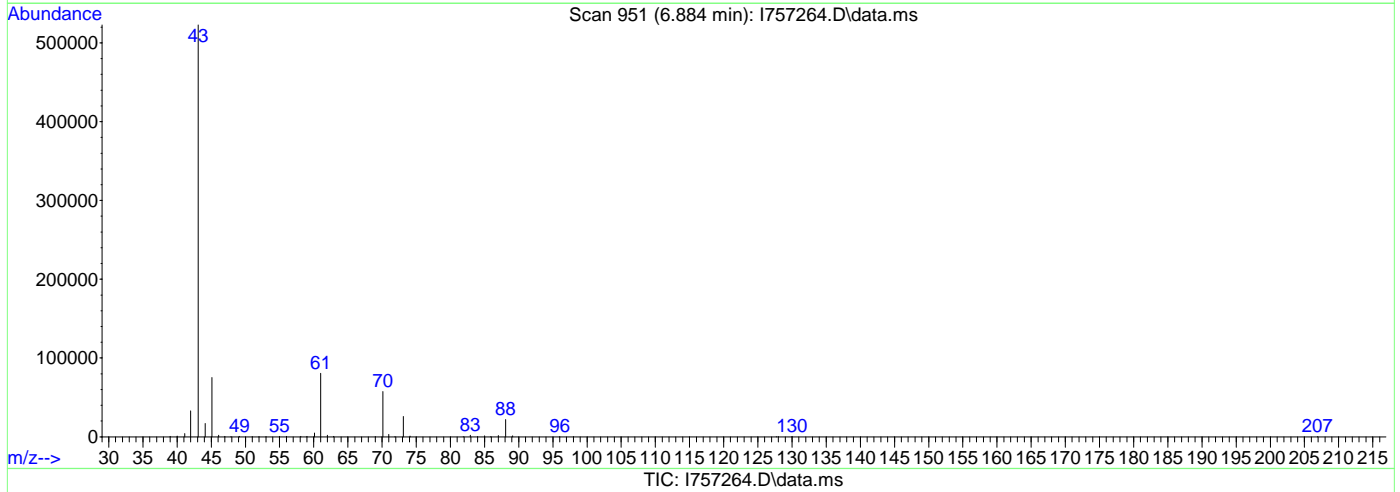
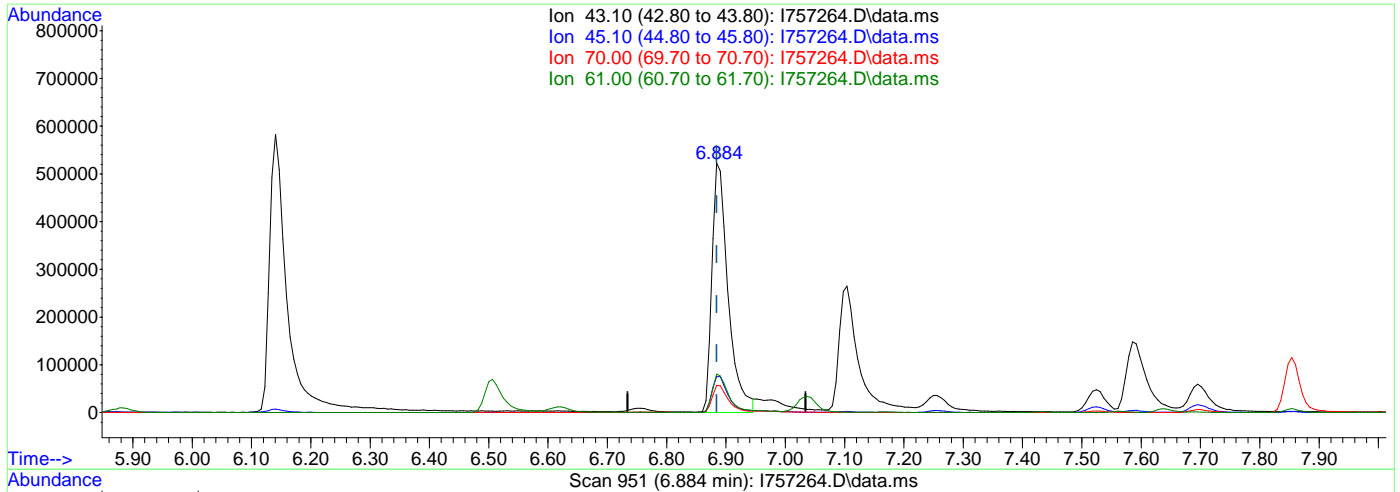
7.6.15.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 130.20ug/L m

response 987700

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.38
70.00	11.10	10.99
61.00	15.10	15.40

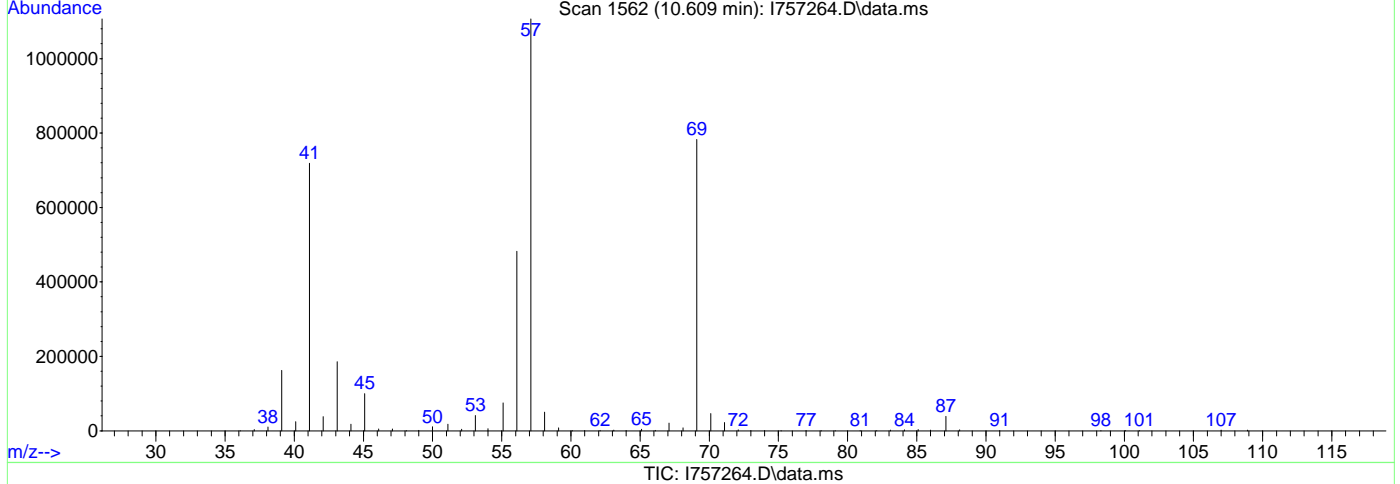
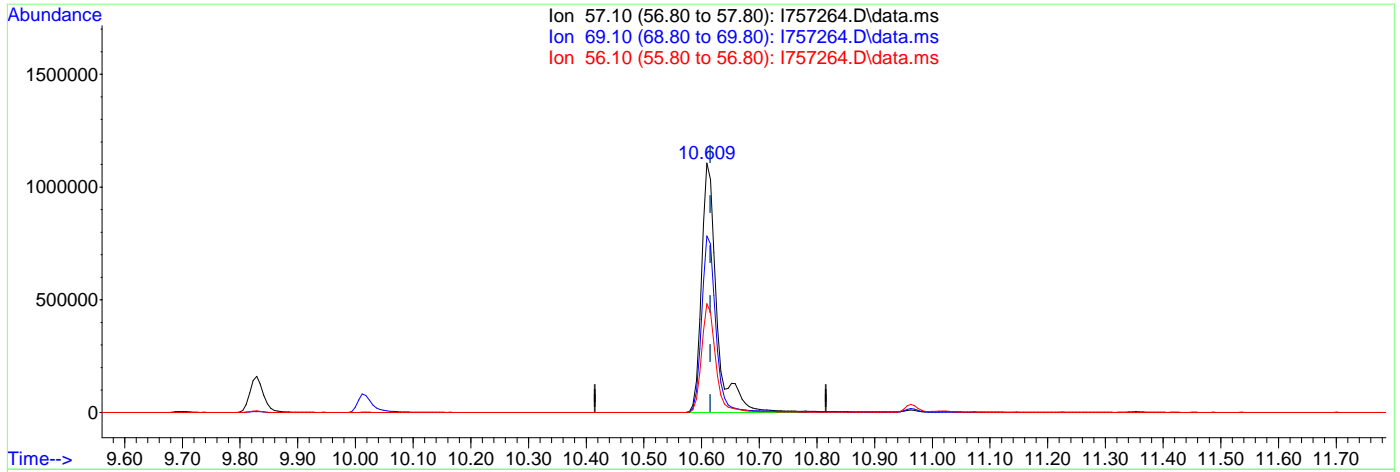
7.6.15.3

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Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.609min (-0.006) 1292.29ug/L

response 2081939

Ion Exp% Act%

57.10 100 100

69.10 72.40 70.72

56.10 43.50 43.61

0.00 0.00 0.00

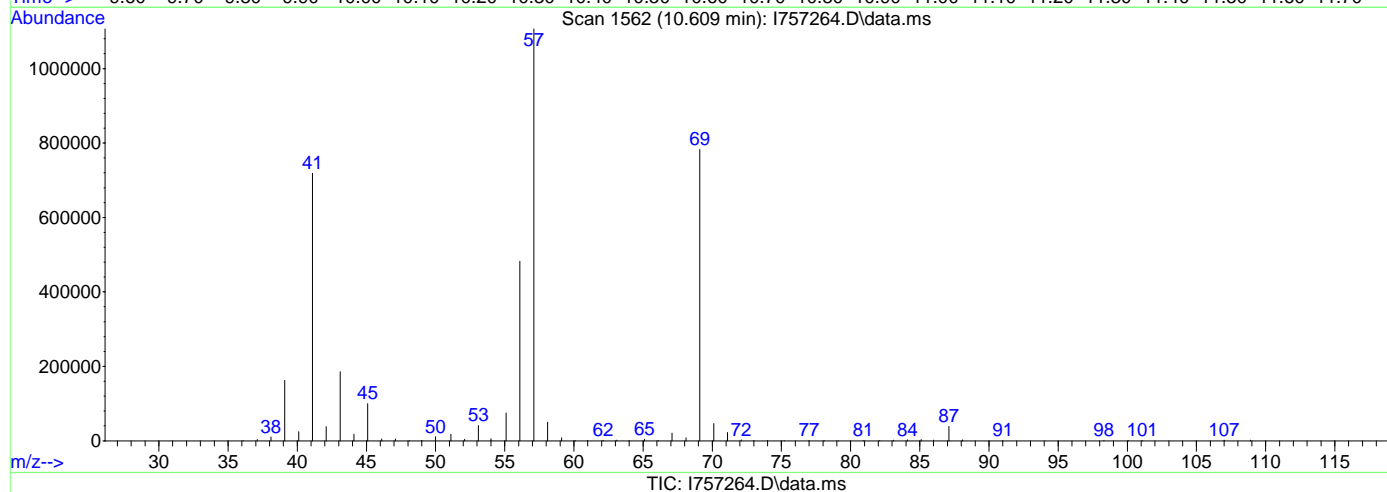
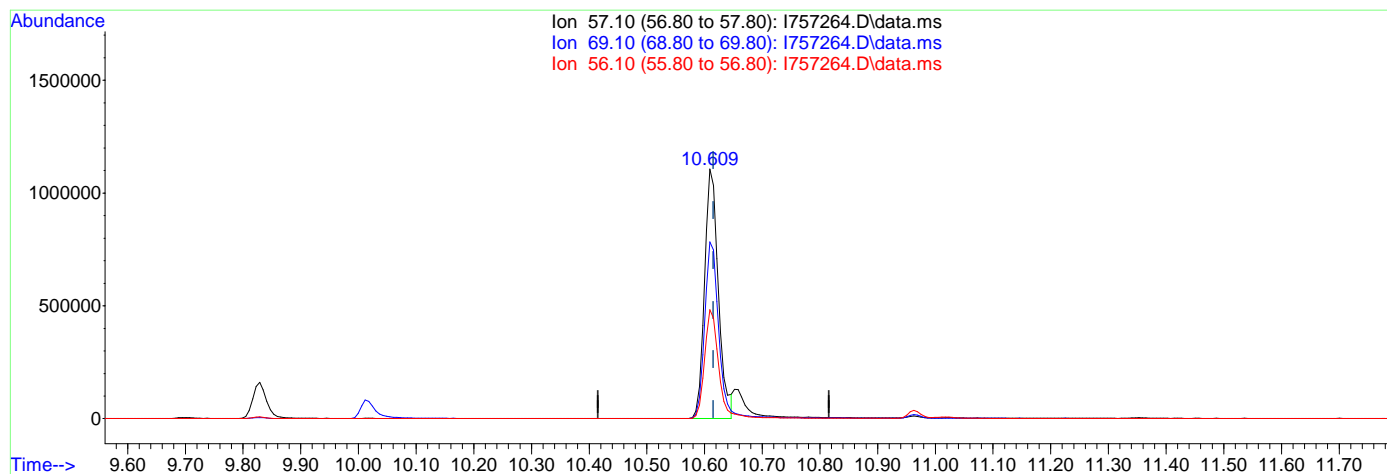
7.6.15.4

7

## Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757264.D  
 Acq On : 15 Jun 2023 12:04 pm  
 Operator : joannel  
 Sample : IC2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 12:25:58 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.609min (-0.006) 1146.73ug/L m

response 1847436

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	70.72
56.10	43.50	43.61
0.00	0.00	0.00

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1166537	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	854326	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	520019	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	334259	50.33	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.66%		
49) 1,2-Dichloroethane-d4	7.561	65	296036	49.17	ug/L	0.00	
Spiked Amount	50.000	Range 79 - 125	Recovery	=	98.34%		
63) Toluene-d8	9.445	98	1244986	51.31	ug/L	0.00	
Spiked Amount	50.000	Range 85 - 112	Recovery	=	102.62%		
86) 4-Bromofluorobenzene	12.219	174	444507	50.61	ug/L	0.00	
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.22%		
Target Compounds							
2) Dichlorodifluoromethane	2.355	85	182621	58.74	ug/L	96	
3) Chloromethane	2.641	50	201944	42.53	ug/L	97	
4) Vinyl Chloride	2.769	62	191363	43.75	ug/L	100	
5) 1,3-Butadiene	2.800	39	154425	34.52	ug/L	99	
6) Bromomethane	3.233	94	68110	40.60	ug/L	97	
7) Chloroethane	3.397	64	82605	28.74	ug/L	97	
8) Trichlorofluoromethane	3.599	101	258761	42.65	ug/L	99	
9) Ethyl Ether	4.019	59	142761	38.33	ug/L	99	
10) 1,2-Dichlorotrifluoro...	4.245	67	170607	35.35	ug/L	100	
11) 1,1-Dichloroethene	4.275	61	229523	35.80	ug/L	99	
12) Ethanol	4.214	45	123696	719.90	ug/L	92	
13) Freon 113	4.324	101	136435	35.78	ug/L	97	
14) Carbon Disulfide	4.330	76	455867	34.87	ug/L	99	
15) Iodomethane	4.464	142	131799	40.93	ug/L	94	
16) Acrolein	4.678	56	317529	195.17	ug/L	98	
17) Allyl chloride	4.854	41	223193	38.82	ug/L	100	
18) Methylene Chloride	4.982	49	243443	32.14	ug/L	97	
19) Acetone	5.025	43	592210	184.21	ug/L	99	
20) Methyl acetate	5.171	43	1339516	196.56	ug/L	100	
21) trans-1,2-Dichloroethene	5.184	61	250466	37.17	ug/L	98	
22) Hexane	5.275	56	115096	35.79	ug/L	99	
23) Methyl Tert Butyl Ether	5.299	73	556704	38.12	ug/L	99	
24) Tert butyl alcohol	5.391	59	773591	365.23	ug/L	99	
25) Acetonitrile	5.562	41	464909	392.62	ug/L	99	
26) Di-isopropyl ether	5.726	45	579224	38.54	ug/L	99	
27) Chloroprene	5.866	53	231638	39.50	ug/L	98	
28) 1,1-Dichloroethane	5.885	63	333379	37.37	ug/L	99	
29) Acrylonitrile	5.921	53	650048	207.77	ug/L	99	
30) ETBE	6.141	59	554989	37.76	ug/L	99	
31) Vinyl acetate	6.141	43	1888225	232.87	ug/L	100	
32) cis-1,2-Dichloroethene	6.507	96	204398	39.00	ug/L	98	
33) 2,2-Dichloropropane	6.616	77	245669	36.10	ug/L	99	
34) Bromochloromethane	6.732	128	106603	39.39	ug/L	97	
35) Cyclohexane	6.756	56	247299	35.40	ug/L	99	
36) Chloroform	6.793	83	344379	37.16	ug/L	99	
37) Ethyl acetate	6.884	43	1529158m	197.35	ug/L		
38) Tetrahydrofuran	6.982	42	139307	35.75	ug/L	96	
40) Carbon Tetrachloride	6.976	117	230609	33.84	ug/L	98	
41) 1,1,1-Trichloroethane	7.037	97	278496	36.09	ug/L	98	
42) 2-Butanone	7.104	43	952122	215.50	ug/L	98	
43) 1,1-Dichloropropene	7.171	75	222199	36.44	ug/L	98	
44) tert-Butyl Formate	7.256	59	740909	192.96	ug/L	97	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	598918	412.93	ug/L	99
46) Methacrylonitrile	7.439	41	1697753	399.35	ug/L	99
47) Benzene	7.433	78	692390	37.21	ug/L	98
48) TAME	7.525	73	535664	37.62	ug/L	99
50) Isobutyl alcohol	7.592	42	309173	763.28	ug/L	99
51) 1,2-Dichloroethane	7.634	62	242762	37.52	ug/L	98
52) Tert Amyl Alcohol	7.701	59	640815	365.11	ug/L	99
53) Trichloroethene	8.043	95	185862	36.32	ug/L	96
54) Methylcyclohexane	8.049	83	221748	34.79	ug/L	96
55) Dibromomethane	8.482	93	129050	38.31	ug/L	97
56) 1,2-Dichloropropane	8.567	63	183980	38.38	ug/L	97
57) Bromodichloromethane	8.622	83	257539	37.78	ug/L	97
58) Methyl methacrylate	8.744	41	210861	44.19	ug/L	99
59) 1,4-Dioxane	8.817	88	117028	784.10	ug/L	99
60) 2-Chloroethyl vinyl ether	9.158	63	593745	232.12	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	295539	39.35	ug/L	98
64) Toluene	9.500	91	750341	37.08	ug/L	100
65) 2-Nitropropane	9.695	41	379148	168.62	ug/L	95
66) 4-Methyl-2-pentanone	9.829	43	1678825	207.13	ug/L	99
67) trans-1,3-Dichloropropene	9.896	75	271105	40.99	ug/L	99
68) Tetrachloroethene	9.908	166	219030	35.98	ug/L	99
69) Ethyl methacrylate	10.012	69	248557	44.57	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	158587	38.29	ug/L	96
71) Dibromochloromethane	10.256	129	225563	38.43	ug/L	99
72) 1,3-Dichloropropane	10.335	76	288197	40.24	ug/L	98
73) 1,2-Dibromoethane	10.512	107	209118	39.35	ug/L	98
74) 3,3-dimethyl-1-butanol	10.615	57	3131387m	1914.41	ug/L	
75) 2-hexanone	10.652	43	1339111	214.87	ug/L	99
76) 1-Chlorohexane	10.963	91	199880	35.24	ug/L	98
77) Ethylbenzene	11.024	91	798640	37.48	ug/L	99
78) Chlorobenzene	11.024	112	502093	37.43	ug/L	100
79) 1,1,1,2-Tetrachloroethane	11.073	131	196579	37.50	ug/L	97
80) m,p-Xylene	11.164	91	1239446	75.96	ug/L	99
81) o-Xylene	11.603	91	657175	37.56	ug/L	100
82) Styrene	11.652	104	486047	40.36	ug/L	98
83) Bromoform	11.707	173	196079	38.58	ug/L	98
84) Isopropylbenzene	11.908	105	761094	37.20	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	75622	48.08	ug/L	97
88) n-Propylbenzene	12.329	91	862714	37.02	ug/L	99
89) Bromobenzene	12.347	156	229940	37.61	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	314457	37.03	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	628043	37.11	ug/L	98
92) 2-Chlorotoluene	12.518	91	594873	37.27	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.572	53	80234	43.16	ug/L	88
94) 1,2,3-Trichloropropane	12.548	110	97844	38.21	ug/L	96
95) Cyclohexanone	12.609	55	103175	195.11	ug/L	95
96) 4-Chlorotoluene	12.682	91	553528	37.50	ug/L	99
97) tert-Butylbenzene	12.853	91	326827	36.23	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	628585	37.77	ug/L	100
99) Pentachloroethane	12.902	167	135998	39.26	ug/L	99
100) sec-Butylbenzene	13.036	105	694898	35.45	ug/L	99
101) 4-Isopropyltoluene	13.170	119	621444	36.57	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	402322	37.95	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	651749	37.41	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	416829	36.49	ug/L	98
105) n-Butylbenzene	13.615	92	314533	37.28	ug/L	98
106) Benzyl Chloride	13.627	126	117131	39.96	ug/L	95
107) 1,2-Dichlorobenzene	13.822	146	390846	37.69	ug/L	98

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.584	75	82482	36.86	ug/L	85
109) Hexachlorobutadiene	15.145	225	122217	33.99	ug/L	99
110) 1,2,4-Trichlorobenzene	15.188	180	291468	37.64	ug/L	99
111) Naphthalene	15.462	128	943187	39.09	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	288419	37.13	ug/L	98

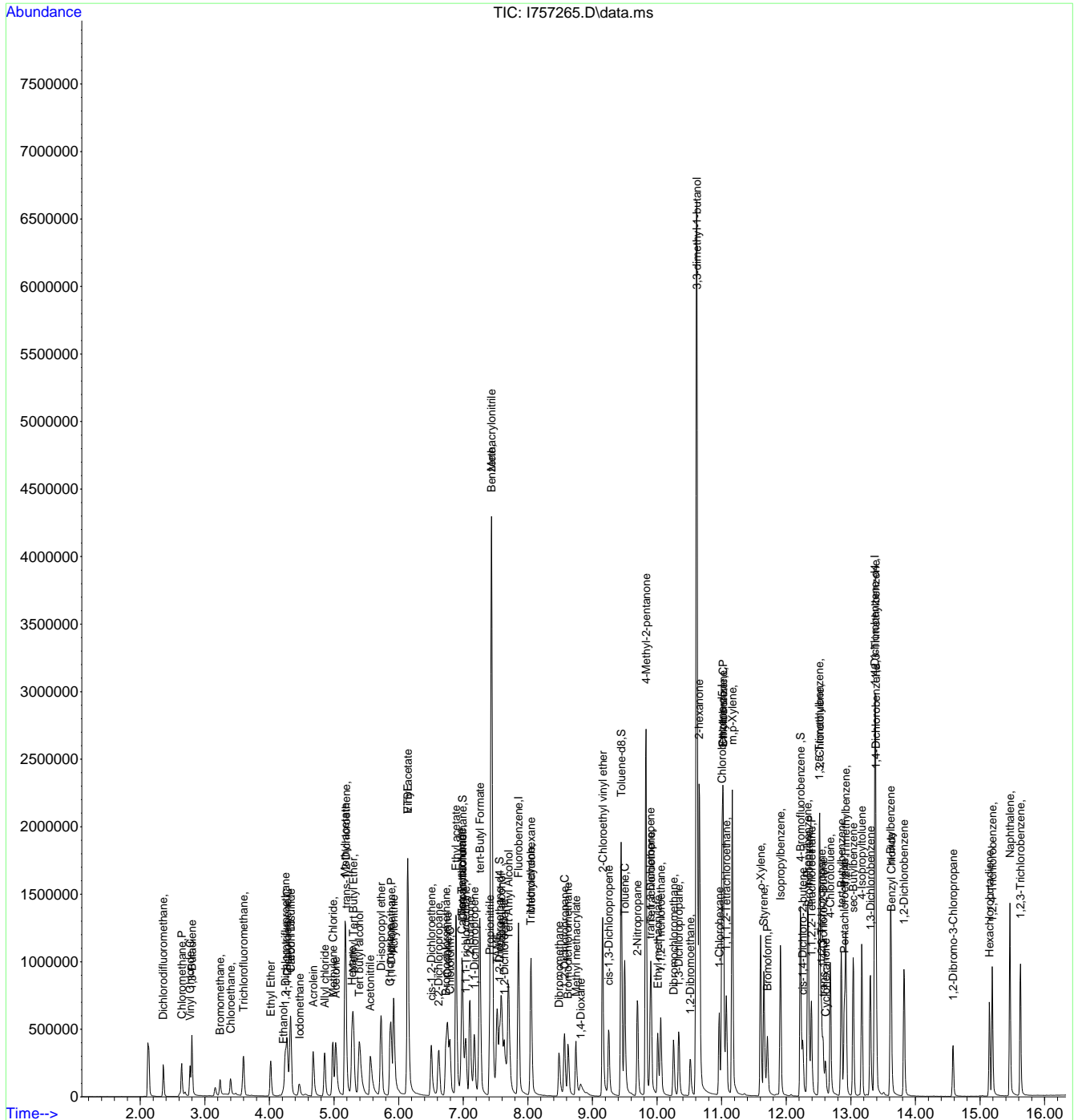
(#) = qualifier out of range (m) = manual integration (+) = signals summed



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:55:04 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



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 16.19

# Manual Integration Approval Summary

**Sample Number:** VI2948-ICC2948      **Method:** SW846 8260D  
**Lab FileID:** I757265.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 12:28      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

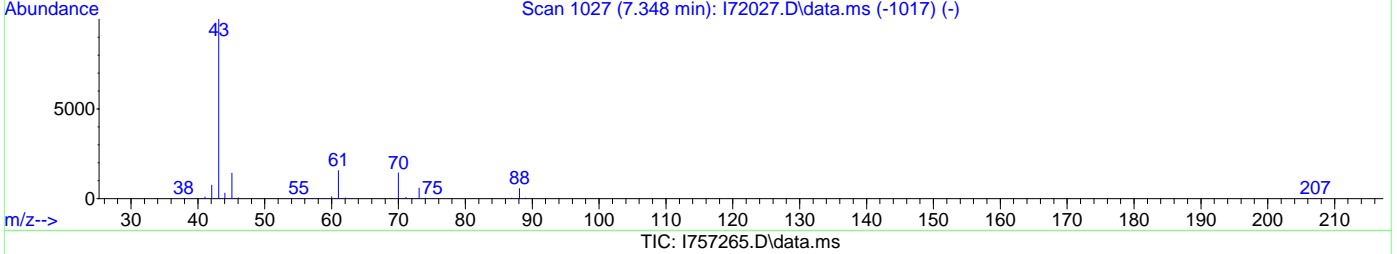
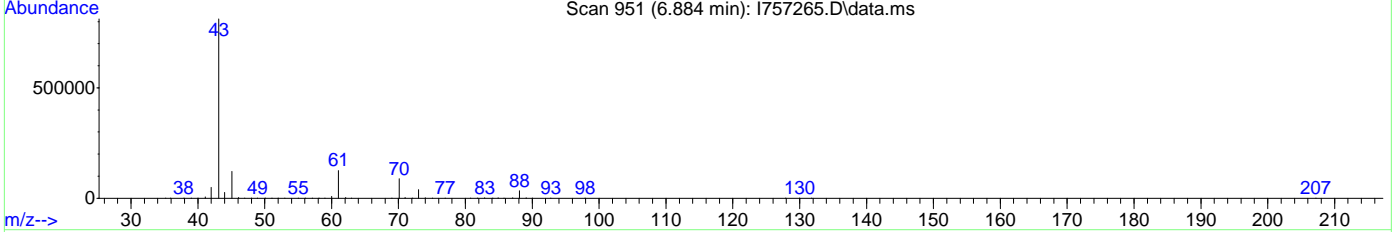
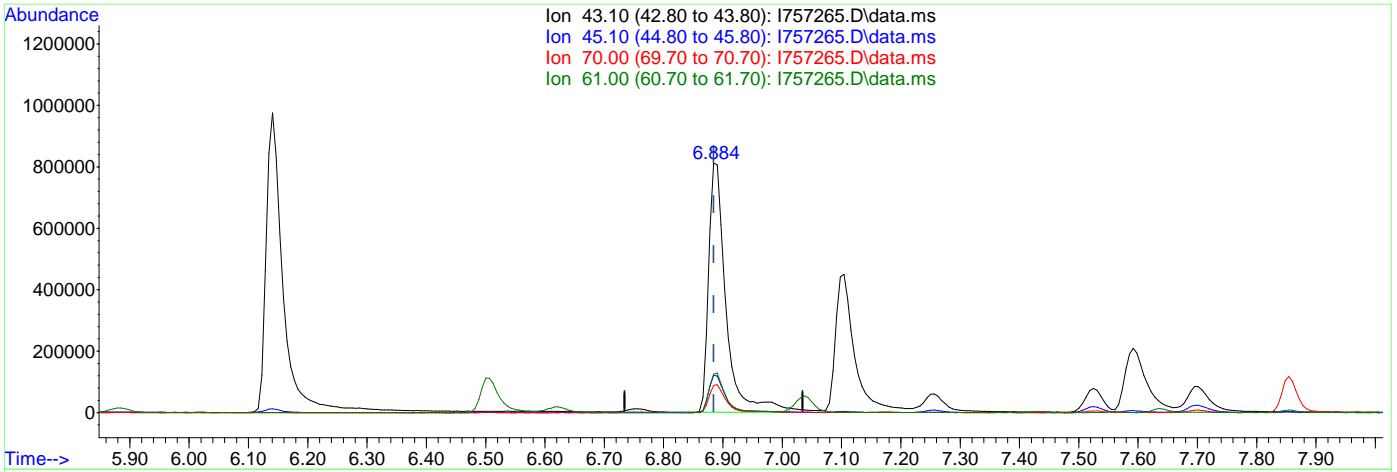
7.6.16.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.884min (0.000) 212.10ug/L  
 response 1643408

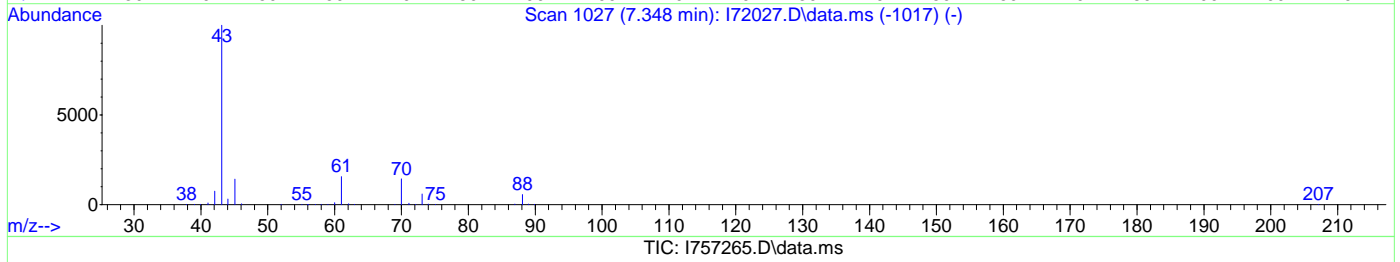
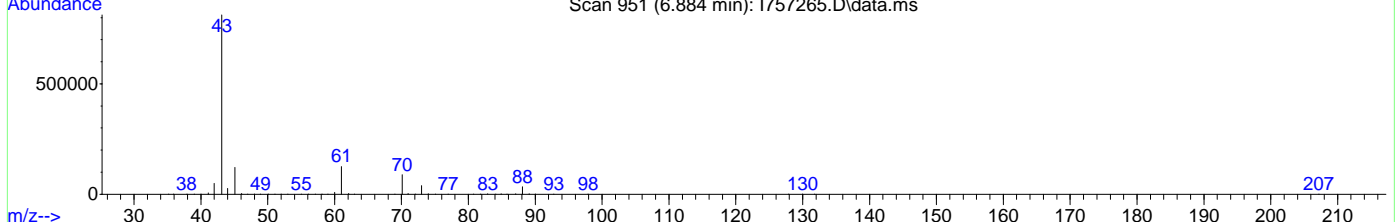
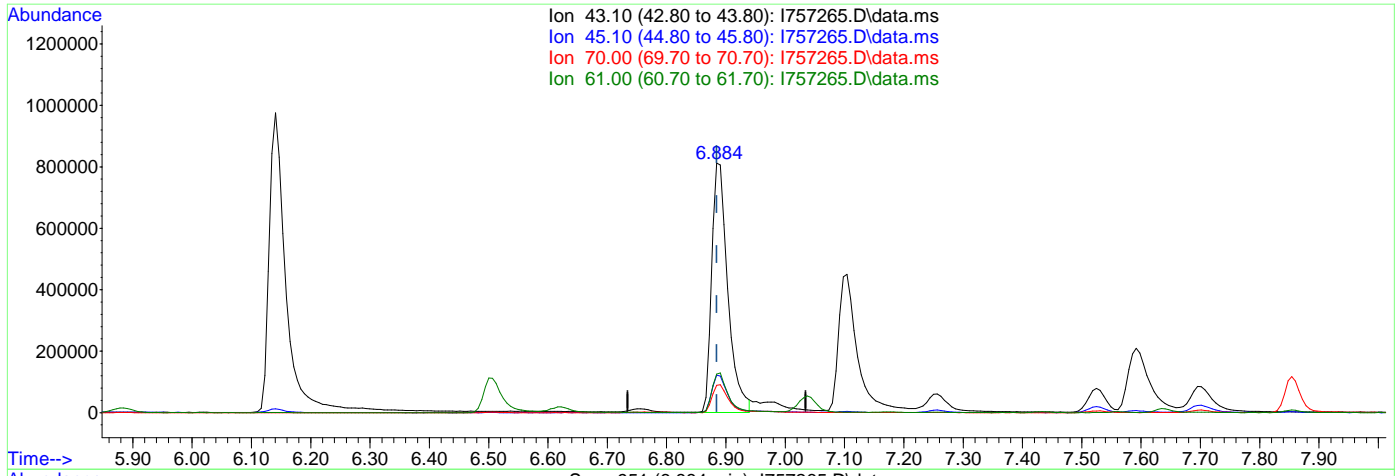
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	15.03
70.00	11.10	10.95
61.00	15.10	15.39

7.6.16.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (0.000) 197.35ug/L m

response 1529158

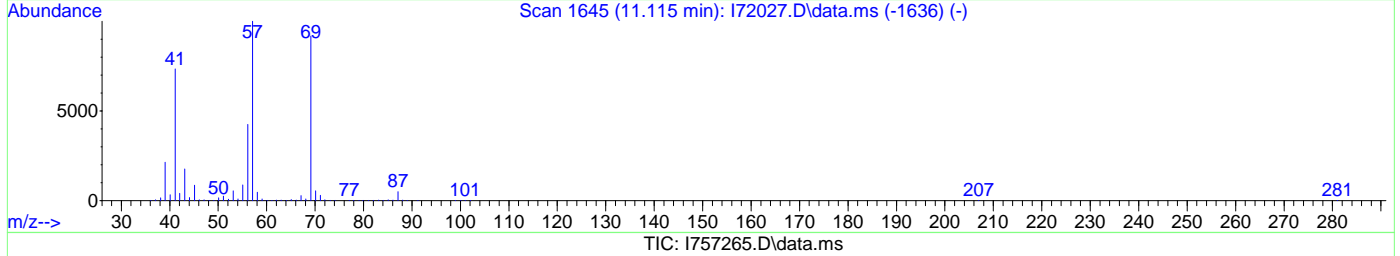
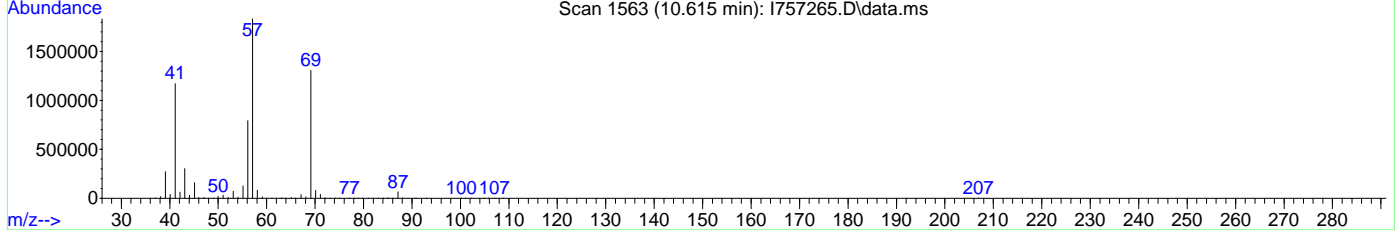
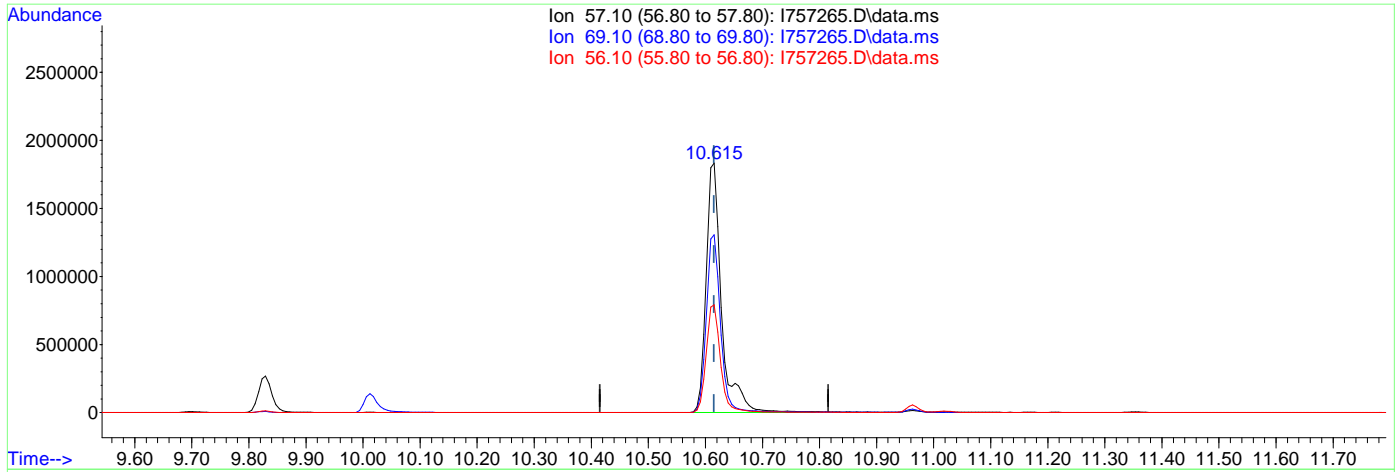
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	15.00
70.00	11.10	10.94
61.00	15.10	15.40

7.6.16.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (0.000) 2122.75ug/L

response 3472164

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.16
56.10	43.50	43.16
0.00	0.00	0.00

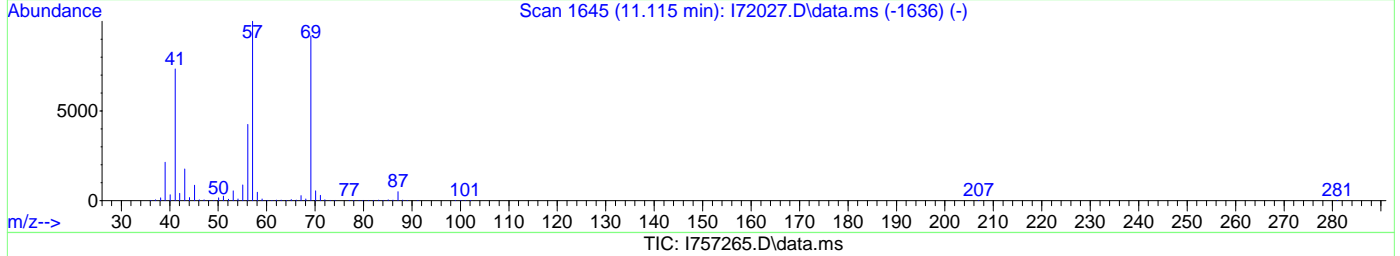
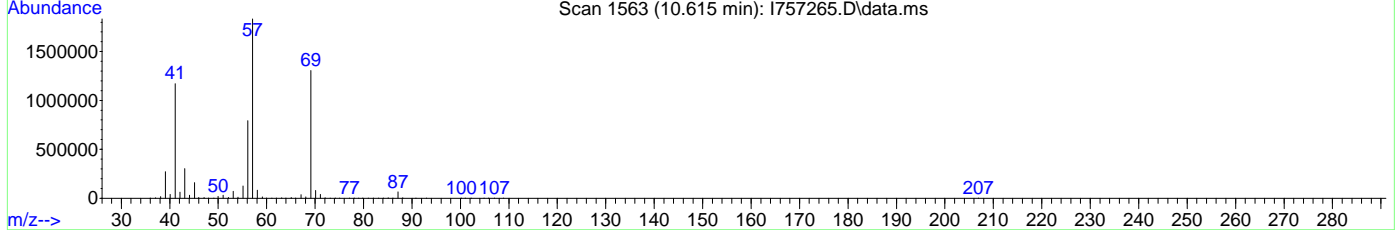
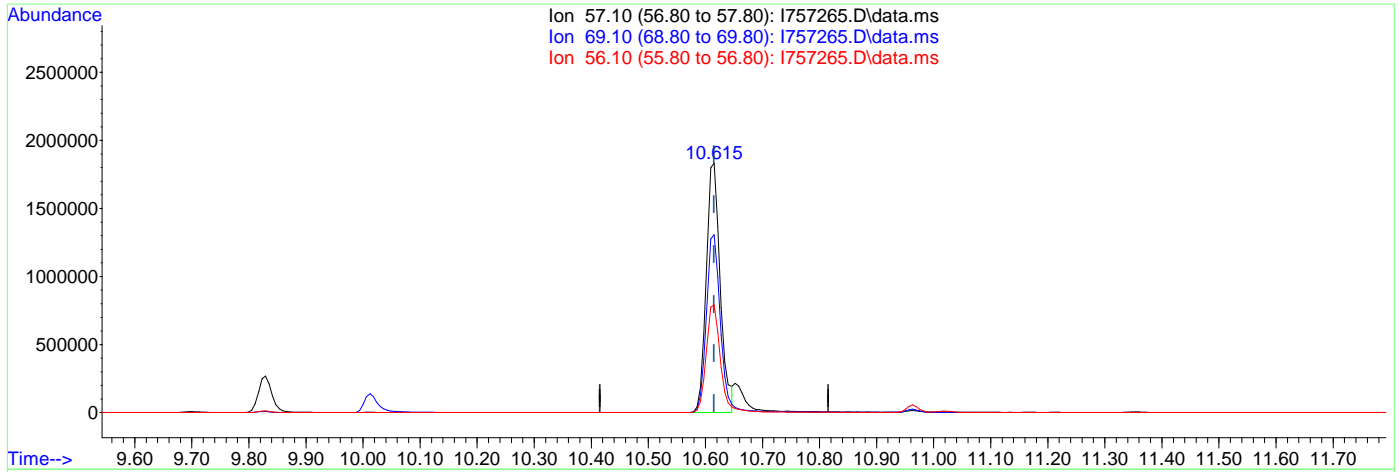
7.6.16.4

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757265.D  
 Acq On : 15 Jun 2023 12:28 pm  
 Operator : joannel  
 Sample : ICC2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 12:54:16 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (0.000) 1914.41ug/L m

response 3131387

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.17
56.10	43.50	43.16
0.00	0.00	0.00

7.6.16.5

7

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1138029	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	831988	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	503532	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	323610	49.95	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.90%	
49) 1,2-Dichloroethane-d4	7.561	65	282841	48.16	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	96.32%	
63) Toluene-d8	9.445	98	1218241	51.55	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	103.10%	
86) 4-Bromofluorobenzene	12.219	174	431197	50.70	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.40%	
Target Compounds							
2) Dichlorodifluoromethane	2.355	85	344607	113.62	ug/L	98	
3) Chloromethane	2.641	50	361058	77.95	ug/L	96	
4) Vinyl Chloride	2.769	62	353817	82.91	ug/L	100	
5) 1,3-Butadiene	2.794	39	293190	67.19	ug/L	96	
6) Bromomethane	3.233	94	128964	78.80	ug/L	97	
7) Chloroethane	3.397	64	146142	52.12	ug/L	98	
8) Trichlorofluoromethane	3.586	101	474370	80.15	ug/L	99	
9) Ethyl Ether	4.019	59	267331	73.57	ug/L	99	
10) 1,2-Dichlorotrifluoro...	4.245	67	341824	72.61	ug/L	99	
11) 1,1-Dichloroethene	4.269	61	457067	73.08	ug/L	99	
12) Ethanol	4.239	45	242106	1444.33	ug/L	96	
13) Freon 113	4.312	101	283774	76.29	ug/L	96	
14) Carbon Disulfide	4.324	76	914181	71.67	ug/L	99	
15) Iodomethane	4.458	142	224443	71.45	ug/L	95	
16) Acrolein	4.678	56	638813	402.48	ug/L	98	
17) Allyl chloride	4.848	41	423106	75.42	ug/L	99	
18) Methylene Chloride	4.976	49	437203	59.17	ug/L	97	
19) Acetone	5.025	43	1118484	356.63	ug/L	99	
20) Methyl acetate	5.171	43	2574551	387.25	ug/L	99	
21) trans-1,2-Dichloroethene	5.178	61	479133	72.89	ug/L	96	
22) Hexane	5.275	56	229392	73.12	ug/L	94	
23) Methyl Tert Butyl Ether	5.299	73	1032320	72.46	ug/L	94	
24) Tert butyl alcohol	5.409	59	1502043	726.91	ug/L	98	
25) Acetonitrile	5.562	41	850057	735.86	ug/L	99	
26) Di-isopropyl ether	5.726	45	1070915	73.04	ug/L	99	
27) Chloroprene	5.860	53	464523	81.19	ug/L	100	
28) 1,1-Dichloroethane	5.885	63	633303	72.76	ug/L	99	
29) Acrylonitrile	5.921	53	1219243	399.46	ug/L	99	
30) ETBE	6.141	59	1022168	71.28	ug/L	99	
31) Vinyl acetate	6.141	43	3548188	448.56	ug/L	100	
32) cis-1,2-Dichloroethene	6.500	96	385851	75.46	ug/L	99	
33) 2,2-Dichloropropane	6.616	77	476079	71.72	ug/L	99	
34) Bromochloromethane	6.726	128	192102	72.77	ug/L	96	
35) Cyclohexane	6.750	56	501334	73.57	ug/L	99	
36) Chloroform	6.787	83	650004	71.90	ug/L	98	
37) Ethyl acetate	6.885	43	2921852m	386.54	ug/L		
38) Tetrahydrofuran	6.982	42	261201	68.70	ug/L	96	
40) Carbon Tetrachloride	6.970	117	464975	69.93	ug/L	99	
41) 1,1,1-Trichloroethane	7.037	97	542706	72.10	ug/L	99	
42) 2-Butanone	7.098	43	1843738	427.76	ug/L	100	
43) 1,1-Dichloropropene	7.171	75	434784	73.09	ug/L	98	
44) tert-Butyl Formate	7.256	59	1403769	374.74	ug/L	99	

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	1154960	816.26	ug/L	83
46) Methacrylonitrile	7.439	41	3182848	767.43	ug/L	99
47) Benzene	7.427	78	1297518	71.47	ug/L	89
48) TAME	7.525	73	981413	70.64	ug/L	98
50) Isobutyl alcohol	7.604	42	631882	1599.05	ug/L	98
51) 1,2-Dichloroethane	7.634	62	450262	71.34	ug/L	99
52) Tert Amyl Alcohol	7.708	59	1260145	735.96	ug/L	99
53) Trichloroethene	8.043	95	360443	72.20	ug/L	99
54) Methylcyclohexane	8.049	83	459897	73.96	ug/L	99
55) Dibromomethane	8.476	93	238778	72.66	ug/L	98
56) 1,2-Dichloropropane	8.561	63	345024	73.78	ug/L	99
57) Bromodichloromethane	8.622	83	485805	73.05	ug/L	96
58) Methyl methacrylate	8.738	41	408012	87.65	ug/L	99
59) 1,4-Dioxane	8.829	88	229753	1577.92	ug/L	98
60) 2-Chloroethyl vinyl ether	9.152	63	1097713	439.90	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	558566	76.23	ug/L	98
64) Toluene	9.500	91	1432135	72.67	ug/L	100
65) 2-Nitropropane	9.695	41	745934	340.64	ug/L	96
66) 4-Methyl-2-pentanone	9.829	43	3107190	393.66	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	507733	78.83	ug/L	96
68) Tetrachloroethene	9.908	166	433434	73.12	ug/L	97
69) Ethyl methacrylate	10.012	69	474305	87.33	ug/L	98
70) 1,1,2-Trichloroethane	10.055	83	290597	72.06	ug/L	96
71) Dibromochloromethane	10.256	129	421938	73.81	ug/L	99
72) 1,3-Dichloropropane	10.335	76	535153	76.73	ug/L	98
73) 1,2-Dibromoethane	10.512	107	392246	75.79	ug/L	99
74) 3,3-dimethyl-1-butanol	10.615	57	6151707m	3861.90	ug/L	
75) 2-hexanone	10.652	43	2524363	415.92	ug/L	99
76) 1-Chlorohexane	10.963	91	402985	72.95	ug/L	99
77) Ethylbenzene	11.024	91	1523886	73.43	ug/L	100
78) Chlorobenzene	11.024	112	934436	71.54	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	368005	72.08	ug/L	99
80) m,p-Xylene	11.164	91	2364447	148.80	ug/L	99
81) o-Xylene	11.603	91	1249153	73.32	ug/L	100
82) Styrene	11.652	104	932212	79.49	ug/L	98
83) Bromoform	11.707	173	368661	74.49	ug/L	97
84) Isopropylbenzene	11.908	105	1460080	73.28	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.255	53	149492	98.16	ug/L	97
88) n-Propylbenzene	12.329	91	1669815	73.99	ug/L	99
89) Bromobenzene	12.347	156	432978	73.14	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.390	83	580080	70.54	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	1201076	73.30	ug/L	100
92) 2-Chlorotoluene	12.518	91	1130642	73.15	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.566	53	159386	88.56	ug/L	91
94) 1,2,3-Trichloropropane	12.542	110	186108	75.06	ug/L	96
95) Cyclohexanone	12.609	55	202566	395.60	ug/L	96
96) 4-Chlorotoluene	12.682	91	1045465	73.14	ug/L	98
97) tert-Butylbenzene	12.853	91	630556	72.19	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	1194761	74.14	ug/L	100
99) Pentachloroethane	12.902	167	260072	77.53	ug/L	98
100) sec-Butylbenzene	13.036	105	1362107	71.76	ug/L	99
101) 4-Isopropyltoluene	13.170	119	1205156	73.25	ug/L	99
102) 1,3-Dichlorobenzene	13.298	146	759677	74.01	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	1231796	73.03	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	780749	70.59	ug/L	99
105) n-Butylbenzene	13.615	92	613352	75.08	ug/L	90
106) Benzyl Chloride	13.621	126	229224	80.76	ug/L #	59
107) 1,2-Dichlorobenzene	13.822	146	738521	73.54	ug/L	99



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

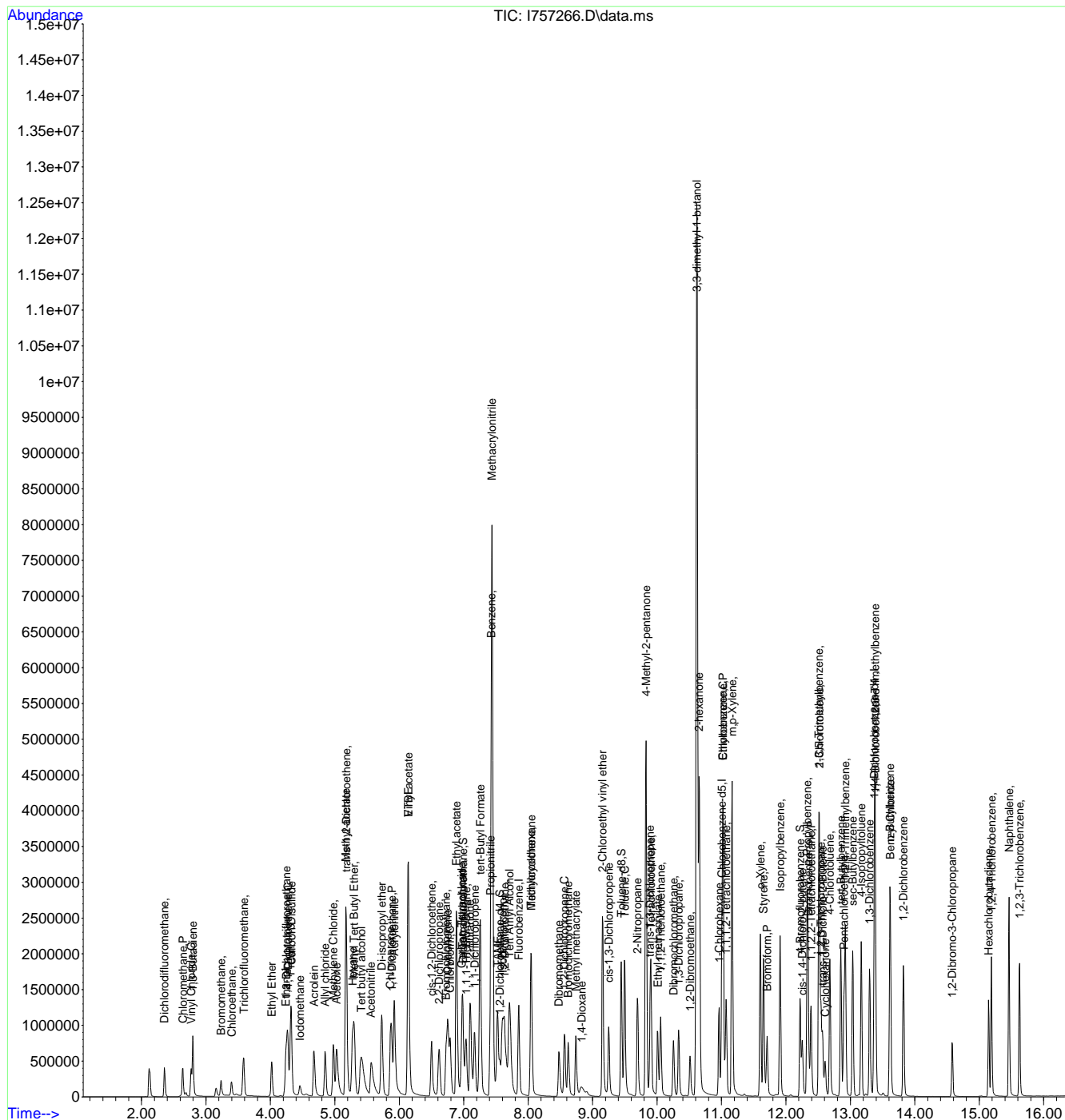
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	161309	74.44	ug/L	98
109) Hexachlorobutadiene	15.145	225	235828	67.74	ug/L	98
110) 1,2,4-Trichlorobenzene	15.188	180	562734	75.05	ug/L	98
111) Naphthalene	15.462	128	1810859	77.51	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	547047	72.74	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
Data File : I757266.D  
Acq On : 15 Jun 2023 12:52 pm  
Operator : joannel  
Sample : IC2948-6  
Misc : MS54130,VI2948,,,,,  
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:09:25 2023  
Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
Quant Title : SW-846 Method 5035A/8260B  
QLast Update : Thu Jun 15 12:25:15 2023  
Response via : Initial Calibration



7.6.17  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948  
**Lab FileID:** I757266.D  
**Injection Time:** 06/15/23 12:52

**Method:** SW846 8260D  
**Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

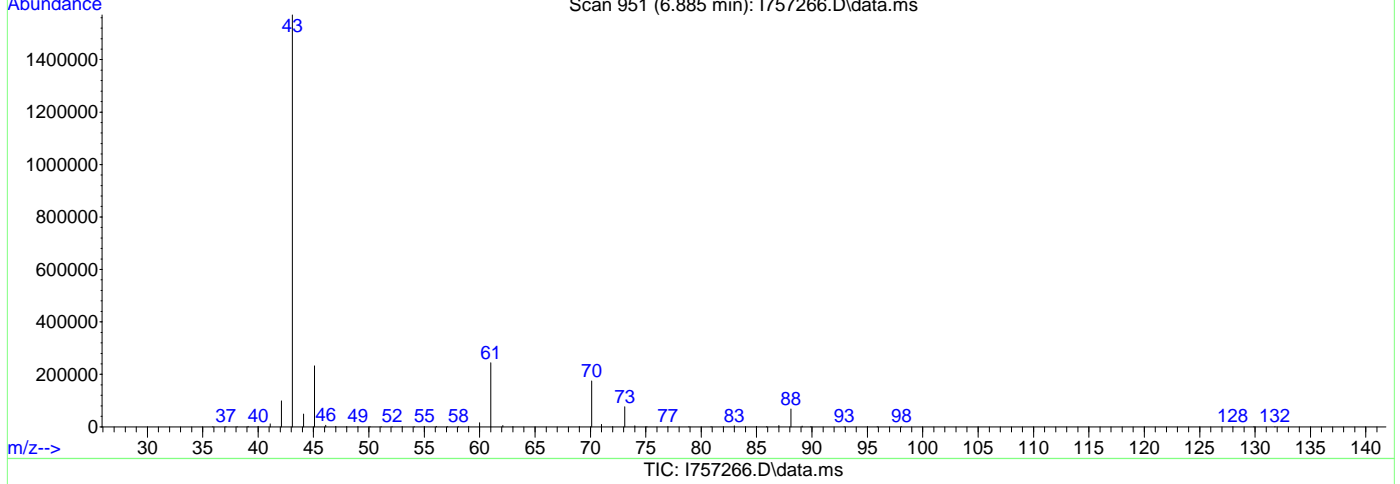
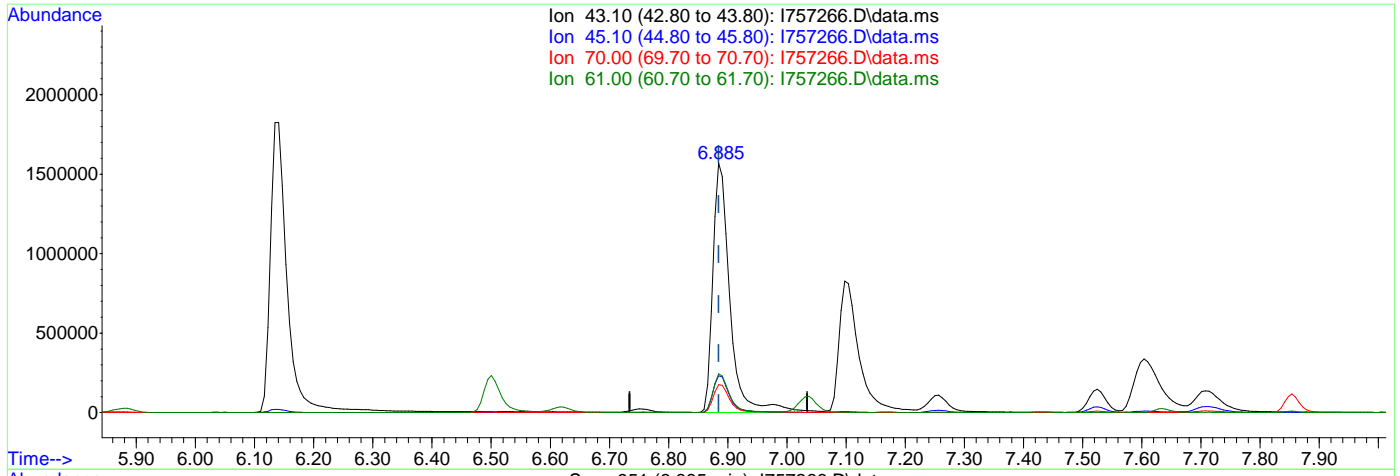
7.6.17.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.885min (+0.000) 411.74ug/L

response 3112331

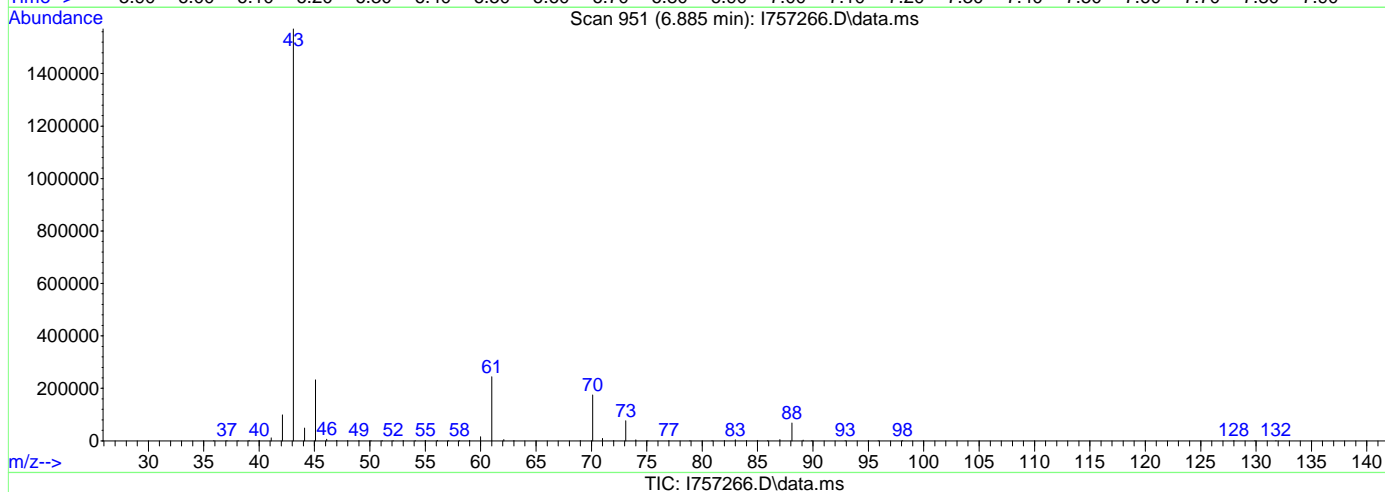
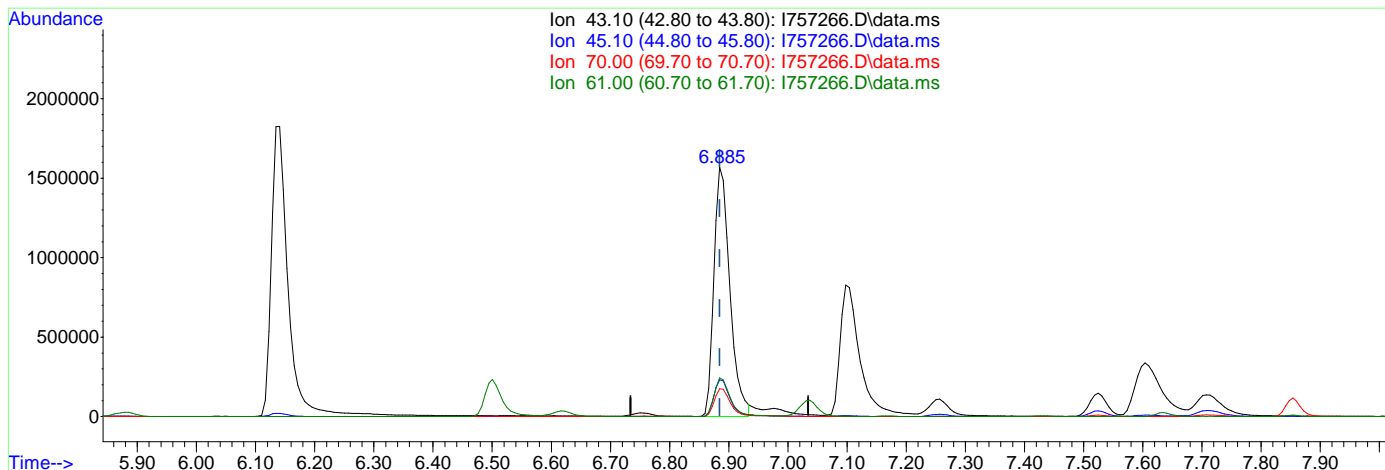
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.81
70.00	11.10	11.13
61.00	15.10	15.52

7.6.17.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.000) 386.54ug/L m

response 2921852

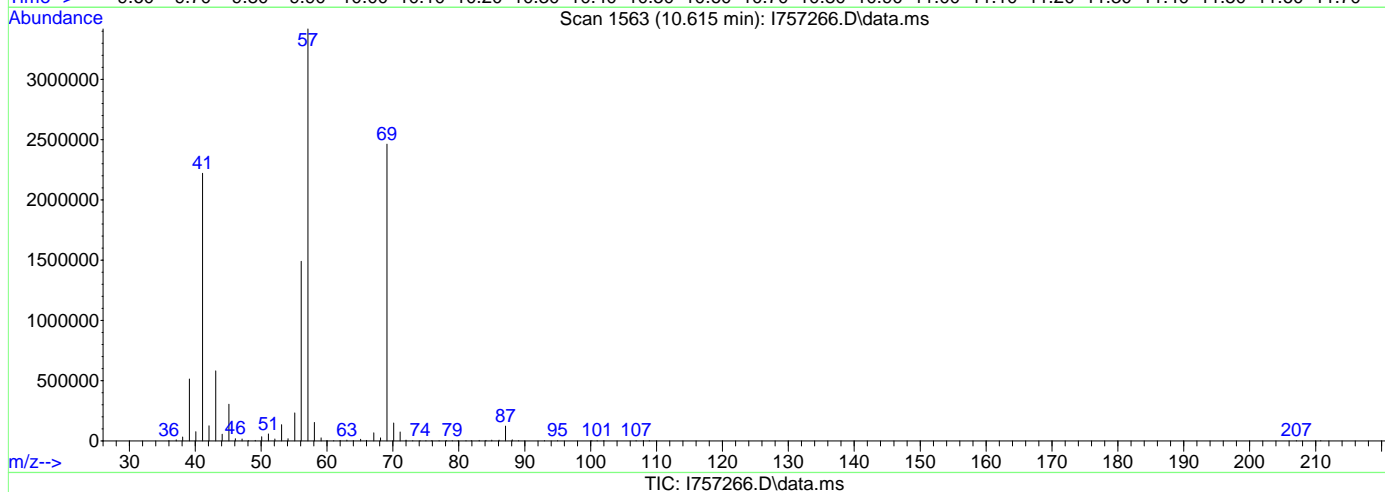
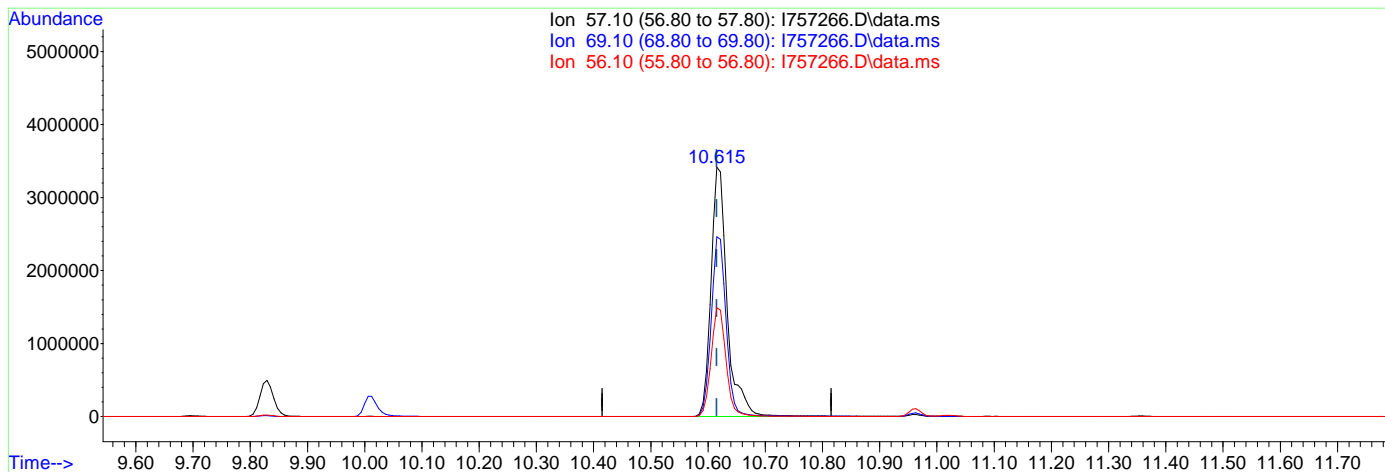
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.79
70.00	11.10	11.11
61.00	15.10	15.53

7.6.17.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (+0.000) 4231.25ug/L

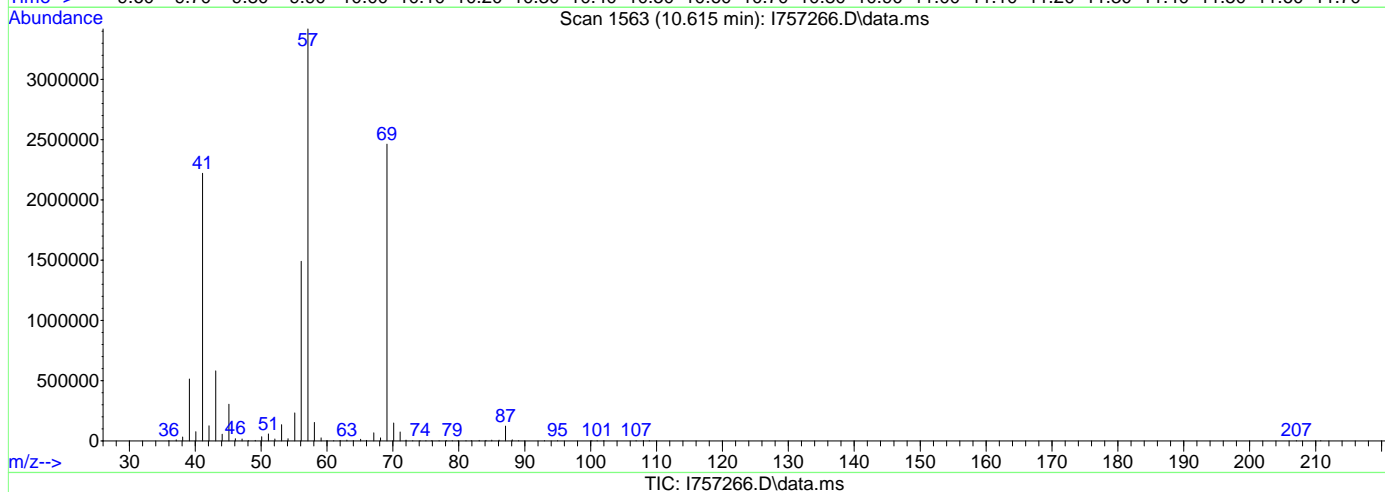
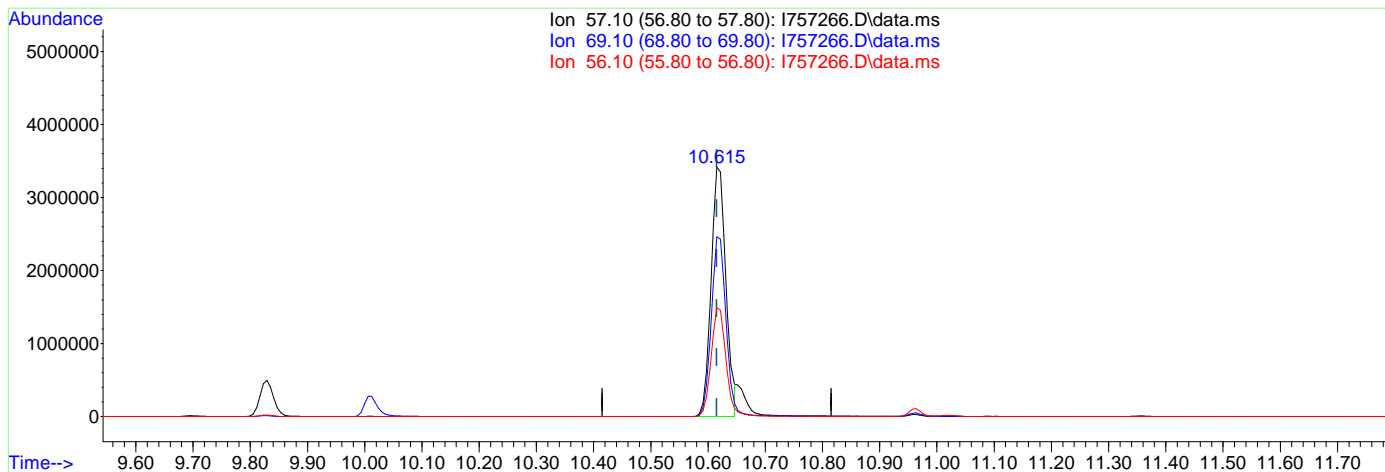
response 6740063

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	71.99
56.10	43.50	43.60
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757266.D  
 Acq On : 15 Jun 2023 12:52 pm  
 Operator : joannel  
 Sample : IC2948-6  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 13:08:46 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.615min (+0.000) 3861.90ug/L m

response 6151707

Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.00
56.10	43.50	43.61
0.00	0.00	0.00

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1163059	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	862083	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	537542	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	336095	50.76	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.52%	
49) 1,2-Dichloroethane-d4	7.561	65	301448	50.22	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	100.44%	
63) Toluene-d8	9.445	98	1250824	51.08	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.16%	
86) 4-Bromofluorobenzene	12.219	174	452518	49.84	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.68%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.355	85	529244	170.75	ug/L		98
3) Chloromethane	2.635	50	521828	110.23	ug/L		97
4) Vinyl Chloride	2.769	62	529502	121.41	ug/L		97
5) 1,3-Butadiene	2.794	39	429214	96.24	ug/L		97
6) Bromomethane	3.233	94	179016	107.03	ug/L		99
7) Chloroethane	3.397	64	208208	72.66	ug/L		97
8) Trichlorofluoromethane	3.574	101	697463	115.31	ug/L		98
9) Ethyl Ether	4.019	59	379472	102.18	ug/L		98
10) 1,2-Dichlorotrifluoro...	4.239	67	507581	105.49	ug/L		98
11) 1,1-Dichloroethene	4.263	61	679956	106.37	ug/L		99
12) Ethanol	4.263	45	313130	1827.84	ug/L		98
13) Freon 113	4.306	101	442236	116.33	ug/L		99
14) Carbon Disulfide	4.318	76	1357153	104.11	ug/L		99
15) Iodomethane	4.458	142	287045	89.41	ug/L		97
16) Acrolein	4.678	56	899828	554.73	ug/L		99
17) Allyl chloride	4.848	41	596205	103.99	ug/L		98
18) Methylene Chloride	4.976	49	605660	80.21	ug/L		95
19) Acetone	5.031	43	1548512	483.12	ug/L		100
20) Methyl acetate	5.171	43	3562244	524.29	ug/L		99
21) trans-1,2-Dichloroethene	5.177	61	692478	103.08	ug/L		99
22) Hexane	5.269	56	343966	107.27	ug/L		84
23) Methyl Tert Butyl Ether	5.299	73	1461102	100.36	ug/L		88
24) Tert butyl alcohol	5.421	59	2052291	971.82	ug/L		99
25) Acetonitrile	5.568	41	1096962	929.16	ug/L		99
26) Di-isopropyl ether	5.726	45	1506731	100.56	ug/L		100
27) Chloroprene	5.860	53	699682	119.66	ug/L		99
28) 1,1-Dichloroethane	5.879	63	895568	100.68	ug/L		99
29) Acrylonitrile	5.921	53	1704371	546.38	ug/L		100
30) ETBE	6.141	59	1442194	98.41	ug/L		100
31) Vinyl acetate	6.135	43	5016217	620.50	ug/L		100
32) cis-1,2-Dichloroethene	6.500	96	549435	105.15	ug/L		99
33) 2,2-Dichloropropane	6.616	77	692469	102.07	ug/L		98
34) Bromochloromethane	6.726	128	270176	100.14	ug/L		95
35) Cyclohexane	6.750	56	772375	110.91	ug/L		99
36) Chloroform	6.787	83	923907	100.00	ug/L		99
37) Ethyl acetate	6.884	43	4168769m	539.63	ug/L		
38) Tetrahydrofuran	6.982	42	364903	93.91	ug/L		98
40) Carbon Tetrachloride	6.970	117	704052	103.61	ug/L		97
41) 1,1,1-Trichloroethane	7.037	97	798981	103.86	ug/L		99
42) 2-Butanone	7.104	43	2643762	600.17	ug/L		98
43) 1,1-Dichloropropene	7.165	75	640799	105.40	ug/L		98
44) tert-Butyl Formate	7.256	59	1988701	519.47	ug/L		98



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.415	54	1624190	1123.18	ug/L	78
46) Methacrylonitrile	7.439	41	4480633	1057.09	ug/L	99
47) Benzene	7.427	78	1855895	100.03	ug/L	83
48) TAME	7.525	73	1380755	97.25	ug/L	98
50) Isobutyl alcohol	7.616	42	994842	2463.39	ug/L	99
51) 1,2-Dichloroethane	7.634	62	637209	98.79	ug/L	98
52) Tert Amyl Alcohol	7.720	59	1795079	1025.82	ug/L	98
53) Trichloroethene	8.043	95	526130	103.13	ug/L	99
54) Methylcyclohexane	8.049	83	704034	110.79	ug/L	99
55) Dibromomethane	8.476	93	344287	102.51	ug/L	98
56) 1,2-Dichloropropane	8.561	63	488359	102.19	ug/L	98
57) Bromodichloromethane	8.622	83	694118	102.13	ug/L	96
58) Methyl methacrylate	8.738	41	585103	122.99	ug/L	98
59) 1,4-Dioxane	8.835	88	318290	2138.94	ug/L	97
60) 2-Chloroethyl vinyl ether	9.158	63	1534053	601.53	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	791682	105.72	ug/L	98
64) Toluene	9.494	91	2040123	99.91	ug/L	100
65) 2-Nitropropane	9.695	41	1066697	470.12	ug/L	96
66) 4-Methyl-2-pentanone	9.829	43	4346515	531.45	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	723714	108.44	ug/L	96
68) Tetrachloroethene	9.908	166	632507	102.98	ug/L	97
69) Ethyl methacrylate	10.012	69	672212	119.45	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	405035	96.93	ug/L	95
71) Dibromochloromethane	10.256	129	599260	101.17	ug/L	99
72) 1,3-Dichloropropane	10.335	76	750447	103.85	ug/L	98
73) 1,2-Dibromoethane	10.512	107	557752	104.00	ug/L	99
74) 3,3-dimethyl-1-butanol	10.621	57	8540539m	5174.38	ug/L	
75) 2-hexanone	10.658	43	3631290	577.41	ug/L	98
76) 1-Chlorohexane	10.963	91	601700	105.12	ug/L	97
77) Ethylbenzene	11.024	91	2172652	101.03	ug/L	99
78) Chlorobenzene	11.024	112	1324499	97.86	ug/L	100
79) 1,1,1,2-Tetrachloroethane	11.073	131	521794	98.64	ug/L	98
80) m,p-Xylene	11.164	91	3396714	206.30	ug/L	100
81) o-Xylene	11.603	91	1777938	100.71	ug/L	100
82) Styrene	11.652	104	1329647	109.43	ug/L	98
83) Bromoform	11.707	173	521805	101.76	ug/L	98
84) Isopropylbenzene	11.908	105	2104671	101.94	ug/L	100
87) cis-1,4-Dichloro-2-butene	12.255	53	218859	134.62	ug/L	95
88) n-Propylbenzene	12.328	91	2418127	100.37	ug/L	99
89) Bromobenzene	12.347	156	612493	96.92	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.389	83	810755	92.36	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	1714728	98.02	ug/L	98
92) 2-Chlorotoluene	12.517	91	1601779	97.08	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.566	53	230459	119.94	ug/L	88
94) 1,2,3-Trimethylpropane	12.542	110	257532	97.30	ug/L	96
95) Cyclohexanone	12.609	55	285786	522.81	ug/L	96
96) 4-Chlorotoluene	12.682	91	1488036	97.52	ug/L	99
97) tert-Butylbenzene	12.853	91	920114	98.67	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	1691330	98.32	ug/L	99
99) Pentachloroethane	12.902	167	370930	103.58	ug/L	100
100) sec-Butylbenzene	13.036	105	1984570	97.93	ug/L	99
101) 4-Isopropyltoluene	13.170	119	1745979	99.41	ug/L	100
102) 1,3-Dichlorobenzene	13.298	146	1088227	99.31	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	1727276	95.92	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	1096065	92.83	ug/L	99
105) n-Butylbenzene	13.615	92	895028	102.63	ug/L	92
106) Benzyl Chloride	13.621	126	320426	105.75	ug/L #	57
107) 1,2-Dichlorobenzene	13.822	146	1039729	96.98	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration

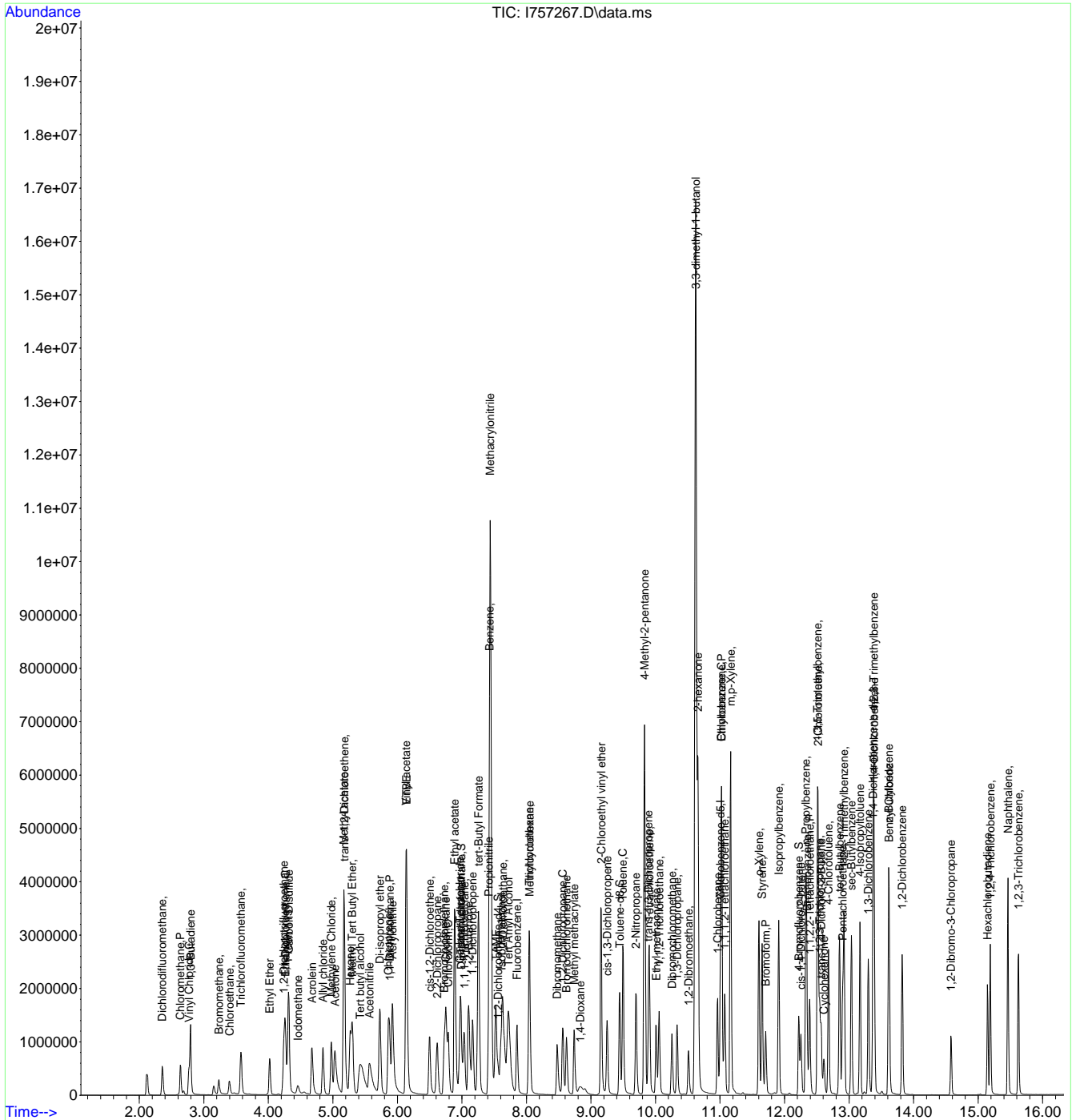
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	230974	99.84	ug/L	98
109) Hexachlorobutadiene	15.145	225	362352	97.50	ug/L	99
110) 1,2,4-Trichlorobenzene	15.188	180	788632	98.53	ug/L	98
111) Naphthalene	15.462	128	2534672	101.63	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	773226	96.31	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:35:50 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



7  
 618

# Manual Integration Approval Summary

**Sample Number:** VI2948-IC2948      **Method:** SW846 8260D  
**Lab FileID:** I757267.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 13:15      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

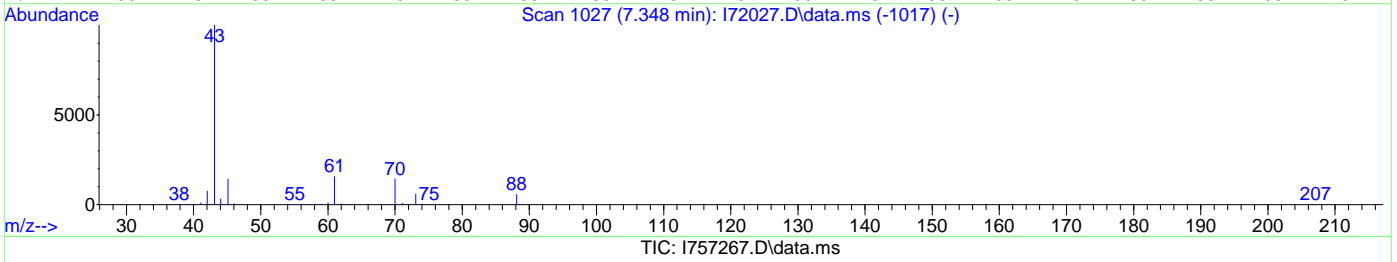
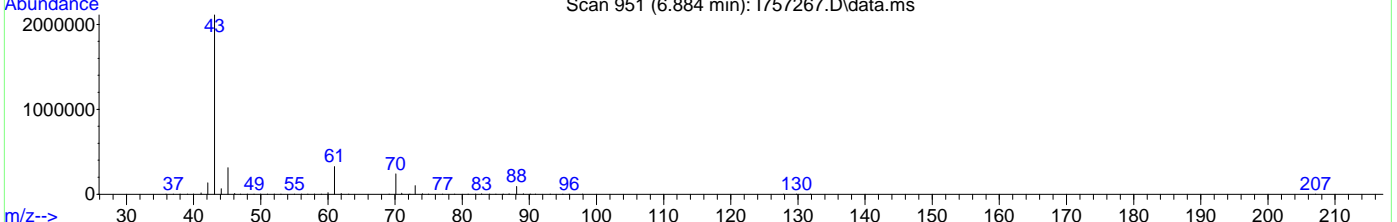
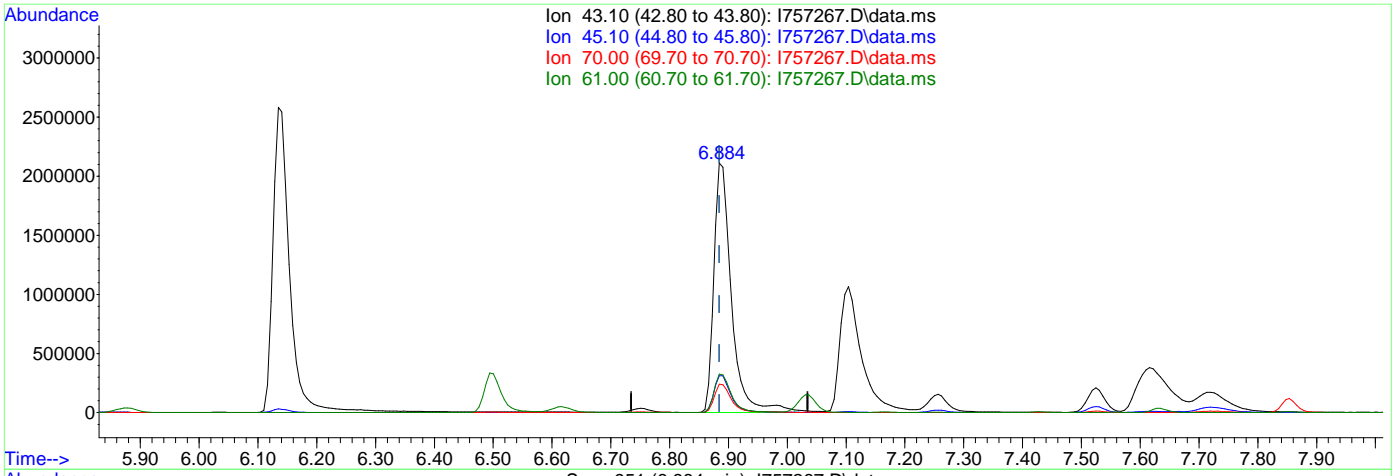
7.6.18.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 567.17ug/L

response 4381496

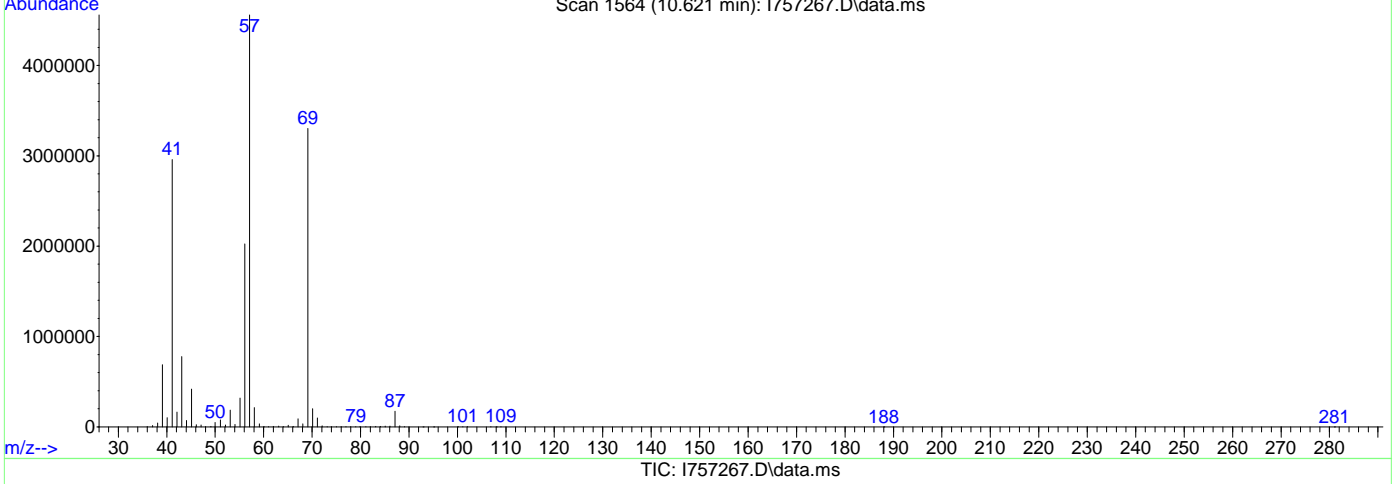
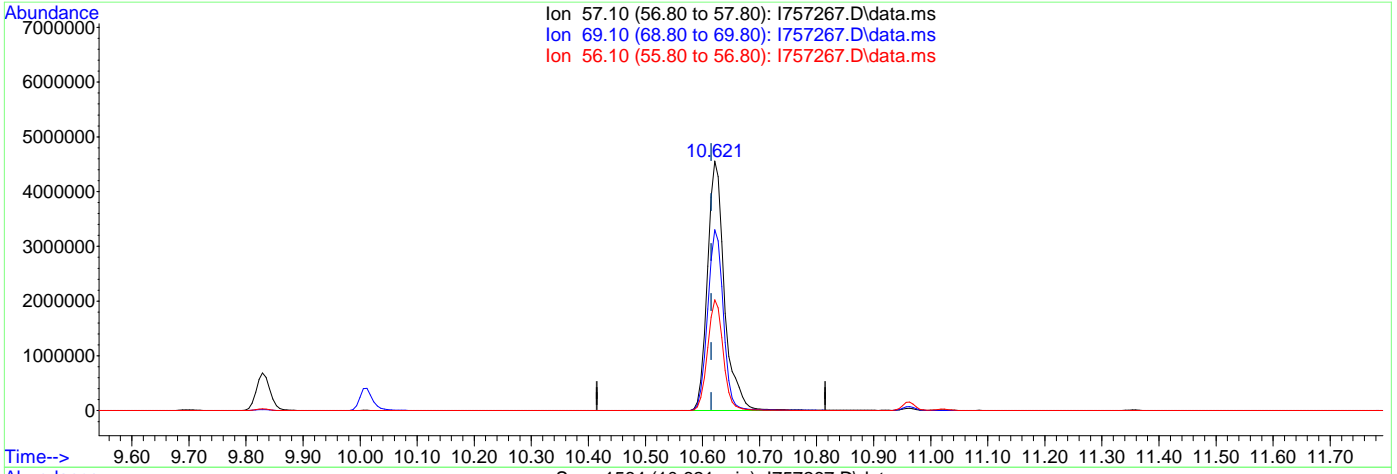
Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.79
70.00	11.10	11.35
61.00	15.10	15.37

7.6.18.2  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.621min (+0.006) 5734.20ug/L

response 9464543

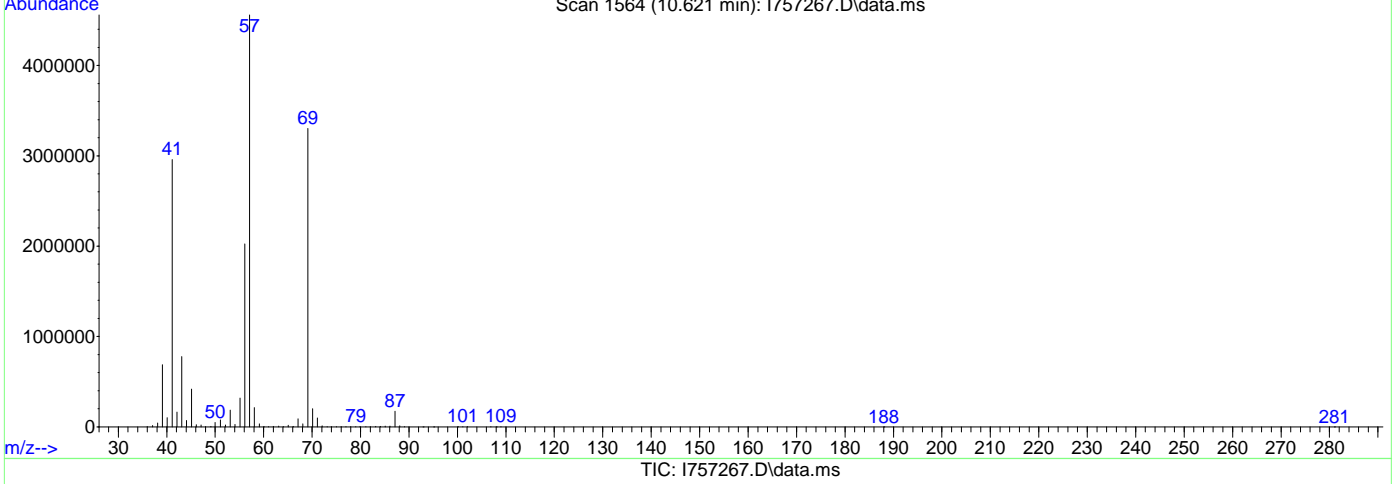
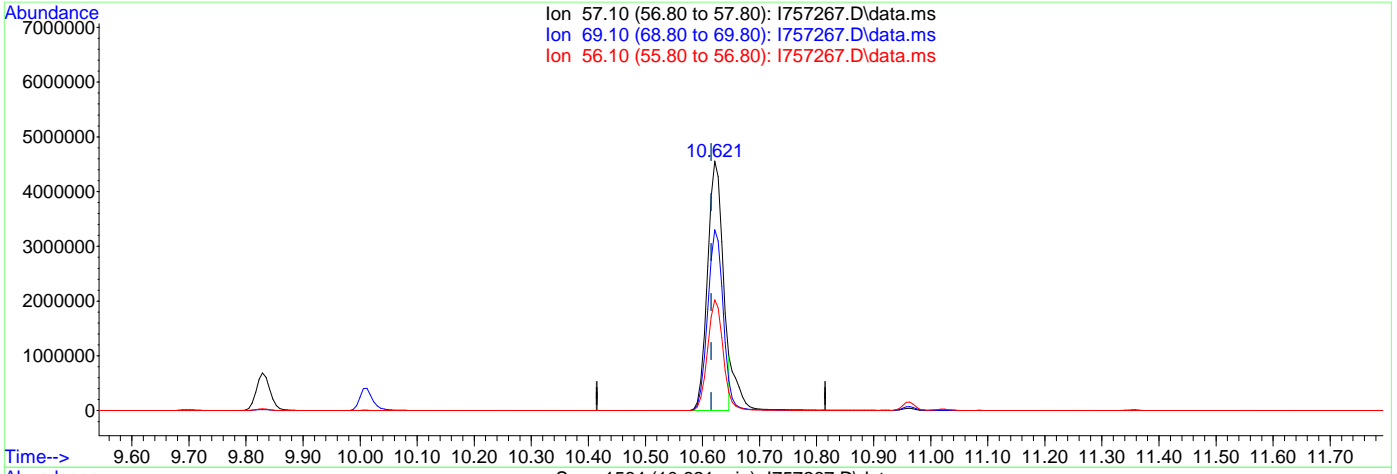
Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.40
56.10	43.50	44.37
0.00	0.00	0.00

7.6.18.3  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:32:31 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.621min (+0.006) 5174.38ug/L m

response 8540539

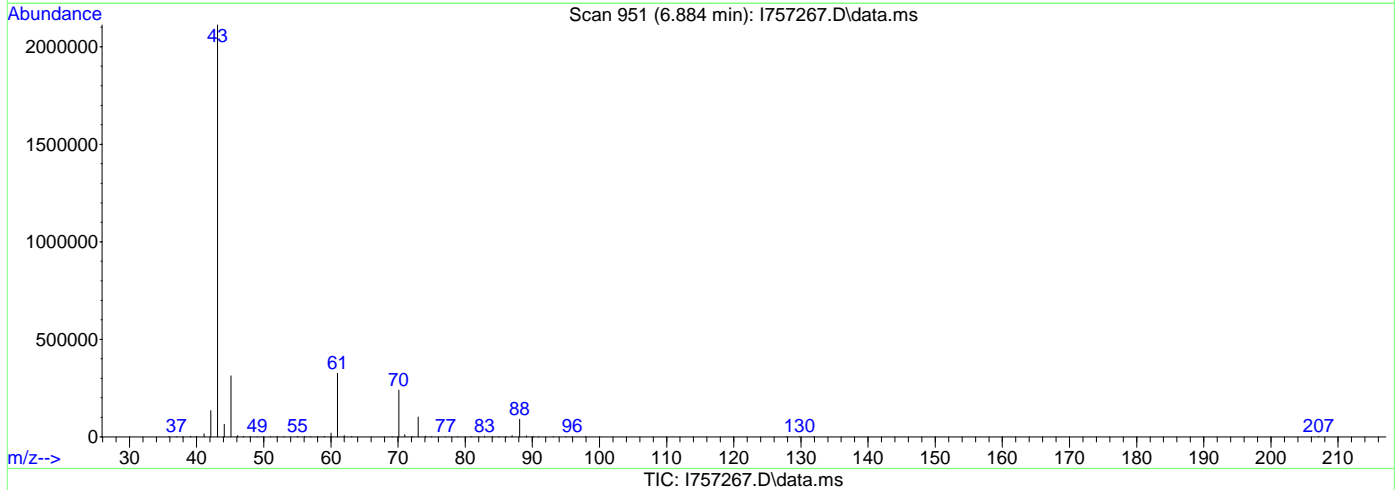
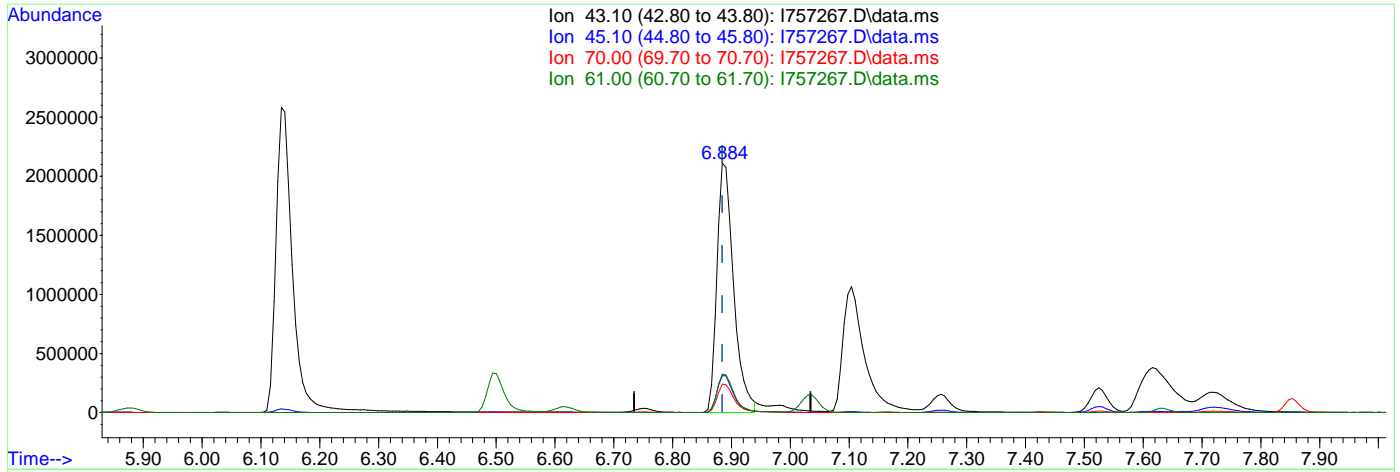
Ion	Exp%	Act%
57.10	100	100
69.10	72.40	72.40
56.10	43.50	44.37
0.00	0.00	0.00

7.6.18.4  
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757267.D  
 Acq On : 15 Jun 2023 1:15 pm  
 Operator : joannel  
 Sample : IC2948-7  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 13:34:19 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 12:25:15 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.884min (-0.000) 539.63ug/L m

response 4168769

Ion	Exp%	Act%
43.10	100	100
45.10	14.90	14.78
70.00	11.10	11.35
61.00	15.10	15.40

7.6.18.5

7



## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	1167572	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	863763	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	536859	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	338967	51.15	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	102.30%	
49) 1,2-Dichloroethane-d4	7.561	65	299738	49.74	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	99.48%	
63) Toluene-d8	9.445	98	1241290	50.39	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	100.78%	
86) 4-Bromofluorobenzene	12.219	174	452105	50.02	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.04%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	2.355	85	181684	35.41	ug/L	99
3) Chloromethane	2.641	50	187721	35.62	ug/L	98
4) Vinyl Chloride	2.769	62	172721	33.14	ug/L	98
6) Bromomethane	3.233	94	63922	35.86	ug/L	99
7) Chloroethane	3.397	64	71580	32.75	ug/L	99
8) Trichlorofluoromethane	3.592	101	223977	32.47	ug/L	99
9) Ethyl Ether	4.019	59	153798	42.60	ug/L	96
10) 1,2-Dichlorotrifluoro...	4.245	67	176479	36.75	ug/L	97
11) 1,1-Dichloroethene	4.275	61	216177	34.12	ug/L	99
12) Ethanol	4.208	45	132725	755.11	ug/L	90
13) Freon 113	4.318	101	140462	35.68	ug/L	98
14) Carbon Disulfide	4.330	76	429418	33.00	ug/L	100
15) Iodomethane	4.458	142	131520	41.69	ug/L	95
16) Acrolein	4.678	56	313917	185.92	ug/L	100
17) Allyl chloride	4.854	41	211809	34.77	ug/L	99
18) Methylene Chloride	4.976	49	244818	38.34	ug/L	99
19) Acetone	5.025	43	611835	194.73	ug/L	97
20) Methyl acetate	5.165	43	1300972	197.56	ug/L	99
21) trans-1,2-Dichloroethene	5.184	61	242062	36.41	ug/L	98
22) Hexane	5.275	56	115756	35.52	ug/L	98
23) Methyl Tert Butyl Ether	5.299	73	576110	41.02	ug/L	99
24) Tert butyl alcohol	5.391	59	853158	444.00	ug/L	99
25) Acetonitrile	5.562	41	503982	389.31	ug/L	100
26) Di-isopropyl ether	5.726	45	565990	38.53	ug/L	100
28) 1,1-Dichloroethane	5.885	63	316951	36.32	ug/L	99
29) Acrylonitrile	5.921	53	680139	212.48	ug/L	99
30) ETBE	6.135	59	571099	40.39	ug/L	99
31) Vinyl acetate	6.141	43	1977348	208.01	ug/L	99
32) cis-1,2-Dichloroethene	6.507	96	194512	37.09	ug/L	98
33) 2,2-Dichloropropane	6.622	77	254068	38.19	ug/L	98
34) Bromochloromethane	6.726	128	101858	37.64	ug/L	100
35) Cyclohexane	6.757	56	236994	34.41	ug/L	99
36) Chloroform	6.793	83	340867	37.45	ug/L	98
37) Ethyl acetate	6.885	43	1529328m	196.35	ug/L	
38) Tetrahydrofuran	6.982	42	142102	39.15	ug/L	99
40) Carbon Tetrachloride	6.976	117	222115	34.74	ug/L	99
41) 1,1,1-Trichloroethane	7.037	97	269977	35.85	ug/L	99
42) 2-Butanone	7.098	43	972769	199.36	ug/L	97
43) 1,1-Dichloropropene	7.171	75	218372	36.74	ug/L	96
44) tert-Butyl Formate	7.256	59	955754	261.75	ug/L	98
45) Propionitrile	7.409	54	601193	374.75	ug/L	99
46) Methacrylonitrile	7.439	41	1662190	353.39	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
47) Benzene	7.433	78	680777	37.35	ug/L	99
48) TAME	7.525	73	537529	39.26	ug/L	98
50) Isobutyl alcohol	7.592	42	328173	772.40	ug/L	99
51) 1,2-Dichloroethane	7.634	62	240861	38.04	ug/L	99
52) Tert Amyl Alcohol	7.701	59	698196	442.70	ug/L	99
53) Trichloroethene	8.043	95	181981	35.70	ug/L	99
54) Methylcyclohexane	8.049	83	209090	33.59	ug/L	97
55) Dibromomethane	8.482	93	128744	39.55	ug/L	94
56) 1,2-Dichloropropane	8.567	63	187462	39.91	ug/L	98
57) Bromodichloromethane	8.622	83	246195	38.02	ug/L	98
58) Methyl methacrylate	8.744	41	191932	36.54	ug/L	99
59) 1,4-Dioxane	8.817	88	121911	806.02	ug/L	96
60) 2-Chloroethyl vinyl ether	9.158	63	550429	188.36	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	292980	40.14	ug/L	98
64) Toluene	9.500	91	741775	37.64	ug/L	100
65) 2-Nitropropane	9.695	41	368926	193.74	ug/L	98
66) 4-Methyl-2-pentanone	9.829	43	1652533	193.45	ug/L	100
67) trans-1,3-Dichloropropene	9.896	75	250608	37.05	ug/L	92
68) Tetrachloroethene	9.908	166	215067	36.06	ug/L	97
69) Ethyl methacrylate	10.012	69	254883	39.79	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	154290	38.39	ug/L	97
71) Dibromochloromethane	10.256	129	232080	41.74	ug/L	99
72) 1,3-Dichloropropane	10.335	76	303210	43.29	ug/L	99
73) 1,2-Dibromoethane	10.512	107	210199	40.54	ug/L	98
74) 3,3-dimethyl-1-butanol	10.616	57	3275538m	2073.24	ug/L	
75) 2-hexanone	10.652	43	1355714	194.98	ug/L	100
76) 1-Chlorohexane	10.963	91	190234	34.11	ug/L	99
77) Ethylbenzene	11.024	91	782969	36.79	ug/L	99
78) Chlorobenzene	11.024	112	490186	37.64	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	194482	38.59	ug/L	98
80) m,p-Xylene	11.164	91	1226428	76.77	ug/L	100
81) o-Xylene	11.603	91	633604	36.88	ug/L	98
82) Styrene	11.658	104	482252	39.07	ug/L	99
83) Bromoform	11.707	173	192008	40.98	ug/L	99
84) Isopropylbenzene	11.908	105	737709	36.50	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	84225	43.75	ug/L	95
88) n-Propylbenzene	12.329	91	834036	35.29	ug/L	99
89) Bromobenzene	12.347	156	239619	39.54	ug/L	98
90) 1,1,2,2-Tetrachloroethane	12.390	83	317412	38.42	ug/L	99
91) 1,3,5-Trimethylbenzene	12.511	105	627879	37.07	ug/L	99
92) 2-Chlorotoluene	12.518	91	604554	37.50	ug/L	99
93) trans-1,4-Dichloro-2-B...	12.572	53	79856	36.75	ug/L	83
94) 1,2,3-Trichloropropane	12.548	110	109631	42.92	ug/L	96
95) Cyclohexanone	12.609	55	140395	245.94	ug/L	96
96) 4-Chlorotoluene	12.682	91	540789	37.27	ug/L	100
97) tert-Butylbenzene	12.853	91	316053	35.11	ug/L	99
98) 1,2,4-Trimethylbenzene	12.926	105	624952	37.46	ug/L	98
99) Pentachloroethane	12.902	167	128027	34.56	ug/L	99
100) sec-Butylbenzene	13.036	105	646080	33.78	ug/L	99
101) 4-Isopropyltoluene	13.170	119	594660	35.25	ug/L	100
102) 1,3-Dichlorobenzene	13.304	146	394162	37.75	ug/L	99
103) 1,2,3-Trimethylbenzene	13.383	105	658021	37.65	ug/L	99
104) 1,4-Dichlorobenzene	13.389	146	415811	37.05	ug/L	99
105) n-Butylbenzene	13.615	92	318989	38.45	ug/L	99
106) Benzyl Chloride	13.627	126	120327	40.14	ug/L	94
107) 1,2-Dichlorobenzene	13.828	146	392215	38.33	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	89508	42.87	ug/L	97
109) Hexachlorobutadiene	15.145	225	118606	34.21	ug/L	99

## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

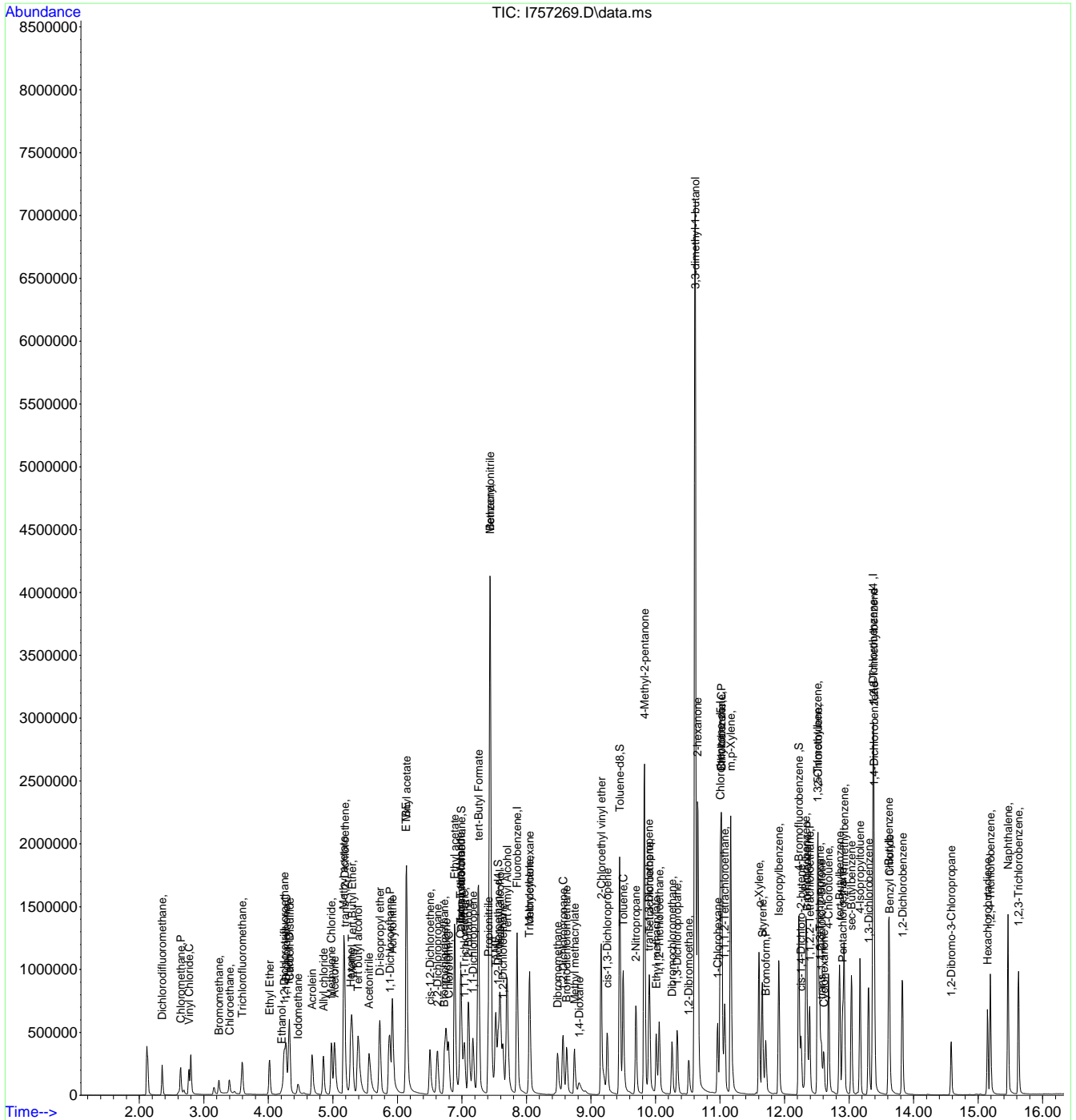
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) 1,2,4-Trichlorobenzene	15.188	180	296723	39.25	ug/L	99
111) Naphthalene	15.462	128	955180	40.40	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	295060	39.13	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:49:00 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.19  
7

# Manual Integration Approval Summary

**Sample Number:** VI2948-ICV2948      **Method:** SW846 8260D  
**Lab FileID:** I757269.D      **Analyst approved:** 06/15/23 14:57 Jo-Ann Lugo De Jesus  
**Injection Time:** 06/15/23 14:04      **Supervisor approved:** 06/16/23 08:50 Neil Christiana

Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Acetate	141-78-6		6.88	Poor instrument integration
3,3-Dimethyl-1-Butanol	624-95-3		10.62	Overlapping peak

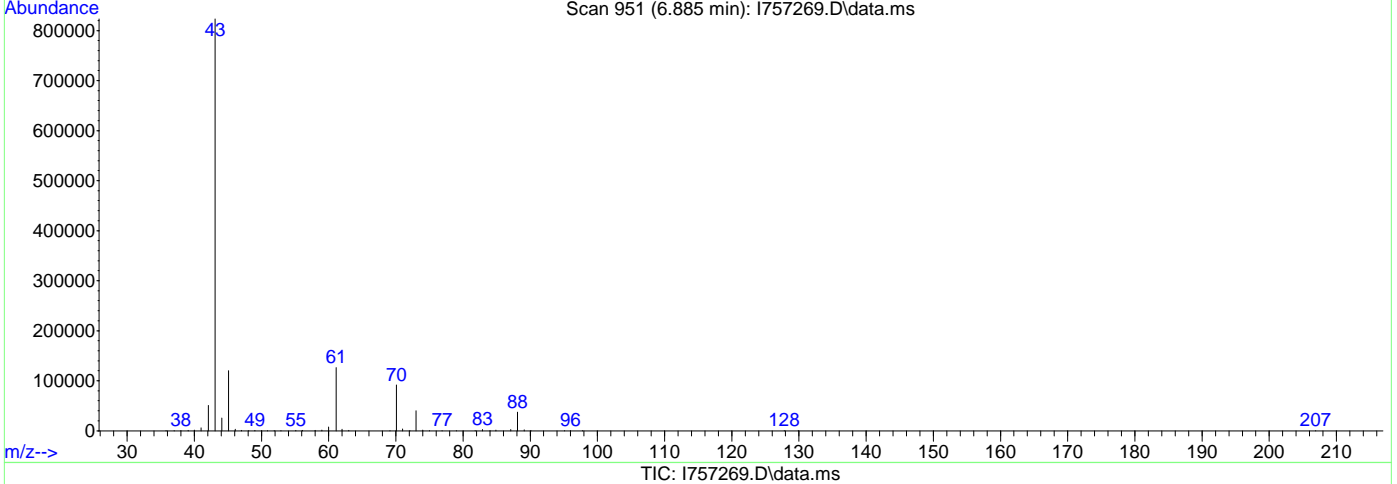
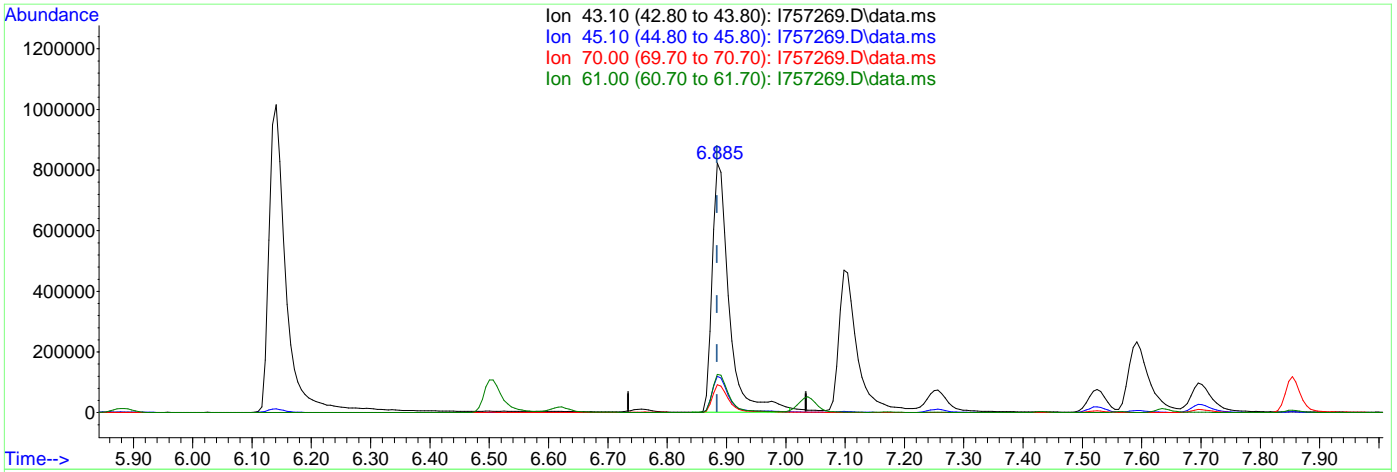
7.6.19.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(37) Ethyl acetate  
 6.885min (+0.001) 208.54ug/L

response 1630659

Ion	Exp%	Act%
43.10	100	100
45.10	15.00	14.60
70.00	10.90	11.11
61.00	15.40	15.32

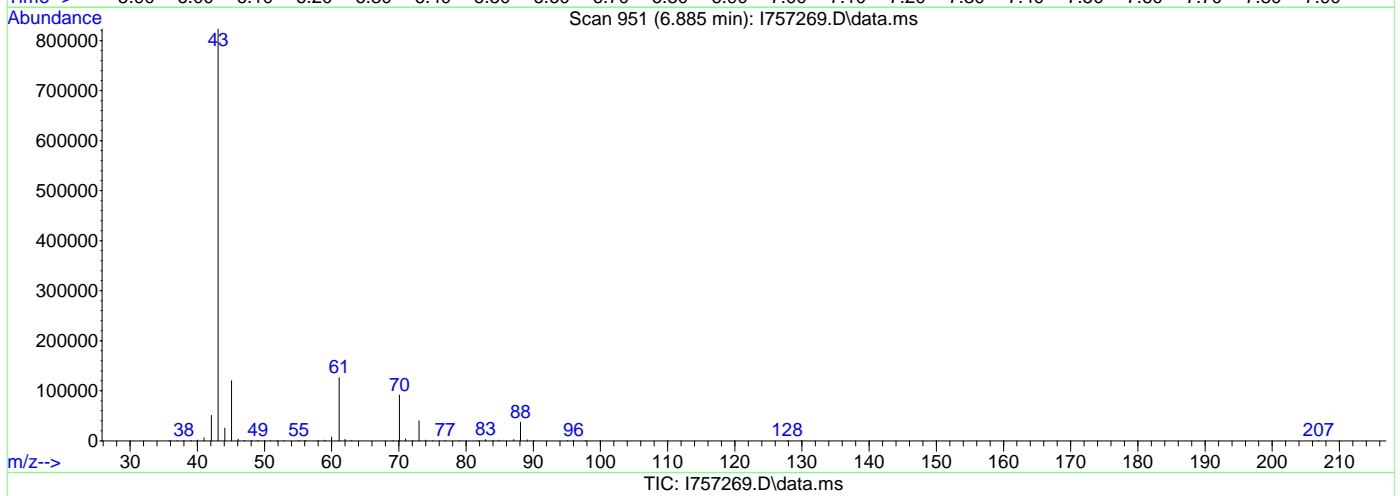
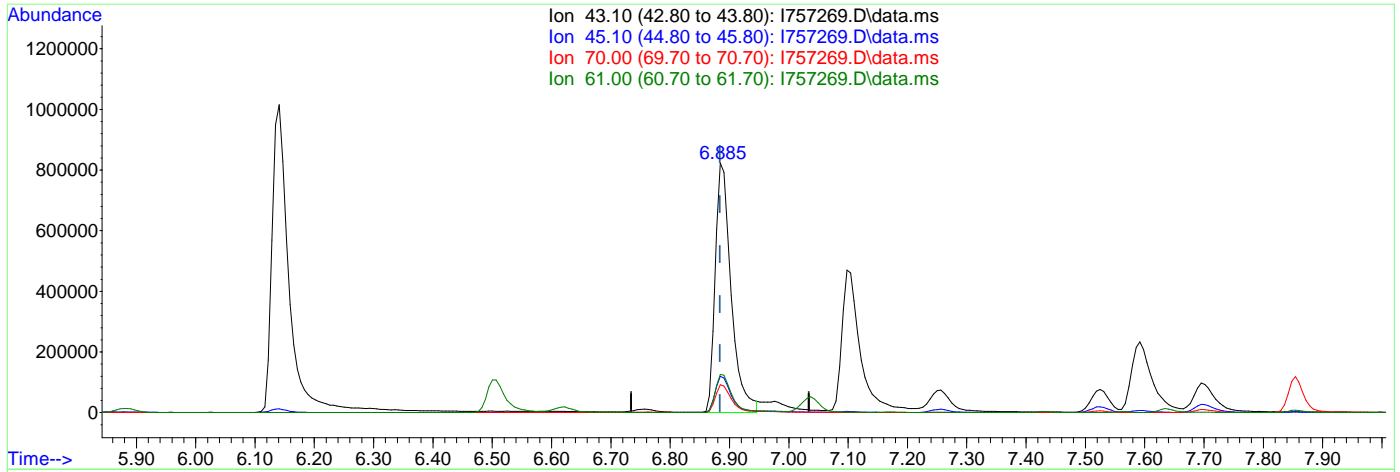
7.6.19.2

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(37) Ethyl acetate

6.885min (+0.001) 196.35ug/L m

response 1529328

Ion	Exp%	Act%
43.10	100	100
45.10	15.00	14.58
70.00	10.90	11.11
61.00	15.40	15.33

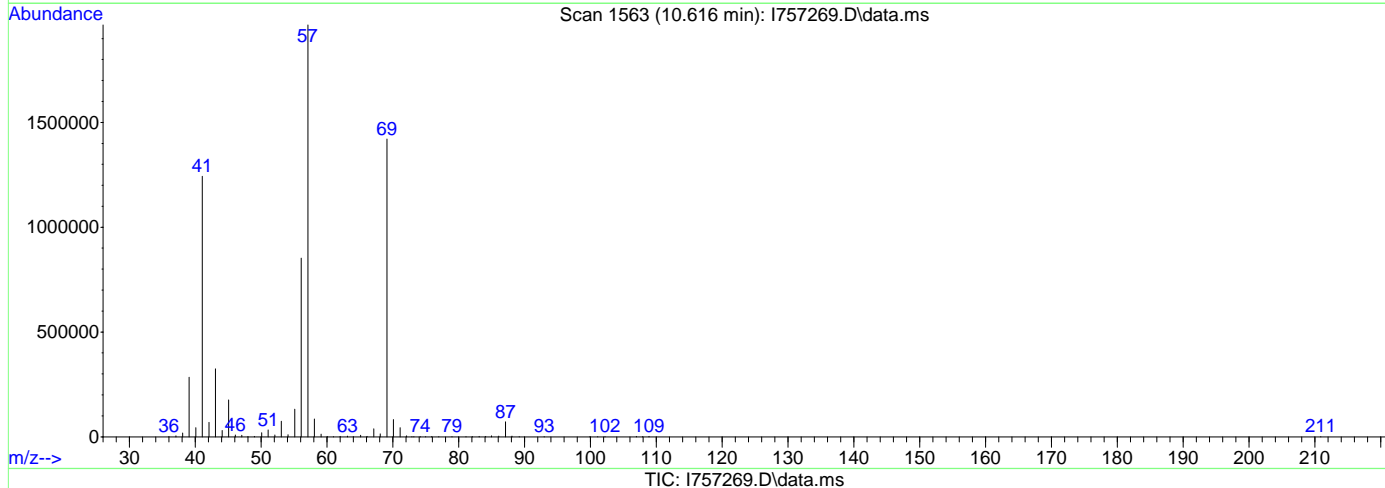
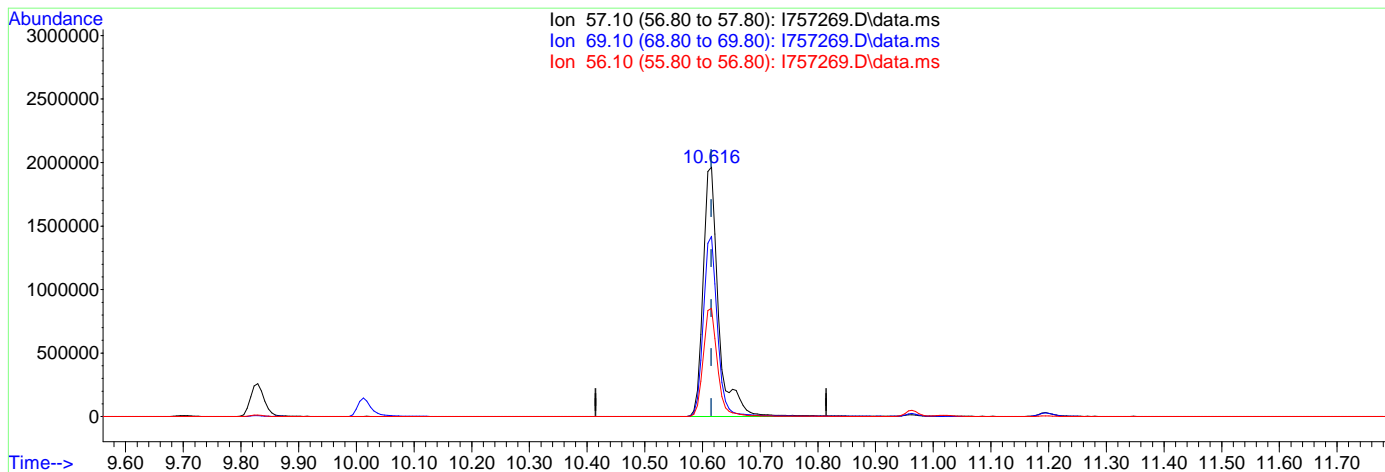
7.6.19.3

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.616min (+0.001) 2309.74ug/L

response 3686923

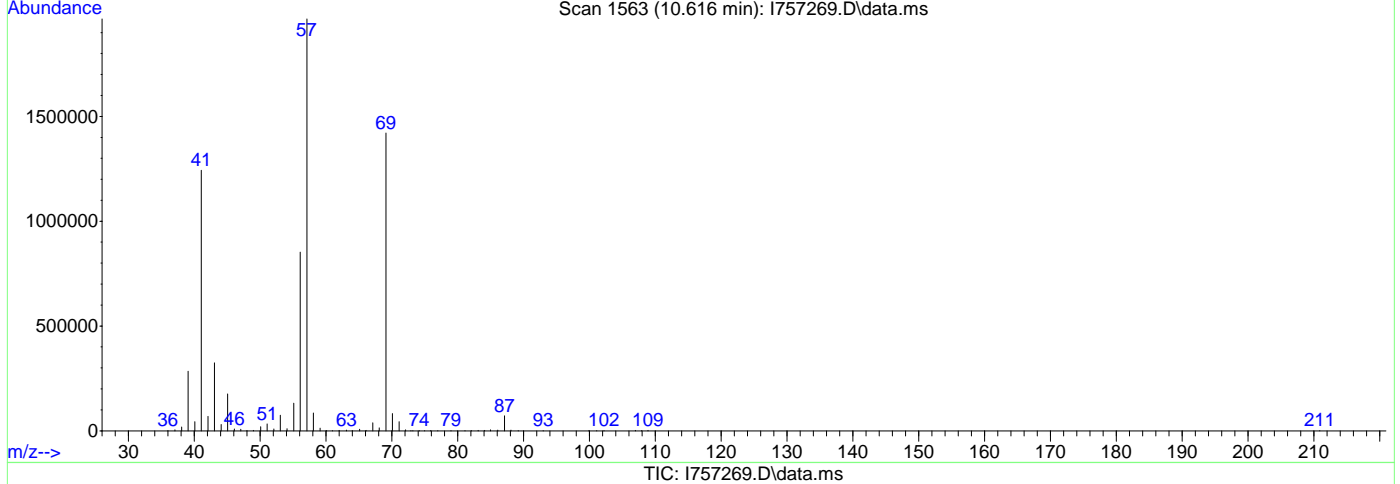
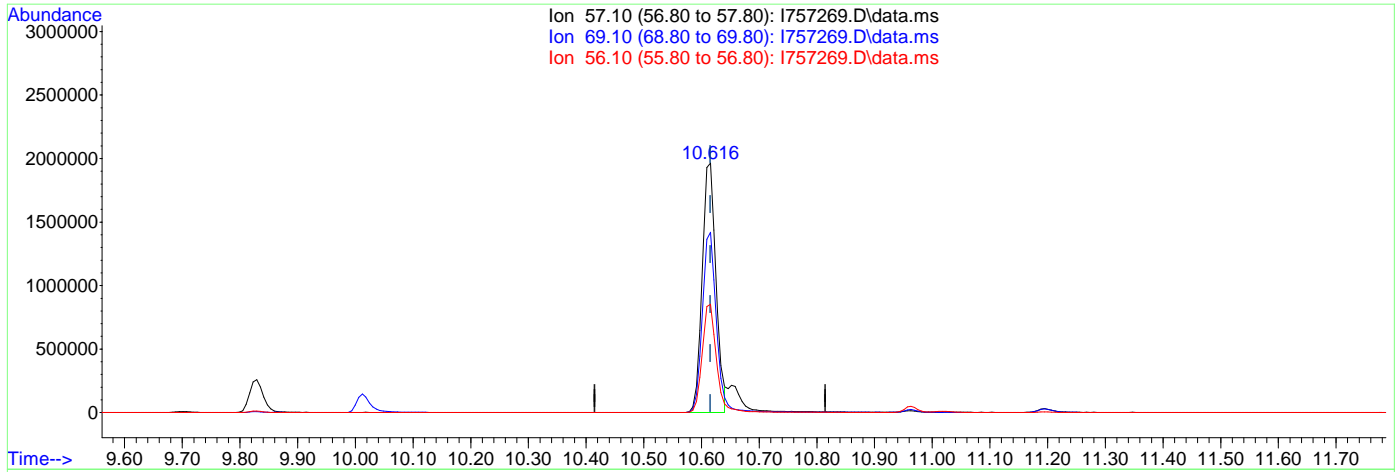
Ion	Exp%	Act%
57.10	100	100
69.10	71.20	72.20
56.10	43.20	43.38
0.00	0.00	0.00



Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757269.D  
 Acq On : 15 Jun 2023 2:04 pm  
 Operator : joannel  
 Sample : ICV2948-5  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 14:43:57 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



(74) 3,3-dimethyl-1-butanol

10.616min (+0.001) 2073.24ug/L m

response 3275538

Ion	Exp%	Act%
57.10	100	100
69.10	71.20	72.26
56.10	43.20	43.39
0.00	0.00	0.00

7.6.19.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757270.D  
 Acq On : 15 Jun 2023 2:27 pm  
 Operator : joannel  
 Sample : ICV2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 14:48:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----						
Internal Standards						
1) Fluorobenzene	7.854	96	1153831	50.00	ug/L	0.00
62) Chlorobenzene-d5	11.006	117	850734	50.00	ug/L	0.00
85) 1,4-Dichlorobenzene-d4	13.371	152	529571	50.00	ug/L	0.00
System Monitoring Compounds						
39) Dibromofluoromethane	6.988	113	331960	50.69	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	101.38%	
49) 1,2-Dichloroethane-d4	7.561	65	309281	51.94	ug/L	0.00
Spiked Amount	50.000	Range 79 - 125	Recovery	=	103.88%	
63) Toluene-d8	9.445	98	1229655	50.69	ug/L	0.00
Spiked Amount	50.000	Range 85 - 112	Recovery	=	101.38%	
86) 4-Bromofluorobenzene	12.225	174	449316	50.39	ug/L	0.00
Spiked Amount	50.000	Range 83 - 118	Recovery	=	100.78%	
Target Compounds						
5) 1,3-Butadiene	2.794	39	88557	19.95	ug/L	94
27) Chloroprene	5.866	53	134410	21.66	ug/L	99
-----						

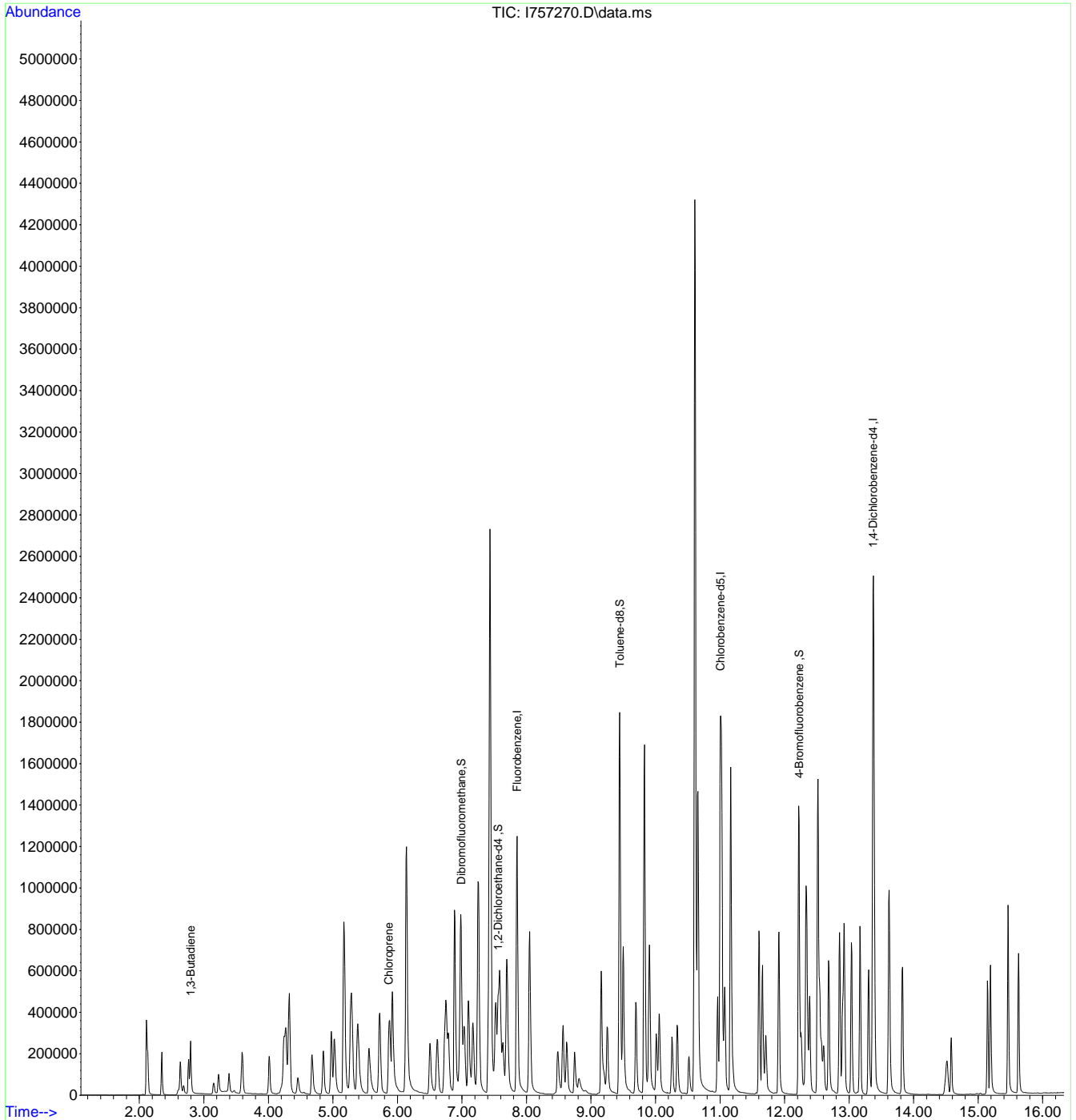
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.6.20  
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-06-15\  
 Data File : I757270.D  
 Acq On : 15 Jun 2023 2:27 pm  
 Operator : joannel  
 Sample : ICV2948-4  
 Misc : MS54130,VI2948,,,,,  
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 14:48:10 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.20  
7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
-----							
Internal Standards							
1) Fluorobenzene	7.854	96	1008433	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	708930	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	426284	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	288013	50.32	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	100.64%	
49) 1,2-Dichloroethane-d4	7.561	65	258218	49.61	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	99.22%	
63) Toluene-d8	9.445	98	1047914	51.84	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	103.68%	
86) 4-Bromofluorobenzene	12.219	174	358323	49.92	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.84%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	155671	35.13	ug/L		99
3) Chloromethane	2.635	50	179300	39.42	ug/L		100
4) Vinyl Chloride	2.763	62	175257	38.93	ug/L		98
5) 1,3-Butadiene	2.794	39	129634	33.75	ug/L		93
6) Bromomethane	3.227	94	72641	47.01	ug/L		99
7) Chloroethane	3.391	64	78186	41.42	ug/L		99
8) Trichlorofluoromethane	3.592	101	257820	43.28	ug/L		99
9) Ethyl Ether	4.013	59	120456	38.63	ug/L		96
10) 1,2-Dichlorotrifluoro...	4.239	67	166314	40.10	ug/L		98
11) 1,1-Dichloroethene	4.269	61	213810	39.07	ug/L		99
12) Ethanol	4.214	45	115489	761.08	ug/L		93
13) Freon 113	4.318	101	136235	40.07	ug/L		98
14) Carbon Disulfide	4.324	76	396055	35.24	ug/L		97
15) Iodomethane	4.458	142	127544	46.42	ug/L		95
16) Acrolein	4.678	56	223860	154.90	ug/L		98
17) Allyl chloride	4.848	41	195427	37.16	ug/L		98
18) Methylene Chloride	4.976	49	218489	39.66	ug/L		99
19) Acetone	5.019	43	549798	202.59	ug/L		100
20) Methyl acetate	5.165	43	1222746	214.99	ug/L		100
21) trans-1,2-Dichloroethene	5.178	61	225137	39.21	ug/L		98
22) Hexane	5.275	56	111743	39.70	ug/L		96
23) Methyl Tert Butyl Ether	5.293	73	464532	38.30	ug/L		92
24) Tert butyl alcohol	5.391	59	661364	398.51	ug/L		100
25) Acetonitrile	5.555	41	429719	383.82	ug/L		99
26) Di-isopropyl ether	5.720	45	486396	38.34	ug/L		98
27) Chloroprene	5.860	53	206158	37.18	ug/L		99
28) 1,1-Dichloroethane	5.879	63	297375	39.46	ug/L		98
29) Acrylonitrile	5.915	53	590928	213.74	ug/L		99
30) ETBE	6.135	59	461696	37.80	ug/L		99
31) Vinyl acetate	6.135	43	1659754	202.49	ug/L		100
32) cis-1,2-Dichloroethene	6.500	96	175939	38.84	ug/L		98
33) 2,2-Dichloropropane	6.616	77	219153	38.14	ug/L		98
34) Bromochloromethane	6.726	128	90674	38.79	ug/L		98
35) Cyclohexane	6.750	56	238643	39.74	ug/L		97
36) Chloroform	6.787	83	304419	38.72	ug/L		99
37) Ethyl acetate	6.885	43	1460008	215.68	ug/L		100
38) Tetrahydrofuran	6.976	42	120919	38.57	ug/L		94
40) Carbon Tetrachloride	6.970	117	220803	39.99	ug/L		97
41) 1,1,1-Trichloroethane	7.031	97	258370	39.72	ug/L		98
42) 2-Butanone	7.098	43	864609	204.75	ug/L		99
43) 1,1-Dichloropropene	7.171	75	205488	40.03	ug/L		99
44) tert-Butyl Formate	7.250	59	607008	192.47	ug/L		92

7.6.21  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
45) Propionitrile	7.409	54	538208	388.43	ug/L	97
46) Methacrylonitrile	7.433	41	1509781	371.64	ug/L	98
47) Benzene	7.427	78	610510	38.78	ug/L	94
48) TAME	7.525	73	443287	37.49	ug/L	98
50) Isobutyl alcohol	7.592	42	292157	796.14	ug/L	98
51) 1,2-Dichloroethane	7.634	62	208052	38.05	ug/L	100
52) Tert Amyl Alcohol	7.701	59	537460	394.56	ug/L	97
53) Trichloroethene	8.043	95	168013	38.16	ug/L	98
54) Methylcyclohexane	8.049	83	213535	39.29	ug/L	98
55) Dibromomethane	8.482	93	110209	39.20	ug/L	98
56) 1,2-Dichloropropane	8.561	63	156028	38.46	ug/L	98
57) Bromodichloromethane	8.622	83	223310	39.93	ug/L	99
58) Methyl methacrylate	8.738	41	178897	39.19	ug/L	96
59) 1,4-Dioxane	8.823	88	91387	704.76	ug/L	98
60) 2-Chloroethyl vinyl ether	9.152	63	528594	208.33	ug/L	99
61) cis-1,3-Dichloropropene	9.250	75	247601	39.28	ug/L	99
64) Toluene	9.494	91	654049	40.44	ug/L	100
65) 2-Nitropropane	9.695	41	362631	227.93	ug/L	93
66) 4-Methyl-2-pentanone	9.823	43	1519760	216.76	ug/L	98
67) trans-1,3-Dichloropropene	9.890	75	225365	40.37	ug/L	94
68) Tetrachloroethene	9.908	166	200578	40.97	ug/L	98
69) Ethyl methacrylate	10.012	69	213238	40.52	ug/L	97
70) 1,1,2-Trichloroethane	10.055	83	137325	41.63	ug/L	98
71) Dibromochloromethane	10.256	129	190015	41.63	ug/L	99
72) 1,3-Dichloropropane	10.335	76	243222	42.31	ug/L	99
73) 1,2-Dibromoethane	10.512	107	177153	41.62	ug/L	98
74) 3,3-dimethyl-1-butanol	10.609	57	3163458	2404.75	ug/L	99
75) 2-hexanone	10.652	43	1197748	209.26	ug/L	98
76) 1-Chlorohexane	10.963	91	185768	40.59	ug/L	97
77) Ethylbenzene	11.024	91	700468	40.10	ug/L	99
78) Chlorobenzene	11.024	112	437852	40.96	ug/L	99
79) 1,1,1,2-Tetrachloroethane	11.073	131	169136	40.89	ug/L	99
80) m,p-Xylene	11.164	91	1076128	82.07	ug/L	100
81) o-Xylene	11.603	91	552893	39.21	ug/L	99
82) Styrene	11.652	104	409582	40.34	ug/L	98
83) Bromoform	11.707	173	163738	42.58	ug/L	99
84) Isopropylbenzene	11.908	105	671097	40.45	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	64812	42.40	ug/L	98
88) n-Propylbenzene	12.329	91	779218	41.52	ug/L	97
89) Bromobenzene	12.347	156	200375	41.64	ug/L	97
90) 1,1,2,2-Tetrachloroethane	12.390	83	275414	41.99	ug/L	97
91) 1,3,5-Trimethylbenzene	12.511	105	541080	40.23	ug/L	100
92) 2-Chlorotoluene	12.518	91	532200	41.58	ug/L	100
93) trans-1,4-Dichloro-2-B...	12.572	53	65982	38.17	ug/L	95
94) 1,2,3-Trichloropropane	12.542	110	82785	40.82	ug/L	95
95) Cyclohexanone	12.609	55	84591	186.62	ug/L	98
96) 4-Chlorotoluene	12.682	91	468822	40.70	ug/L	99
97) tert-Butylbenzene	12.853	91	290501	40.64	ug/L	99
98) 1,2,4-Trimethylbenzene	12.920	105	540491	40.80	ug/L	100
99) Pentachloroethane	12.902	167	126815	43.12	ug/L	97
100) sec-Butylbenzene	13.036	105	635577	41.59	ug/L	100
101) 4-Isopropyltoluene	13.170	119	549240	41.00	ug/L	99
102) 1,3-Dichlorobenzene	13.298	146	348465	42.03	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	562880	40.56	ug/L	99
104) 1,4-Dichlorobenzene	13.383	146	361689	40.59	ug/L	100
105) n-Butylbenzene	13.615	92	281963	42.81	ug/L	99
106) Benzyl Chloride	13.627	126	95105	39.97	ug/L	97
107) 1,2-Dichlorobenzene	13.822	146	339102	41.74	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 1,2-Dibromo-3-Chloropr...	14.578	75	69019	41.63	ug/L	87
109) Hexachlorobutadiene	15.145	225	115501	41.96	ug/L	98
110) 1,2,4-Trichlorobenzene	15.188	180	242928	40.47	ug/L	100
111) Naphthalene	15.462	128	767131	40.86	ug/L	98
112) 1,2,3-Trichlorobenzene	15.627	180	247309	41.31	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

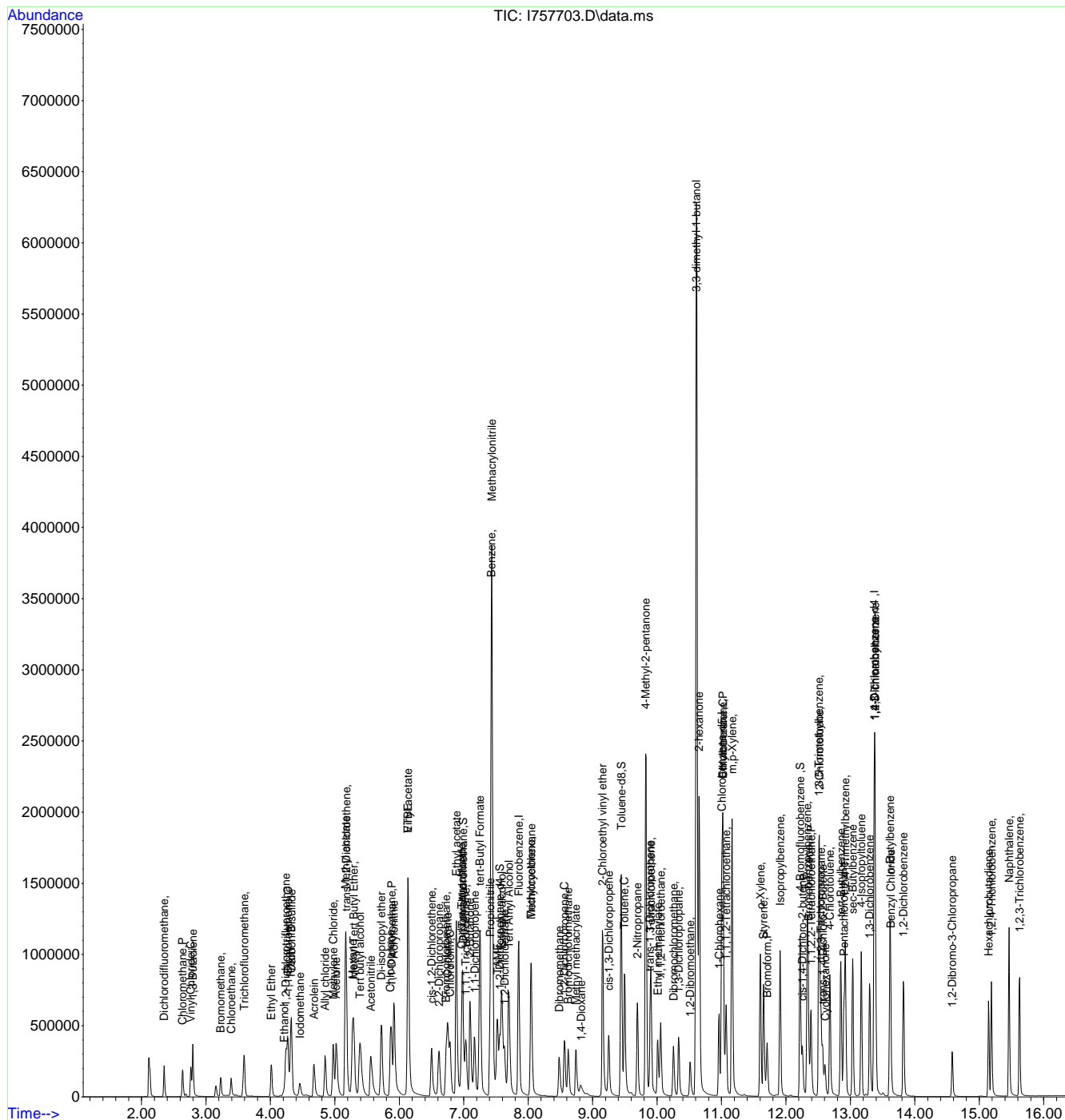
7.6.21  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023-07-06\  
 Data File : I757703.D  
 Acq On : 6 Jul 2023 9:12 am  
 Operator : jeniferw  
 Sample : CC2948-5  
 Misc : MS54358,VI2963,,,,,  
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 06 09:29:33 2023  
 Quant Method : C:\msdchem\1\methods\VI-2023-06-15.m  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.21  
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
Internal Standards							
1) Fluorobenzene	7.854	96	868567	50.00	ug/L	0.00	
62) Chlorobenzene-d5	11.006	117	623106	50.00	ug/L	0.00	
85) 1,4-Dichlorobenzene-d4	13.371	152	377823	50.00	ug/L	0.00	
System Monitoring Compounds							
39) Dibromofluoromethane	6.988	113	250689	50.85	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	101.70%	
49) 1,2-Dichloroethane-d4	7.561	65	247061	55.11	ug/L	0.00	
Spiked Amount	50.000	Range	79 - 125	Recovery	=	110.22%	
63) Toluene-d8	9.445	98	910160	51.22	ug/L	0.00	
Spiked Amount	50.000	Range	85 - 112	Recovery	=	102.44%	
86) 4-Bromofluorobenzene	12.219	174	316696	49.78	ug/L	0.00	
Spiked Amount	50.000	Range	83 - 118	Recovery	=	99.56%	
Target Compounds							
							Qvalue
2) Dichlorodifluoromethane	2.349	85	155857	40.84	ug/L		98
3) Chloromethane	2.642	50	161913	41.34	ug/L		97
4) Vinyl Chloride	2.763	62	157281	40.57	ug/L		99
5) 1,3-Butadiene	2.794	39	120487	36.50	ug/L		93
6) Bromomethane	3.233	94	54522	41.05	ug/L		98
7) Chloroethane	3.391	64	66209	40.73	ug/L		96
8) Trichlorofluoromethane	3.593	101	213809	41.67	ug/L		96
9) Ethyl Ether	4.019	59	101095	37.64	ug/L		96
10) 1,2-Dichlorotrifluoroethane	4.245	67	142637	39.93	ug/L		95
11) 1,1-Dichloroethene	4.269	61	184811	39.21	ug/L		99
12) Ethanol	4.214	45	101503	777.61	ug/L		98
13) Freon 113	4.318	101	114579	39.13	ug/L		98
14) Carbon Disulfide	4.330	76	330423	34.13	ug/L		98
15) Iodomethane	4.458	142	128074	53.44	ug/L		97
16) Acrolein	4.678	56	186662	150.16	ug/L		91
17) Allyl chloride	4.854	41	160038	35.32	ug/L		97
18) Methylene Chloride	4.976	49	203971	43.09	ug/L		95
19) Acetone	5.025	43	469432	200.84	ug/L		98
20) Methyl acetate	5.165	43	1075732	219.60	ug/L		98
21) trans-1,2-Dichloroethene	5.184	61	189917	38.41	ug/L		97
22) Hexane	5.275	56	93751	38.67	ug/L		98
23) Methyl Tert Butyl Ether	5.300	73	381709	36.54	ug/L		98
24) Tert butyl alcohol	5.391	59	578730	404.87	ug/L		93
25) Acetonitrile	5.562	41	367620	380.97	ug/L		98
26) Di-isopropyl ether	5.726	45	421489	38.57	ug/L		96
27) Chloroprene	5.866	53	173062	36.28	ug/L		99
28) 1,1-Dichloroethane	5.885	63	250717	38.63	ug/L		100
29) Acrylonitrile	5.921	53	496991	208.71	ug/L		98
30) ETBE	6.135	59	395568	37.61	ug/L		98
31) Vinyl acetate	6.141	43	1339504	190.41	ug/L		99
32) cis-1,2-Dichloroethene	6.507	96	142887	36.63	ug/L		96
33) 2,2-Dichloropropane	6.616	77	171612	34.68	ug/L		98
34) Bromochloromethane	6.732	128	70218	34.88	ug/L		91
35) Cyclohexane	6.757	56	205717	39.78	ug/L		97
36) Chloroform	6.793	83	252538	37.30	ug/L		99
37) Ethyl acetate	6.885	43	1242894	213.34	ug/L		99
38) Tetrahydrofuran	6.982	42	106913	39.60	ug/L		94
40) Carbon Tetrachloride	6.976	117	183521	38.59	ug/L		98
41) 1,1,1-Trichloroethane	7.037	97	215927	38.54	ug/L		99
42) 2-Butanone	7.098	43	746394	205.19	ug/L		95
43) 1,1-Dichloropropene	7.171	75	173168	39.17	ug/L		96



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) tert-Butyl Formate	7.256	59	476921	175.58	ug/L	92
45) Propionitrile	7.409	54	463017	387.97	ug/L	99
46) Methacrylonitrile	7.439	41	1304599	372.85	ug/L	99
47) Benzene	7.433	78	509693	37.59	ug/L	94
48) TAME	7.525	73	373006	36.62	ug/L	97
50) Isobutyl alcohol	7.592	42	261292	826.69	ug/L	97
51) 1,2-Dichloroethane	7.634	62	176340	37.44	ug/L	97
52) Tert Amyl Alcohol	7.701	59	474274	404.24	ug/L	96
53) Trichloroethene	8.043	95	141088	37.20	ug/L	99
54) Methylcyclohexane	8.049	83	181140	38.73	ug/L	97
55) Dibromomethane	8.482	93	89372	36.91	ug/L	99
56) 1,2-Dichloropropane	8.567	63	133203	38.12	ug/L	98
57) Bromodichloromethane	8.628	83	183546	38.11	ug/L	99
58) Methyl methacrylate	8.744	41	151608	38.61	ug/L	98
59) 1,4-Dioxane	8.817	88	82156	734.02	ug/L	95
60) 2-Chloroethyl vinyl ether	9.159	63	398032	183.34	ug/L	96
61) cis-1,3-Dichloropropene	9.250	75	204090	37.59	ug/L	98
64) Toluene	9.500	91	543651	38.24	ug/L	100
65) 2-Nitropropane	9.695	41	324603	231.68	ug/L	93
66) 4-Methyl-2-pentanone	9.829	43	1309353	212.48	ug/L	98
67) trans-1,3-Dichloropropene	9.896	75	189448	38.72	ug/L	97
68) Tetrachloroethene	9.908	166	177056	41.15	ug/L	97
69) Ethyl methacrylate	10.012	69	175465	38.05	ug/L	99
70) 1,1,2-Trichloroethane	10.055	83	112964	38.96	ug/L	99
71) Dibromochloromethane	10.256	129	155015	38.64	ug/L	98
72) 1,3-Dichloropropane	10.335	76	203297	40.23	ug/L	95
73) 1,2-Dibromoethane	10.512	107	146160	39.07	ug/L	94
74) 3,3-dimethyl-1-butanol	10.609	57	2764366	2392.11	ug/L	98
75) 2-hexanone	10.658	43	1043036	207.41	ug/L	98
76) 1-Chlorohexane	10.963	91	155538	38.66	ug/L	89
77) Ethylbenzene	11.024	91	597355	38.91	ug/L	98
78) Chlorobenzene	11.024	112	361086	38.43	ug/L	97
79) 1,1,1,2-Tetrachloroethane	11.073	131	138974	38.22	ug/L	99
80) m,p-Xylene	11.164	91	906631	78.67	ug/L	100
81) o-Xylene	11.603	91	472403	38.12	ug/L	100
82) Styrene	11.658	104	341099	38.36	ug/L	97
83) Bromoform	11.707	173	131085	38.78	ug/L	97
84) Isopropylbenzene	11.914	105	566551	38.86	ug/L	99
87) cis-1,4-Dichloro-2-butene	12.255	53	46779	34.52	ug/L	96
88) n-Propylbenzene	12.329	91	656982	39.50	ug/L	98
89) Bromobenzene	12.347	156	164138	38.49	ug/L	96
90) 1,1,2,2-Tetrachloroethane	12.390	83	229419	39.46	ug/L	99
91) 1,3,5-Trimethylbenzene	12.518	105	461562	38.72	ug/L	100
92) 2-Chlorotoluene	12.518	91	449095	39.59	ug/L	98
93) trans-1,4-Dichloro-2-B...	12.572	53	51365	33.72	ug/L	96
94) 1,2,3-Trichloropropane	12.548	110	70949	39.47	ug/L	96
95) Cyclohexanone	12.609	55	76667	190.84	ug/L	95
96) 4-Chlorotoluene	12.682	91	398404	39.02	ug/L	98
97) tert-Butylbenzene	12.853	91	245619	38.77	ug/L	98
98) 1,2,4-Trimethylbenzene	12.926	105	452769	38.57	ug/L	98
99) Pentachloroethane	12.902	167	94827	36.38	ug/L	96
100) sec-Butylbenzene	13.036	105	540302	39.94	ug/L	99
101) 4-Isopropyltoluene	13.170	119	465051	39.17	ug/L	99
102) 1,3-Dichlorobenzene	13.304	146	288549	39.27	ug/L	98
103) 1,2,3-Trimethylbenzene	13.383	105	472540	38.42	ug/L	100
104) 1,4-Dichlorobenzene	13.389	146	301149	38.13	ug/L	99
105) n-Butylbenzene	13.615	92	234956	40.25	ug/L	90

7.6.22  
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## Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration

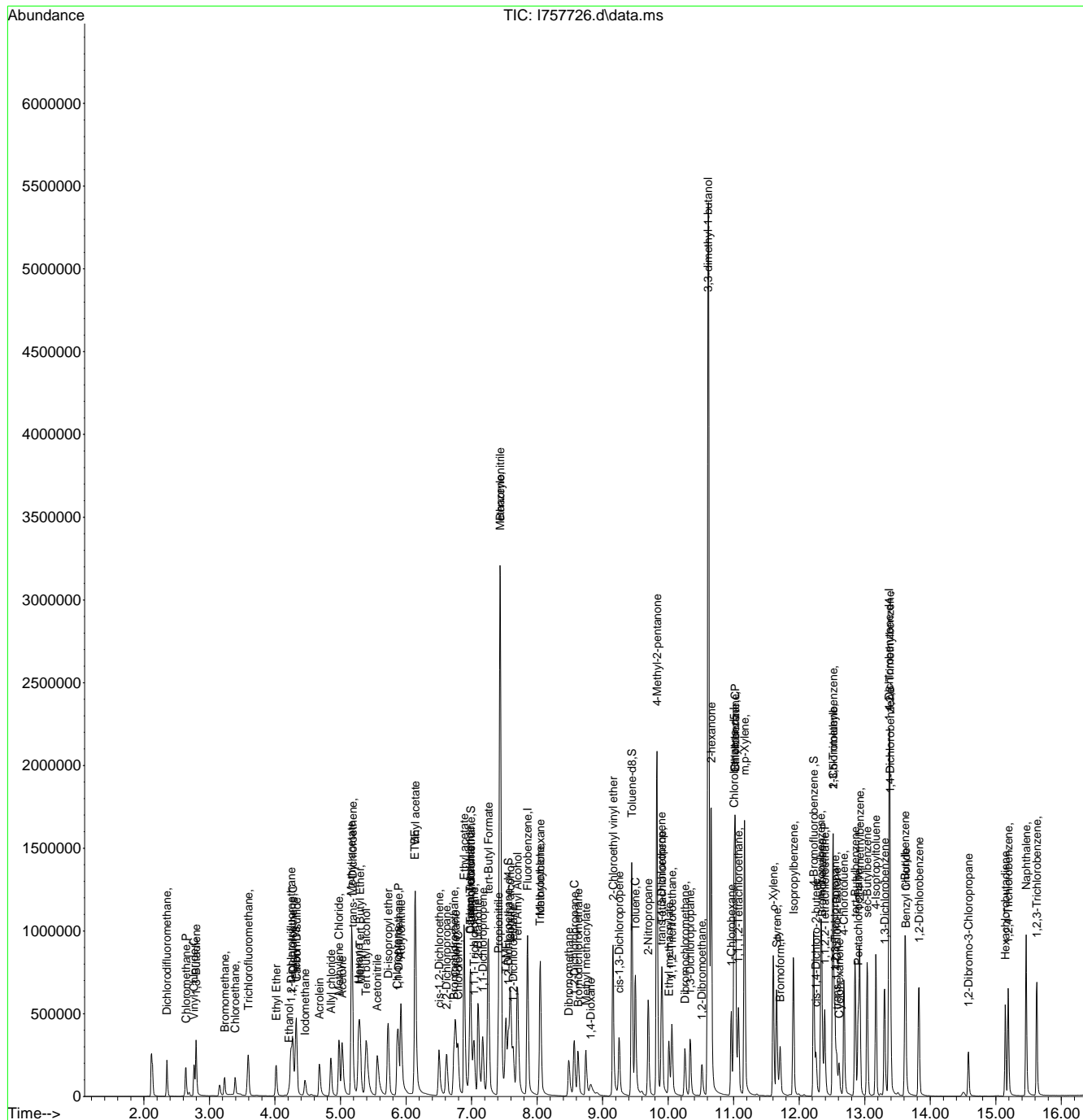
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) Benzyl Chloride	13.627	126	68069	32.74	ug/L #	72
107) 1,2-Dichlorobenzene	13.828	146	282234	39.20	ug/L	96
108) 1,2-Dibromo-3-Chloropr...	14.584	75	59432	40.44	ug/L	91
109) Hexachlorobutadiene	15.145	225	93972	38.52	ug/L	97
110) 1,2,4-Trichlorobenzene	15.188	180	197340	37.09	ug/L	98
111) Naphthalene	15.462	128	630133	37.87	ug/L	99
112) 1,2,3-Trichlorobenzene	15.627	180	197413	37.20	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\celinec\2023\July 2023\07-07-2023\VI2963\  
 Data File : I757726.d  
 Acq On : 6 Jul 2023 7:35 pm  
 Operator : jeniferw  
 Sample : ECC2948-5 Inst : MSVOA16  
 Misc : MS54368,VI2963,,,,,  
 ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\methods\methods\_063023\VI-2023-06-15.m  
 Quant Results File: VI-2023-06-15.RES  
 Quant Time: Jul 06 23:08:13 2023  
 Quant Title : SW-846 Method 5035A/8260B  
 QLast Update : Thu Jun 15 14:39:51 2023  
 Response via : Initial Calibration



7.6.22  
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SGS -ORLANDO

Instrument:	MSVOA12-10
Date:	07/05/2023
Analyst:	Jenifer W
Column Type	RTX/VMS
Detector	5975C-MSD
Purge Pressure	1.1psi
Purge Volume	5 mL

Method(s):	8260
Method File:	V20_06-07-2023.M
Calibration Date:	06/07/2023
Acq. Method:	8260/VMS.M
EM Voltage:	1565V
Run ID:	V203017

BF#:	VS3211
ICAL/CC:	VS3199, VS3224, VS3236
VS219, VS3218, VS3247, \	
ICV/BS:	VS3238, VS3223, VS3251
VS3243, VS3242, VS3246,	
ISTD/Surr.:	VS3211

pH Paper Lot#:	230320/212521
KI Paper Lot#:	14-860 5/9/2022
AFA Lot#:	VS3075
Data processed by:	Jenifer W / Celline C.
Sample ID Ver. by:	Jenifer W
Date Verified:	07/05/2023

VOA-GCMS ANALYSIS LOG

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
2077411	BFB	-	-	Water	1	-	-	-	-	Autotune Passed ✓
2077412	CC2981-4	-	-	Water	2	-	-	-	-	12.5uL→50mL (OP) #40 (PBL) #49 #76 ✓
2077413	BS	-	-	Water	3	-	-	-	-	25uL→100mL (OP) #40 (PBL) #49 #76 ✓
2077414	CC2981-1	-	-	Water	4	-	-	-	-	1uL→100mL ✓
2077415	MB	-	-	Water	5	-	-	-	-	Acetone, ACN hit
2077416	FC7381-7	1x	1	Water	6	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077417	FC7382-3	1x	1	Water	7	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low; Toluene hit (Trip blank w/ detection)
2077418	FC7382-1	1x	1	Water	8	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077419	FC7382-2	1x	2	Water	9	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077420	FC7381-1	1x	5	Water	10	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077421	FC7381-3	1x	2	Water	11	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077422	FC7381-5	1x	5	Water	12	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077423	FC7381-6	1x	5	Water	13	MS54357	2	N	1x	AFA; DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077424	FC7413-1	1x	4	Water	14	MS54357	3	N	1x	AFA; DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077425	FC7413-2	1x	1	Water	15	MS54357	1	N	1x	DOD: 1.2,4-TCB (CCV), CE (ECC) low; Multiple hits (Trip blank w/ detection)
2077426	FC7381-2	2x	5	Water	16	MS54357	1	N	2x	25mL→50mL DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077427	FC7381-4	1x	5	Water	17	MS54357	1	N	1x, 5x	cis-1,2-DCI; VC, o-Xylene OIR; DOD: 1.2,4-TCB (CCV), CE (ECC) low
2077428	FC7451-6	1x	1	Water	18	MS54357	1	N	-	AFA, ND ✓
2077429	FC7451-7	1x	1	Water	19	MS54357	1	N	-	AFA, ND ✓
2077430	FC7451-8	1x	1	Water	20	MS54357	1	N	-	AFA, ND ✓
2077431	FC7451-9	1x	1	Water	21	MS54357	1	N	-	AFA ✓
2077432	FC7451-10	1x	1	Water	22	MS54357	1	N	-	AFA ✓
2077433	FC7451-11	1x	1	Water	23	MS54357	1	N	-	AFA, ND ✓
2077434	FC7451-12	1x	1	Water	24	MS54357	1	N	-	AFA ✓
2077435	FC7451-13	1x	1	Water	25	MS54357	1	N	-	AFA, ND ✓
2077436	FC7382-1MS	1x	2	Water	26	MS54357	1	N	-	Spike 12.5uL→40mL (OP) #40 (PBL) #49 #76 ✓
2077437	FC7382-1MSD	1x	3	Water	27	MS54357	1	N	-	Spike 12.5uL→40mL (OP) #40 (PBL) #49 #76 ✓
2077438	ECC2981-4	-	-	Water	28	-	-	-	-	12.5uL→50mL (OP) #40 (PBL) #49 #76 ✓

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate  
 Manual Integration Rational SOP 0A029: NP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PI Poor Instrument

SGS -ORLANDO

VOA-GCMS ANALYSIS LOG

<b>Instrument:</b>	MSVOA-16i
<b>Date:</b>	06/15/2023
<b>Analyst:</b>	JoAnn L
<b>Column Type</b>	RTX/VMS
<b>Detector</b>	5975C MSD
<b>Purge Pressure</b>	1.3 psi
<b>Purge Volume</b>	5mL

<b>Method(s):</b>	8260VMS40
<b>Method File:</b>	VI-2023-6-15.M
<b>Calibration Date:</b>	06/15/2023
<b>Acq. Method:</b>	RTX-VMS
<b>EM Voltage:</b>	1306V
<b>Run ID:</b>	VI2948

<b>BFB:</b>	VS3157	<b>pH Paper Lot#:</b>	206722/230320
<b>ICAL/CC:</b>	VS3199, VS3173, VS3198	<b>KI Paper Lot#:</b>	14-860 05/09/2022
<b>VS3197, VS3190, VS3193.V</b>		<b>AFA Lot#:</b>	VS3075
<b>ICV/BS:</b>	VS3180, VS3158, VS3206	<b>Data processed by:</b>	JoAnn L
<b>VS3208, VS3207, VS3210,</b>		<b>Sample ID Ver. by:</b>	JoAnn L
<b>ISTD/Surr.:</b>	VS3157	<b>Date Verified:</b>	06/15/2023

Data File	Sample ID	Dilution Factor	Vial #	Matrix	A.S. Pos.	Work Group	pH	CI? (Y/N)	RR	Comments and Manually Integrated Peaks (Peak # and Rational)
I757260	BFB	-	-	Water	1	-	-	-	-	Autotune Passed✓
I757261	IC2948-1	-	-	Water	2	-	-	-	-	1uL→100mL; 100uL MeOH✓
I757262	IC2948-2	-	-	Water	3	-	-	-	-	5uL→100mL; 100uL MeOH✓
I757263	IC2948-3	-	-	Water	4	-	-	-	-	5uL→50mL; 100uL MeOH ✓
I757264	IC2948-4	-	-	Water	5	-	-	-	-	12.5uL→50mL✓
I757265	IC2948-5	-	-	Water	6	-	-	-	-	20uL→50mL✓
I757266	IC2948-6	-	-	Water	7	-	-	-	-	35uL→50mL✓
I757267	IC2948-7	-	-	Water	8	-	-	-	-	50uL→50mL✓
I757268	BLANK	-	-	Water	9	-	-	-	-	
I757269/A	ICV2948-5/CC2948	-	-	Water	10	-	-	-	-	20uL→50mL ✓
I757270/A	ICV2948-4/BS	-	-	Water	11	-	-	-	-	12.5uL→50mL✓
I757271	BSD	-	-	Water	12	-	-	-	-	12.5uL→50mL✓
I757272	BLANK	-	-	Water	13	-	-	-	-	
I757273	MB	-	-	Water	14	-	-	-	-	ND✓
I757274	FC6893-2	-	-	Water	15	MS54220	1	N	-	ND✓
I757275	FC6893-4	-	-	Water	16	MS54220	1	N	-	ND✓
I757276	FC6893-6	-	-	Water	17	MS54220	1	N	-	ND✓
I757277	FC6893-8	-	-	Water	18	MS54220	1	N	-	ND✓
I757278	FC6893-10	-	-	Water	19	MS54220	1	N	-	ND✓
I757279	FC6893-12	-	-	Water	20	MS54220	1	N	-	ND✓
I757280	FC6893-14	-	-	Water	21	MS54220	1	N	-	ND✓
I757281	FC6893-16	-	-	Water	22	MS54220	1	N	-	ND✓
I757282	FC6893-18	-	-	Water	23	MS54220	1	N	-	ND✓
I757283	FC6893-20	-	-	Water	24	MS54220	1	N	-	ND✓
I757284	FC6893-2	-	-	Water	25	MS54220	1	N	-	ND✓
I757285	FC6893-3	-	-	Water	26	MS54220	1	N	-	ND✓
I757286	ECC2948-5	-	-	Water	27	-	-	-	-	20uL→50mL✓

Matrix: Designate "W" for Water, "S" for soil, "O" for Oil, "L" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate  
 Manual Integration Rational SOP QAO29: I/P Missed Peak, O/P Overlapping Peak, S/P Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, P/I Poor Instrument





## GC Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports



**Method Blank Summary**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2901-MB	LL83560.D	1	07/10/23	SS	n/a	n/a	GLL2901

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7413-1, FC7413-2

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

## Method Blank Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2902-MB	LL83597.D	1	07/11/23	SS	n/a	n/a	GLL2902

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7413-1

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2901-BS	LL83557.D	1	07/10/23	SS	n/a	n/a	GLL2901
GLL2901-BSD	LL83558.D	1	07/10/23	SS	n/a	n/a	GLL2901

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7413-1, FC7413-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	108	105	97	118	109	12	62-139/30
74-84-0	Ethane	219	187	85	207	95	10	67-141/30
74-85-1	Ethene	290	234	81	267	92	13	68-141/30

8.2.1  
8

\* = Outside of Control Limits.

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GLL2902-BS	LL83593.D	1	07/11/23	SS	n/a	n/a	GLL2902
GLL2902-BSD	LL83595.D	1	07/11/23	SS	n/a	n/a	GLL2902

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7413-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	108	124	115	118	109	5	62-139/30

8.2.2  
8

\* = Outside of Control Limits.

# Matrix Spike Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7589-7MS	LL83589.D	1	07/10/23	SS	n/a	n/a	GLL2901
FC7589-7	LL83582.D	1	07/10/23	SS	n/a	n/a	GLL2901

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7413-1, FC7413-2

CAS No.	Compound	FC7589-7 ug/l	Spike Q ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	0.50 U	108	118	109	62-139
74-84-0	Ethane	1.0 U	219	225	103	67-141
74-85-1	Ethene	1.0 U	290	295	102	68-141

8.3.1

8

\* = Outside of Control Limits.

## Matrix Spike Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7589-17MS	LL83622.D	1	07/11/23	SS	n/a	n/a	GLL2902
FC7589-17	LL83609.D	1	07/11/23	SS	n/a	n/a	GLL2902

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7413-1

CAS No.	Compound	FC7589-17 ug/l	Spike Q ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	0.50 U	108	114	106	62-139

8.3.2

8

\* = Outside of Control Limits.

## Duplicate Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FC7589-7DUP	LL83588.D	1	07/10/23	SS	n/a	n/a	GLL2901
FC7589-7	LL83582.D	1	07/10/23	SS	n/a	n/a	GLL2901

The QC reported here applies to the following samples:

Method: RSKSOP-147/175

FC7413-1, FC7413-2

CAS No.	Compound	FC7589-7 ug/l	DUP Q	ug/l	Q	RPD	Limits
74-82-8	Methane	0.50 U	ND			nc	30
74-84-0	Ethane	1.0 U	ND			nc	30
74-85-1	Ethene	1.0 U	ND			nc	30

8.4.1

8

\* = Outside of Control Limits.

# Initial Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2678-ICC2678  
**Lab FileID:** LL77119.D

Response Factor Report FID4-LL

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration

Calibration Files

1 =LL77115.D 2 =LL77116.D 3 =LL77117.D 4 =LL77118.D  
 5 =LL77119.D 6 =LL77120.D 7 =LL77121.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) Methane	8.147	7.784	5.707	6.267	6.226	6.254	6.064	6.636	E5 14.09
---- Linear regr., Force(0,0) ---- Coefficient = 0.9998									
Response Ratio = 0.00000 + 610295.04174 *A									
2) Acetylene	0.876	1.146	1.052	1.258	1.278	1.267	1.366	1.177	E6 14.18
---- Linear regr., Force(0,0) ---- Coefficient = 0.9989									
Response Ratio = 0.00000 + 1345065.34207 *A									
3) Ethylene	0.806	0.993	0.972	1.105	1.114	1.088	1.088	1.024	E6 10.84
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 1087940.04642 *A									
4) Ethane	0.897	1.013	0.978	1.114	1.120	1.125	1.117	1.052	E6 8.60
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 1118890.75720 *A									
5) Propane	1.625	2.081	1.200	1.396	1.465	1.462	1.488	1.531	E6 17.89
---- Linear regr., Force(0,0) ---- Coefficient = 0.9999									
Response Ratio = 0.00000 + 1482646.11599 *A									

-----  
 (#) = Out of Range

RSK122321B.M Tue Dec 28 15:06:18 2021

8.51  
8



**Initial Calibration Verification**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2678-ICV2678  
**Lab FileID:** LL77123.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15  
 Acq On : 12-23-2021 03:20:03 PM Operator: trangd  
 Sample : icv2678-5 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1023.341	-2.3	100	0.00	0.02	0.55
2 Acetylene	1000.000	963.101	3.7	101	0.00	0.28	0.88
3 Ethylene	1000.000	1024.733	-2.5	100	0.00	0.38	1.18
4 Ethane	1000.000	1017.149	-1.7	102	0.00	0.61	1.41
5 Propane	1000.000	1057.495	-5.7	107	0.00	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Thu Dec 30 10:09:01 2021

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2901-CC2678  
**Lab FileID:** LL83555.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071023\LL83555.D Vial: 5  
 Acq On : 7-10-2023 09:08:59 AM Operator: samantha  
 Sample : cc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1062.693	-6.3	104	0.00	0.02	0.55
2 Acetylene	1000.000	904.938	9.5	95	0.00	0.28	0.88
3 Ethylene	1000.000	900.821	9.9	88	-0.03	0.38	1.18
4 Ethane	1000.000	914.446	8.6	91	-0.05	0.61	1.41
5 Propane	1000.000	176.653	82.3#	18	-0.14	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Mon Jul 10 09:32:18 2023

8.5.3  
8

**Continuing Calibration Summary**

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2901-CC2678  
**Lab FileID:** LL83568.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071023\LL83568.D Vial: 18  
 Acq On : 10 Jul 2023 12:09 pm Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Methane	500.000	538.042	-7.6	105	0.00	0.02- 0.55
2	Acetylene	500.000	479.230	4.2	103	0.00	0.28- 0.88
3	Ethylene	500.000	472.426	5.5	93	-0.03	0.38- 1.18
4	Ethane	500.000	488.658	2.3	98	-0.04	0.61- 1.41
5	Propane	500.000	238.108	52.4#	51	-0.11	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Mon Jul 10 12:16:06 2023

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2901-CC2678  
**Lab FileID:** LL83579.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071023\LL83579.D Vial: 29  
 Acq On : 7-10-2023 02:28:19 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Methane	500.000	521.096	-4.2	101	0.00	0.02- 0.55
2	Acetylene	500.000	483.340	3.3	103	0.00	0.28- 0.88
3	Ethylene	500.000	466.437	6.7	92	-0.02	0.38- 1.18
4	Ethane	500.000	480.855	3.8	97	-0.04	0.61- 1.41
5	Propane	500.000	282.930	43.4#	60	-0.10	0.01- 6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Mon Jul 10 14:35:03 2023

8.5.5  
8

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2901-ECC2678  
**Lab FileID:** LL83590.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071023\LL83590.D Vial: 40  
 Acq On : 7-10-2023 04:20:11 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1080.703	-8.1	106	0.00	0.02	0.55
2 Acetylene	1000.000	1033.972	-3.4	109	0.00	0.28	0.88
3 Ethylene	1000.000	981.244	1.9	96	-0.02	0.38	1.18
4 Ethane	1000.000	1008.449	-0.8	101	-0.04	0.61	1.41
5 Propane	1000.000	854.957	14.5	87	-0.10	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Mon Jul 10 16:26:22 2023

8.5.6  
8

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2902-CC2678  
**Lab FileID:** LL83592.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071123\LL83592.D Vial: 2  
 Acq On : 7-11-2023 08:33:00 AM Operator: samantha  
 Sample : CC2678-5 Inst : FID4-LL  
 Misc : gc24246,gll2902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1086.345	-8.6	106	0.00	0.02	0.55
2 Acetylene	1000.000	1000.534	-0.1	105	0.00	0.28	0.88
3 Ethylene	1000.000	966.206	3.4	94	-0.02	0.38	1.18
4 Ethane	1000.000	992.721	0.7	99	-0.04	0.61	1.41
5 Propane	1000.000	800.470	20.0#	81	-0.10	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Tue Jul 11 08:39:52 2023

8.5.7  
8

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2902-CC2678  
**Lab FileID:** LL83605.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071123\LL83605.D Vial: 15  
 Acq On : 11 Jul 2023 11:27 am Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	500.000	486.239	2.8	95	0.00	0.02	0.55
2 Acetylene	500.000	456.354	8.7	98	0.00	0.28	0.88
3 Ethylene	500.000	438.554	12.3	86	-0.02	0.38	1.18
4 Ethane	500.000	450.409	9.9	90	-0.03	0.61	1.41
5 Propane	500.000	312.099	37.6#	66	-0.09	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Tue Jul 11 11:33:15 2023

8.5.8  
8

# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2902-CC2678  
**Lab FileID:** LL83616.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071123\LL83616.D Vial: 26  
 Acq On : 7-11-2023 02:06:45 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	500.000	549.256	-9.9	107	0.00	0.02	0.55
2 Acetylene	500.000	524.992	-5.0	112	0.00	0.28	0.88
3 Ethylene	500.000	500.740	-0.1	99	-0.02	0.38	1.18
4 Ethane	500.000	515.741	-3.1	104	-0.03	0.61	1.41
5 Propane	500.000	422.440	15.5#	90	-0.09	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77118.D RSK122321B.M Wed Jul 12 15:17:43 2023

8.59  
8



# Continuing Calibration Summary

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot, NY

**Sample:** GLL2902-ECC2678  
**Lab FileID:** LL83623.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\071123\LL83623.D Vial: 33  
 Acq On : 7-11-2023 03:11:24 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 150%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1 Methane	1000.000	1098.200	-9.8	108	0.00	0.02	0.55
2 Acetylene	1000.000	1081.874	-8.2	114	0.00	0.28	0.88
3 Ethylene	1000.000	1012.245	-1.2	99	-0.02	0.38	1.18
4 Ethane	1000.000	1040.506	-4.1	104	-0.04	0.61	1.41
5 Propane	1000.000	896.481	10.4	91	-0.09	0.01	6.99

(#) = Out of Range SPCC's out = 0 CCC's out = 0  
 LL77119.D RSK122321B.M Wed Jul 12 15:17:24 2023

8.5.10  
8

# Run Sequence Report

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> GLL2678	<b>Method:</b> RSKSOP-147/175	<b>Instrument ID:</b> GCLL
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2678-IC2678	LL77115.D	12/23/21 11:44	n/a	Initial cal 1
GLL2678-IC2678	LL77116.D	12/23/21 11:53	n/a	Initial cal 2
GLL2678-IC2678	LL77117.D	12/23/21 12:43	n/a	Initial cal 3
GLL2678-IC2678	LL77118.D	12/23/21 12:54	n/a	Initial cal 4
GLL2678-ICC2678	LL77119.D	12/23/21 13:01	n/a	Initial cal 5
GLL2678-IC2678	LL77120.D	12/23/21 14:24	n/a	Initial cal 6
GLL2678-IC2678	LL77121.D	12/23/21 14:39	n/a	Initial cal 7
GLL2678-ICV2678	LL77123.D	12/23/21 15:20	n/a	Initial cal verification 5

## Run Sequence Report

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> GLL2901	<b>Method:</b> RSKSOP-147/175	<b>Instrument ID:</b> GCLL
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2901-CC2678	LL83555.D	07/10/23 09:08	n/a	Continuing cal 5
GLL2901-BS	LL83557.D	07/10/23 09:35	n/a	Blank Spike
GLL2901-BSD	LL83558.D	07/10/23 09:45	n/a	Blank Spike Duplicate
GLL2901-MB	LL83560.D	07/10/23 10:10	n/a	Method Blank
FC7492-1	LL83561.D	07/10/23 10:18	n/a	(used for QC only; not part of job FC7413)
ZZZZZZ	LL83562.D	07/10/23 10:43	n/a	(unrelated sample)
ZZZZZZ	LL83564.D	07/10/23 11:15	n/a	(unrelated sample)
ZZZZZZ	LL83565.D	07/10/23 11:26	n/a	(unrelated sample)
ZZZZZZ	LL83566.D	07/10/23 11:35	n/a	(unrelated sample)
ZZZZZZ	LL83567.D	07/10/23 11:44	n/a	(unrelated sample)
GLL2901-CC2678	LL83568.D	07/10/23 12:09	n/a	Continuing cal 4
ZZZZZZ	LL83570.D	07/10/23 12:26	n/a	(unrelated sample)
FC7413-1	LL83571.D	07/10/23 12:36	n/a	SEAD-MWT-28-20230629
FC7413-2	LL83572.D	07/10/23 12:44	n/a	TB
ZZZZZZ	LL83573.D	07/10/23 12:53	n/a	(unrelated sample)
ZZZZZZ	LL83574.D	07/10/23 13:04	n/a	(unrelated sample)
ZZZZZZ	LL83575.D	07/10/23 13:14	n/a	(unrelated sample)
ZZZZZZ	LL83576.D	07/10/23 13:57	n/a	(unrelated sample)
GLL2901-CC2678	LL83579.D	07/10/23 14:28	n/a	Continuing cal 4
ZZZZZZ	LL83581.D	07/10/23 14:51	n/a	(unrelated sample)
FC7589-7	LL83582.D	07/10/23 15:01	n/a	(used for QC only; not part of job FC7413)
ZZZZZZ	LL83583.D	07/10/23 15:16	n/a	(unrelated sample)
ZZZZZZ	LL83584.D	07/10/23 15:26	n/a	(unrelated sample)
ZZZZZZ	LL83585.D	07/10/23 15:34	n/a	(unrelated sample)
ZZZZZZ	LL83586.D	07/10/23 15:41	n/a	(unrelated sample)
ZZZZZZ	LL83587.D	07/10/23 15:49	n/a	(unrelated sample)
FC7589-7DUP	LL83588.D	07/10/23 15:56	n/a	Duplicate
FC7589-7MS	LL83589.D	07/10/23 16:11	n/a	Matrix Spike
GLL2901-ECC2678	LL83590.D	07/10/23 16:20	n/a	Ending cal 5

## Run Sequence Report

**Job Number:** FC7413  
**Account:** EAENYS EA Engineering  
**Project:** Former Seneca Army Depot; NY

<b>Run ID:</b> GLL2902	<b>Method:</b> RSKSOP-147/175	<b>Instrument ID:</b> GCLL
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Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
GLL2902-CC2678	LL83592.D	07/11/23 08:33	n/a	Continuing cal 5
GLL2902-BS	LL83593.D	07/11/23 08:44	n/a	Blank Spike
GLL2902-BSD	LL83595.D	07/11/23 09:16	n/a	Blank Spike Duplicate
GLL2902-MB	LL83597.D	07/11/23 09:40	n/a	Method Blank
ZZZZZZ	LL83598.D	07/11/23 10:00	n/a	(unrelated sample)
FC7413-1	LL83599.D	07/11/23 10:14	n/a	SEAD-MWT-28-20230629
ZZZZZZ	LL83600.D	07/11/23 10:23	n/a	(unrelated sample)
FC7589-13	LL83601.D	07/11/23 10:39	n/a	(used for QC only; not part of job FC7413)
ZZZZZZ	LL83602.D	07/11/23 10:50	n/a	(unrelated sample)
ZZZZZZ	LL83603.D	07/11/23 10:58	n/a	(unrelated sample)
ZZZZZZ	LL83604.D	07/11/23 11:11	n/a	(unrelated sample)
GLL2902-CC2678	LL83605.D	07/11/23 11:27	n/a	Continuing cal 4
FC7589-17	LL83609.D	07/11/23 12:52	n/a	(used for QC only; not part of job FC7413)
ZZZZZZ	LL83610.D	07/11/23 13:00	n/a	(unrelated sample)
ZZZZZZ	LL83611.D	07/11/23 13:14	n/a	(unrelated sample)
ZZZZZZ	LL83612.D	07/11/23 13:22	n/a	(unrelated sample)
ZZZZZZ	LL83613.D	07/11/23 13:36	n/a	(unrelated sample)
ZZZZZZ	LL83614.D	07/11/23 13:43	n/a	(unrelated sample)
ZZZZZZ	LL83615.D	07/11/23 13:57	n/a	(unrelated sample)
GLL2902-CC2678	LL83616.D	07/11/23 14:06	n/a	Continuing cal 4
ZZZZZZ	LL83618.D	07/11/23 14:25	n/a	(unrelated sample)
ZZZZZZ	LL83619.D	07/11/23 14:36	n/a	(unrelated sample)
ZZZZZZ	LL83620.D	07/11/23 14:44	n/a	(unrelated sample)
FC7589-17DUP	LL83621.D	07/11/23 14:53	n/a	Duplicate
FC7589-17MS	LL83622.D	07/11/23 15:02	n/a	Matrix Spike
GLL2902-ECC2678	LL83623.D	07/11/23 15:11	n/a	Ending cal 5

GC Volatiles

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Raw Data

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Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83571.D Vial: 21  
 Acq On : 10 Jul 2023 12:36 pm Operator: samantha  
 Sample : fc7413-1 Inst : FID4-LL  
 Misc : gc24246,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 12:42:25 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.23	27019411061	44272.703 ppmv
2) Acetylene	0.59	13450378	10.000 ppmv
3) Ethylene	0.77	19984218	18.369 ppmv
4) Ethane	0.97	38583929	34.484 ppmv
5) Propane	0.00	0	N.D. ppmv

9.1.1  
9

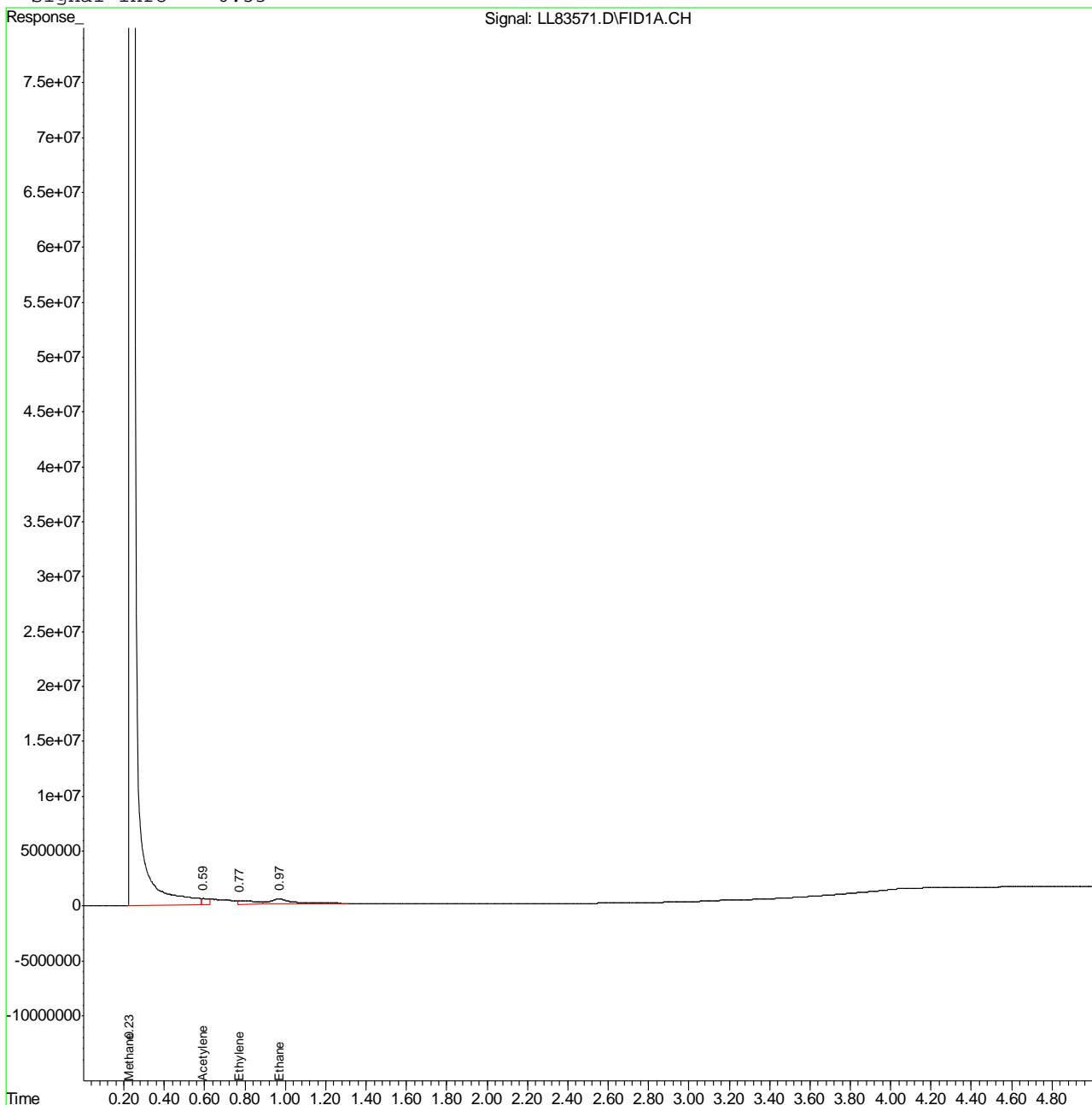
-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83571.D RSK122321B.M Mon Jul 10 13:03:11 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83571.D Vial: 21
Acq On : 10 Jul 2023 12:36 pm Operator: samantha
Sample : fc7413-1 Inst : FID4-LL
Misc : gc24246,g112901,38,20,500,5,1 Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Jul 10 12:42 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)
Title : Dissolved Gases in Water
Last Update : Tue Dec 28 14:25:49 2021
Response via : Multiple Level Calibration
DataAcq Meth : DGMEE3.M

Volume Inj. : manual
Signal Phase : Carboxen 1006 PLOT
Signal Info : 0.53



9.1.1
9



# Dissolved Gases Raw Data Summary

**Sample Number:** FC7413-1      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83571.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 12:36      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	44272.7	37600	4920	ug/l
Ethane	74-84-0	30	34.48	26300	7.8	ug/l
Ethene	74-85-1	28	18.37	10200	5.6	ug/l
Acetylene	74-86-2	26	10	11940	2.6	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.1.1  
9



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83599.D Vial: 9  
 Acq On : 11 Jul 2023 10:14 am Operator: samantha  
 Sample : fc7413-1 Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,10 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 10:21:35 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	5006811402	8203.920 ppmv
2) Acetylene	0.57	777978	0.578 ppmv
3) Ethylene	0.67	75785	0.070 ppmv
4) Ethane	0.98	1306593	1.168 ppmv
5) Propane	0.00	0	N.D. ppmv

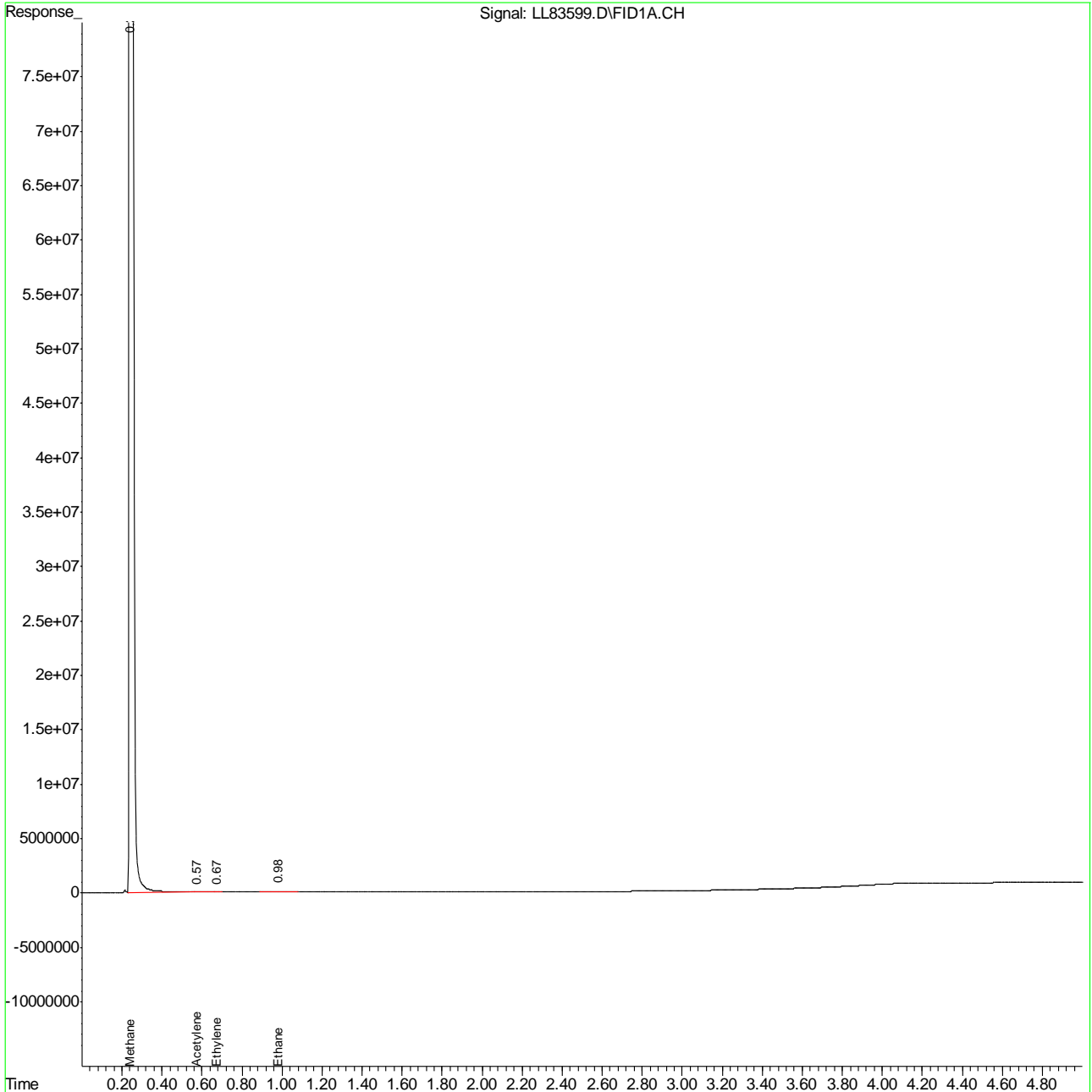
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83599.D RSK122321B.M Tue Jul 11 10:22:04 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83599.D Vial: 9  
 Acq On : 11 Jul 2023 10:14 am Operator: samantha  
 Sample : fc7413-1 Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,10 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 10:21 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.12  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** FC7413-1      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83599.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 10:14      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	8203.92	37600	9120	ug/l
Ethane	74-84-0	30	1.17	26300	0.0	ug/l
Ethene	74-85-1	28	0.07	10200	0.0	ug/l
Acetylene	74-86-2	26	0.58	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.2.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83572.D Vial: 22  
 Acq On : 10 Jul 2023 12:44 pm Operator: samantha  
 Sample : fc7413-2 Inst : FID4-LL  
 Misc : gc24246,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 12:50:08 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	424402	0.695 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv
4) Ethane	0.00	0	N.D. ppmv
5) Propane	0.00	0	N.D. ppmv

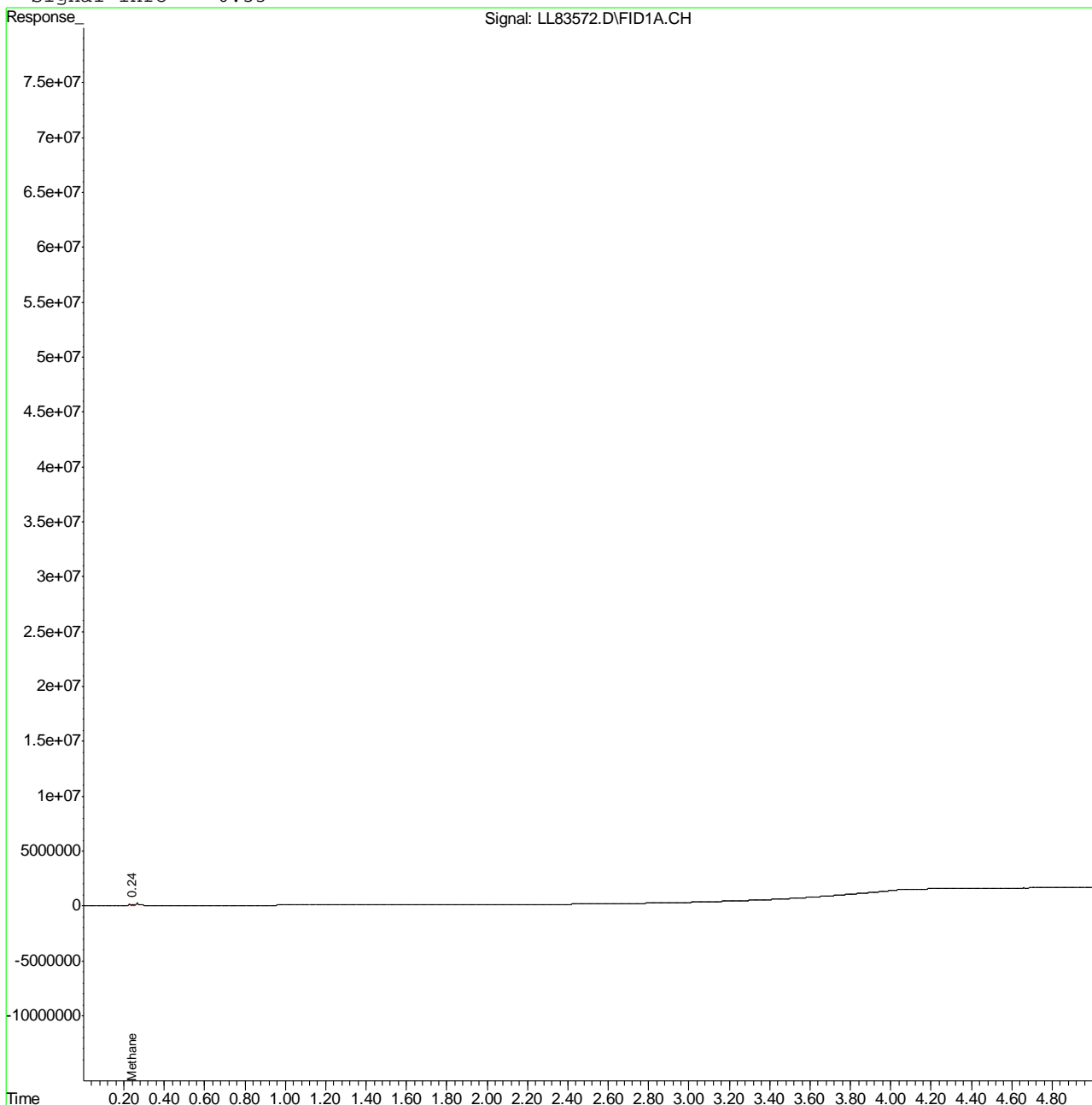
9.1.3  
**9**

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83572.D Vial: 22  
Acq On : 10 Jul 2023 12:44 pm Operator: samantha  
Sample : fc7413-2 Inst : FID4-LL  
Misc : gc24246,g112901,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 10 12:50 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.1.3  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7413-2      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83572.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 12:44      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.7	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.1.3.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83560.D Vial: 10  
 Acq On : 10 Jul 2023 10:10 am Operator: samantha  
 Sample : mb Inst : FID4-LL  
 Misc : gc24240,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 10:16:03 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	305077	0.500 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	0.00	0	N.D. ppmv
4) Ethane	0.00	0	N.D. ppmv
5) Propane	0.00	0	N.D. ppmv

9.2.1  
9

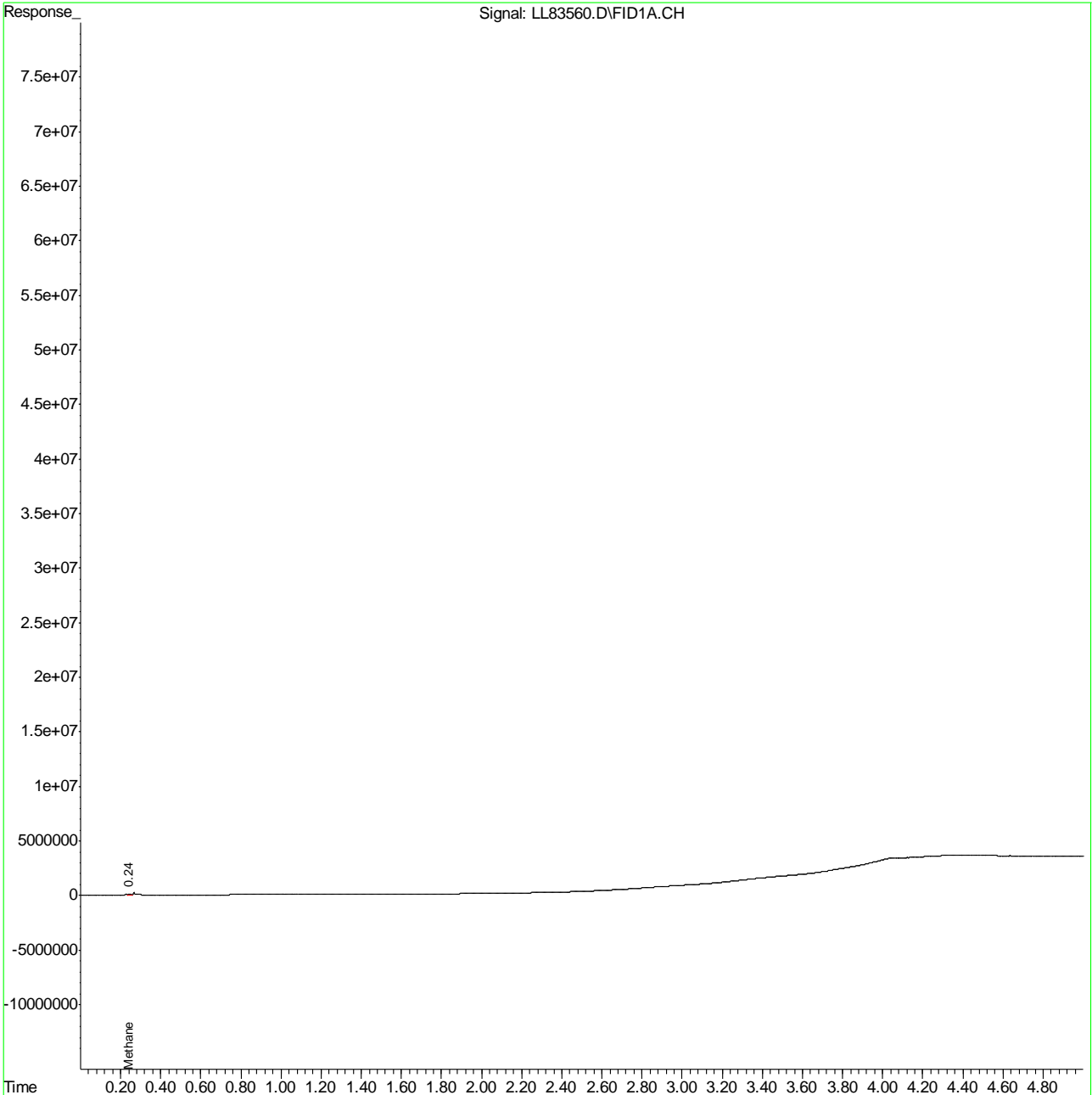
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 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83560.D RSK122321B.M Mon Jul 10 10:16:30 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83560.D Vial: 10  
Acq On : 10 Jul 2023 10:10 am Operator: samantha  
Sample : mb Inst : FID4-LL  
Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 10 10:16 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.2.1  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2901-MB      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83560.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 10:10      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.5	37600	0.0	ug/l
Ethane	74-84-0	30	0	26300	0.0	ug/l
Ethene	74-85-1	28	0	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.2.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83597.D Vial: 7  
 Acq On : 7-11-2023 09:40:43 AM Operator: samantha  
 Sample : mb Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 09:58:18 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	136342	0.223 ppmv
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	1.00f	218032	0.200 ppmv
4) Ethane	1.00	218032	0.195 ppmv
5) Propane	0.00	0	N.D. ppmv

9.2.2  
9

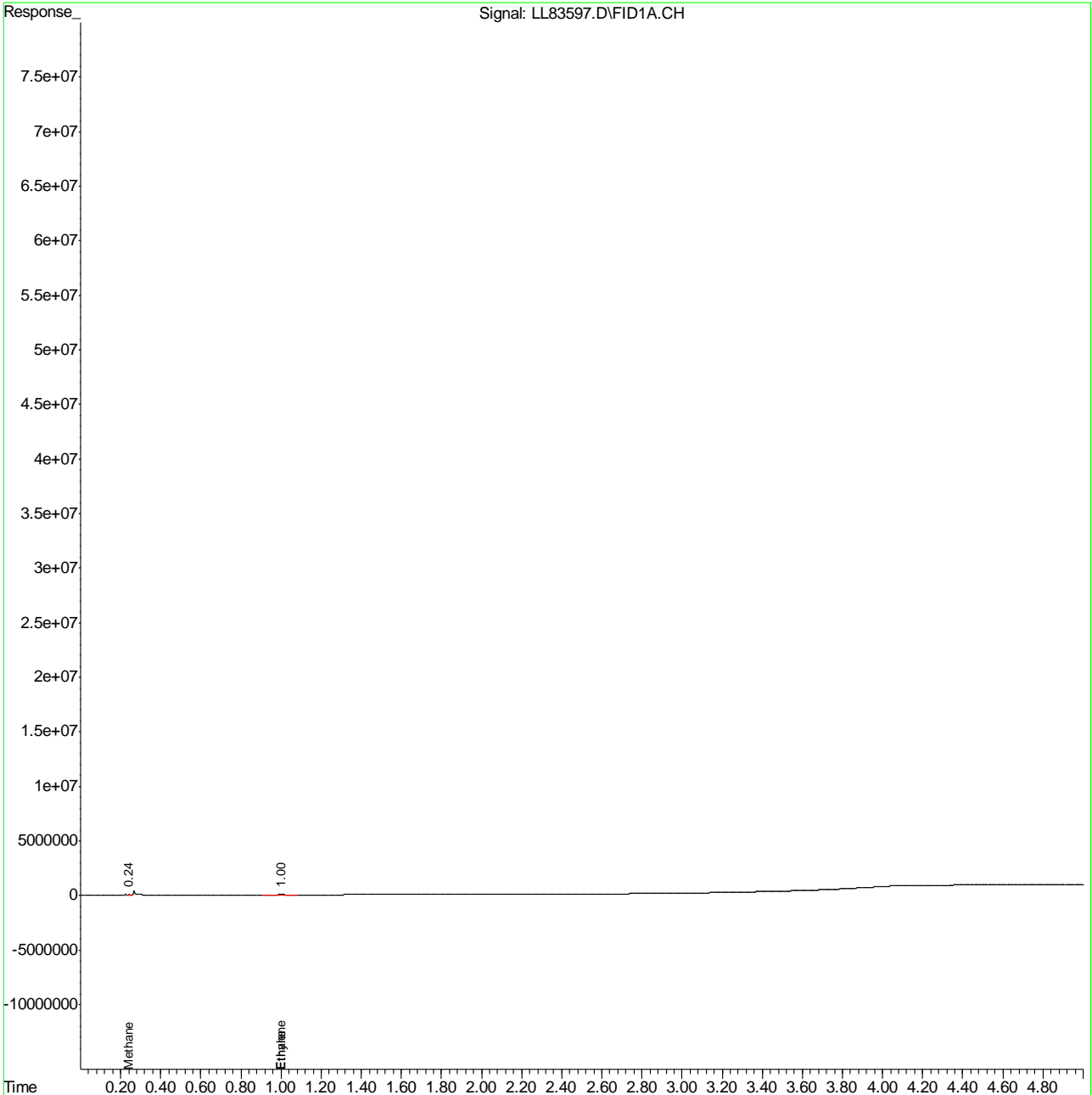
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 LL83597.D RSK122321B.M Tue Jul 11 09:58:41 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83597.D Vial: 7  
Acq On : 7-11-2023 09:40:43 AM Operator: samantha  
Sample : mb Inst : FID4-LL  
Misc : gc24246,gll2902,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 11 9:58 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.2.2  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2902-MB      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83597.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 09:40      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.22	37600	0.0	ug/l
Ethane	74-84-0	30	0.19	26300	0.0	ug/l
Ethene	74-85-1	28	0.2	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.2.2.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83557.D Vial: 7  
 Acq On : 7-10-2023 09:35:39 AM Operator: samantha  
 Sample : bs Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 09:41:37 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	575645033	943.224 ppmv
2) Acetylene	0.57	703488092	523.014 ppmv
3) Ethylene	0.75	833777611	766.382 ppmv
4) Ethane	0.96	920774637	822.935 ppmv
5) Propane	3.14	429906076	289.959 ppmv

9.3.1  
9

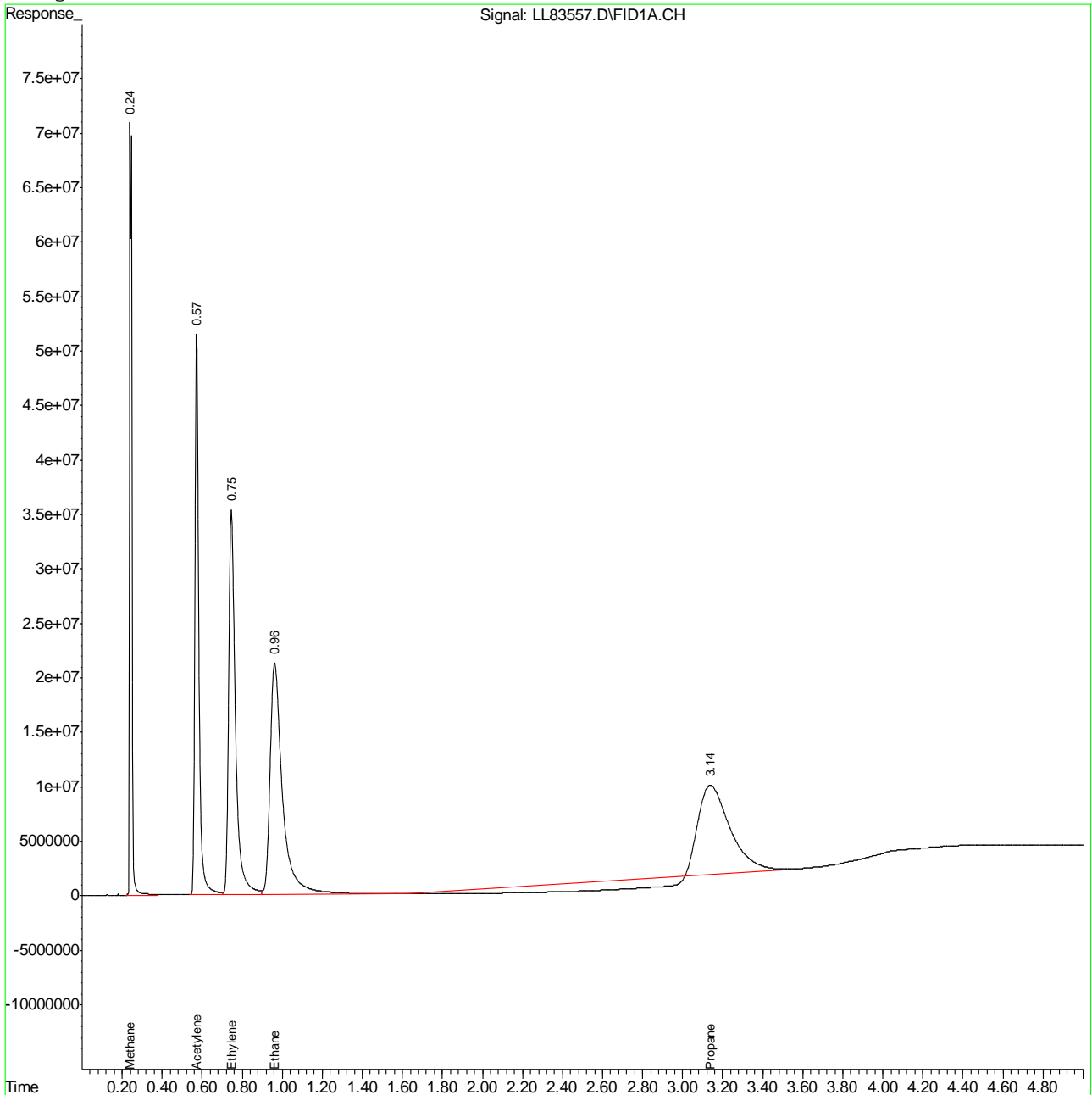
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 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83557.D RSK122321B.M Mon Jul 10 09:42:52 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83557.D Vial: 7  
 Acq On : 7-10-2023 09:35:39 AM Operator: samantha  
 Sample : bs Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 9:41 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.3.1  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2901-BS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83557.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 09:35      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	943.22	37600	105	ug/l
Ethane	74-84-0	30	822.94	26300	187	ug/l
Ethene	74-85-1	28	766.38	10200	234	ug/l
Acetylene	74-86-2	26	523.01	11940	138	ug/l
Propane	74-98-6	44	289.96	31474	92.3	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.1.1  
9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83558.D Vial: 8  
 Acq On : 7-10-2023 09:45:28 AM Operator: samantha  
 Sample : bsd Inst : FID4-LL  
 Misc : gc24240,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 09:51:34 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	647548036	1061.041 ppmv
2) Acetylene	0.57	921364823	684.996 ppmv
3) Ethylene	0.75	952053716	875.098 ppmv
4) Ethane	0.96	1019794088	911.433 ppmv
5) Propane	3.14	606311621	408.939 ppmv

-----  
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 LL83558.D RSK122321B.M Mon Jul 10 09:51:57 2023

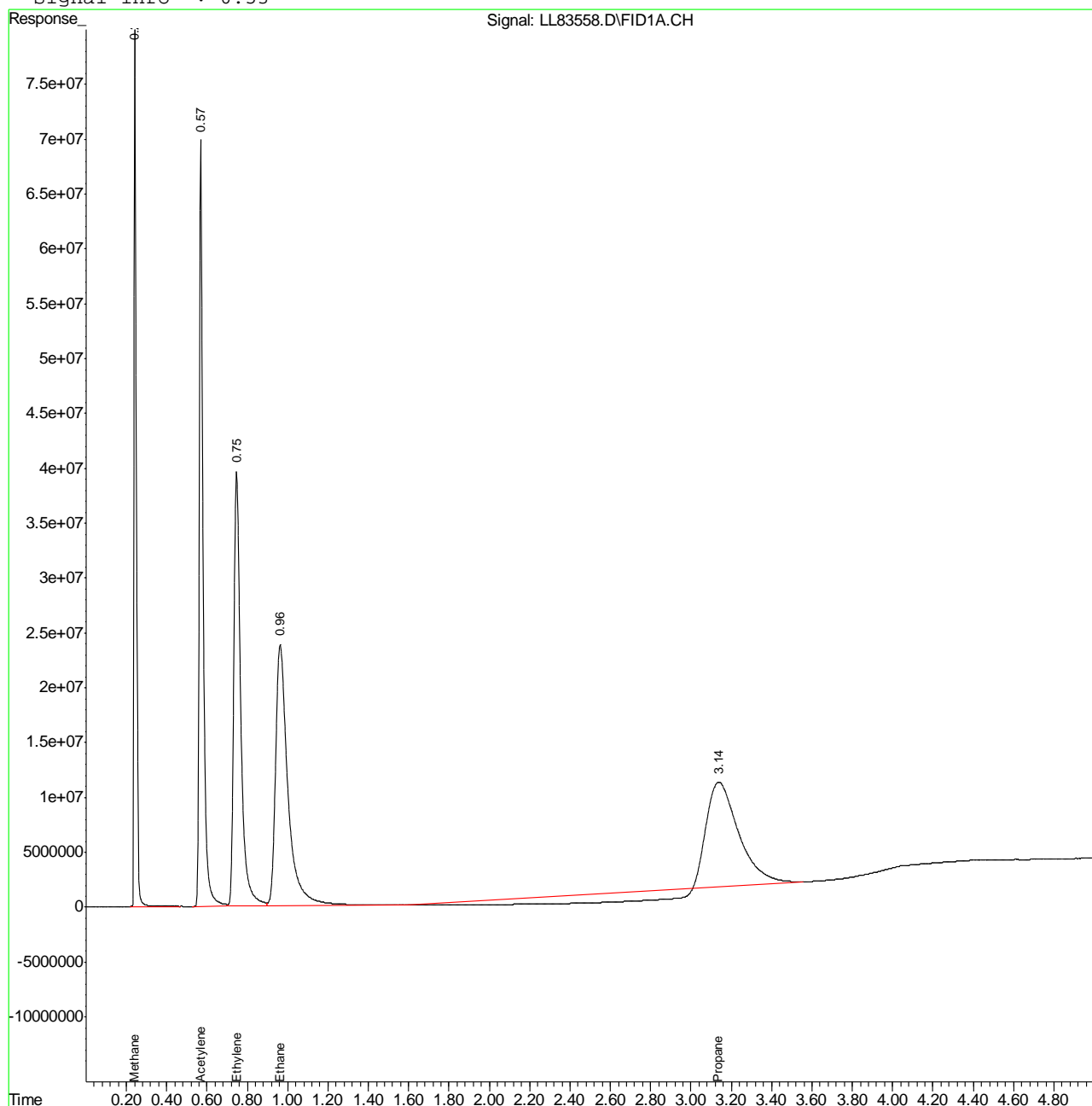


## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83558.D Vial: 8  
Acq On : 7-10-2023 09:45:28 AM Operator: samantha  
Sample : bsd Inst : FID4-LL  
Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 10 9:51 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2901-BSD      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83558.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 09:45      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1061.04	37600	118	ug/l
Ethane	74-84-0	30	911.43	26300	207	ug/l
Ethene	74-85-1	28	875.1	10200	267	ug/l
Acetylene	74-86-2	26	685	11940	180	ug/l
Propane	74-98-6	44	408.94	31474	130	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.2.1

9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83593.D Vial: 3  
 Acq On : 7-11-2023 08:44:18 AM Operator: samantha  
 Sample : bs Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 08:49:36 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	681868975	1117.278	ppmv
2) Acetylene	0.58	1017242983	756.278	ppmv
3) Ethylene	0.76	1066801282	980.570	ppmv
4) Ethane	0.98	1137459750	1016.596	ppmv
5) Propane	3.17	1316832451	888.164	ppmv

9.3.3  
9

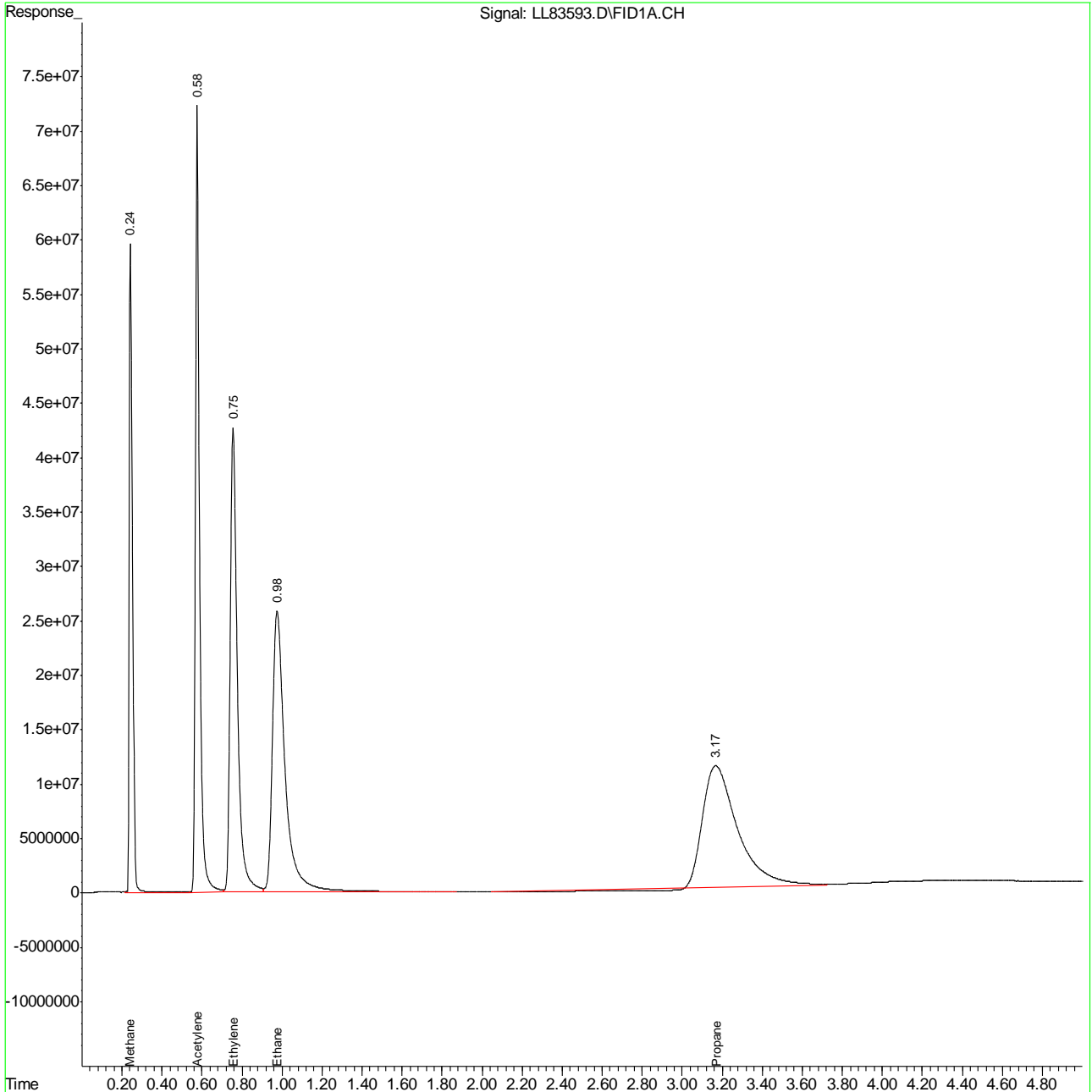
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 LL83593.D RSK122321B.M Tue Jul 11 08:50:03 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83593.D Vial: 3  
 Acq On : 7-11-2023 08:44:18 AM Operator: samantha  
 Sample : bs Inst : FID4-LL  
 Misc : gc24246,gll2902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 8:49 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.3.3  
9



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2902-BS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83593.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 08:44      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1117.28	37600	124	ug/l
Ethane	74-84-0	30	1016.6	26300	231	ug/l
Ethene	74-85-1	28	980.57	10200	300	ug/l
Acetylene	74-86-2	26	756.28	11940	199	ug/l
Propane	74-98-6	44	888.16	31474	283	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.3.1  
9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83595.D Vial: 5  
 Acq On : 7-11-2023 09:16:08 AM Operator: samantha  
 Sample : bsd Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 09:21:37 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	646749354	1059.732 ppmv
2) Acetylene	0.57	1152710197	856.992 ppmv
3) Ethylene	0.75	1064799141	978.730 ppmv
4) Ethane	0.97	1118015471	999.218 ppmv
5) Propane	3.17	1329603212	896.777 ppmv

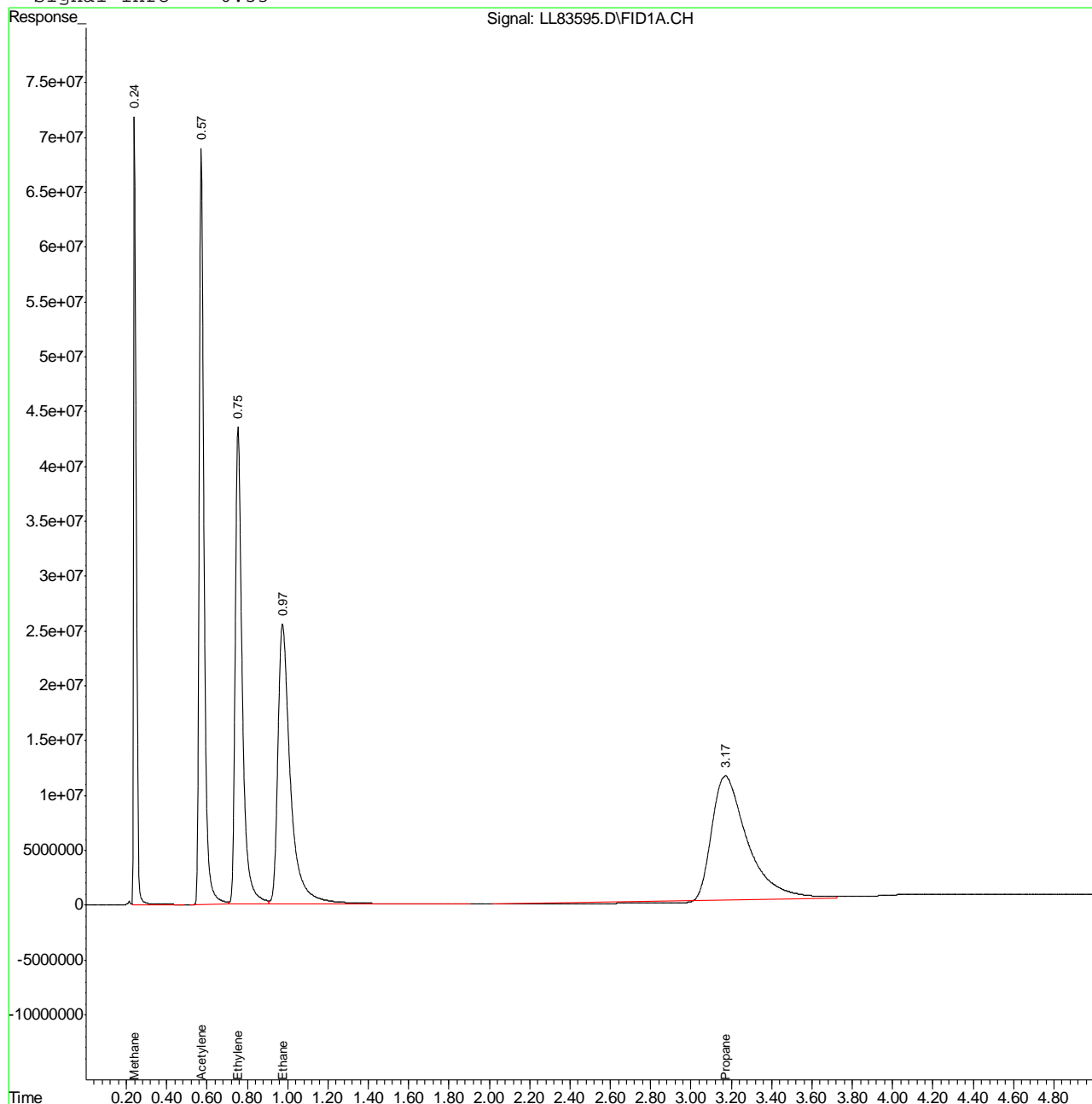
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 LL83595.D RSK122321B.M Tue Jul 11 09:22:02 2023

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83595.D Vial: 5  
Acq On : 7-11-2023 09:16:08 AM Operator: samantha  
Sample : bsd Inst : FID4-LL  
Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 11 9:21 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Dissolved Gases Raw Data Summary

**Sample Number:** GLL2902-BSD      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83595.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 09:16      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1059.73	37600	118	ug/l
Ethane	74-84-0	30	999.22	26300	227	ug/l
Ethene	74-85-1	28	978.73	10200	299	ug/l
Acetylene	74-86-2	26	856.99	11940	226	ug/l
Propane	74-98-6	44	896.78	31474	286	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.3.4.1  
9



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83589.D Vial: 39  
 Acq On : 7-10-2023 04:11:57 PM Operator: samantha  
 Sample : fc7589-7ms Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:17:39 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	645261778	1057.295 ppmv
2) Acetylene	0.57	1108715744	824.284 ppmv
3) Ethylene	0.75	1049070250	964.272 ppmv
4) Ethane	0.98	1106546619	988.968 ppmv
5) Propane	3.17	1290334970	870.292 ppmv

9.4.1  
9

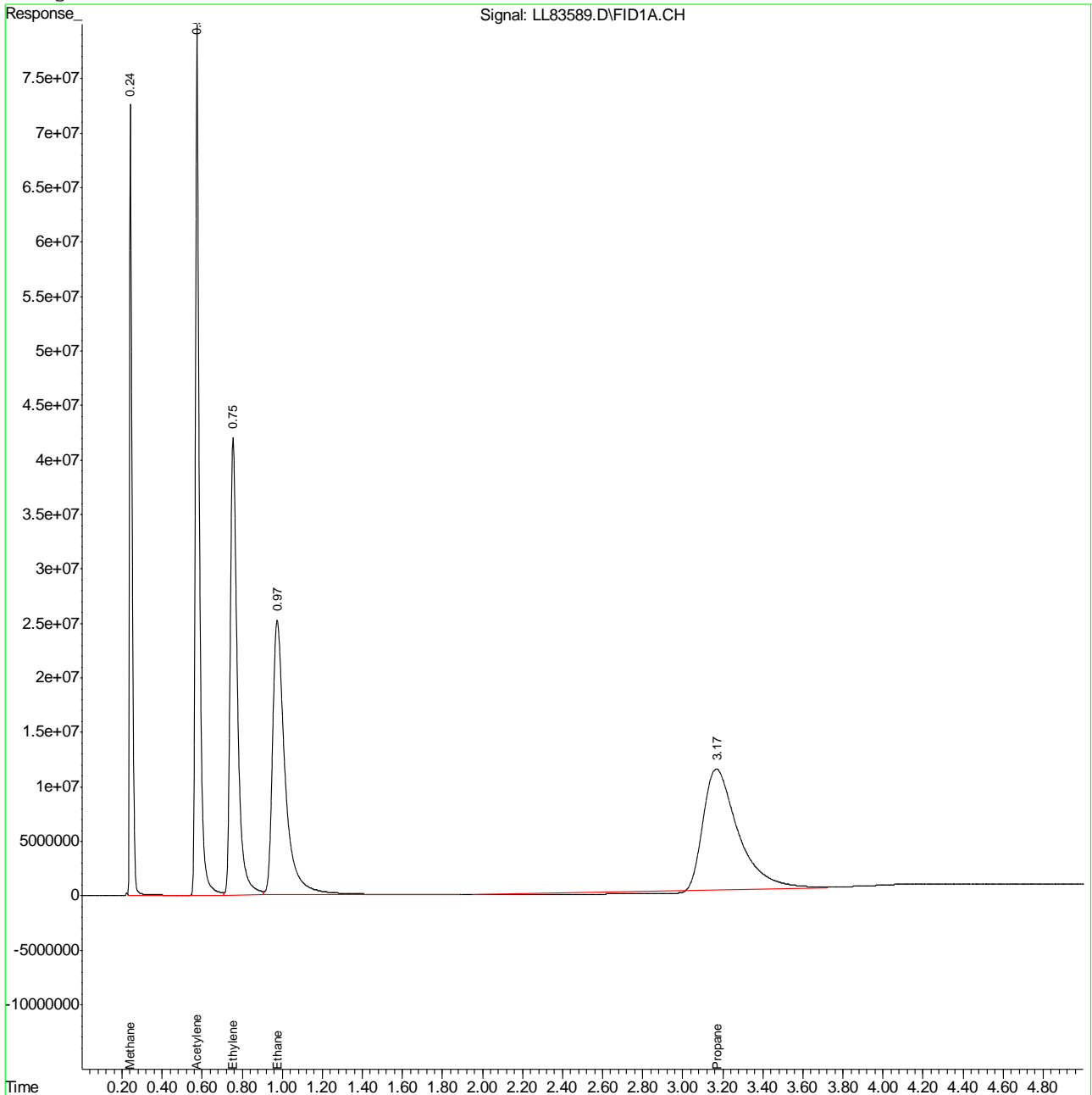
-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83589.D RSK122321B.M Mon Jul 10 16:18:52 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83589.D Vial: 39  
Acq On : 7-10-2023 04:11:57 PM Operator: samantha  
Sample : fc7589-7ms Inst : FID4-LL  
Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 10 16:17 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.4.1  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7589-7MS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83589.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 16:11      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1057.29	37600	118	ug/l
Ethane	74-84-0	30	988.97	26300	225	ug/l
Ethene	74-85-1	28	964.27	10200	295	ug/l
Acetylene	74-86-2	26	824.28	11940	217	ug/l
Propane	74-98-6	44	870.29	31474	277	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.4.1.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83622.D Vial: 32  
 Acq On : 7-11-2023 03:02:09 PM Operator: samantha  
 Sample : fc7589-17ms Inst : FID4-LL  
 Misc : gc24249,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 15:07:47 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	625817497	1025.434 ppmv
2) Acetylene	0.58	1189926070	884.660 ppmv
3) Ethylene	0.76	1054579596	969.336 ppmv
4) Ethane	0.98	1099942232	983.065 ppmv
5) Propane	3.18	1447183393	976.081 ppmv

9.4.2  
9

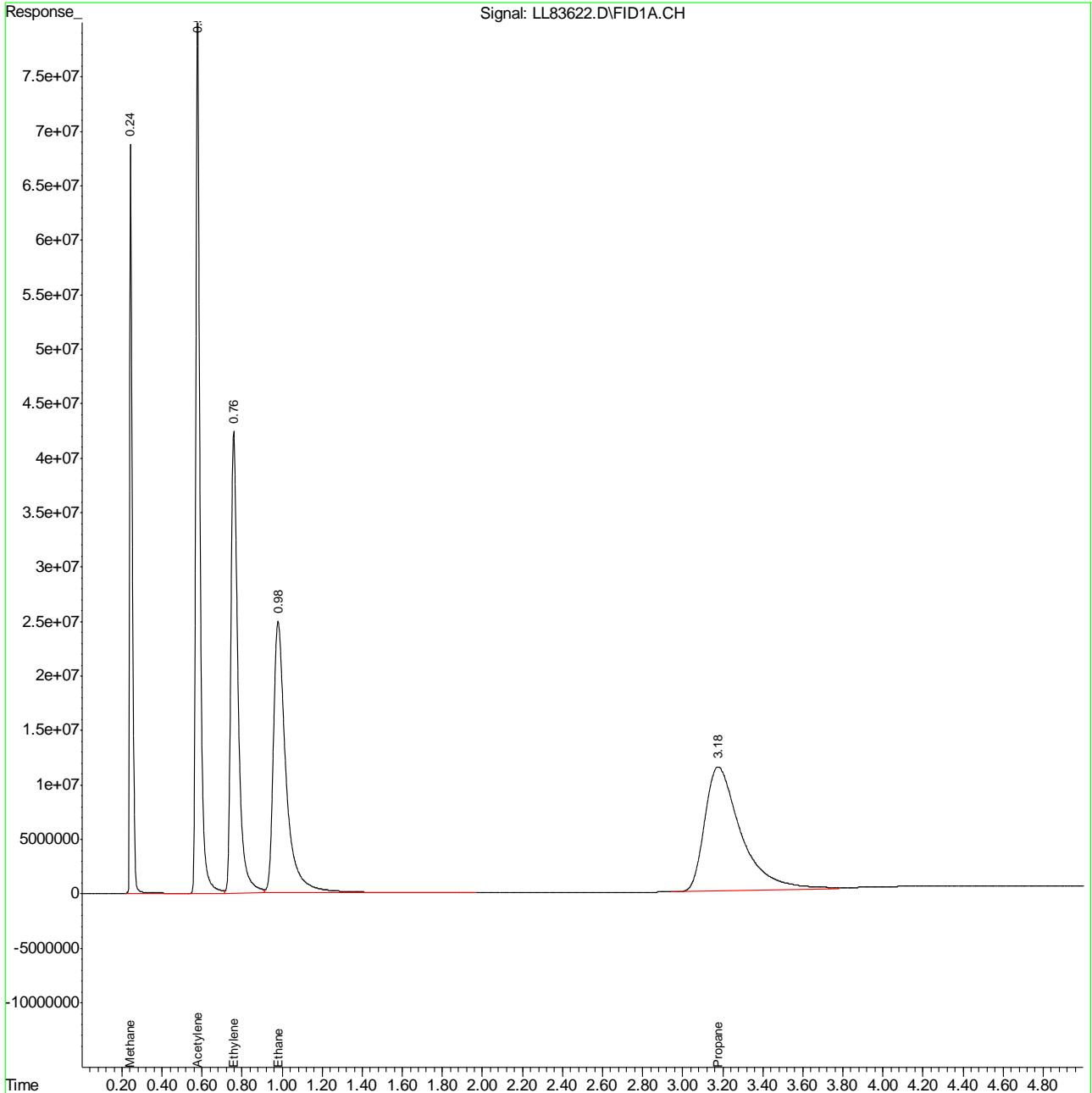
-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83622.D RSK122321B.M Tue Jul 11 15:22:17 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83622.D Vial: 32  
Acq On : 7-11-2023 03:02:09 PM Operator: samantha  
Sample : fc7589-17ms Inst : FID4-LL  
Misc : gc24249,gll2902,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 11 15:07 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.4.2  
9

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7589-17MS      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83622.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/11/23 15:02      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	1025.43	37600	114	ug/l
Ethane	74-84-0	30	983.06	26300	224	ug/l
Ethene	74-85-1	28	969.34	10200	296	ug/l
Acetylene	74-86-2	26	884.66	11940	233	ug/l
Propane	74-98-6	44	976.08	31474	311	ug/l

Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.4.2.1  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83588.D Vial: 38  
 Acq On : 7-10-2023 03:56:22 PM Operator: samantha  
 Sample : fc7589-7dup Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:07:49 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	217518	0.356 ppmv m
2) Acetylene	0.00	0	N.D. ppmv
3) Ethylene	1.00f	219198	0.201 ppmv
4) Ethane	1.00	219198	0.196 ppmv
5) Propane	0.00	0	N.D. ppmv

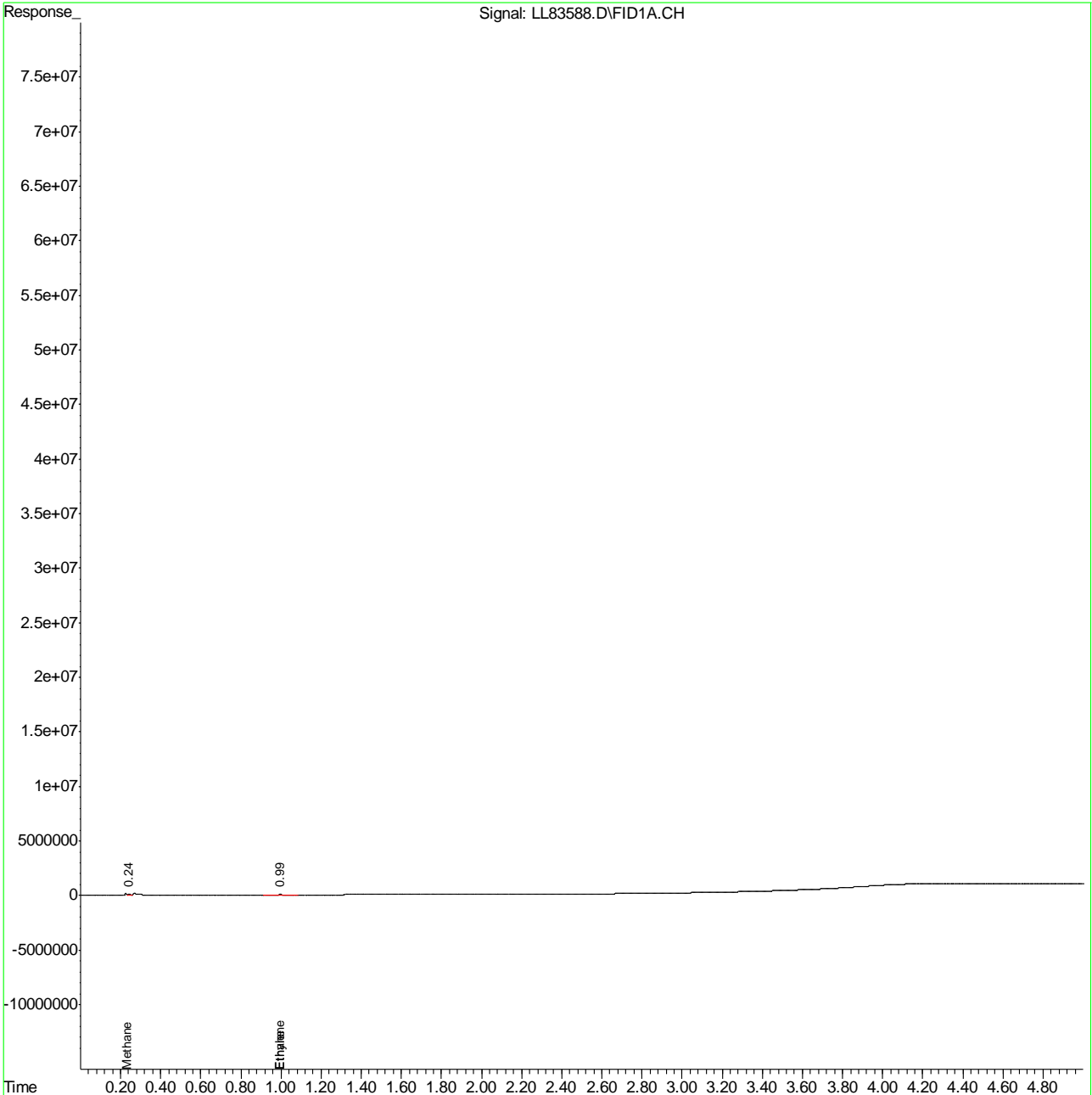
9.5.1  
**9**

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83588.D Vial: 38  
Acq On : 7-10-2023 03:56:22 PM Operator: samantha  
Sample : fc7589-7dup Inst : FID4-LL  
Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Jul 10 16:09 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Tue Dec 28 14:25:49 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



9.5.1  
9





# Manual Integration Approval Summary

**Sample Number:** FC7589-7DUP

**Method:** RSKSOP-147/175

**Lab FileID:** LL83588.D

**Analyst approved:** 07/10/23 16:10 Samantha Skitowski

**Injection Time:** 07/10/23 15:56

**Supervisor approved:** 07/12/23 08:49 Karen Watson

Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	0.24	Overlapping peak

# Dissolved Gases Raw Data Summary

**Sample Number:** FC7589-7DUP      **Sample Volume:** 38.0 ml  
**Lab FileID:** LL83588.D      **Headspace:** 5.0 ml  
**Injection Time:** 07/10/23 15:56      **Volume Injected:** 500 ul  
**Method:** RSKSOP-147/175      **Temperature:** 20 Deg. C

Parameter	CAS	MW	Result (ppmv)	Henry's Constant	Total	Units
Methane	74-82-8	16	0.36	37600	0.0	ug/l
Ethane	74-84-0	30	0.2	26300	0.0	ug/l
Ethene	74-85-1	28	0.2	10200	0.0	ug/l
Acetylene	74-86-2	26	0	11940	0.0	ug/l
Propane	74-98-6	44	0	31474	0.0	ug/l

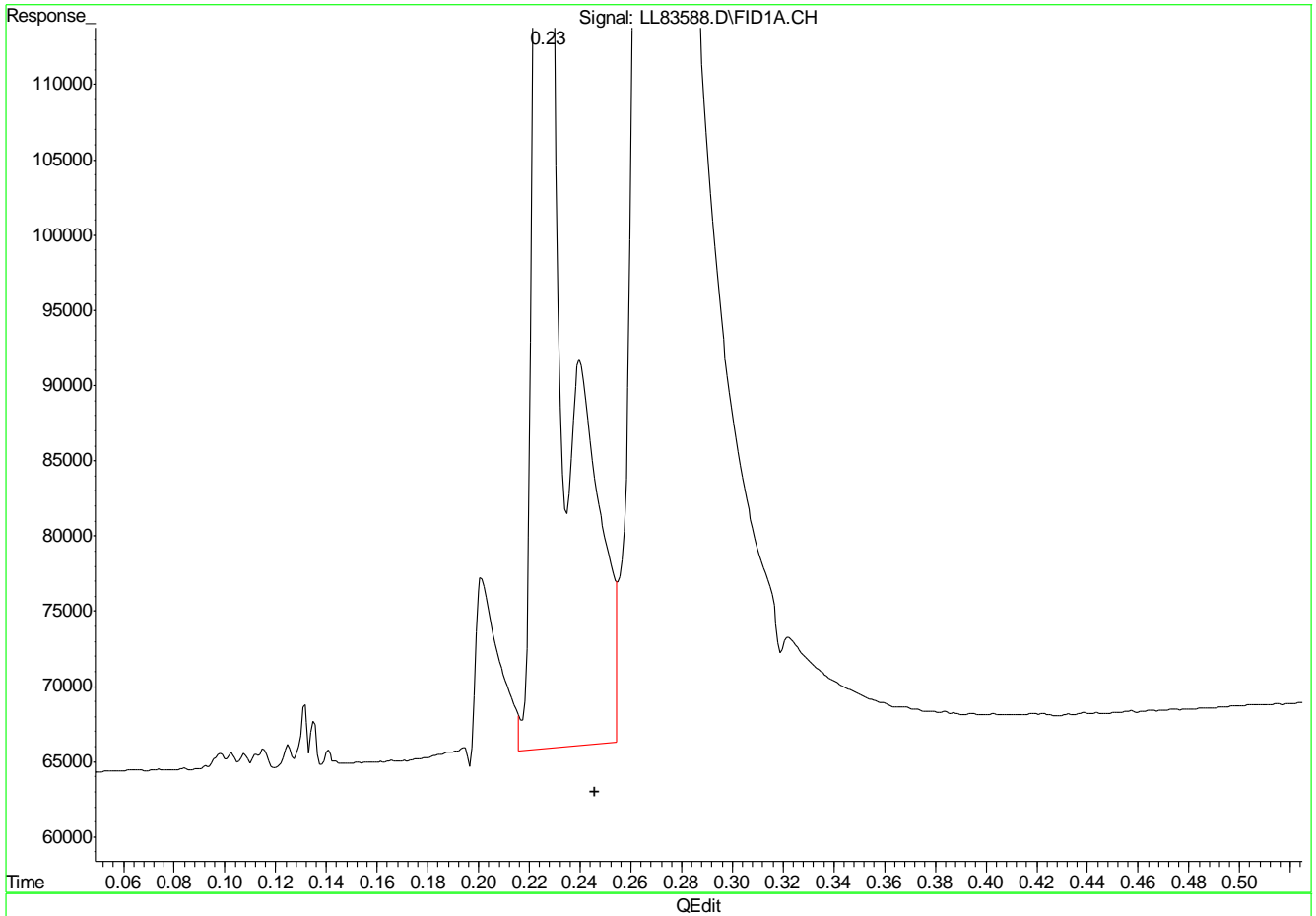
Henry's Constants	20	21	22	23	24	25	26	27	28	29	30
Methane	37600	38340	39080	39820	40560	41300	42020	42740	43360	44180	44900
Ethane	26300	27080	27860	28640	29420	30200	31000	31800	32600	33400	34200
Ethene	10200	10440	10680	10920	11160	11400	11660	11920	12180	12440	12700
Acetylene	11940	12200	12470	12730	13000	13260	13530	13800	14060	14330	14600
Propane	31474	32552	33643	34744	35857	36978	38107	39244	40387	41535	42688

9.5.1.2  
9

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\071023\LL83588.D Vial: 38  
 Acq On : 7-10-2023 03:56:22 PM Operator: samantha  
 Sample : fc7589-7dup Inst : FID4-LL  
 Misc : gc24246,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:07 2023 Quant Results File: RSK122321B.RES

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration



(1) Methane  
 0.23min 1.413ppmv  
 response 862647

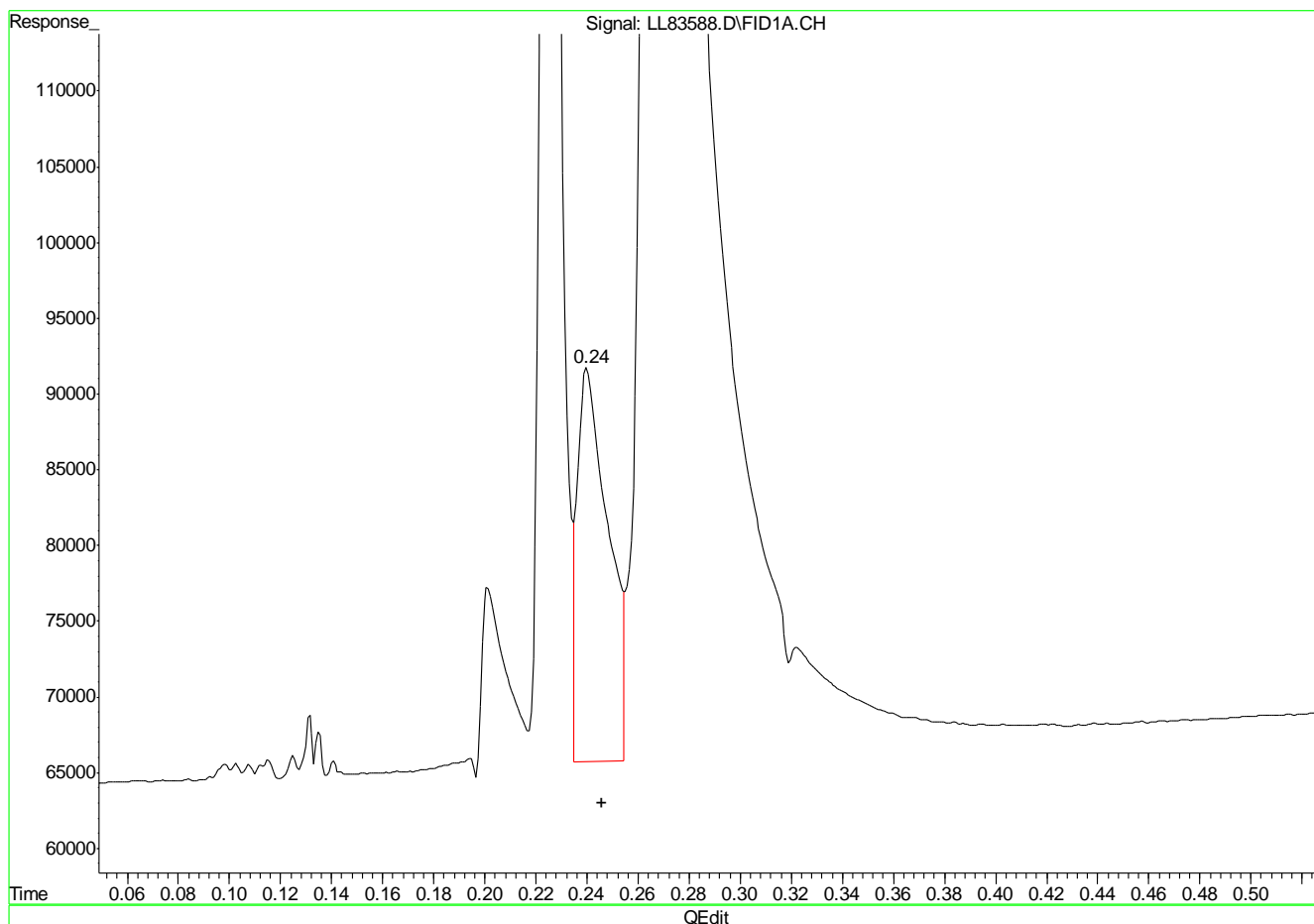
(+) = Expected Retention Time

LL83588.D RSK122321B.M Mon Jul 10 16:09:37 2023

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\071023\LL83588.D Vial: 38  
 Acq On : 7-10-2023 03:56:22 PM Operator: samantha  
 Sample : fc7589-7dup Inst : FID4-LL  
 Misc : gc24246,g112901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:07 2023 Quant Results File: RSK122321B.RES

Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration



(1) Methane  
 0.24min 0.356ppmv m  
 response 217518

(+) = Expected Retention Time  
 LL83588.D RSK122321B.M Mon Jul 10 16:09:45 2023

9.5.1.4  
**9**

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77115.D Vial: 7  
 Acq On : 23 Dec 2021 11:44 am Operator: trangd  
 Sample : IC2678-1 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:37 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.25	1222064	2.351 ppmv m
2) Acetylene	0.58	1314517	1.290 ppmv
3) Ethylene	0.78	1209561	1.131 ppmv
4) Ethane	1.02	1345578	1.229 ppmv
5) Propane	3.32	2438213	1.652 ppmv m

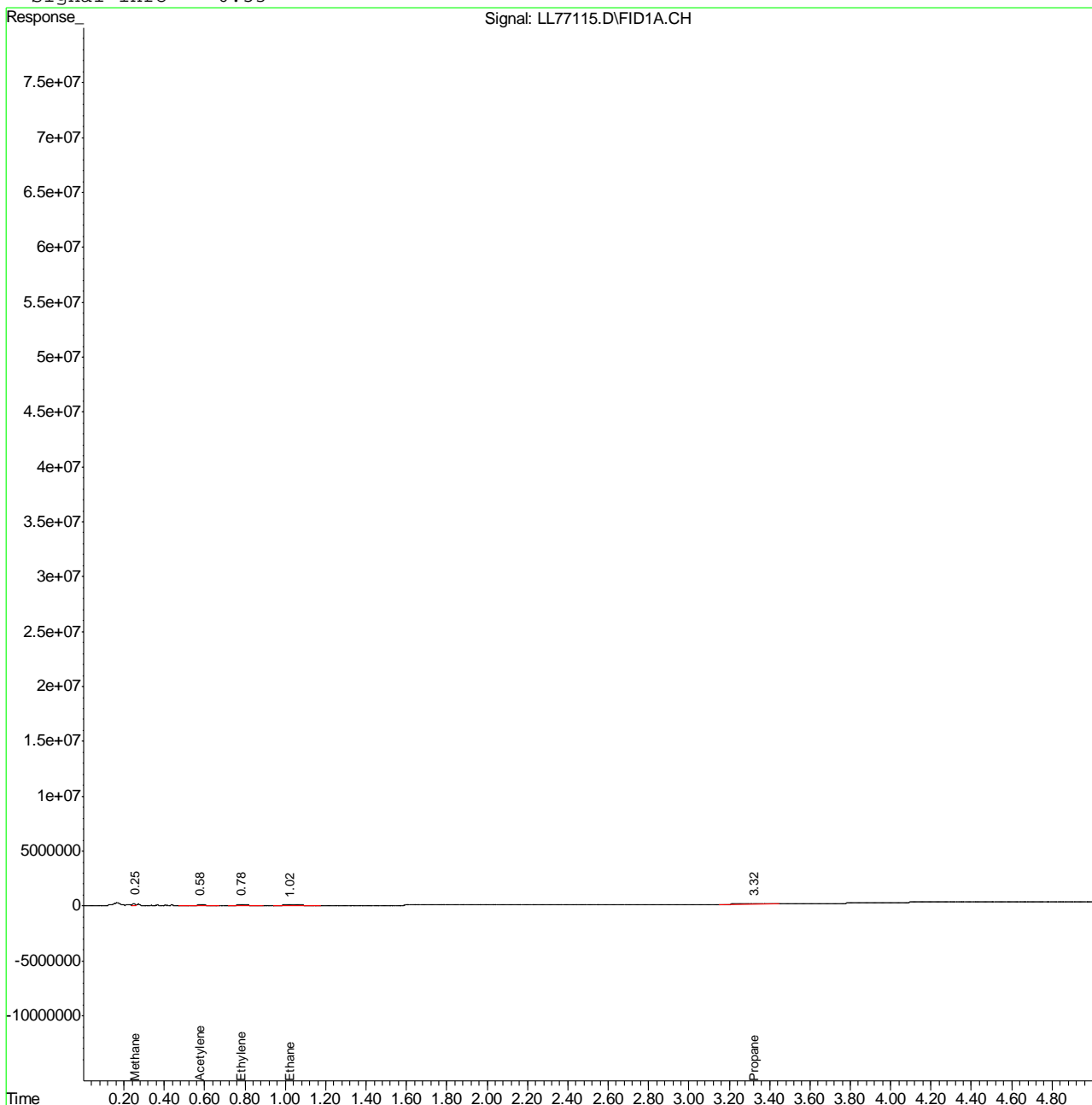
9.6.1  
**9**

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77115.D Vial: 7  
 Acq On : 23 Dec 2021 11:44 am Operator: trangd  
 Sample : IC2678-1 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:33 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.1  
 9

# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77115.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 11:44      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Methane	74-82-8	1	0.25	Poor instrument integration
Propane	74-98-6	1	3.32	Poor instrument integration

9.6.1.1

9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77116.D Vial: 8  
 Acq On : 23 Dec 2021 11:53 am Operator: trangd  
 Sample : IC2678-2 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:38 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.25	11676132	22.458 ppmv
2) Acetylene	0.58	17192128	16.867 ppmv
3) Ethylene	0.78	14889046	13.923 ppmv
4) Ethane	1.02	15188973	13.873 ppmv
5) Propane	3.29	31221296	21.155 ppmv m

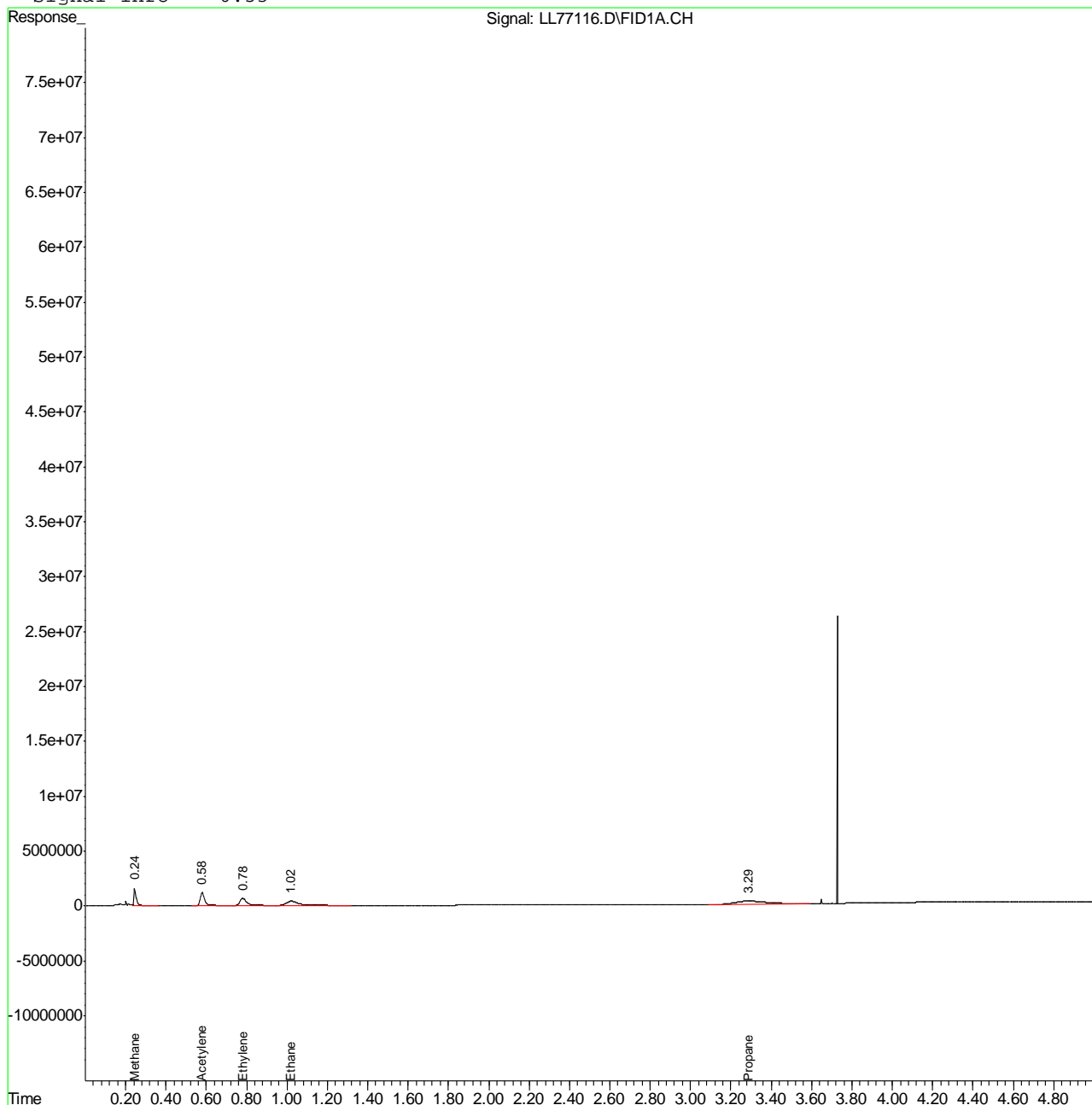


## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77116.D Vial: 8  
Acq On : 23 Dec 2021 11:53 am Operator: trangd  
Sample : IC2678-2 Inst : FID4-LL  
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77116.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 11:53      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.29	Poor instrument integration

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77117.D Vial: 9  
 Acq On : 23 Dec 2021 12:43 pm Operator: trangd  
 Sample : IC2678-3 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:39 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

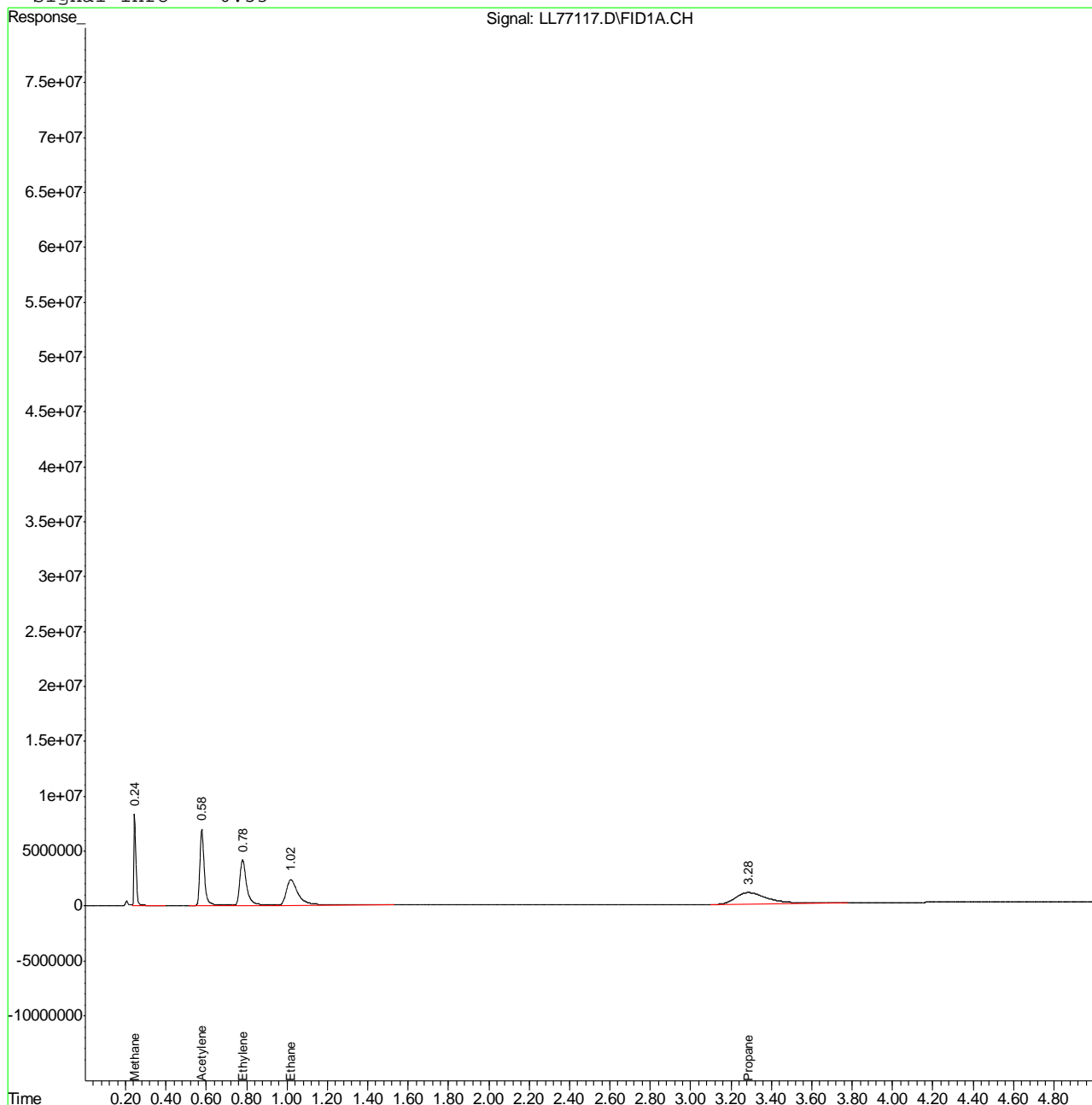
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.25	57068216	109.623 ppmv
2) Acetylene	0.58	105203176	102.861 ppmv
3) Ethylene	0.78	97229155	90.919 ppmv
4) Ethane	1.02	97815788	89.344 ppmv
5) Propane	3.28	120041232	81.337 ppmv m

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77117.D Vial: 9  
Acq On : 23 Dec 2021 12:43 pm Operator: trangd  
Sample : IC2678-3 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77117.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 12:43      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.28	Poor instrument integration

9.6.3.1

9

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77118.D Vial: 10  
 Acq On : 23 Dec 2021 12:54 pm Operator: trangd  
 Sample : IC2678-4 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:40 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

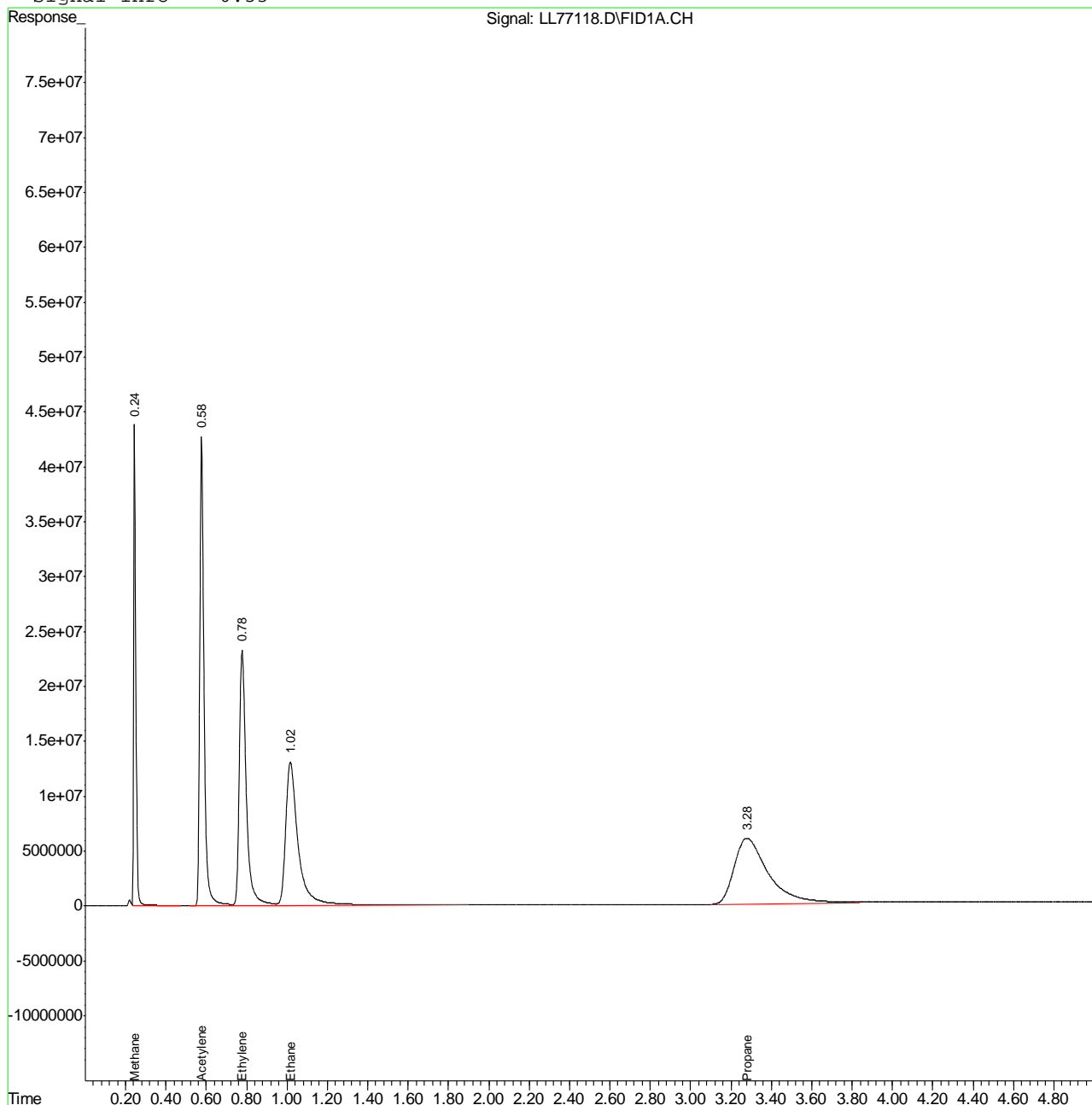
Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	313371378	597.545 ppmv
2) Acetylene	0.58	628819108	602.808 ppmv
3) Ethylene	0.78	552483232	516.628 ppmv
4) Ethane	1.02	557176327	508.920 ppmv
5) Propane	3.28	698198981	473.084 ppmv m

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77118.D Vial: 10  
Acq On : 23 Dec 2021 12:54 pm Operator: trangd  
Sample : IC2678-4 Inst : FID4-LL  
Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-IC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77118.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 12:54      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.28	Poor instrument integration



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77119.D Vial: 11  
 Acq On : 12-23-2021 01:01:40 PM Operator: trangd  
 Sample : ICC2678-5 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:41 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

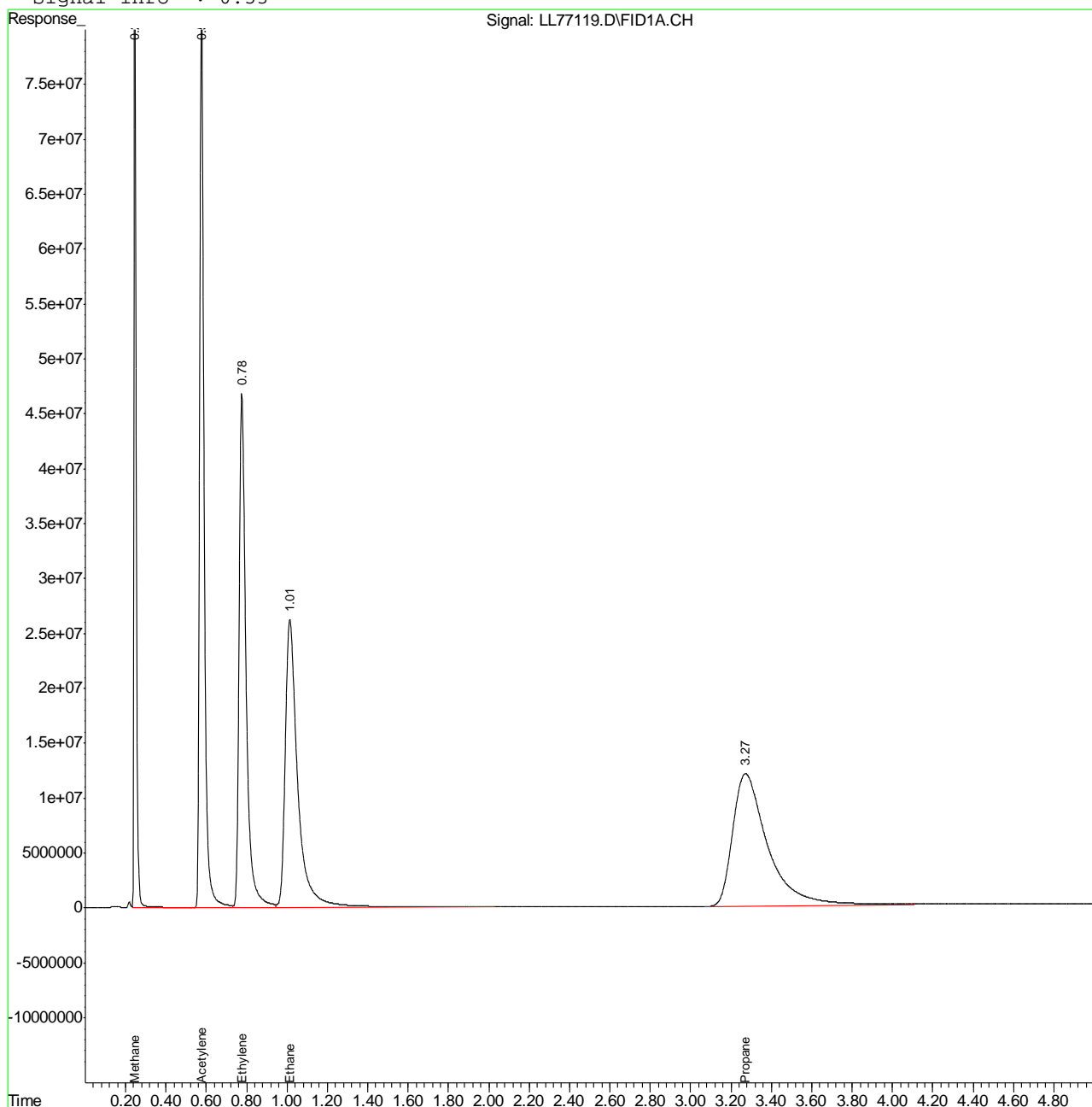
Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.25	622614864	1176.969	ppmv
2) Acetylene	0.58	1277889494	1197.217	ppmv
3) Ethylene	0.78	1114273972	1041.959	ppmv
4) Ethane	1.01	1119942427	1022.946	ppmv
5) Propane	3.27	1464950772	992.619	ppmv m

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77119.D Vial: 11  
Acq On : 12-23-2021 01:01:40 PM Operator: trangd  
Sample : ICC2678-5 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:34 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



# Manual Integration Approval Summary

**Sample Number:** GLL2678-ICC2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77119.D      **Analyst approved:** 12/28/21 15:10 Trang Diep  
**Injection Time:** 12/23/21 13:01      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.27	Poor instrument integration

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77120.D Vial: 12  
 Acq On : 12-23-2021 02:24:22 PM Operator: trangd  
 Sample : IC2678-6 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:42 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

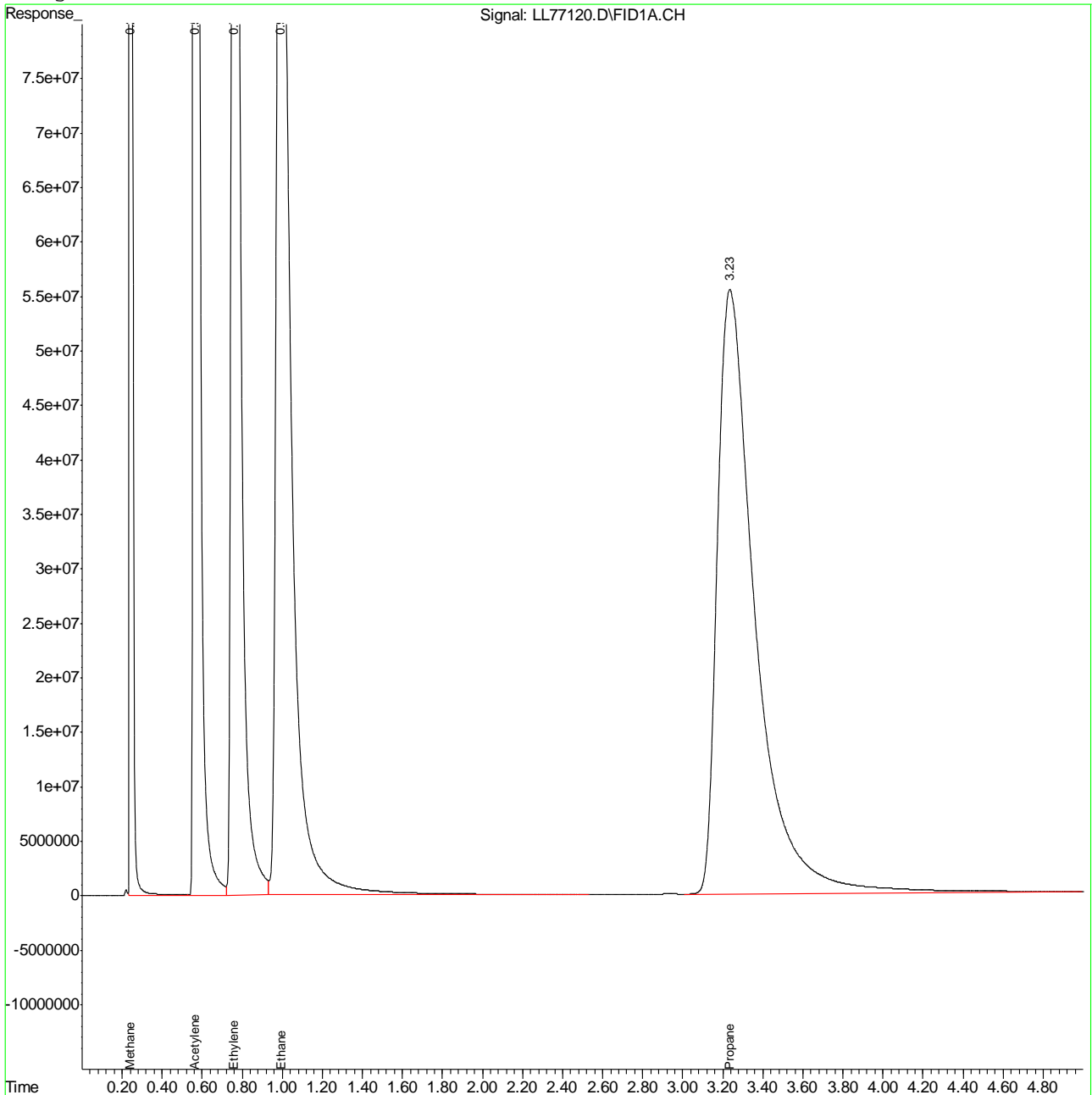
Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	3127094366	5549.763	ppmv
2) Acetylene	0.57	6334260778	5155.089	ppmv
3) Ethylene	0.76	5440050642	5086.999	ppmv
4) Ethane	0.99	5622997301	5135.999	ppmv
5) Propane	3.23	7311594809	4954.177	ppmv

## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77120.D Vial: 12  
Acq On : 12-23-2021 02:24:22 PM Operator: trangd  
Sample : IC2678-6 Inst : FID4-LL  
Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
IntFile : AUTOINT1.E  
Quant Time: Dec 23 15:27 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
Title : Dissolved Gases in Water  
Last Update : Thu Dec 16 14:24:26 2021  
Response via : Multiple Level Calibration  
DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
Signal Phase : Carboxen 1006 PLOT  
Signal Info : 0.53



## Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77121.D Vial: 13  
 Acq On : 12-23-2021 02:39:43 PM Operator: trangd  
 Sample : IC2678-7 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27:43 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	6063533448	10115.185 ppmv
2) Acetylene	0.56	13655387265	9666.436 ppmv
3) Ethylene	0.74	10876284063	10170.428 ppmv
4) Ethane	0.98	11174787274	10206.958 ppmv
5) Propane	3.19	14881473513	10083.362 ppmv

9.6.7  
9

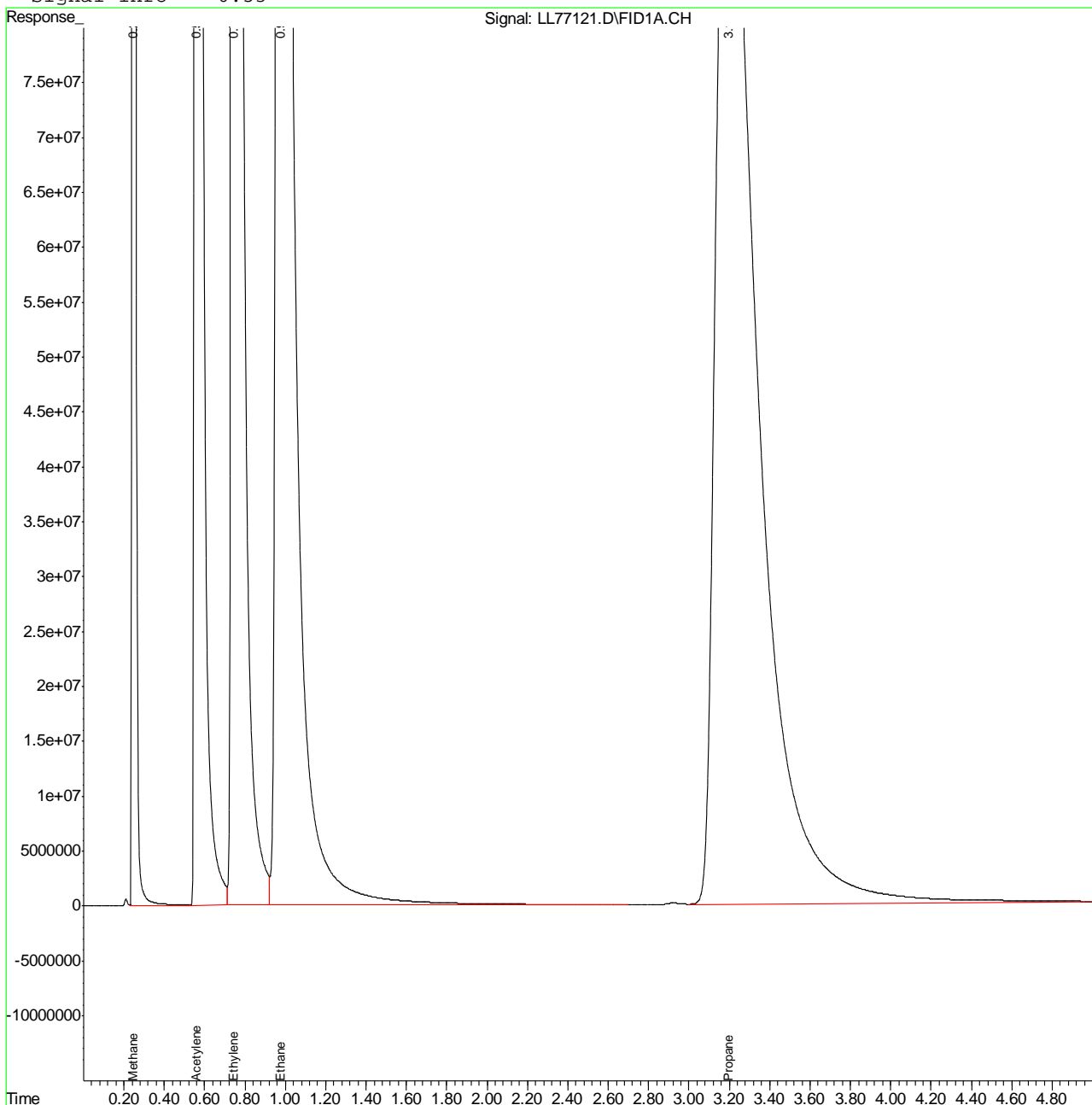
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 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL77121.D RSK122321B.M Thu Dec 30 10:08:19 2021

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77121.D Vial: 13  
 Acq On : 12-23-2021 02:39:43 PM Operator: trangd  
 Sample : IC2678-7 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 23 15:27 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Dec 16 14:24:26 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.67  
 9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15  
 Acq On : 12-23-2021 03:20:03 PM Operator: trangd  
 Sample : icv2678-5 Inst : FID4-LL  
 Misc : gc23581,gll2678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 28 15:03:54 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.25	624539960	1023.341	ppmv
2) Acetylene	0.58	1295434265	963.101	ppmv
3) Ethylene	0.78	1114848289	1024.733	ppmv
4) Ethane	1.02	1138078608	1017.149	ppmv
5) Propane	3.27	1567891284	1057.495	ppmv m

6 8.9.6

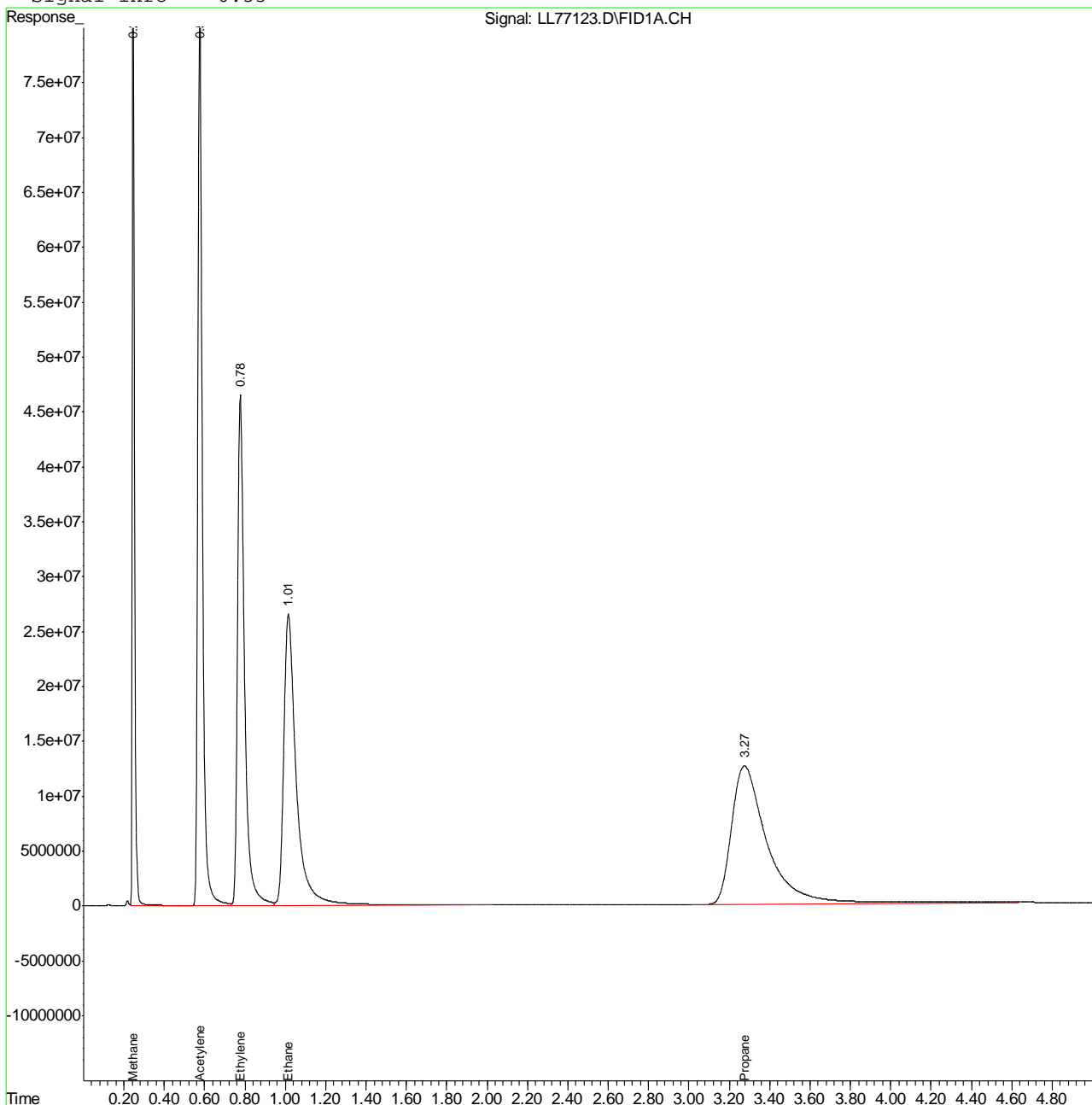


Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\122321\LL77123.D Vial: 15  
 Acq On : 12-23-2021 03:20:03 PM Operator: trangd  
 Sample : icv2678-5 Inst : FID4-LL  
 Misc : gc23581,g112678,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Dec 28 15:04 2021 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



6 896

# Manual Integration Approval Summary

**Sample Number:** GLL2678-ICV2678      **Method:** RSKSOP-147/175  
**Lab FileID:** LL77123.D      **Analyst approved:** 12/30/21 10:10 Trang Diep  
**Injection Time:** 12/23/21 15:20      **Supervisor approved:** 01/06/22 18:05 Chelsea VanDenBurg

Parameter	CAS	Sig#	R.T. (min.)	Reason
Propane	74-98-6	1	3.27	Poor instrument integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83555.D Vial: 5  
 Acq On : 7-10-2023 09:08:59 AM Operator: samantha  
 Sample : cc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 09:14:37 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	648556572	1062.693 ppmv
2) Acetylene	0.57	1217200532	904.938 ppmv
3) Ethylene	0.75	980039276	900.821 ppmv
4) Ethane	0.96	1023164772	914.446 ppmv
5) Propane	3.13	261913465	176.653 ppmv

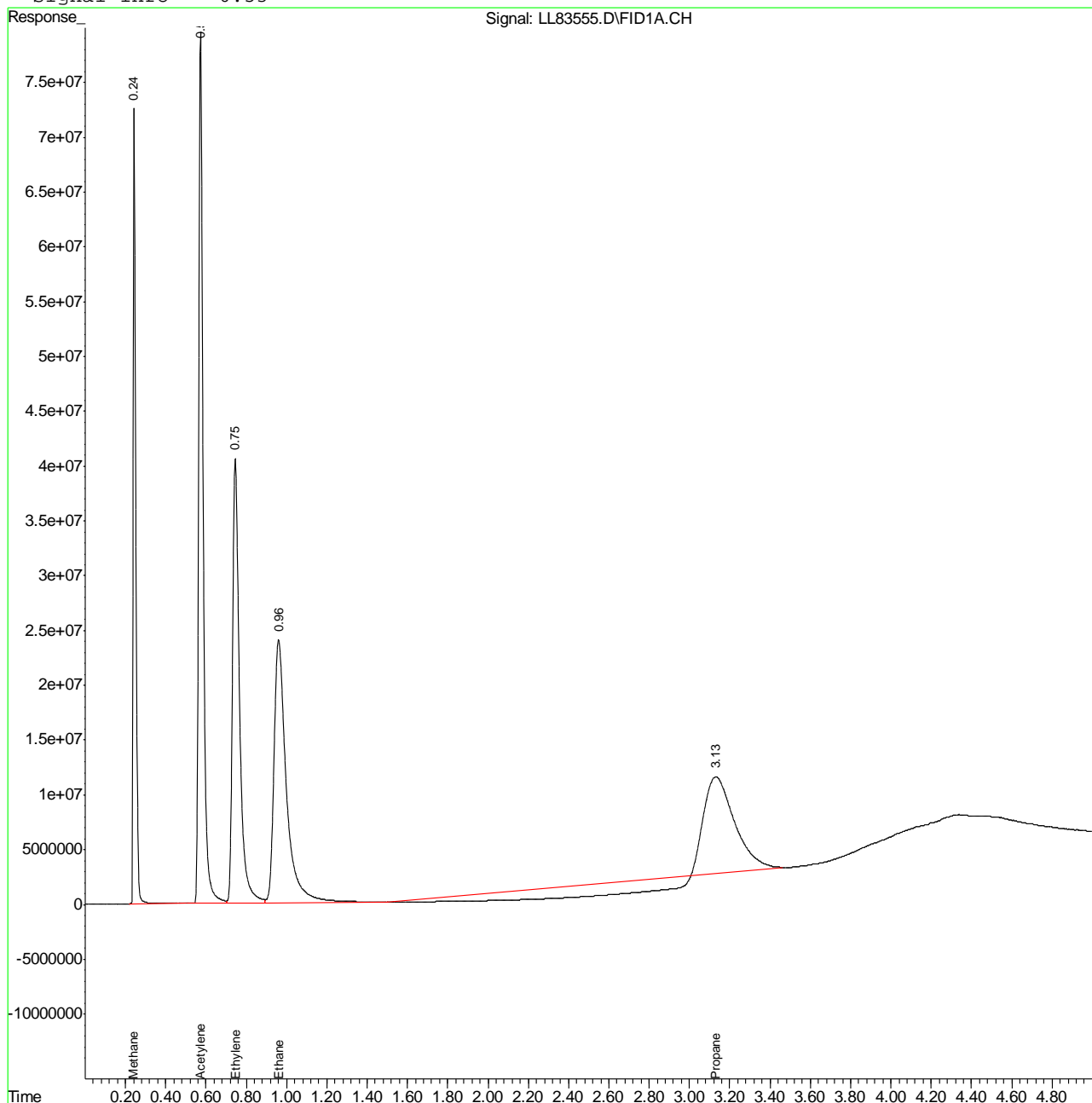
6.9.6  
6

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83555.D Vial: 5  
 Acq On : 7-10-2023 09:08:59 AM Operator: samantha  
 Sample : cc2678-5 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 9:14 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



6 6.9.6

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83568.D Vial: 18  
 Acq On : 10 Jul 2023 12:09 pm Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 12:15:14 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	328364253	538.042 ppmv
2) Acetylene	0.57	644596330	479.230 ppmv
3) Ethylene	0.75	513971675	472.426 ppmv
4) Ethane	0.97	546754704	488.658 ppmv
5) Propane	3.16	353029980	238.108 ppmv

9.6.10  
9

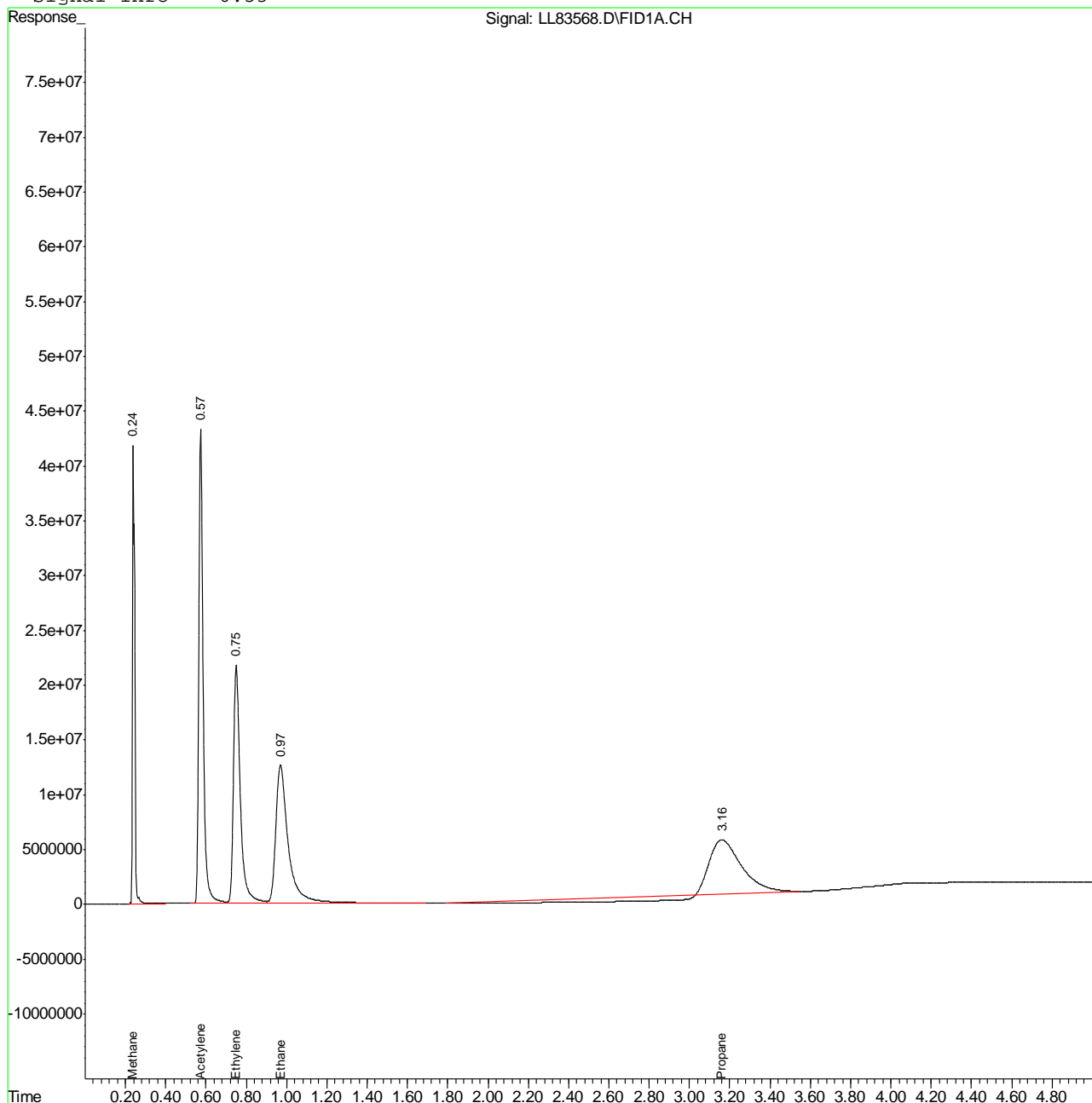
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 LL83568.D RSK122321B.M Mon Jul 10 12:15:45 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83568.D Vial: 18  
 Acq On : 10 Jul 2023 12:09 pm Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 12:15 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6-10  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83579.D Vial: 29  
 Acq On : 7-10-2023 02:28:19 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 14:34:17 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	318022421	521.096 ppmv
2) Acetylene	0.58	650123860	483.340 ppmv
3) Ethylene	0.75	507455164	466.437 ppmv
4) Ethane	0.97	538024570	480.855 ppmv
5) Propane	3.17	419485302	282.930 ppmv

9.6.11  
9

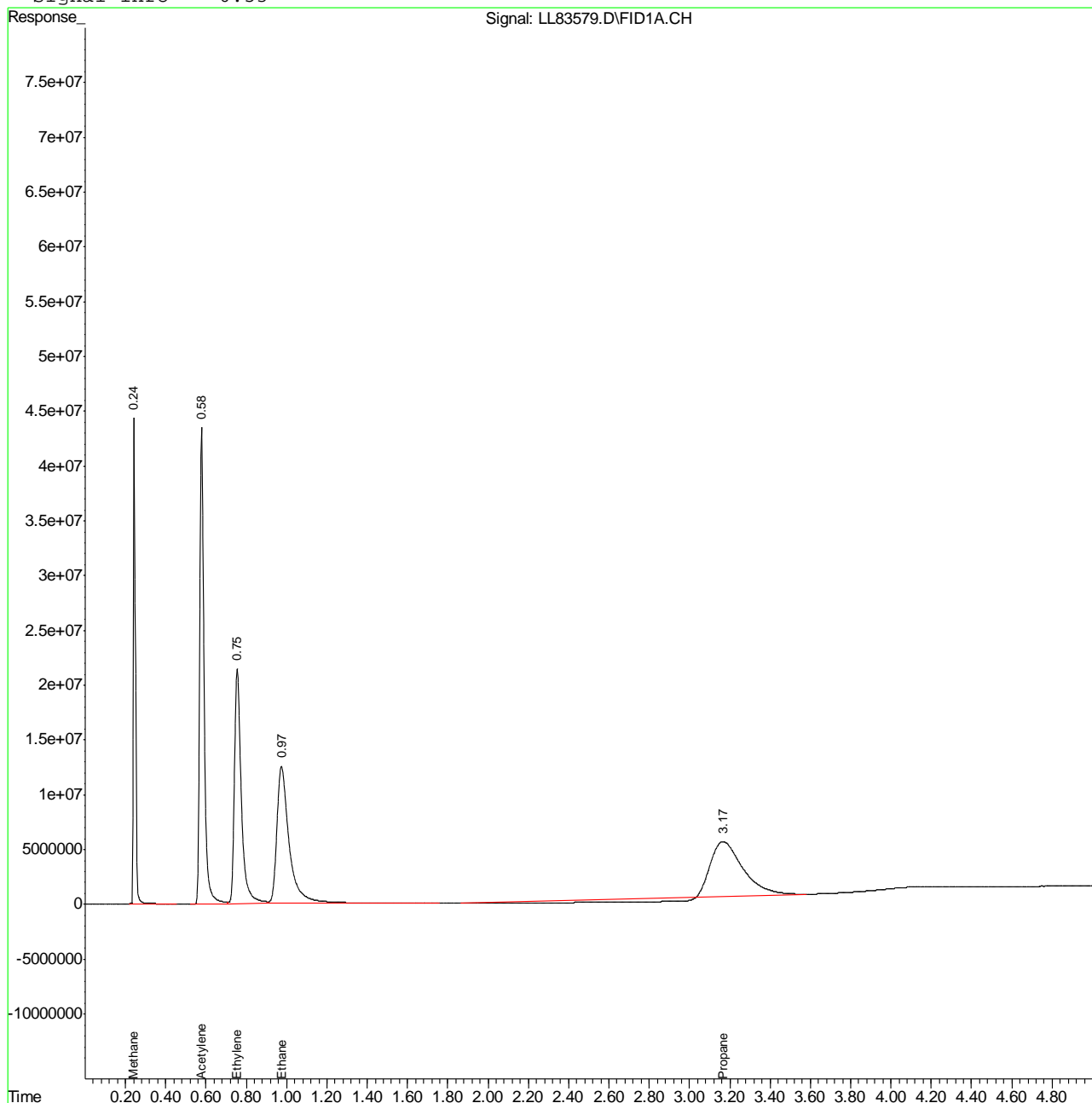
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 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83579.D RSK122321B.M Mon Jul 10 14:34:42 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83579.D Vial: 29  
 Acq On : 7-10-2023 02:28:19 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24240,gll2901,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 14:34 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.11  
9



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83590.D Vial: 40  
 Acq On : 7-10-2023 04:20:11 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:25:47 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	659547893	1080.703	ppmv
2) Acetylene	0.58	1390760014	1033.972	ppmv
3) Ethylene	0.75	1067534877	981.244	ppmv
4) Ethane	0.97	1128343708	1008.449	ppmv
5) Propane	3.17	1267598134	854.957	ppmv

9.6.12  
9

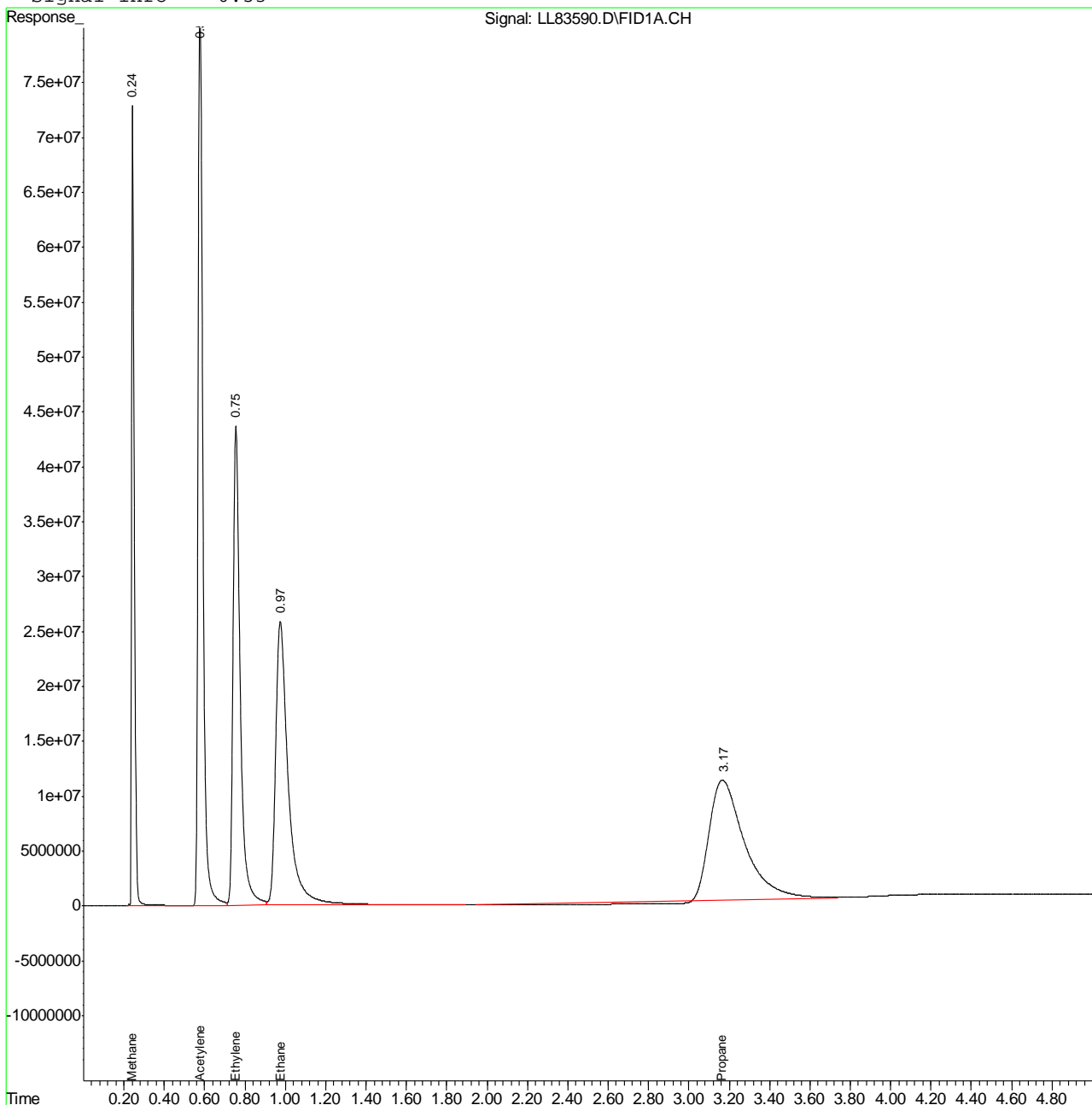
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 LL83590.D RSK122321B.M Mon Jul 10 16:26:38 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071023\LL83590.D Vial: 40  
 Acq On : 7-10-2023 04:20:11 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24246,gll2901,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 10 16:25 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.12  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83592.D Vial: 2  
 Acq On : 7-11-2023 08:33:00 AM Operator: samantha  
 Sample : CC2678-5 Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 08:39:21 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	662991055	1086.345	ppmv
2) Acetylene	0.58	1345784113	1000.534	ppmv
3) Ethylene	0.75	1051174264	966.206	ppmv
4) Ethane	0.97	1110746483	992.721	ppmv
5) Propane	3.17	1186813280	800.470	ppmv

9.6.13  
9

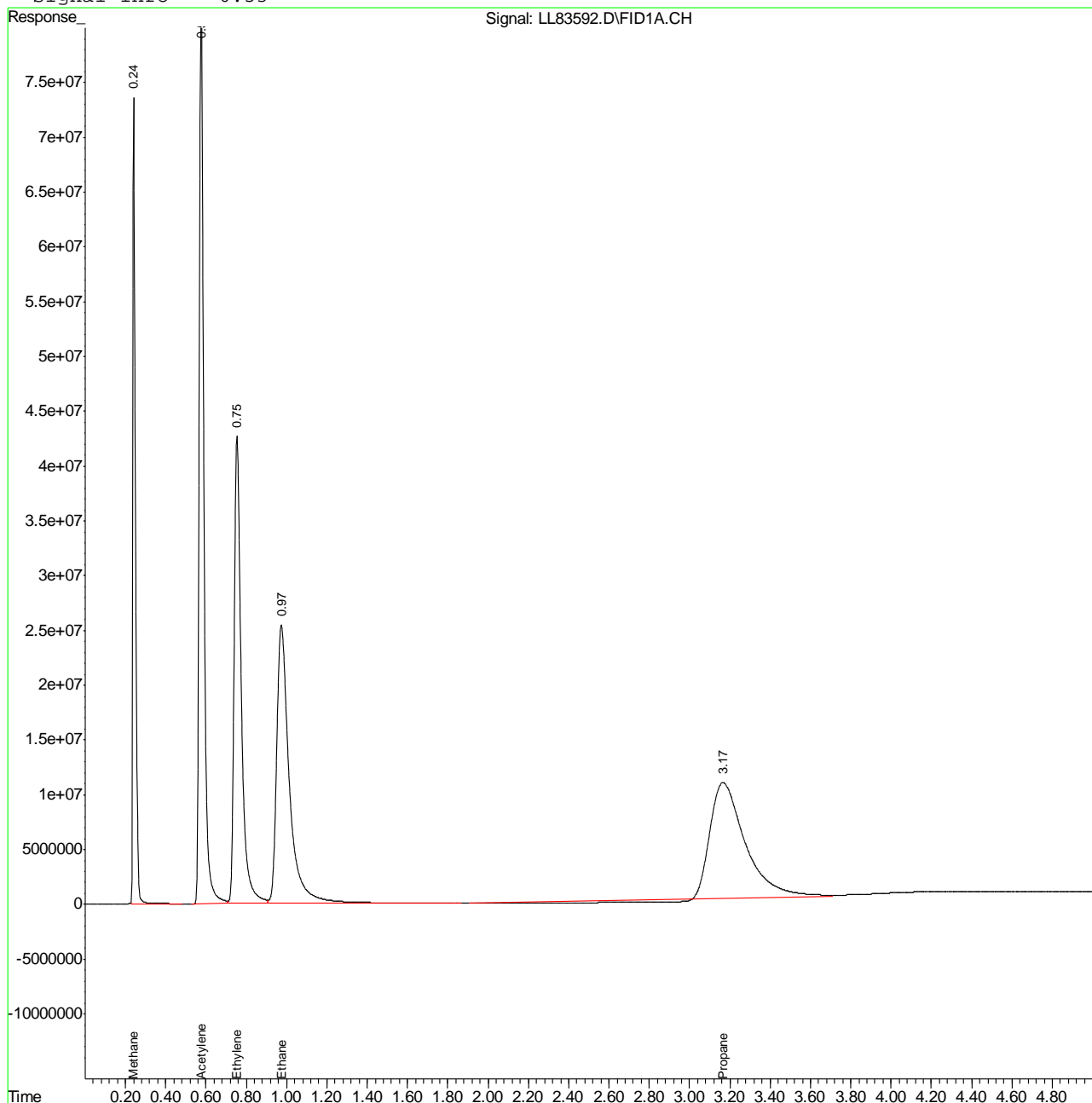
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 LL83592.D RSK122321B.M Tue Jul 11 08:40:10 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83592.D Vial: 2  
 Acq On : 7-11-2023 08:33:00 AM Operator: samantha  
 Sample : CC2678-5 Inst : FID4-LL  
 Misc : gc24246,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 8:39 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.13  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83605.D Vial: 15  
 Acq On : 11 Jul 2023 11:27 am Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 11:32:40 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	296749355	486.239 ppmv
2) Acetylene	0.58	613825322	456.354 ppmv
3) Ethylene	0.76	477120941	438.554 ppmv
4) Ethane	0.98	503959001	450.409 ppmv
5) Propane	3.18	462732515	312.099 ppmv

9.6.14  
9

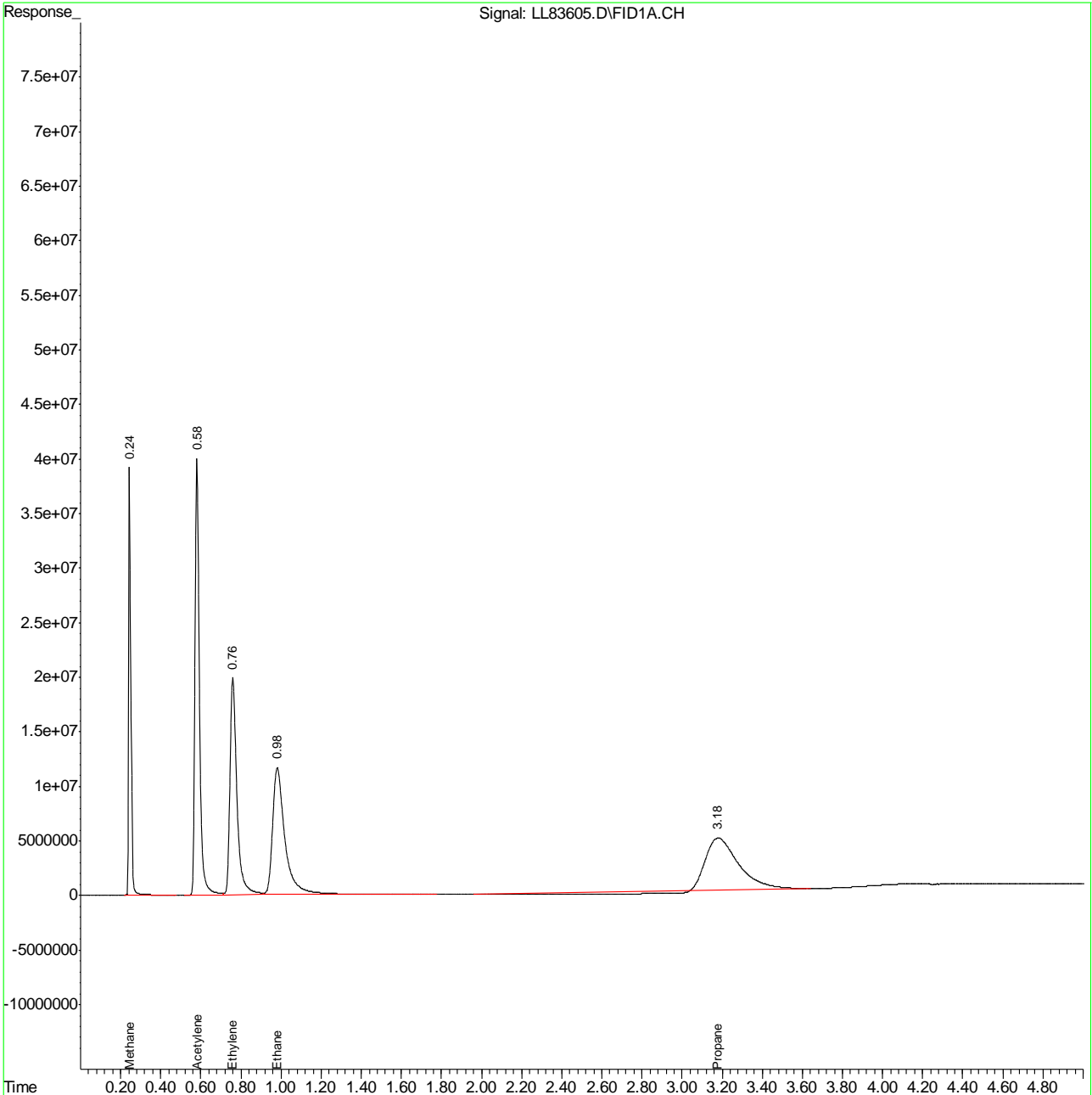
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 LL83605.D RSK122321B.M Tue Jul 11 11:33:25 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83605.D Vial: 15  
 Acq On : 11 Jul 2023 11:27 am Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,g112902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 11:32 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.14  
9

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83616.D Vial: 26  
 Acq On : 7-11-2023 02:06:45 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 14:12:08 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc Units
-----			
Target Compounds			
1) Methane	0.24	335208426	549.256 ppmv
2) Acetylene	0.58	706148655	524.992 ppmv
3) Ethylene	0.76	544775640	500.740 ppmv
4) Ethane	0.98	577057755	515.741 ppmv
5) Propane	3.18	626329313	422.440 ppmv

9.6.15  
9

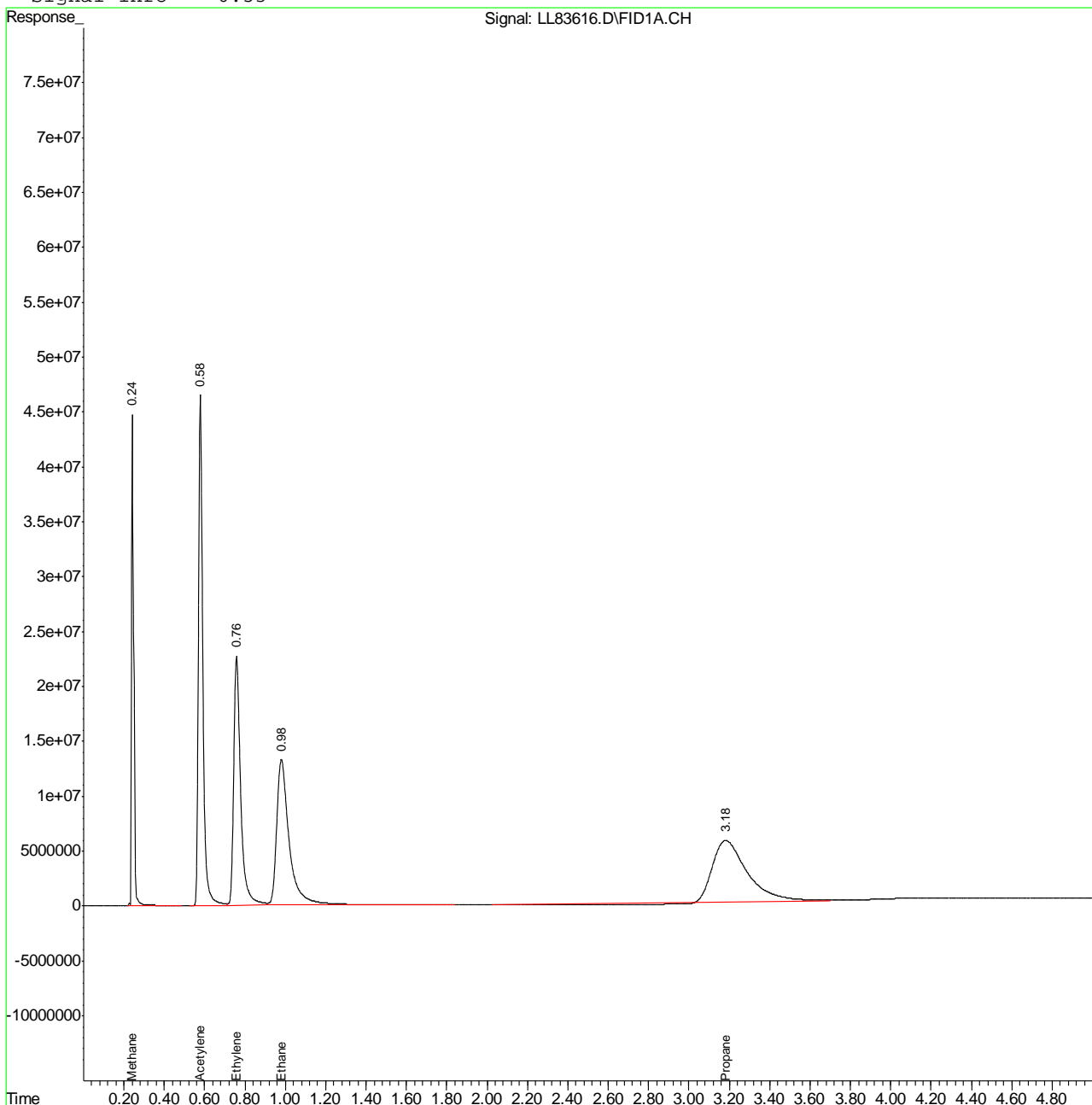
(f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83616.D RSK122321B.M Wed Jul 12 15:18:26 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83616.D Vial: 26  
 Acq On : 7-11-2023 02:06:45 PM Operator: samantha  
 Sample : cc2678-4 Inst : FID4-LL  
 Misc : gc24249,g112902,38,20,250,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 14:12 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.15  
9



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83623.D Vial: 33  
 Acq On : 7-11-2023 03:11:24 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24249,gll2902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 15:18:50 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Initial Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53

Compound	R.T.	Response	Conc	Units
-----				
Target Compounds				
1) Methane	0.24	670226209	1098.200	ppmv
2) Acetylene	0.58	1455191557	1081.874	ppmv
3) Ethylene	0.76	1101262128	1012.245	ppmv
4) Ethane	0.98	1164212830	1040.506	ppmv
5) Propane	3.18	1329163420	896.481	ppmv

9.6.16  
9

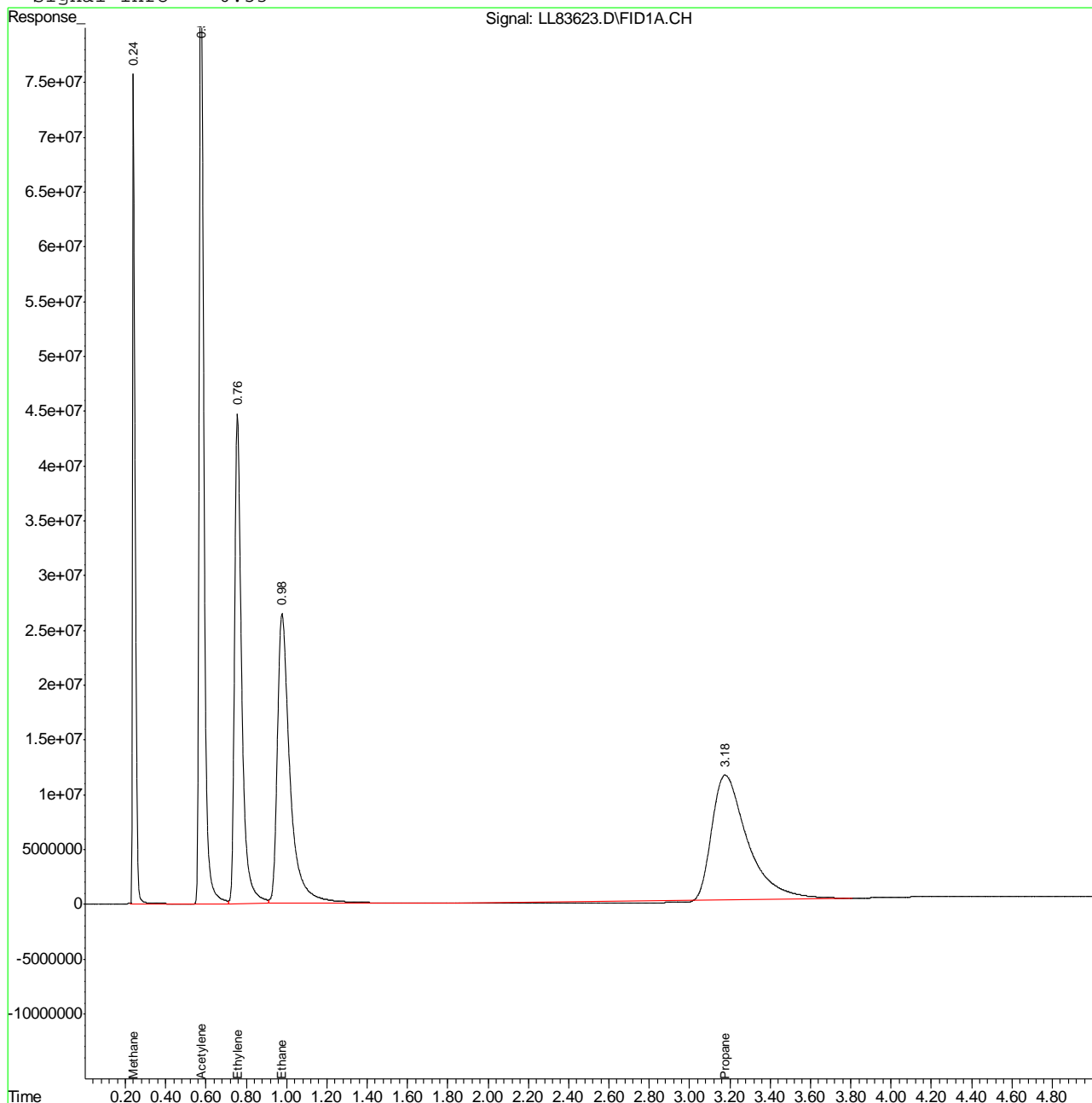
-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 LL83623.D RSK122321B.M Tue Jul 11 15:22:18 2023

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\071123\LL83623.D Vial: 33  
 Acq On : 7-11-2023 03:11:24 PM Operator: samantha  
 Sample : ecc2678-5 Inst : FID4-LL  
 Misc : gc24249,g112902,38,20,500,5,1 Multiplr: 1.00  
 IntFile : AUTOINT1.E  
 Quant Time: Jul 11 15:18 2023 Quant Results File: RSK122321B.RES

Quant Method : C:\MSDCHEM\1\METHODS\RSK122321B.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Dec 28 14:25:49 2021  
 Response via : Multiple Level Calibration  
 DataAcq Meth : DGMEE3.M

Volume Inj. : manual  
 Signal Phase : Carboxen 1006 PLOT  
 Signal Info : 0.53



9.6.16  
9

SGS -ORLANDO

GC VOA4-LL ANALYSIS LOG

DATE: 12/23/21  
 COLUMN TYPE: C1006  
 DETECTOR: FID  
 INSTRUMENT: FID4-LL  
 ANALYST: trand

METHODS: NEWRSK 147175  
 METHOD FILE: RSK122321B.M  
 CALIB. DATE: 12/23/21  
 DataAcqMeth: DGMEE3.M  
 RUN ID: GLL2678

STANDARDS:  
 ICAL/CCV: 9808, 10447A, 10395B  
 ISTD/SURR: NA  
 ICV/QC: 10456A, 9513

PH LOT: 225320  
 KI PAPER LOT: 011819  
 AMBIENT TEMP.: 18C-20°C  
 THERM ID: 170563927  
 Sample ID Verified: trand  
 DATE VERIFIED: 12/23/21

Data File	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Manually Integrated Peaks Rationale, Peak#	pH	CI	RR	Comments
LL77103	-	-	-	-	-		-	-	-	
LL77104	-	-	W	500	1000		-	-	-	Low; not used
LL77105	-	-	-	500	10000		-	-	-	Low; not used
LL77106	-	-	W	500	1000		-	-	-	change gases septa; restart
LL77107	-	-	W	500			-	-	-	
LL77108	-	-	W	500	1000		-	-	-	high; not used
LL77109	-	-	W	500	1000		-	-	-	high; not used
LL77110	-	-	W	500			-	-	-	
LL77111	-	-	W	500	10000		-	-	-	test std; not used
LL77112	-	-	W	500	1000		-	-	-	test std; not used
LL77113	-	-	W	500			-	-	-	
LL77114	-	-	W	500			-	-	-	
LL77115	10x	-	W	500	15	pl1: 1.5	-	-	-	500mL/5mL
LL77116	-	-	W	500	15	pl1: 5	-	-	-	
LL77117	10x	-	W	500	1000	pl1: 5	-	-	-	500mL/5mL
LL77118	-	-	W	250	1000	pl1: 5	-	-	-	
LL77119	-	-	W	500	1000	pl1: 5	-	-	-	
LL77120	-	-	W	250	10000	pl1: 5	-	-	-	
LL77121	-	-	W	500	10000		-	-	-	
LL77122	-	-	W	500			-	-	-	
LL77123	-	-	W	500	10000	pl1: 5	-	-	-	passed
					TD					
					12/23/21					

Matrix: Designate "W" for Water, "S" for soil, "CV" for Oil, "Liq" for Non-aqueous Liquid, and "ICL" for "SPL" for Leachate.  
 All spikes must be initiated and dated. If correction was not due to a transcription error, then list the reason for correction.  
 Manual Integration: Retention SOP Q4029 MIP Missed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PI Poor Instrument

Analyst's Signature: *[Handwritten Signature]*

SGS -ORLANDO

GC VOA RSK ANALYSIS LOG

Instrument	FID4-LL
Date	7/10/2023
ANALYST:	samantha
Column Type	C1006
Detector	FID

METHODS:	NEWRSK 147/175
METHOD FILE:	RSK122321B.M
CALIB. DATE	12/23/2021
DataAcqMeth	DGMEE3.M
RUN ID:	GLL2901

STANDARDS:	230320
ICAL/CCV:	9808, 11151A, 10395B
PH LOT	14-860
KI PAPER LOT	20°C
AMBIENT TEMP.	170563327
THERM ID:	samantha
Sample ID Verified:	7/10/2023
ICV/QC:	10456A, 11171A, 11530A

Data File	Sample ID	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Peaks Rationale, Peak#	pH	CI	RR	Comments
LL83551	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83555	cc2678-5	-	-	-	500	1000	-	-	-	-	Propane low (not reported)
LL83557	bs	-	-	W	500	10000	-	-	-	-	Acetyln, Propane below DOD (not reported)
LL83558	bsd	-	-	W	500	10000	-	-	-	-	Propane below DOD (not reported)
LL83559	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83560	mb	-	-	W	500	-	-	-	-	-	
LL83561	fc7492-1	1X	7	W	500	-	-	1	N	-	
LL83562	fc7492-2	1X	1	W	500	-	-	1	N	-	
LL83563	fc7381-4	10X	9	W	500	-	500ul(-)5mL	1	N	Y	FID shut off
LL83564	fc7381-4	10X	9	W	500	-	500ul(-)5mL	1	N	-	E-combine
LL83565	fc7381-6	20X	8	W	500	-	250ul(-)5mL	1	N	-	E-combine
LL83566	fc7402-1	10X	12	W	500	-	500ul(-)5mL	1	N	-	E-combine
LL83567	fc7402-2	1X	12	W	250	-	-	1	N	-	E-combine
LL83568	cc2678-4	-	-	-	250	1000	-	-	-	-	Propane low (not reported)
LL83569	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83570	fc7402-4	1X	12	W	250	-	-	1	N	-	E-combine
LL83571	fc7413-1	1X	5	W	500	-	-	1	N	10X	Methane over range
LL83572	fc7413-2	1X	2	W	500	-	-	1	N	-	
LL83573	fc7417-2	1X	7	W	500	-	-	1	N	-	
LL83574	fc7417-4	1X	7	W	500	-	-	1	N	-	
LL83575	fc7491-1	1X	5	W	500	-	-	1	N	-	
LL83576	fc7491-2	1X	2	W	500	-	-	1	N	-	
LL83577	fc7492-1dup	1X	8	W	500	-	-	1	N	-	Nonhomogenous vials - all vials used
LL83578	fc7492-1ms	1X	9	W	500	10000	-	1	N	-	Not in LIMS - different DUP/MS chosen
LL83579	cc2678-5	-	-	-	250	1000	-	-	-	-	Propane low (not reported)
LL83580	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83581	fc7381-4	1X	8	W	250	-	-	1	N	10X	Methane over range
LL83582	fc7589-7	1X	7	W	500	-	-	1	N	-	
LL83583	fc7589-8	1X	1	W	500	-	-	1	N	-	
LL83584	fc7589-9	1X	4	W	500	-	-	1	N	-	
LL83585	fc7589-10	1X	1	W	500	-	-	1	N	-	
LL83586	fc7589-11	1X	4	W	500	-	-	1	N	-	
LL83587	fc7589-12	1X	1	W	500	-	-	1	N	-	
LL83588	fc7589-7dup	1X	8	W	500	-	#1(OP)	1	N	-	
LL83589	fc7589-7ms	1X	9	W	500	10000	-	1	N	-	
LL83590	ecc2678-5	-	-	-	500	1000	-	-	-	-	

Matrix: Designate "W" for Water "S" for soil, "O" for Oil, "L" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate.  
 All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.  
 Manual Integration Rational SOP Q.A2.9; MP Mixed Peak, OP Overlapping Peak, SP Split Peak, PDB Poorly Defined Baseline, BR Baseline Ripple, PII Poor Instrument

SGS -ORLANDO

GC VOA RSK ANALYSIS LOG

Instrument	FID4-LL
Date	7/11/2023
ANALYST:	samantha
Column_Type	C1006
Detector	FID

METHODS:	NEWRSK 147/175
METHOD FILE:	RSK122321B.M
CALIB. DATE	12/23/2021
DataAcqMeth	DGMEE3.M
RUN ID:	GLL2902

STANDARDS:	230320
ICAL/CCV:	9808, 11151A, 10395B
PH LOT	14-860
KI PAPER LOT	20°C
AMBIENT TEMP.	170563327
THERM ID:	samantha
Sample ID Verified:	
DATE VERIFIED:	7/11/2023

Data File	Sample ID	Dil.	Vial #	Matrix	Final Volume µL	STD Conc. PPM	Peaks Rationale, Peak#	pH	CI	RR	Comments
LL83591	ccb, helium	-	-	-	-	-	-	-	-	-	-
LL83592	cc2678-5	-	-	-	500	1000	-	-	-	-	Propane low (not reported)
LL83593	bs	-	-	W	500	10000	-	-	-	-	
LL83595	bsd	-	-	W	500	10000	-	-	-	-	
LL83596	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83597	mb	-	-	W	500	-	-	-	-	-	
LL83598	fc7381-5	10X	9	W	500	-	500ul(-)5mL	1	N	-	E-combine
LL83599	fc7413-1	10X	8	W	500	-	500ul(-)5mL	1	N	-	E-combine
LL83600	fc7417-3	1X	7	W	500	-	-	1	N	-	
LL83601	fc7589-13	1X	7	W	500	-	-	1	N	-	
LL83602	fc7589-14	1X	1	W	500	-	-	1	N	-	
LL83603	fc7589-15	1X	7	W	500	-	-	1	N	-	
LL83604	fc7589-16	1X	1	W	500	-	-	1	N	-	
LL83605	cc2678-4	-	-	-	250	1000	-	-	-	-	Propane low (not reported)
LL83606	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83607	fc7589-13dup	1X	8	W	500	-	-	1	N	-	Non-homogenous sample - no more vials
LL83608	fc7589-13ms	1X	9	W	500	10000	-	1	N	-	Non-homogenous dupe - different sample used
LL83609	fc7589-17	1X	4	W	500	-	-	1	N	-	
LL83610	fc7589-18	1X	1	W	500	-	-	1	N	-	
LL83611	fc7589-19	1X	7	W	500	-	-	1	N	-	
LL83612	fc7589-20	1X	1	W	500	-	-	1	N	-	
LL83613	fc7589-21	1X	7	W	500	-	-	1	N	-	
LL83614	fc7589-22	1X	1	W	500	-	-	1	N	-	
LL83615	fc7592-7	1X	4	W	500	-	-	1	N	-	
LL83616	cc2678-4	-	-	-	250	1000	-	-	-	-	Propane low (not reported)
LL83617	ccb, helium	-	-	-	-	-	-	-	-	-	
LL83618	fc7592-8	1X	2	W	500	-	-	1	N	-	
LL83619	fc7592-9	1X	3	W	500	-	-	1	N	-	
LL83620	fc7592-10	1X	2	W	500	-	-	1	N	-	
LL83621	fc7589-17dup	1X	6	W	500	-	#1(OP)	1	N	-	
LL83622	fc7589-17ms	1X	5	W	500	10000	-	1	N	-	
LL83623	ecc2678-5	-	-	-	500	1000	-	-	-	-	

Matrix: Designate 'W' for Water 'S' for soil, 'O' for Oil, 'L' for Non-aqueous Liquid, and 'TCLP' or 'SPLP' for Leachate. All aliquots must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

### SGS -ORLANDO

Instrument	FID4-LL
Date	7/11/2023
ANALYST:	samantha
Column Type	C1006
Detector	FID

Manual Integration Rational SOP-QA028; MP: Missed Peak, OF: Overlapping Peak, SP: Split Peak, PDB: Poorly Defined Baseline, BR: Baseline Ripple, PH: Poor Instrument

### GC VOA RSK ANALYSIS LOG

STANDARDS:	PH LOT	230320
ICAL/CCV:	9808, 11151A, 10395B	14-860
	KI PAPER LOT	20°C
	AMBIENT TEMP.	
ISTD/SURR:	NA	170563327
	THERM ID:	samantha
ICV/QC:	10456A, 11171A, 11530A	7/11/2023
	Sample ID Verified:	
	DATE VERIFIED:	

METHODS:	NEWRSK 147/175
METHOD FILE:	RSK122321B.M
CALIB. DATE	12/23/2021
DataAcqMeth	DGMEE3.M
RUN ID:	GLL2902

GCVOA\_RSK\_Log\_Rev0

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: FC7413  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP38913/GN94622	2.0	0.0	mg/l	50	49.1	98.2	90-110%
Fluoride	GP38913/GN94622	0.20	0.0	mg/l	2.5	2.58	103.2	90-110%
Nitrogen, Nitrate	GP38913/GN94622	0.10	0.0	mg/l	2.5	2.65	106.0	90-110%
Nitrogen, Nitrite	GP38913/GN94622	0.10	0.0	mg/l	2.5	2.55	102.0	90-110%
Sulfate	GP38913/GN94622	2.0	0.0	mg/l	50	50.7	101.4	90-110%
Total Organic Carbon	GP38919/GN94633	2.0	0.0	mg/l	15	14.9	99.3	90-110%

Associated Samples:  
Batch GP38913: FC7413-1  
Batch GP38919: FC7413-1  
(\* ) Outside of QC limits

10.1  
10



MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: FC7413  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP38913/GN94622	FC7409-1	mg/l	2.2	50	51.6	98.8	90-110%
Fluoride	GP38913/GN94622	FC7409-1	mg/l	0.27	2.5	2.6	93.2	90-110%
Nitrogen, Nitrate	GP38913/GN94622	FC7409-1	mg/l	0.77	2.5	3.3	101.2	90-110%
Nitrogen, Nitrite	GP38913/GN94622	FC7409-1	mg/l	0.040 U	2.5	2.6	104.0	90-110%
Sulfate	GP38913/GN94622	FC7409-1	mg/l	4.2	50	54.3	100.2	90-110%
Total Organic Carbon	GP38919/GN94633	FC7322-1	mg/l	2.7	15	18.2	103.3	90-110%

Associated Samples:

Batch GP38913: FC7413-1

Batch GP38919: FC7413-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

10.2  
10

MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: FC7413  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP38913/GN94622	FC7409-1	mg/l	2.2	50	52.2	1.2	15%
Fluoride	GP38913/GN94622	FC7409-1	mg/l	0.27	2.5	2.6	0.0	15%
Nitrogen, Nitrate	GP38913/GN94622	FC7409-1	mg/l	0.77	2.5	3.4	3.0	15%
Nitrogen, Nitrite	GP38913/GN94622	FC7409-1	mg/l	0.040 U	2.5	2.6	0.0	15%
Sulfate	GP38913/GN94622	FC7409-1	mg/l	4.2	50	55.1	1.5	15%
Total Organic Carbon	GP38919/GN94633	FC7322-1	mg/l	2.7	15	18.5	1.6	20%

Associated Samples:

Batch GP38913: FC7413-1

Batch GP38919: FC7413-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7413  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023063001.CSV Date Analyzed: 06/06/23 Methods: EPA 300/SW846 9056A  
Analyst: JB Run ID: GN94622  
Parameters: Chloride,Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:10	GN94622-STD1	1		STDA
11:32	GN94622-STD2	1		STDB
11:54	GN94622-STD3	1		STDC
12:15	GN94622-STD4	1		STDD
12:37	GN94622-STD5	1		STDE
12:59	GN94622-STD6	1		STDF
13:21	GN94622-STD7	1		STDG
13:44	GN94622-STD8	1		STDH
14:06	GN94622-STD9	1		STDI
14:28	GN94622-STD10	1		STDJ
14:50	GN94622-STD11	1		STDK
15:12	GN94622-ICV1	1		
15:34	GN94622-ICB1	1		
15:56	GN94622-CRI1	1		
16:19	GN94622-CCV1	1		
16:42	GN94622-CCB1	1		
09:11	GN94622-CCV2	1		
09:37	GN94622-CCB2	1		
09:58	GP38913-MB1	1		
10:19	GP38913-B1	1		
10:40	ZZZZZ	1		
11:01	ZZZZZ	100		
11:26	FC7409-1	1		(sample used for QC only; not part of login FC7413)
11:47	GP38913-S1	1		
12:08	GP38913-S2	1		
12:29	ZZZZZ	1		
12:50	ZZZZZ	1		
13:11	ZZZZZ	1		
13:32	GN94622-CCV3	1		
13:53	GN94622-CCB3	1		
14:14	ZZZZZ	1		
14:36	FC7413-1	10		
14:56	ZZZZZ	500		

10.4  
10

SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7413  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023063001.CSV      Date Analyzed: 06/06/23      Methods: EPA 300/SW846 9056A  
Analyst: JB      Run ID: GN94622  
Parameters: Chloride,Nitrogen, Nitrate,Sulfate

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:17	GP38914-MB1F	1		
15:38	GP38914-B1F	1		
15:59	FC7175-1	5		(sample used for QC only; not part of login FC7413)
16:20	GP38914-S1	5		
16:41	GP38914-S2	5		
17:02	ZZZZZZ	5		
17:23	ZZZZZZ	5		
17:44	GN94622-CCV4	1		
18:05	GN94622-CCB4	1		
18:26	ZZZZZZ	5		
18:48	ZZZZZZ	5		
19:09	ZZZZZZ	5		
19:30	ZZZZZZ	5		
19:51	ZZZZZZ	5		
20:12	ZZZZZZ	5		
20:33	ZZZZZZ	5		
20:54	FC7175-11	5		(sample used for QC only; not part of login FC7413)
21:15	GP38914-S3	5		
21:36	GP38914-S4	5		
21:57	GN94622-CCV5	1		
22:18	GN94622-CCB5	1		
22:39	ZZZZZZ	5		
23:00	ZZZZZZ	5		
23:21	ZZZZZZ	5		
23:42	ZZZZZZ	5		
00:04	ZZZZZZ	5		
00:25	ZZZZZZ	5		
00:46	ZZZZZZ	5		
01:07	ZZZZZZ	5		
01:28	ZZZZZZ	5		
02:10	GN94622-CCV6	1		
02:31	GN94622-CCB6	1		

Refer to raw data for calibration curve and standards.

10.4  
10

Instrument QC Summary  
Inorganics Analyses

Login Number: FC7413  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: 42023063001.CSV

Date Analyzed: 06/06/23  
Run ID: GN94622

Methods: EPA 300/SW846 9056A  
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94622-ICV1	Chloride	48.6	2.0	0.80	50	97.2	90-110
GN94622-ICV1	Nitrogen, Nitrate	2.47	0.10	0.040	2.5	98.8	90-110
GN94622-ICV1	Sulfate	49.5	2.0	0.60	50	99.0	90-110
GN94622-ICB1	Chloride	0.80 U	2.0	0.80			
GN94622-ICB1	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94622-ICB1	Sulfate	0.60 U	2.0	0.60			
GN94622-CRI1	Chloride	1.08	2.0	0.80	1	108.0	50-150
GN94622-CRI1	Nitrogen, Nitrate	0.125	0.10	0.040	.1	125.0	50-150
GN94622-CRI1	Sulfate	1.19	2.0	0.60	1	119.0	50-150
GN94622-CCV1	Chloride	49.4	2.0	0.80	50	98.8	90-110
GN94622-CCV1	Nitrogen, Nitrate	2.38	0.10	0.040	2.5	95.2	90-110
GN94622-CCV1	Sulfate	49.8	2.0	0.60	50	99.6	90-110
GN94622-CCB1	Chloride	0.80 U	2.0	0.80			
GN94622-CCB1	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94622-CCB1	Sulfate	0.60 U	2.0	0.60			
GN94622-CCV2	Chloride	50.9	2.0	0.80	50	101.8	90-110
GN94622-CCV2	Nitrogen, Nitrate	2.56	0.10	0.040	2.5	102.4	90-110
GN94622-CCV2	Sulfate	51.9	2.0	0.60	50	103.8	90-110
GN94622-CCB2	Chloride	0.80 U	2.0	0.80			
GN94622-CCB2	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94622-CCB2	Sulfate	0.60 U	2.0	0.60			
GN94622-CCV3	Chloride	51.0	2.0	0.80	50	102.0	90-110
GN94622-CCV3	Nitrogen, Nitrate	2.57	0.10	0.040	2.5	102.8	90-110
GN94622-CCV3	Sulfate	51.4	2.0	0.60	50	102.8	90-110
GN94622-CCB3	Chloride	0.80 U	2.0	0.80			
GN94622-CCB3	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94622-CCB3	Sulfate	0.60 U	2.0	0.60			
GN94622-CCV4	Chloride	51.2	2.0	0.80	50	102.4	90-110
GN94622-CCV4	Nitrogen, Nitrate	2.57	0.10	0.040	2.5	102.8	90-110
GN94622-CCV4	Sulfate	51.9	2.0	0.60	50	103.8	90-110
GN94622-CCB4	Chloride	0.80 U	2.0	0.80			
GN94622-CCB4	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94622-CCB4	Sulfate	0.60 U	2.0	0.60			
GN94622-CCV5	Chloride	51.4	2.0	0.80	50	102.8	90-110
GN94622-CCV5	Nitrogen, Nitrate	2.58	0.10	0.040	2.5	103.2	90-110
GN94622-CCV5	Sulfate	52.3	2.0	0.60	50	104.6	90-110
GN94622-CCB5	Chloride	0.80 U	2.0	0.80			
GN94622-CCB5	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94622-CCB5	Sulfate	0.60 U	2.0	0.60			
GN94622-CCV6	Chloride	51.4	2.0	0.80	50	102.8	90-110
GN94622-CCV6	Nitrogen, Nitrate	2.59	0.10	0.040	2.5	103.6	90-110
GN94622-CCV6	Sulfate	52.5	2.0	0.60	50	105.0	90-110
GN94622-CCB6	Chloride	0.80 U	2.0	0.80			
GN94622-CCB6	Nitrogen, Nitrate	0.040 U	0.10	0.040			
GN94622-CCB6	Sulfate	0.60 U	2.0	0.60			

(!) Outside of QC limits

10.4  
10

SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7413  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: C230703W1.TXT Date Analyzed: 07/03/23 Methods: SM5310 B-14/SW9060A  
Analyst: FN Run ID: GN94633  
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:47	GN94633-CCV1	1		
16:09	GP38918-MB1	1		
16:28	GP38918-B1	1		
16:53	ZZZZZZ	1		
17:11	ZZZZZZ	1		
17:32	ZZZZZZ	1		
17:55	ZZZZZZ	1		
18:14	ZZZZZZ	1		
18:38	ZZZZZZ	1		
18:58	ZZZZZZ	1		
19:18	ZZZZZZ	1		
19:37	GN94633-CCV2	1		
19:59	GN94633-CCB1	1		
20:20	FC7211-7	1		(sample used for QC only; not part of login FC7413)
20:39	GP38918-S1	1		
21:00	GP38918-S2	1		
21:20	ZZZZZZ	1		
21:39	ZZZZZZ	1		
22:01	ZZZZZZ	1		
22:21	ZZZZZZ	1		
22:45	ZZZZZZ	1		
23:04	ZZZZZZ	1		
23:24	ZZZZZZ	1		
23:44	GN94633-CCV3	1		
00:05	GN94633-CCB2	1		
00:24	FC7211-15	1		(sample used for QC only; not part of login FC7413)
00:44	GP38918-S3	1		
01:04	GP38918-S4	1		
01:25	ZZZZZZ	1		
01:45	ZZZZZZ	1		
02:05	ZZZZZZ	1		
02:24	ZZZZZZ	1		
02:43	ZZZZZZ	1		

10.5  
10

SGS Instrument Runlog  
Inorganics Analyses

Login Number: FC7413  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: C230703W1.TXT      Date Analyzed: 07/03/23      Methods: SM5310 B-14/SW9060A  
Analyst: FN      Run ID: GN94633  
Parameters: Total Organic Carbon

Time	Sample Description	Dilution Factor	PS Recov	Comments
03:03	ZZZZZZ	1		
03:26	ZZZZZZ	1		
03:44	GN94633-CCV4	1		
04:04	GP38919-MB1	1		
04:25	GP38919-B1	1		
04:46	ZZZZZZ	1		
05:08	ZZZZZZ	1		
05:30	FC7322-1	1		(sample used for QC only; not part of login FC7413)
05:52	GP38919-S1	1		
06:13	GP38919-S2	1		
06:36	ZZZZZZ	1		
06:57	ZZZZZZ	1		
07:16	FC7413-1	1		
07:40	GN94633-CCV5	1		
08:02	GN94633-CCB3	1		

Refer to raw data for calibration curve and standards.

10.5  
10

Instrument QC Summary  
Inorganics Analyses

Login Number: FC7413  
Account: EAENYS - EA Engineering  
Project: Former Seneca Army Depot; NY

File ID: C230703W1.TXT

Date Analyzed: 07/03/23  
Run ID: GN94633

Methods: SM5310 B-14/SW9060A  
Units: mg/l

Sample Number	Parameter	Result	RL	IDL/MDL	True Value	% Recov.	QC Limits
GN94633-CCV1	Total Organic Carbon	15.2	2.0	0.54	15	101.3	90-110
GN94633-CCV2	Total Organic Carbon	15.1	2.0	0.54	15	100.7	90-110
GN94633-CCB1	Total Organic Carbon	0.54 U	2.0	0.54			
GN94633-CCV3	Total Organic Carbon	15.3	2.0	0.54	15	102.0	90-110
GN94633-CCB2	Total Organic Carbon	0.54 U	2.0	0.54			
GN94633-CCV4	Total Organic Carbon	15.1	2.0	0.54	15	100.7	90-110
GN94633-CCV5	Total Organic Carbon	15.1	2.0	0.54	15	100.7	90-110
GN94633-CCB3	Total Organic Carbon	0.54 U	2.0	0.54			

(!) Outside of QC limits

10.5  
10



General Chemistry

Raw Data

IC STANDARDS PREP LOG

STANDARD NAME	ANALYTES	STOCK MFG. #	STOCK LOT #	STOCK EXP. DATE	STOCK CONC. (mg/l)	VOLUME ADDED (ml)	TOTAL VOLUME (ml)	STANDARD CONC. (mg/l)	PREP DATE	INITIALS	STD LOT #	EXP. DATE
B1	NO <sub>2</sub> , NO <sub>3</sub>	W1147101	Ref	4-28-23	100	2.5	100	2.5	6-27-23	gq	100147101	6-28-23
	SO <sub>4</sub>	W1147101	↓	↓	1000	5	↓	50	↓	↓	↓	↓
	Cl	W1147101	↓	↓	1000	0.25	↓	2.5	↓	↓	↓	↓
	F	W1147101	↓	↓	1000	1	↓	10	↓	↓	↓	↓
	PO <sub>4</sub>	W1147101	↓	↓	1000	2.5	↓	100	↓	↓	↓	↓
10NO <sub>2</sub>	NO <sub>2</sub>	W1147101	Ref	4-28-23	1000	2.5	2.5	100	6-29-23	gq	100147102	6-30-23
10NO <sub>3</sub>	NO <sub>3</sub>	W1147101	↓	↓	1000	↓	↓	↓	↓	↓	↓	↓
20NO <sub>2</sub>	NO <sub>2</sub>	W1147101	↓	↓	1000	↓	↓	↓	↓	↓	↓	↓
20NO <sub>3</sub>	NO <sub>3</sub>	W1147101	↓	↓	1000	↓	↓	↓	↓	↓	↓	↓
CUW	NO <sub>2</sub> , NO <sub>3</sub>	W1147101	Ref	6-30-23	100	5	200	2.5	↓	↓	100147106	↓
	SO <sub>4</sub>	W1147101	↓	↓	1000	10	↓	50	↓	↓	↓	↓
	Cl	W1147101	↓	↓	1000	↓	↓	↓	↓	↓	↓	↓
	F	W1147101	↓	↓	1000	0.5	↓	2.5	↓	↓	↓	↓
	PO <sub>4</sub>	W1147101	↓	↓	1000	0.5	↓	10	↓	↓	↓	↓
B1	NO <sub>2</sub> , NO <sub>3</sub>	W1147101	Ref	6-30-23	100	2.5	100	2.5	↓	↓	100147107	↓
	SO <sub>4</sub>	W1147101	↓	↓	1000	5	↓	50	↓	↓	↓	↓
	Cl	W1147101	↓	↓	1000	0.25	↓	2.5	↓	↓	↓	↓
	F	W1147101	↓	↓	1000	0.25	↓	2.5	↓	↓	↓	↓
	PO <sub>4</sub>	W1147101	↓	↓	1000	1	↓	10	↓	↓	↓	↓

IC Soil Prep

Method: SW846 9056A

Analyst: JR  
 GP 38914

Date (mm/dd/yy): 6/30/23  
 Time (24:00): 13:57

	Sample ID	Bottle #	Weight g	Final Vol ml
MB	MBIF	-	5.22	50ml
SB	BIF	-	5.07	
MS1	FC7175-1	5	5.11	
MSD1	-1	↓	4.99	
QC1	-1	↓	5.27	
2	-2	↓	5.10	
3	-3	↓	5.25	
4	-4	↓	5.20	
5	-5	↓	5.11	
6	-6	↓	5.28	
7	-7	↓	5.11	
8	-8	6	5.14	
9	-9	5	5.28	
10	-10	↓	5.02	
MS2	-11	↓	5.27	
MSD2	-11	↓	5.12	
QC2	-11	↓	5.15	
12	-12	6	5.18	
13	-14	↓	5.19	
14	-15	5	5.29	
15	-20	↓	5.21	
16	-21	↓	5.04	
17	-22	6	5.10	
18	↓ -23	↓	5.30	
19	FC7230-1	↓	5.18	
20	↓ -2	↓	5.00	

Balance ID Adv Pro Le

REAGENTS

Spike Lot # 10014767

Cup Lot # 2206050

SRM Lot # 30975838

Vial Lot # 728447-6 23535

Syringe Lot # ①

Filter Lot # ↓

Comments: ① Samples filtered on instrument with 0.2um filter.

Analyst's Signature: [Signature] Date: 6/30/23

Reveiw'er's Signature: \_\_\_\_\_ Date: \_\_\_\_\_









**Sample data**

Ident . . . . . STDK  
 Sample type . . . . . Standard 10  
 Determination start . . . . . 2023-06-06 14:50:16 UTC-4  
 Method . . . . . SGS In-Vial Anions191003A  
 Operator . . . . . JR

**Anions**

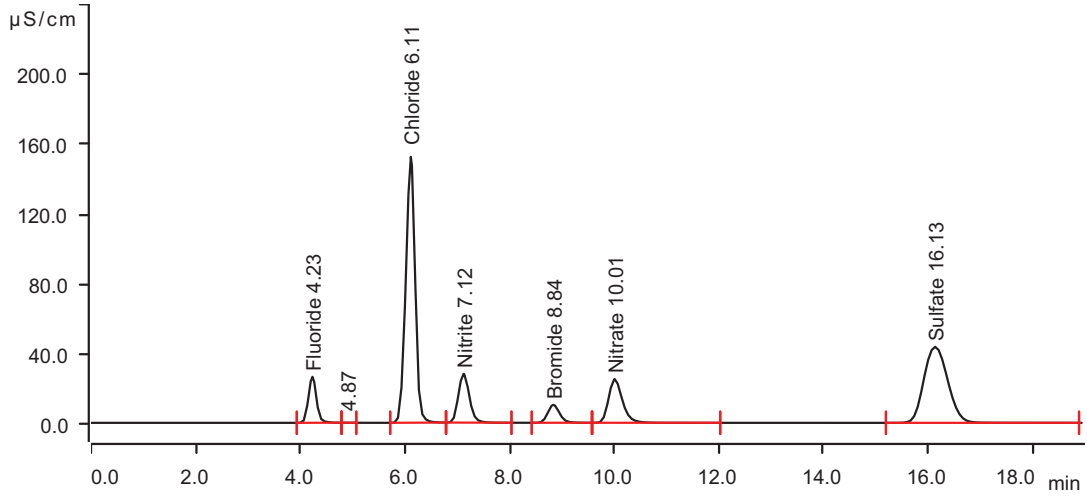
Data source . . . . . Conductivity detector 1 (930 Compact IC Flex 1)  
 Channel . . . . . Conductivity  
 Recording time . . . . . 19.0 min  
 Integration . . . . . Automatically  
 Column type . . . . . Metrosep A Supp 5 - 150/4.0  
 Eluent composition . . . . . not defined  
 Flow . . . . . 0.700 mL/min  
 Maximum flow monitored . . . . . yes  
 Pressure . . . . . 8.21 MPa  
 Maximum pressure monitored . . . . . yes  
 Temperature . . . . . 30.0 °C

**Pressure**

Data source . . . . . Pump (930 Compact IC Flex 1)  
 Channel . . . . . System pressure  
 Recording time . . . . . 17.5 min  
 Integration . . . . . Automatically  
 Flow . . . . . ---- mL/min  
 Maximum flow monitored . . . . . no  
 Pressure . . . . . ---- MPa  
 Maximum pressure monitored . . . . . no  
 Temperature . . . . . ---- °C

11.1  
11

Anions

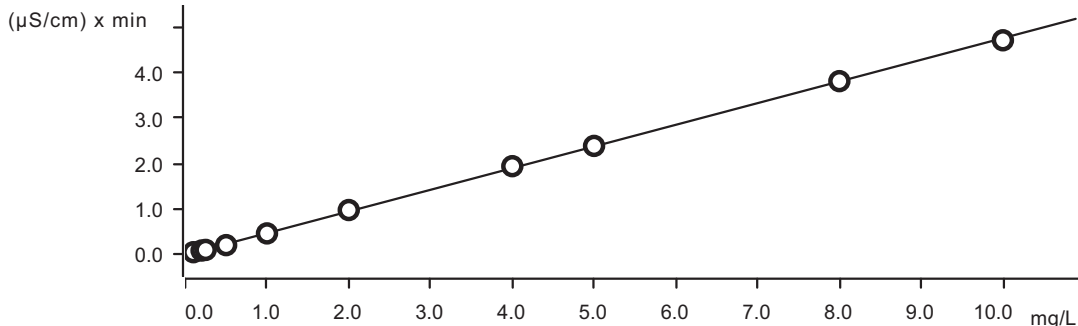


Peak number	Retention time min	Area ( $\mu\text{S/cm}$ ) x min	Height $\mu\text{S/cm}$	Concentration mg/L	Component name
1	4.233	4.7211	26.266	9.901	Fluoride
2	4.868	0.0027	0.017	invalid	
3	6.113	31.4653	151.958	100.116	Chloride
4	7.122	6.8154	27.885	9.968	Nitrite
5	8.837	2.6832	10.267	20.760	Bromide
6	10.010	7.6401	24.961	10.221	Nitrate
7	16.133	22.8839	43.451	100.925	Sulfate

11.1  
11



**Fluoride (Anions)**



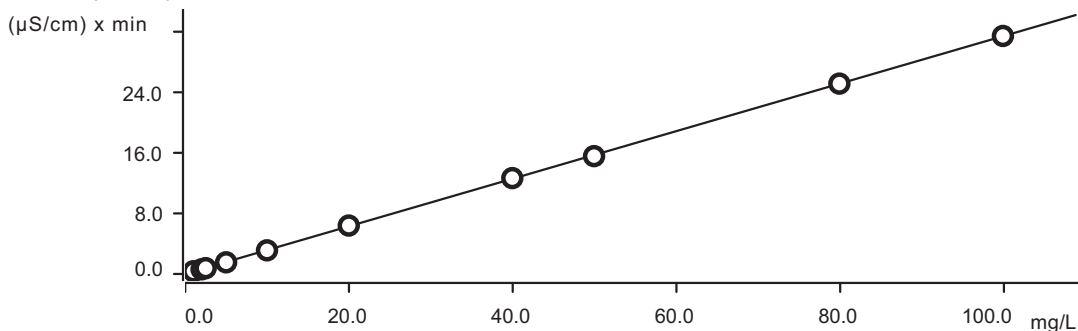
Function:  $A = -0.0211997 + 0.0239476 \times Q$

Relative standard deviation: 1.906714 %

Correlation coefficient: 0.999880

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0362	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.0728	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.0864	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.1924	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.4513	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	0.9684	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	1.9379	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	2.3860	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	3.8173	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	4.7211	STDK	2023-06-06 14:50:16 UTC-4

**Chloride (Anions)**

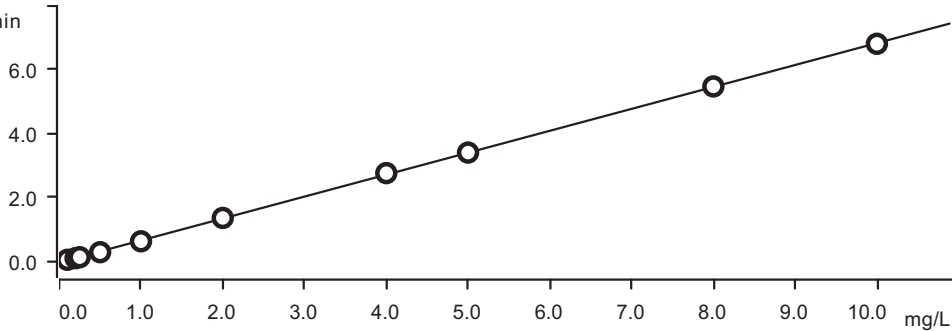


Function: . . . . .  $A = -0.0931798 + 0.0157609 \times Q$   
 Relative standard deviation . . . . . 0.798820 %  
 Correlation coefficient . . . . . 0.999979

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.2524	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.5119	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.6639	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	1.4385	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	3.0285	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	20.000	20.0	1.0	1.0	6.3172	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	12.6101	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	15.5240	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	25.1438	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	31.4653	STDK	2023-06-06 14:50:16 UTC-4

**Nitrite (Anions)**

( $\mu\text{S/cm}$ ) x min



Function: . . . . .  $A = -0.0301378 + 0.0343379 \times Q$   
 Relative standard deviation . . . . . 1.195968 %  
 Correlation coefficient . . . . . 0.999953

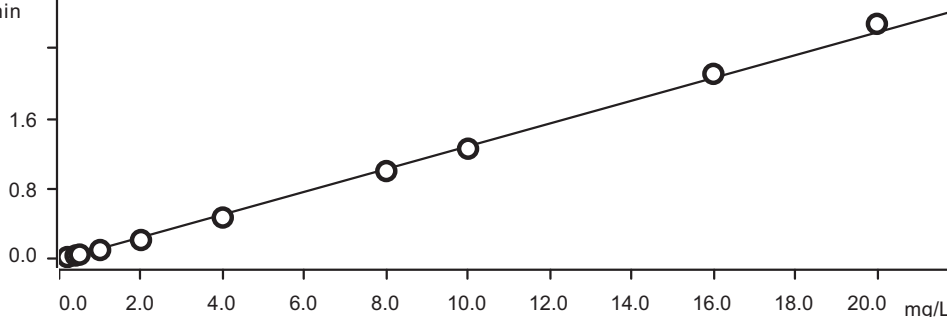
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0504	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1013	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1313	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.2879	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.6299	STDF	2023-06-06 12:59:49 UTC-4

11.1  
11

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	2.000	20.0	1.0	1.0	1.3610	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	2.7654	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	3.4088	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	5.4796	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	6.8154	STDK	2023-06-06 14:50:16 UTC-4

**Bromide (Anions)**

(µS/cm) x min



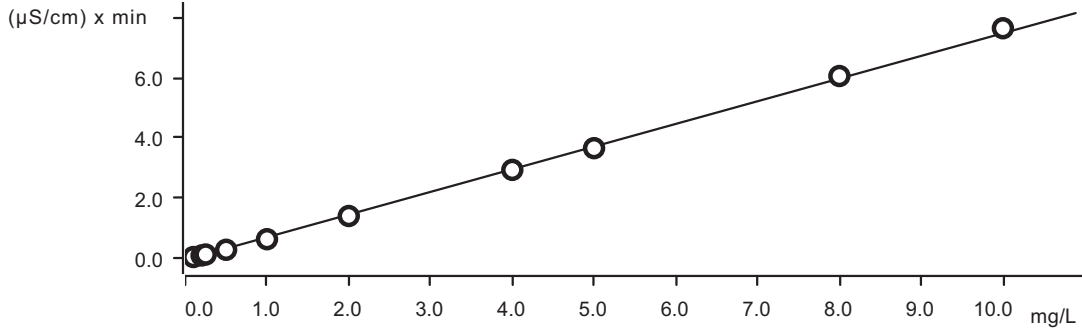
Function:  $A = -0.0148861 + 6.49841E-3 \times Q$

Relative standard deviation: 5.588305 %

Correlation coefficient: 0.999041

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.200	20.0	1.0	1.0	0.0191	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.400	20.0	1.0	1.0	0.0370	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.500	20.0	1.0	1.0	0.0475	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	1.000	20.0	1.0	1.0	0.0996	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	2.000	20.0	1.0	1.0	0.2139	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	4.000	20.0	1.0	1.0	0.4706	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	8.000	20.0	1.0	1.0	1.0015	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	10.000	20.0	1.0	1.0	1.2568	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	16.000	20.0	1.0	1.0	2.1117	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	20.000	20.0	1.0	1.0	2.6832	STDK	2023-06-06 14:50:16 UTC-4

**Nitrate (Anions)**



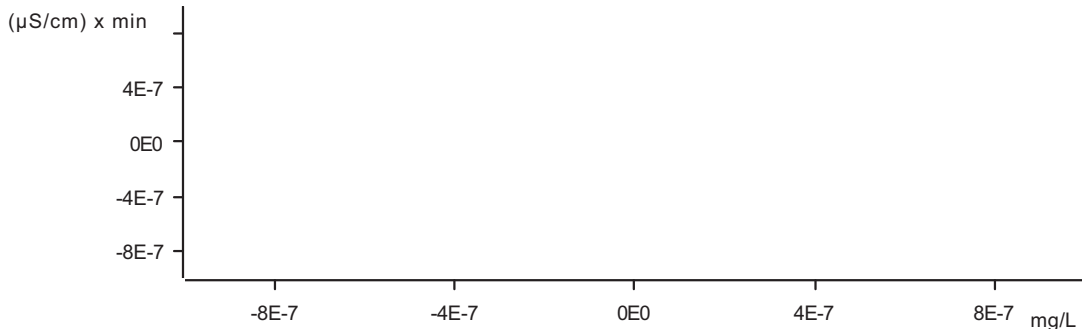
Function:  $A = -0.0411561 + 0.0375757 \times Q$

Relative standard deviation: 3.335615 %

Correlation coefficient: 0.999650

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	0.0535	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	0.1057	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	0.1369	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	0.2940	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	0.6446	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	1.4138	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	2.9429	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	3.6632	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	6.0558	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	7.6401	STDK	2023-06-06 14:50:16 UTC-4

**Phosphate (Anions)**

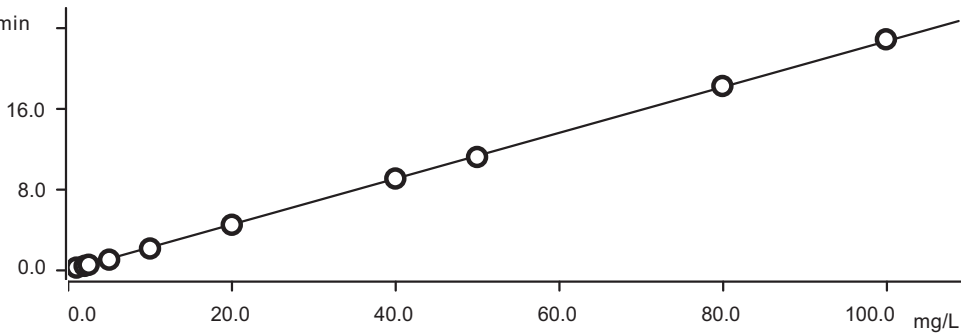


Function: .....  
 Relative standard deviation ..... *invalid %*  
 Correlation coefficient ..... *invalid*

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	0.100	20.0	1.0	1.0	n. d.	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	0.200	20.0	1.0	1.0	n. d.	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	0.250	20.0	1.0	1.0	n. d.	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	0.500	20.0	1.0	1.0	n. d.	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	1.000	20.0	1.0	1.0	n. d.	STDF	2023-06-06 12:59:49 UTC-4
Standard 6	1	2.000	20.0	1.0	1.0	n. d.	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	4.000	20.0	1.0	1.0	n. d.	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	5.000	20.0	1.0	1.0	n. d.	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	8.000	20.0	1.0	1.0	n. d.	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	10.000	20.0	1.0	1.0	n. d.	STDK	2023-06-06 14:50:16 UTC-4

**Sulfate (Anions)**

(µS/cm) x min



Function: .....  $A = -0.0942335 + 0.0113838 \times Q$   
 Relative standard deviation ..... 1.544949 %  
 Correlation coefficient ..... 0.999923

Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 100	1	0.000	20.0	1.0	1.0	n. d.	STDA	2023-06-06 11:10:48 UTC-4
Standard 1	1	1.000	20.0	1.0	1.0	0.1710	STDB	2023-06-06 11:32:19 UTC-4
Standard 2	1	2.000	20.0	1.0	1.0	0.3463	STDC	2023-06-06 11:54:00 UTC-4
Standard 3	1	2.500	20.0	1.0	1.0	0.4552	STDD	2023-06-06 12:15:39 UTC-4
Standard 4	1	5.000	20.0	1.0	1.0	0.9645	STDE	2023-06-06 12:37:44 UTC-4
Standard 5	1	10.000	20.0	1.0	1.0	2.0732	STDF	2023-06-06 12:59:49 UTC-4

11.1  
11

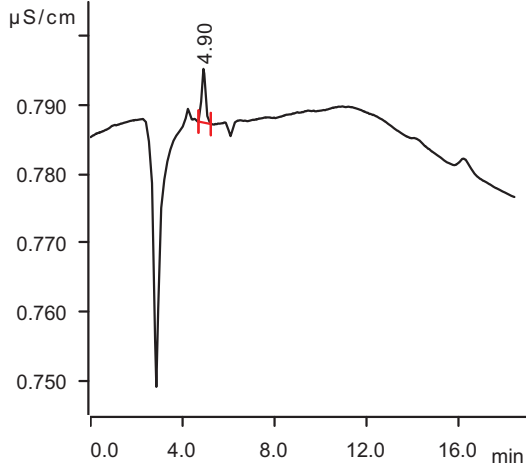
Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date
Standard 6	1	20.000	20.0	1.0	1.0	4.4336	STDG	2023-06-06 13:21:55 UTC-4
Standard 7	1	40.000	20.0	1.0	1.0	9.0343	STDH	2023-06-06 13:44:00 UTC-4
Standard 8	1	50.000	20.0	1.0	1.0	11.1759	STDI	2023-06-06 14:06:05 UTC-4
Standard 9	1	80.000	20.0	1.0	1.0	18.2394	STDJ	2023-06-06 14:28:12 UTC-4
Standard 10	1	100.000	20.0	1.0	1.0	22.8839	STDK	2023-06-06 14:50:16 UTC-4

11.1  
11

**Sample data**

Ident. . . . . STDA  
 Sample type . . . . . Standard 100  
 Determination start . . . . . 2023-06-06 11:10:48  
 Dilution factor . . . . . 1.00

**Anions**

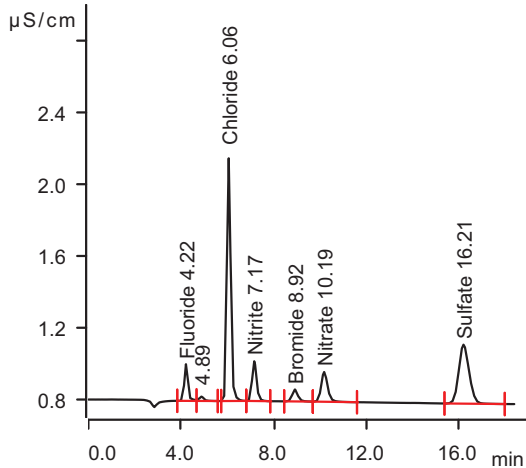


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
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**Sample data**

Ident. . . . . STDB  
 Sample type . . . . . Standard 1  
 Determination start . . . . . 2023-06-06 11:32:19  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0362	0.120	0.120
6.06	Chloride	0.2524	1.096	1.096
7.17	Nitrite	0.0504	0.117	0.117
8.92	Bromide	0.0191	0.261	0.261
10.19	Nitrate	0.0535	0.126	0.126
16.21	Sulfate	0.1710	1.165	1.165

11.1  
11



# Summary Report

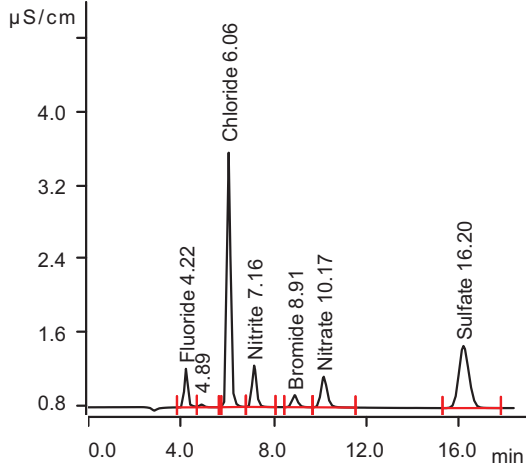
2023-07-01 10:44:59

MagIC Net 3.2 - 123

### Sample data

Ident. . . . . STDC  
 Sample type . . . . . Standard 2  
 Determination start . . . . . 2023-06-06 11:54:00  
 Dilution factor . . . . . 1.00

### Anions

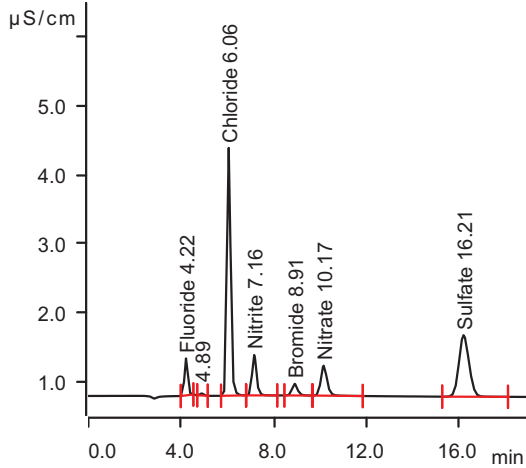


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0728	0.196	0.196
6.06	Chloride	0.5119	1.920	1.920
7.16	Nitrite	0.1013	0.191	0.191
8.91	Bromide	0.0370	0.399	0.399
10.17	Nitrate	0.1057	0.195	0.195
16.20	Sulfate	0.3463	1.935	1.935

### Sample data

Ident. . . . . STDD  
 Sample type . . . . . Standard 3  
 Determination start . . . . . 2023-06-06 12:15:39  
 Dilution factor . . . . . 1.00

### Anions



Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0864	0.225	0.225
6.06	Chloride	0.6639	2.402	2.402
7.16	Nitrite	0.1313	0.235	0.235
8.91	Bromide	0.0475	0.480	0.480
10.17	Nitrate	0.1369	0.237	0.237
16.21	Sulfate	0.4552	2.413	2.413

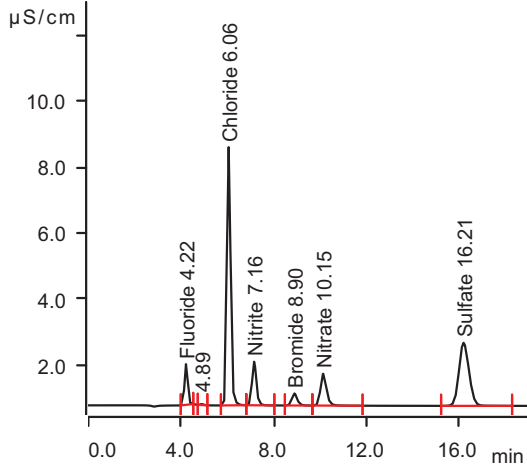




**Sample data**

Ident. . . . . STDE  
 Sample type . . . . . Standard 4  
 Determination start . . . . . 2023-06-06 12:37:44  
 Dilution factor . . . . . 1.00

**Anions**

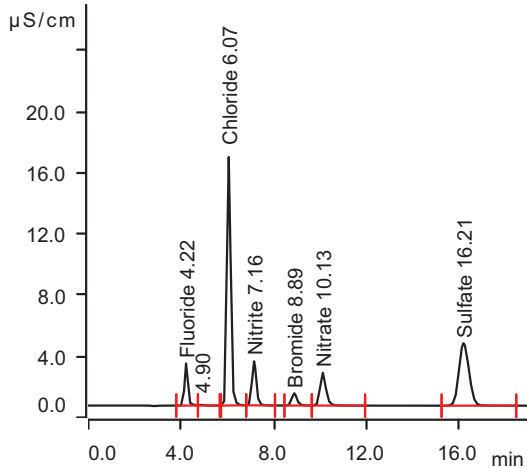


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.1924	0.446	0.446
6.06	Chloride	1.4385	4.859	4.859
7.16	Nitrite	0.2879	0.463	0.463
8.90	Bromide	0.0996	0.881	0.881
10.15	Nitrate	0.2940	0.446	0.446
16.21	Sulfate	0.9645	4.650	4.650

**Sample data**

Ident. . . . . STDF  
 Sample type . . . . . Standard 5  
 Determination start . . . . . 2023-06-06 12:59:49  
 Dilution factor . . . . . 1.00

**Anions**

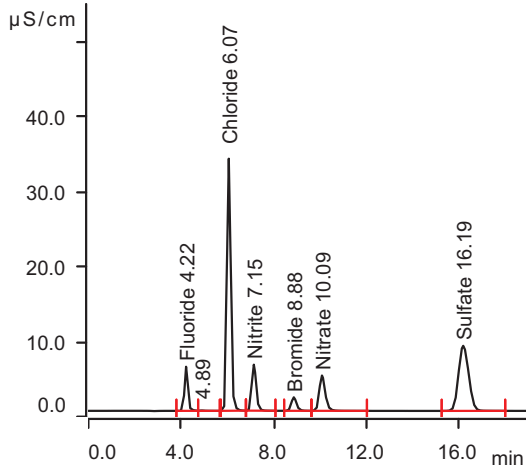


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.4513	0.987	0.987
6.07	Chloride	3.0285	9.903	9.903
7.16	Nitrite	0.6299	0.961	0.961
8.89	Bromide	0.2139	1.760	1.760
10.13	Nitrate	0.6446	0.912	0.912
16.21	Sulfate	2.0732	9.520	9.520

**Sample data**

Ident. . . . . STDG  
 Sample type . . . . . Standard 6  
 Determination start . . . . . 2023-06-06 13:21:55  
 Dilution factor . . . . . 1.00

**Anions**

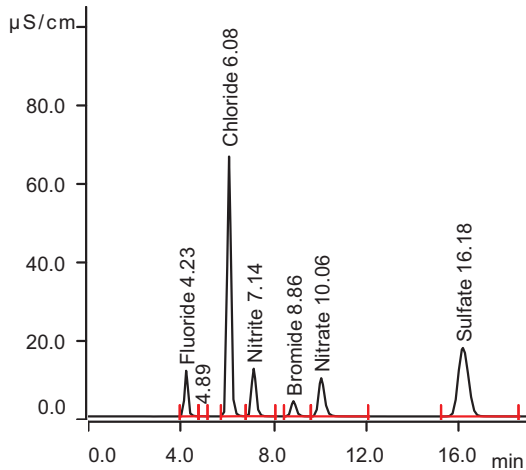


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.9684	2.066	2.066
6.07	Chloride	6.3172	20.336	20.336
7.15	Nitrite	1.3610	2.026	2.026
8.88	Bromide	0.4706	3.736	3.736
10.09	Nitrate	1.4138	1.936	1.936
16.19	Sulfate	4.4336	19.887	19.887

**Sample data**

Ident. . . . . STDH  
 Sample type . . . . . Standard 7  
 Determination start . . . . . 2023-06-06 13:44:00  
 Dilution factor . . . . . 1.00

**Anions**

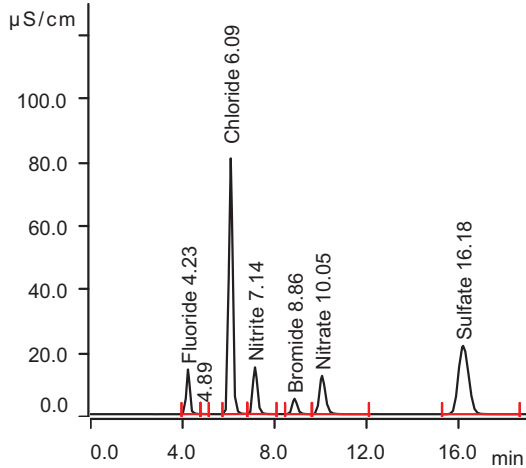


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	1.9379	4.090	4.090
6.08	Chloride	12.6101	40.300	40.300
7.14	Nitrite	2.7654	4.071	4.071
8.86	Bromide	1.0015	7.820	7.820
10.06	Nitrate	2.9429	3.971	3.971
16.18	Sulfate	9.0343	40.094	40.094

**Sample data**

Ident. . . . . STDI  
 Sample type . . . . . Standard 8  
 Determination start . . . . . 2023-06-06 14:06:05  
 Dilution factor . . . . . 1.00

**Anions**

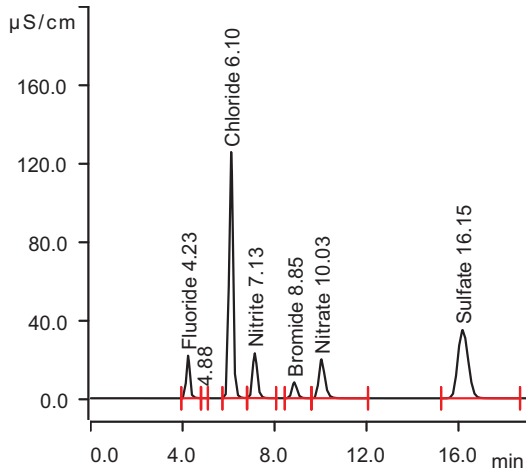


Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	2.3860	5.026	5.026
6.09	Chloride	15.5240	49.544	49.544
7.14	Nitrite	3.4088	5.007	5.007
8.86	Bromide	1.2568	9.785	9.785
10.05	Nitrate	3.6632	4.929	4.929
16.18	Sulfate	11.1759	49.501	49.501

**Sample data**

Ident. . . . . STDJ  
 Sample type . . . . . Standard 9  
 Determination start . . . . . 2023-06-06 14:28:12  
 Dilution factor . . . . . 1.00

**Anions**

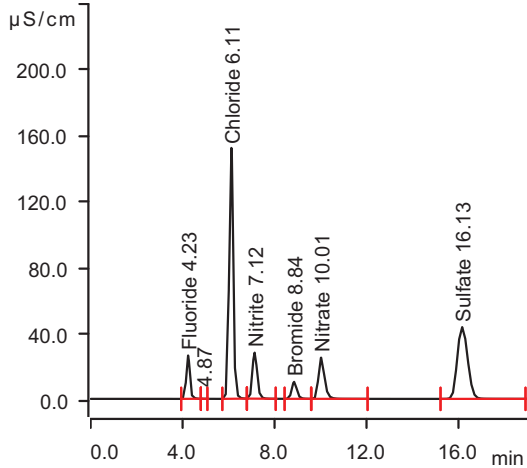


Retention Time (min)	Component Name	Area $\mu\text{S} \cdot \text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	3.8173	8.014	8.014
6.10	Chloride	25.1438	80.062	80.062
7.13	Nitrite	5.4796	8.023	8.023
8.85	Bromide	2.1117	16.362	16.362
10.03	Nitrate	6.0558	8.113	8.113
16.15	Sulfate	18.2394	80.525	80.525

**Sample data**

Ident. . . . . STDK  
 Sample type . . . . . Standard 10  
 Determination start . . . . . 2023-06-06 14:50:16  
 Dilution factor . . . . . 1.00

**Anions**

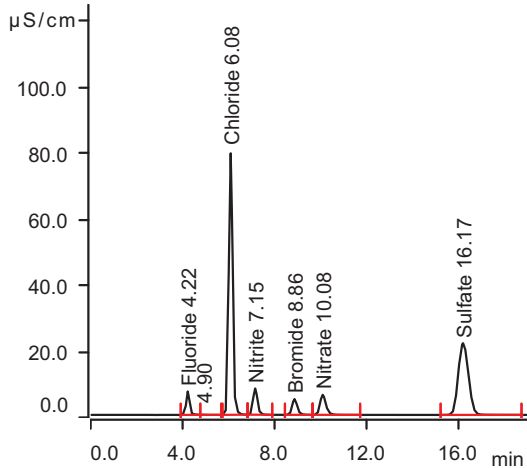


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	4.7211	9.901	9.901
6.11	Chloride	31.4653	100.116	100.116
7.12	Nitrite	6.8154	9.968	9.968
8.84	Bromide	2.6832	20.760	20.760
10.01	Nitrate	7.6401	10.221	10.221
16.13	Sulfate	22.8839	100.925	100.925

**Sample data**

Ident. . . . . ICV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 15:12:21  
 Dilution factor . . . . . 1.00

**Anions**

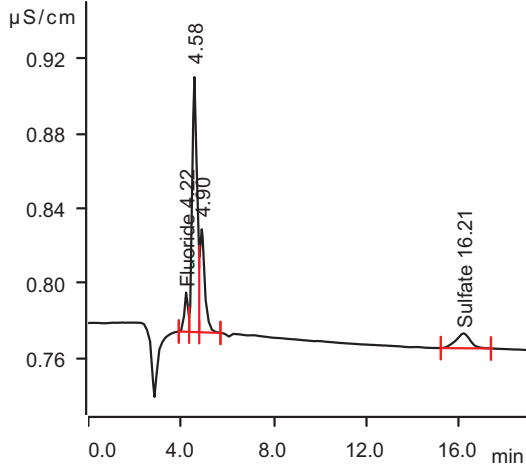


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	1.1903	2.530	2.530
6.08	Chloride	15.2367	48.633	48.633
7.15	Nitrite	1.7705	2.622	2.622
8.86	Bromide	1.2346	9.614	9.614
10.08	Nitrate	1.8167	2.472	2.472
16.17	Sulfate	11.1676	49.464	49.464

**Sample data**

Ident . . . . . ICB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 15:34:24  
 Dilution factor . . . . . 1.00

**Anions**

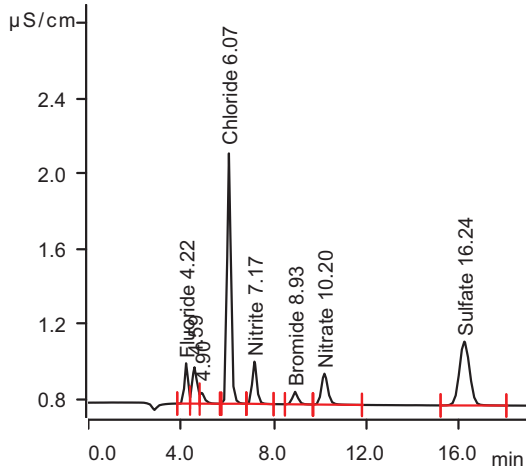


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0036	0.052	0.052
16.21	Sulfate	0.0057	0.439	0.439

**Sample data**

Ident . . . . . CRI  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 15:56:31  
 Dilution factor . . . . . 1.00

**Anions**

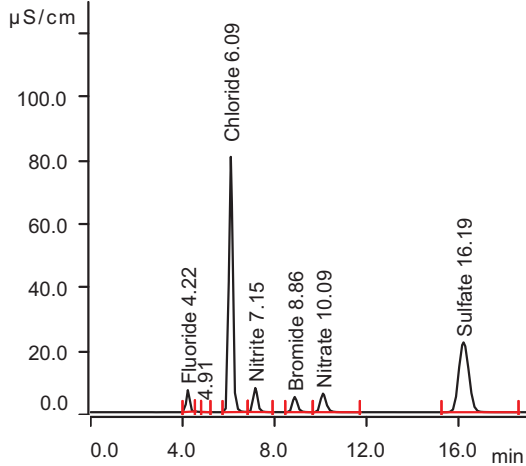


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	0.0360	0.119	0.119
6.07	Chloride	0.2485	1.084	1.084
7.17	Nitrite	0.0513	0.119	0.119
8.93	Bromide	0.0190	0.261	0.261
10.20	Nitrate	0.0531	0.125	0.125
16.24	Sulfate	0.1755	1.185	1.185

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 16:19:28  
 Dilution factor . . . . . 1.00

**Anions**

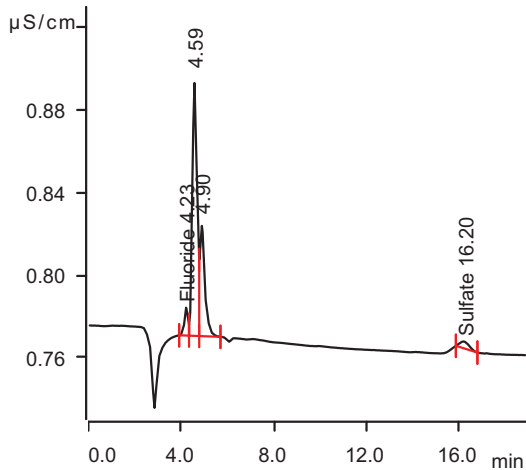


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.22	Fluoride	1.0859	2.311	2.311
6.09	Chloride	15.4850	49.420	49.420
7.15	Nitrite	1.6828	2.494	2.494
8.86	Bromide	1.2354	9.620	9.620
10.09	Nitrate	1.7444	2.376	2.376
16.19	Sulfate	11.2335	49.754	49.754

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-06 16:42:23  
 Dilution factor . . . . . 1.00

**Anions**

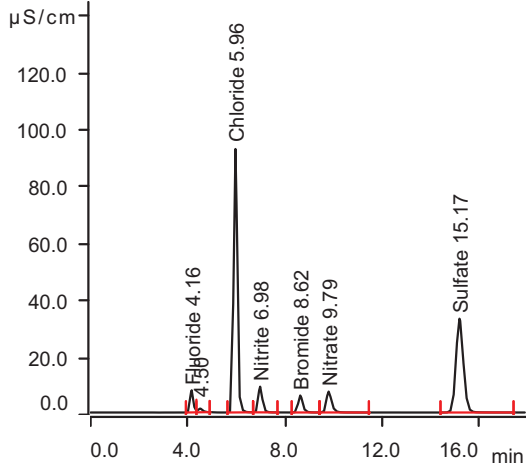


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.23	Fluoride	0.0023	0.049	0.049
16.20	Sulfate	0.0015	0.421	0.421

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 09:11:37  
 Dilution factor . . . . . 1.00

**Anions**

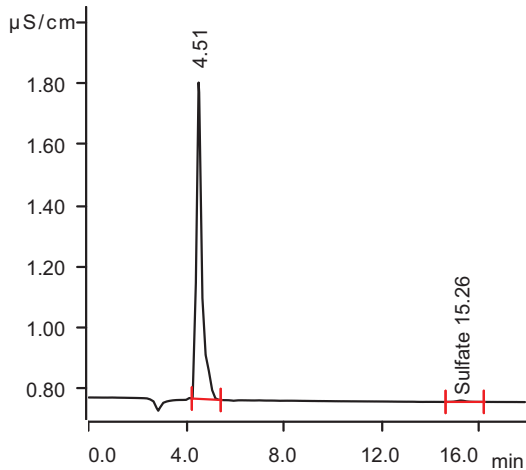


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.2040	2.558	2.558
5.96	Chloride	15.9519	50.901	50.901
6.98	Nitrite	1.7723	2.625	2.625
8.62	Bromide	1.3045	10.152	10.152
9.79	Nitrate	1.8394	2.556	2.556
15.17	Sulfate	11.7184	51.884	51.884

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 09:37:25  
 Dilution factor . . . . . 1.00

**Anions**



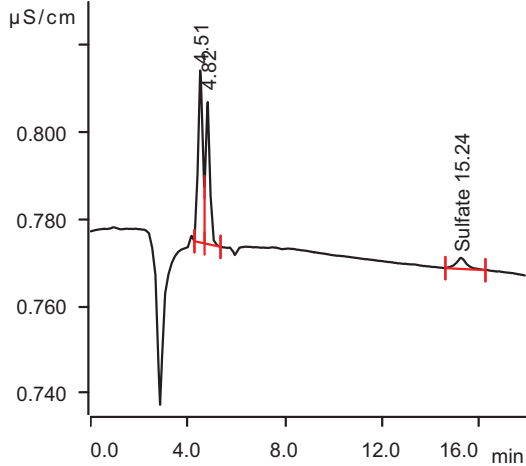
Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.26	Sulfate	0.0019	0.422	0.422

11.1  
11

**Sample data**

Ident . . . . . MB1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 09:58:26  
 Dilution factor . . . . . 1.00

**Anions**

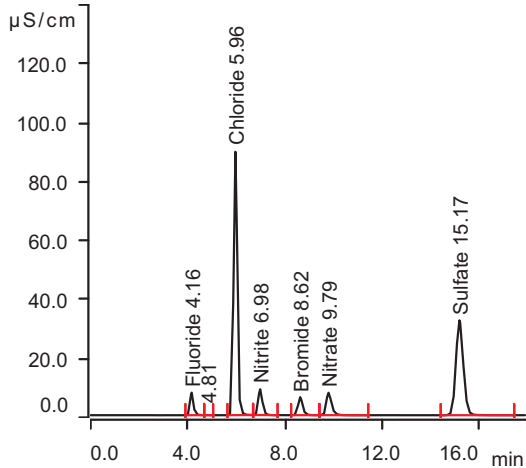


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.24	Sulfate	0.0013	0.420	0.420

**Sample data**

Ident . . . . . B1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 10:19:28  
 Dilution factor . . . . . 1.00

**Anions**



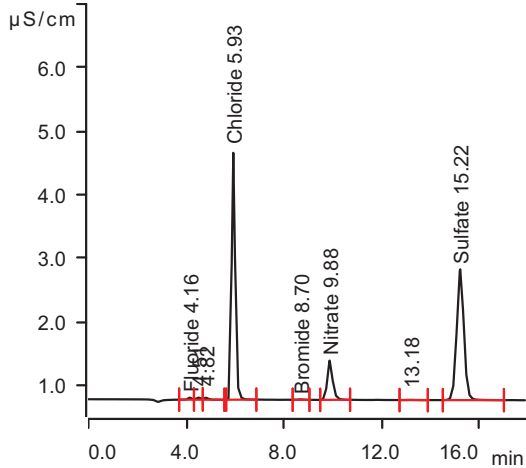
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.2136	2.578	2.578
5.96	Chloride	15.3936	49.130	49.130
6.98	Nitrite	1.7214	2.550	2.550
8.62	Bromide	1.3428	10.446	10.446
9.79	Nitrate	1.9129	2.651	2.651
15.17	Sulfate	11.4434	50.676	50.676



**Sample data**

Ident. . . . . FC7138-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 10:40:29  
 Dilution factor . . . . . 1.00

**Anions**

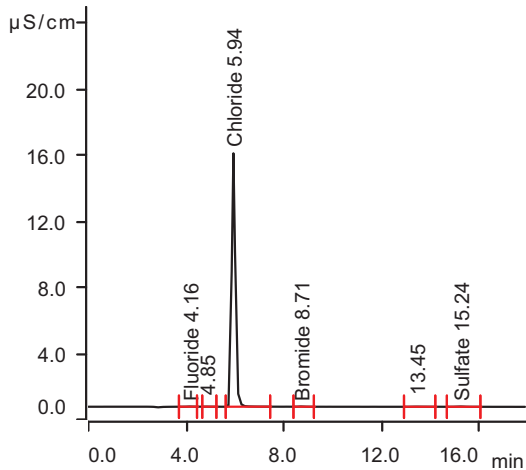


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0057	0.056	0.056
5.93	Chloride	0.6444	2.340	2.340
8.70	Bromide	0.0016	0.127	0.127
9.88	Nitrate	0.1583	0.378	0.378
15.22	Sulfate	0.7034	3.504	3.504

**Sample data**

Ident. . . . . FC7350-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 11:01:29  
 Dilution factor . . . . . 100.00

**Anions**



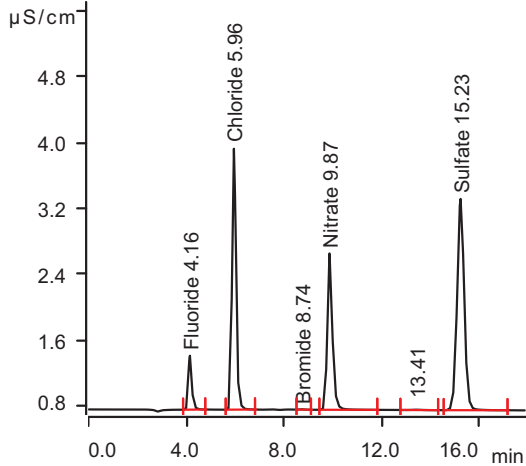
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0020	0.048	4.847
5.94	Chloride	2.5848	8.496	849.572
8.71	Bromide	0.0034	0.141	14.060
15.24	Sulfate	0.0063	0.442	44.152

11.1  
11

**Sample data**

Ident. . . . . FC7409-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 11:26:37  
 Dilution factor . . . . . 1.00

**Anions**

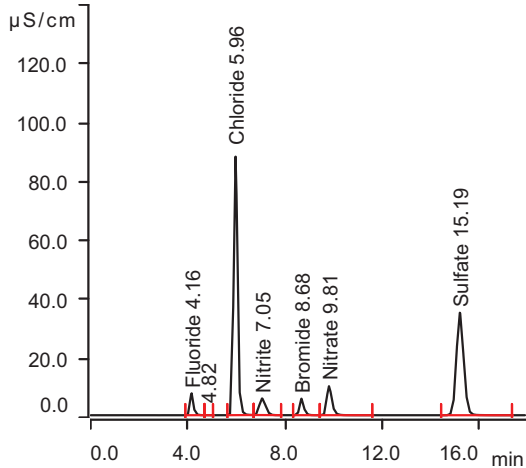


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.1078	0.269	0.269
5.96	Chloride	0.5911	2.171	2.171
8.74	Bromide	0.0009	0.122	0.122
9.87	Nitrate	0.4641	0.774	0.774
15.23	Sulfate	0.8658	4.216	4.216

**Sample data**

Ident. . . . . FC7409-1S1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 11:47:39  
 Dilution factor . . . . . 1.00

**Anions**

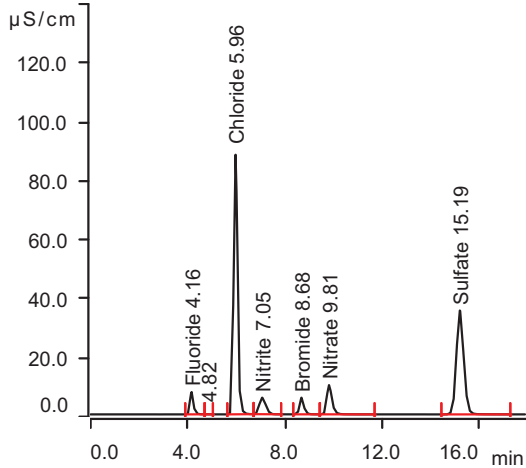


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.2015	2.553	2.553
5.96	Chloride	16.1764	51.614	51.614
7.05	Nitrite	1.7209	2.550	2.550
8.68	Bromide	1.1630	9.063	9.063
9.81	Nitrate	2.4231	3.312	3.312
15.19	Sulfate	12.2610	54.267	54.267

**Sample data**

Ident. . . . . FC7409-1S2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 12:08:39  
 Dilution factor . . . . . 1.00

**Anions**

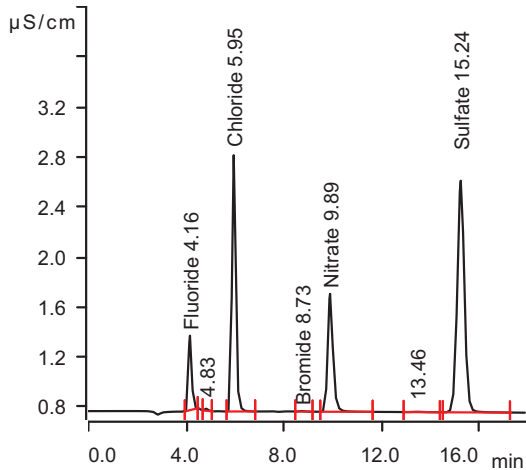


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.2350	2.623	2.623
5.96	Chloride	16.3578	52.189	52.189
7.05	Nitrite	1.7478	2.589	2.589
8.68	Bromide	1.1791	9.187	9.187
9.81	Nitrate	2.4563	3.355	3.355
15.19	Sulfate	12.4537	55.113	55.113

**Sample data**

Ident. . . . . FC7409-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 12:29:40  
 Dilution factor . . . . . 1.00

**Anions**

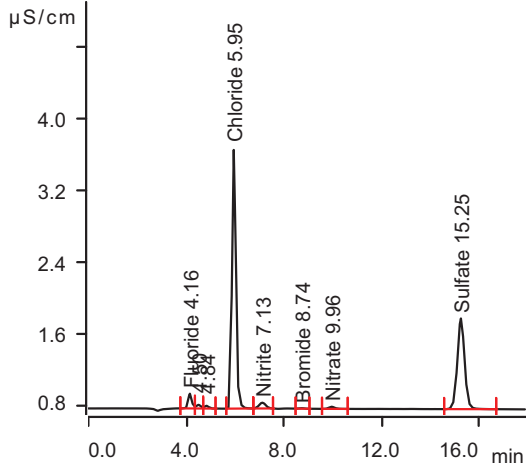


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0926	0.238	0.238
5.95	Chloride	0.3620	1.444	1.444
8.73	Bromide	0.0009	0.122	0.122
9.89	Nitrate	0.2366	0.480	0.480
15.24	Sulfate	0.6293	3.178	3.178

### Sample data

Ident. . . . . FC7409-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 12:50:47  
 Dilution factor . . . . . 1.00

### Anions

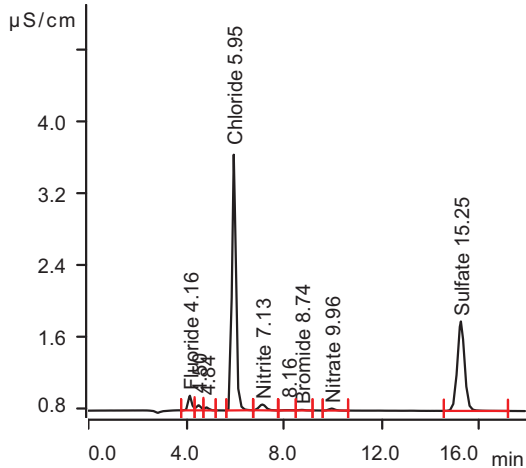


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0282	0.103	0.103
5.95	Chloride	0.5172	1.936	1.936
7.13	Nitrite	0.0205	0.074	0.074
8.74	Bromide	0.0011	0.123	0.123
9.96	Nitrate	0.0064	0.181	0.181
15.25	Sulfate	0.3483	1.944	1.944

### Sample data

Ident. . . . . FC7409-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 13:11:49  
 Dilution factor . . . . . 1.00

### Anions



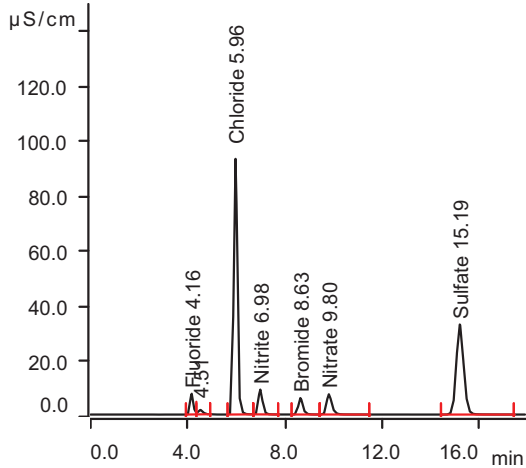
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0278	0.102	0.102
5.95	Chloride	0.5137	1.925	1.925
7.13	Nitrite	0.0217	0.075	0.075
8.74	Bromide	0.0019	0.129	0.129
9.96	Nitrate	0.0061	0.181	0.181
15.25	Sulfate	0.3450	1.929	1.929

11.1  
11

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 13:32:50  
 Dilution factor . . . . . 1.00

**Anions**

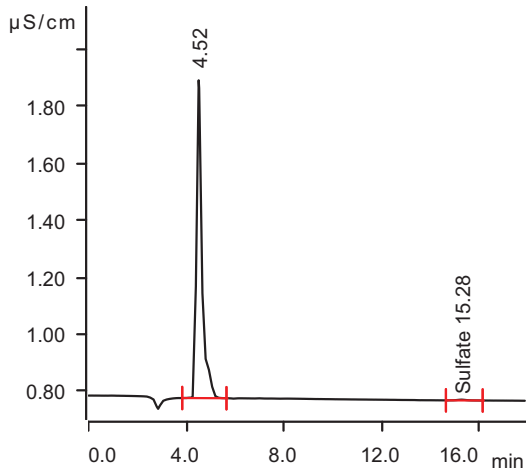


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.1649	2.477	2.477
5.96	Chloride	15.9970	51.044	51.044
6.98	Nitrite	1.7778	2.633	2.633
8.63	Bromide	1.3103	10.196	10.196
9.80	Nitrate	1.8471	2.566	2.566
15.19	Sulfate	11.6120	51.416	51.416

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 13:53:56  
 Dilution factor . . . . . 1.00

**Anions**



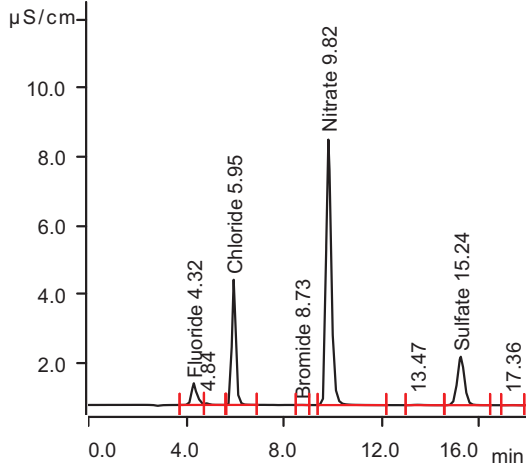
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.28	Sulfate	0.0012	0.419	0.419

11.1  
11

**Sample data**

Ident. . . . . FC7409-5  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 14:14:56  
 Dilution factor . . . . . 1.00

**Anions**

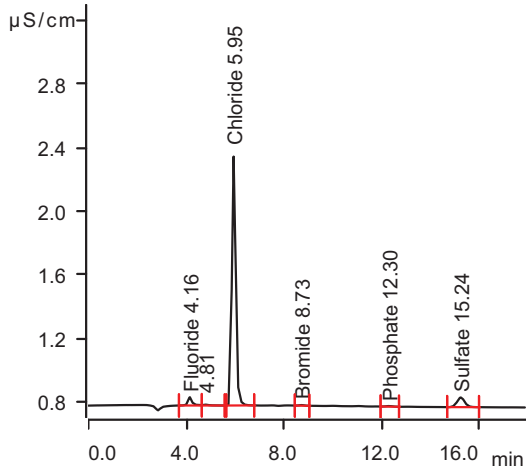


Retention Time (min)	Component Name	Area (uS*min)	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.32	Fluoride	0.1593	0.377	0.377
5.95	Chloride	0.6508	2.360	2.360
8.73	Bromide	0.0007	0.120	0.120
9.82	Nitrate	1.9111	2.649	2.649
15.24	Sulfate	0.4809	2.526	2.526

**Sample data**

Ident. . . . . FC7413-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 14:36:03  
 Dilution factor . . . . . 10.00

**Anions**

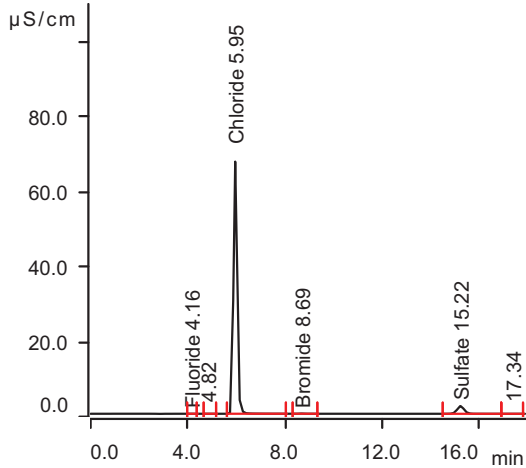


Retention Time (min)	Component Name	Area (uS*min)	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0107	0.067	0.665
5.95	Chloride	0.2749	1.168	11.677
8.73	Bromide	0.0009	0.121	1.211
12.30	Phosphate	0.0012	invalid	invalid
15.24	Sulfate	0.0224	0.512	5.124

**Sample data**

Ident. . . . . FC7340-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 14:56:49  
 Dilution factor . . . . . 500.00

**Anions**

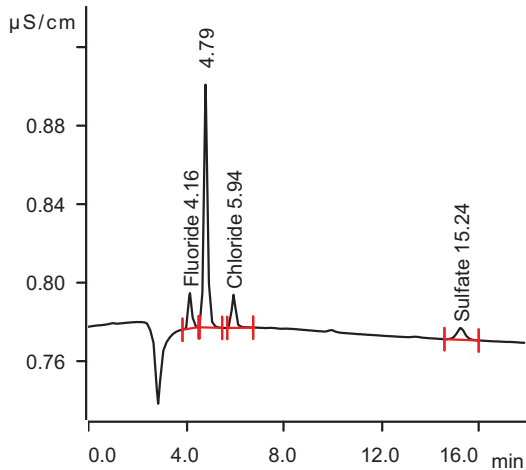


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0009	0.046	23.113
5.95	Chloride	11.3958	36.448	18223.881
8.69	Bromide	0.0143	0.224	112.108
15.22	Sulfate	0.7021	3.498	1748.803

**Sample data**

Ident. . . . . MB1F  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 15:17:35  
 Dilution factor . . . . . 1.00

**Anions**

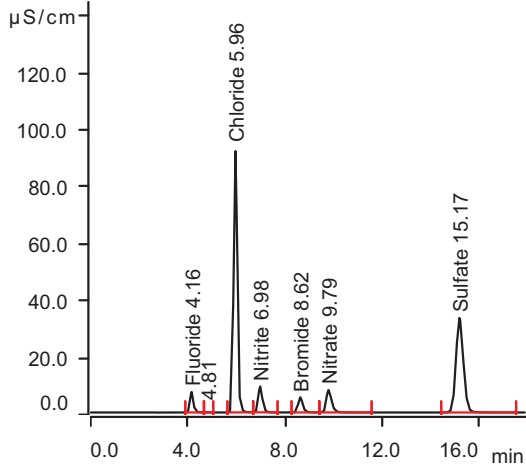


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0031	0.051	0.051
5.94	Chloride	0.0032	0.306	0.306
15.24	Sulfate	0.0024	0.425	0.425

**Sample data**

Ident. . . . . B1F  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 15:38:37  
 Dilution factor . . . . . 1.00

**Anions**

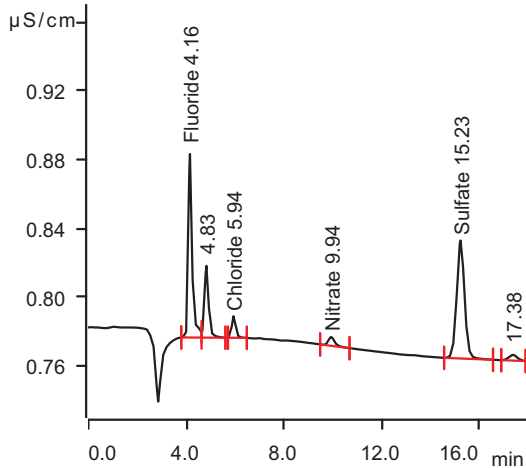


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.1346	2.413	2.413
5.96	Chloride	15.7936	50.399	50.399
6.98	Nitrite	1.7844	2.642	2.642
8.62	Bromide	1.1698	9.115	9.115
9.79	Nitrate	1.9875	2.747	2.747
15.17	Sulfate	11.7887	52.192	52.192

**Sample data**

Ident. . . . . FC7175-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 15:59:39  
 Dilution factor . . . . . 5.00

**Anions**



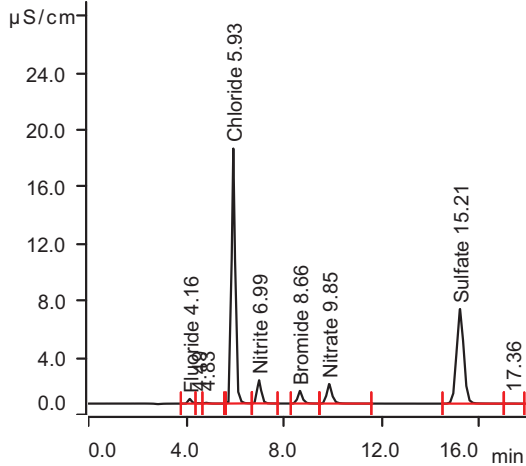
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0194	0.085	0.423
5.94	Chloride	0.0023	0.303	1.514
9.94	Nitrate	0.0016	0.175	0.876
15.23	Sulfate	0.0256	0.526	2.631



**Sample data**

Ident. . . . . FC7175-1S1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 16:20:39  
 Dilution factor . . . . . 5.00

**Anions**

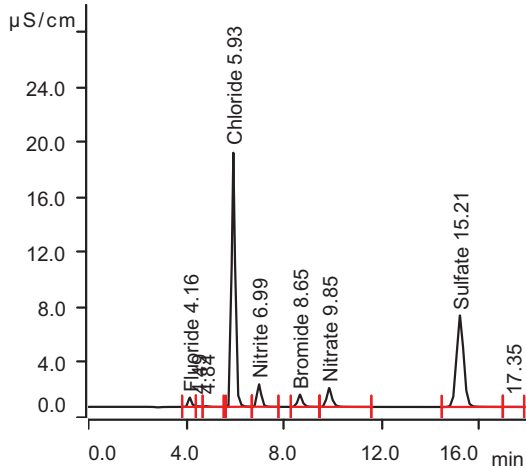


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0536	0.156	0.781
5.93	Chloride	2.9763	9.737	48.687
6.99	Nitrite	0.3124	0.499	2.494
8.66	Bromide	0.1995	1.650	8.248
9.85	Nitrate	0.3453	0.620	3.102
15.21	Sulfate	2.2775	10.417	52.086

**Sample data**

Ident. . . . . FC7175-1S2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 16:41:40  
 Dilution factor . . . . . 5.00

**Anions**

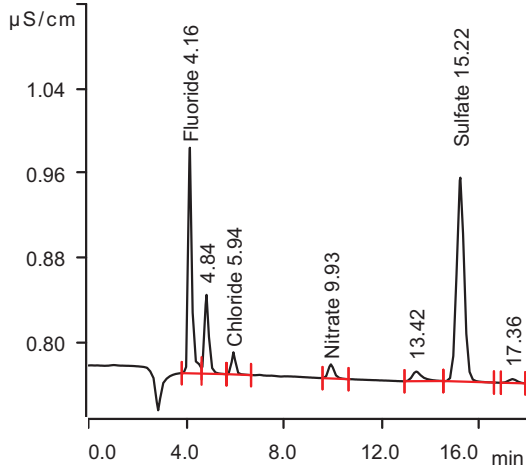


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.1080	0.270	1.348
5.93	Chloride	3.0515	9.976	49.880
6.99	Nitrite	0.3110	0.497	2.484
8.65	Bromide	0.1993	1.648	8.241
9.85	Nitrate	0.3436	0.618	3.091
15.21	Sulfate	2.2722	10.394	51.969

**Sample data**

Ident. . . . . FC7175-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 17:02:42  
 Dilution factor . . . . . 5.00

**Anions**

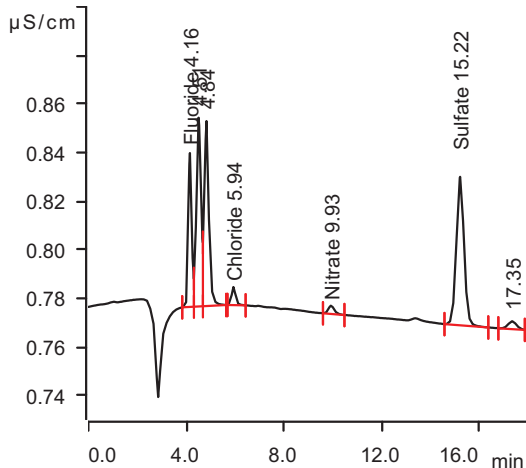


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0369	0.121	0.607
5.94	Chloride	0.0039	0.308	1.539
9.93	Nitrate	0.0038	0.178	0.890
15.22	Sulfate	0.0690	0.717	3.584

**Sample data**

Ident. . . . . FC7175-3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 17:23:43  
 Dilution factor . . . . . 5.00

**Anions**



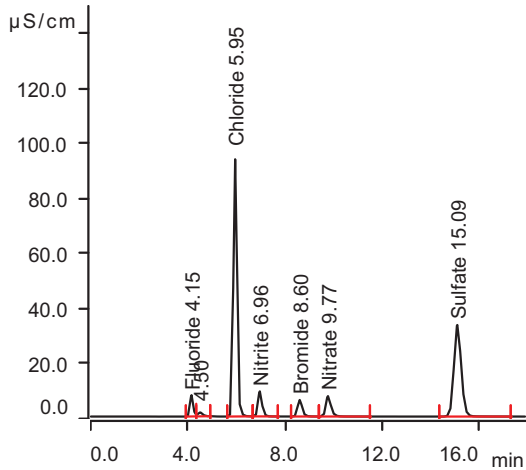
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0104	0.066	0.330
5.94	Chloride	0.0014	0.300	1.500
9.93	Nitrate	0.0010	0.174	0.872
15.22	Sulfate	0.0224	0.512	2.561

11.1  
11

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 17:44:43  
 Dilution factor . . . . . 1.00

**Anions**

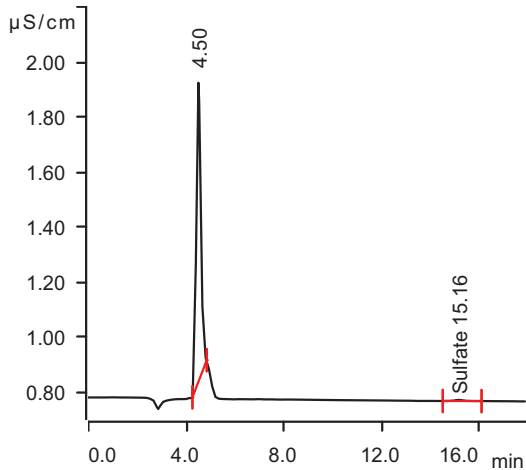


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	1.1955	2.540	2.540
5.95	Chloride	16.0330	51.159	51.159
6.96	Nitrite	1.7832	2.640	2.640
8.60	Bromide	1.3115	10.205	10.205
9.77	Nitrate	1.8495	2.569	2.569
15.09	Sulfate	11.7171	51.878	51.878

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 18:05:52  
 Dilution factor . . . . . 1.00

**Anions**

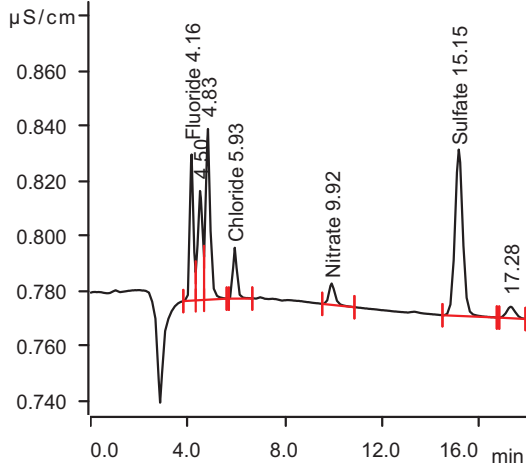


Retention Time (min)	Component Name	Area $\mu\text{S}\cdot\text{min}$	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.16	Sulfate	0.0018	0.422	0.422

**Sample data**

Ident. . . . . FC7175-4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 18:26:54  
 Dilution factor . . . . . 5.00

**Anions**

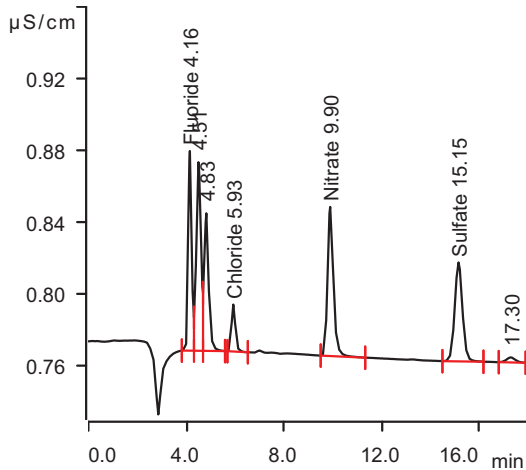


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0090	0.063	0.315
5.93	Chloride	0.0034	0.307	1.533
9.92	Nitrate	0.0023	0.176	0.880
15.15	Sulfate	0.0226	0.513	2.565

**Sample data**

Ident. . . . . FC7175-5  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 18:48:05  
 Dilution factor . . . . . 5.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0181	0.082	0.411
5.93	Chloride	0.0047	0.311	1.553
9.90	Nitrate	0.0230	0.203	1.015
15.15	Sulfate	0.0203	0.503	2.515



# Summary Report

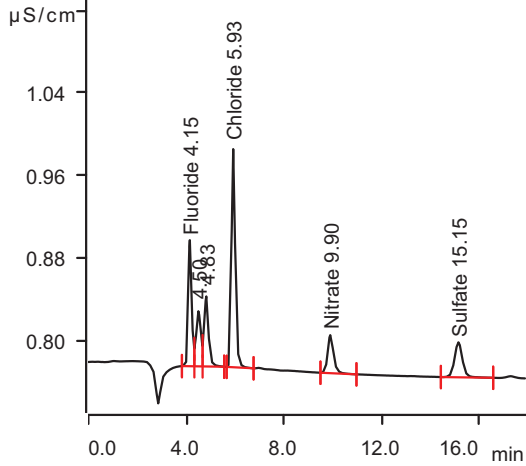
2023-07-01 10:44:59

MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7175-6  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 19:09:08  
 Dilution factor . . . . . 5.00

### Anions

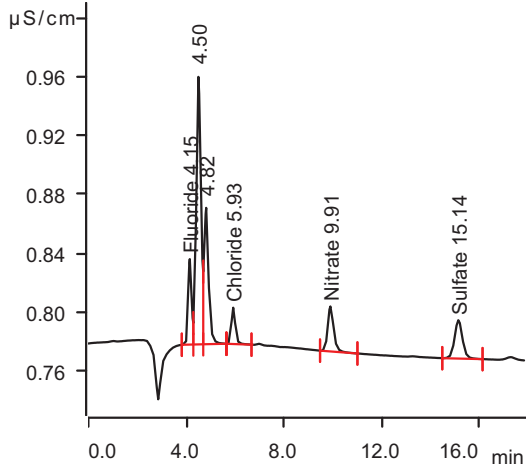


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0202	0.086	0.432
5.93	Chloride	0.0372	0.414	2.069
9.90	Nitrate	0.0103	0.186	0.932
15.15	Sulfate	0.0128	0.470	2.351

### Sample data

Ident. . . . . FC7175-7  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 19:30:11  
 Dilution factor . . . . . 5.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0094	0.064	0.320
5.93	Chloride	0.0045	0.310	1.550
9.91	Nitrate	0.0086	0.184	0.921
15.14	Sulfate	0.0098	0.457	2.285

System Operator: JR IC4  
 EPA 300.0 / SW846 9056A

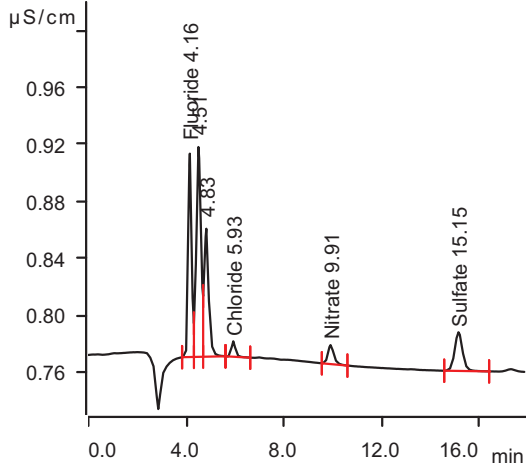


11.1  
11

**Sample data**

Ident. . . . . FC7175-8  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 19:51:14  
 Dilution factor . . . . . 5.00

**Anions**

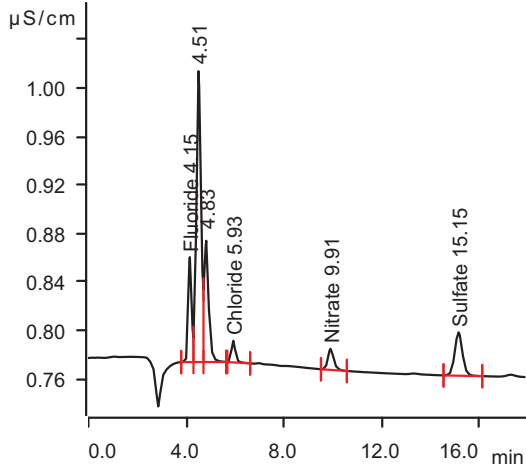


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0231	0.093	0.463
5.93	Chloride	0.0020	0.302	1.510
9.91	Nitrate	0.0038	0.178	0.890
15.15	Sulfate	0.0102	0.459	2.294

**Sample data**

Ident. . . . . FC7175-9  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 20:12:17  
 Dilution factor . . . . . 5.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0139	0.073	0.367
5.93	Chloride	0.0033	0.306	1.530
9.91	Nitrate	0.0049	0.179	0.897
15.15	Sulfate	0.0132	0.472	2.360

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11



# Summary Report

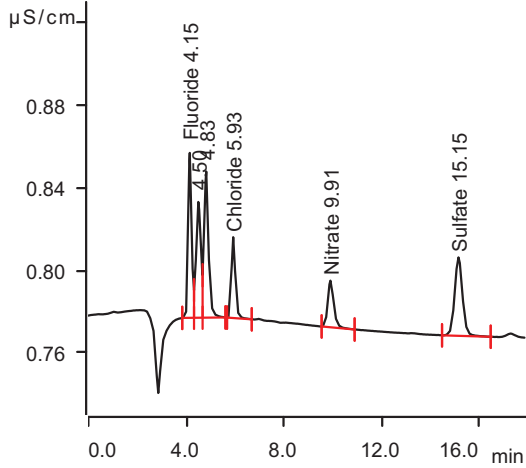
2023-07-01 10:44:59

MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7175-10  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 20:33:19  
 Dilution factor . . . . . 5.00

### Anions

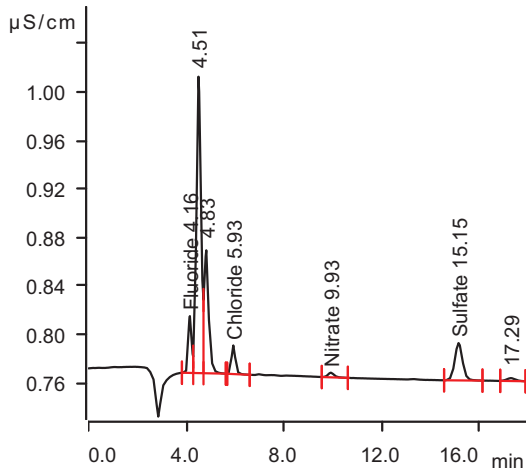


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0132	0.072	0.359
5.93	Chloride	0.0071	0.318	1.591
9.91	Nitrate	0.0064	0.181	0.907
15.15	Sulfate	0.0142	0.476	2.381

### Sample data

Ident. . . . . FC7175-11  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 20:54:22  
 Dilution factor . . . . . 5.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0076	0.060	0.300
5.93	Chloride	0.0042	0.309	1.545
9.93	Nitrate	0.0011	0.175	0.873
15.15	Sulfate	0.0115	0.464	2.322

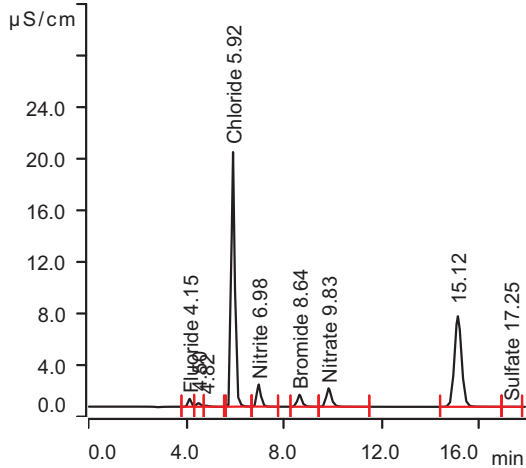


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11

**Sample data**

Ident. . . . . FC7175-11S3  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 21:15:25  
 Dilution factor . . . . . 5.00

**Anions**

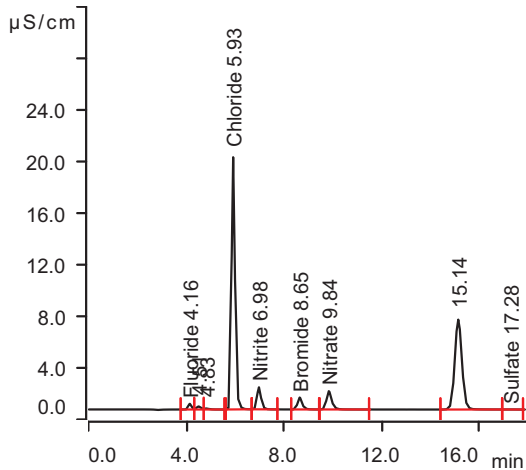


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0954	0.243	1.217
5.92	Chloride	3.2142	10.492	52.461
6.98	Nitrite	0.3233	0.515	2.573
8.64	Bromide	0.2068	1.706	8.530
9.83	Nitrate	0.3565	0.635	3.174
17.25	Sulfate	0.0012	0.419	2.097

**Sample data**

Ident. . . . . FC7175-11S4  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 21:36:29  
 Dilution factor . . . . . 5.00

**Anions**



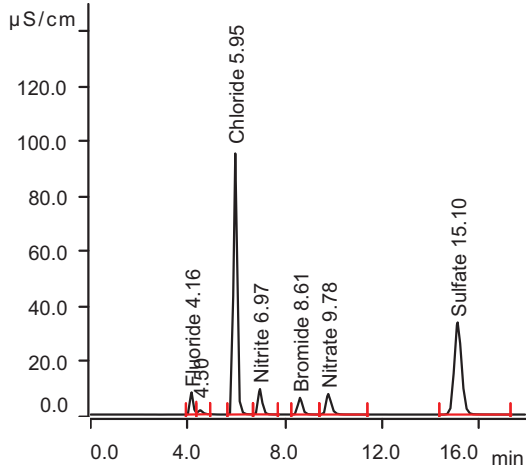
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0698	0.190	0.951
5.93	Chloride	3.2012	10.451	52.255
6.98	Nitrite	0.3243	0.516	2.581
8.65	Bromide	0.2066	1.704	8.522
9.84	Nitrate	0.3560	0.634	3.171
17.28	Sulfate	0.0013	0.420	2.099



**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 21:57:31  
 Dilution factor . . . . . 1.00

**Anions**

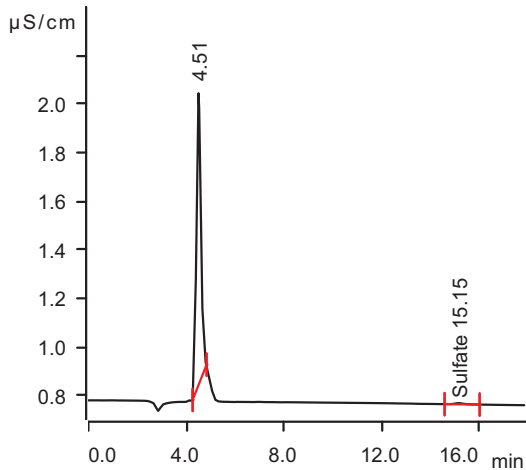


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.2248	2.602	2.602
5.95	Chloride	16.0942	51.353	51.353
6.97	Nitrite	1.7910	2.652	2.652
8.61	Bromide	1.3183	10.258	10.258
9.78	Nitrate	1.8588	2.581	2.581
15.10	Sulfate	11.8084	52.279	52.279

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 22:18:39  
 Dilution factor . . . . . 1.00

**Anions**

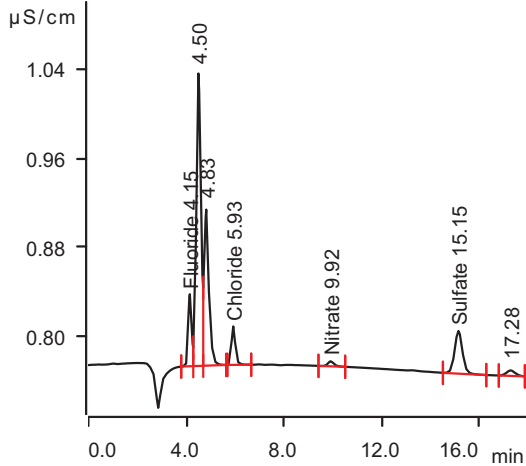


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
15.15	Sulfate	0.0020	0.423	0.423

**Sample data**

Ident. . . . . FC7175-12  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 22:39:42  
 Dilution factor . . . . . 5.00

**Anions**

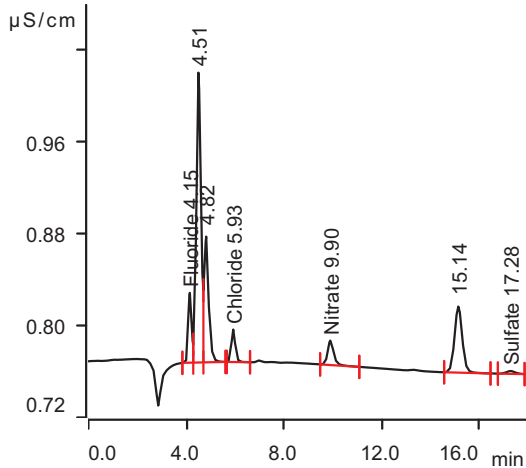


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0104	0.066	0.330
5.93	Chloride	0.0062	0.315	1.577
9.92	Nitrate	0.0013	0.175	0.874
15.15	Sulfate	0.0143	0.477	2.384

**Sample data**

Ident. . . . . FC7175-14  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 23:00:51  
 Dilution factor . . . . . 5.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0097	0.065	0.323
5.93	Chloride	0.0051	0.312	1.559
9.90	Nitrate	0.0062	0.181	0.905
17.28	Sulfate	0.0010	0.419	2.093

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11



# Summary Report

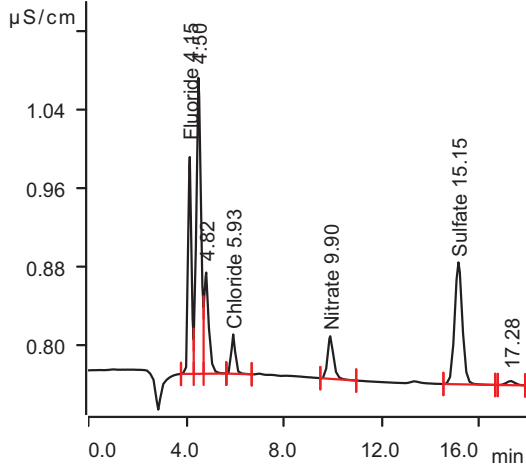
2023-07-01 10:44:59

MagIC Net 3.2 - 123

### Sample data

Ident. . . . . FC7175-15  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 23:21:54  
 Dilution factor . . . . . 5.00

### Anions

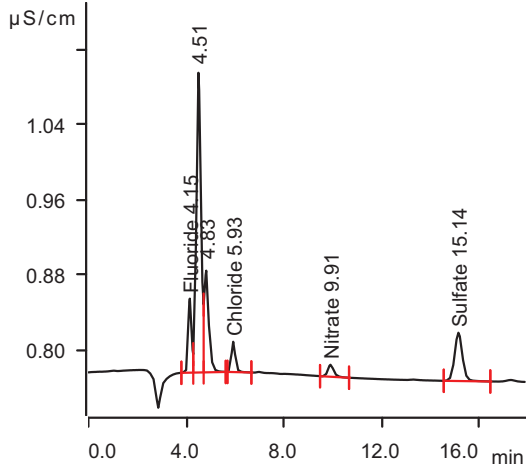


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0345	0.116	0.581
5.93	Chloride	0.0072	0.318	1.592
9.90	Nitrate	0.0122	0.189	0.944
15.15	Sulfate	0.0451	0.612	3.059

### Sample data

Ident. . . . . FC7175-20  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-06-30 23:42:57  
 Dilution factor . . . . . 5.00

### Anions



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0126	0.071	0.353
5.93	Chloride	0.0058	0.314	1.571
9.91	Nitrate	0.0036	0.178	0.889
15.14	Sulfate	0.0192	0.498	2.491

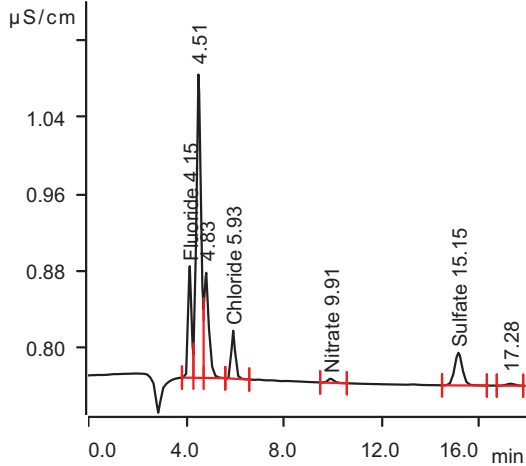


11.1  
11

**Sample data**

Ident. . . . . FC7175-21  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-07-01 00:04:00  
 Dilution factor . . . . . 5.00

**Anions**

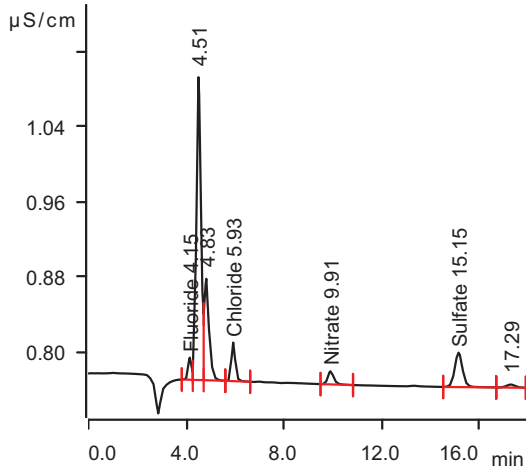


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0184	0.083	0.413
5.93	Chloride	0.0089	0.324	1.619
9.91	Nitrate	0.0012	0.175	0.874
15.15	Sulfate	0.0128	0.470	2.350

**Sample data**

Ident. . . . . FC7175-22  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-07-01 00:25:04  
 Dilution factor . . . . . 5.00

**Anions**

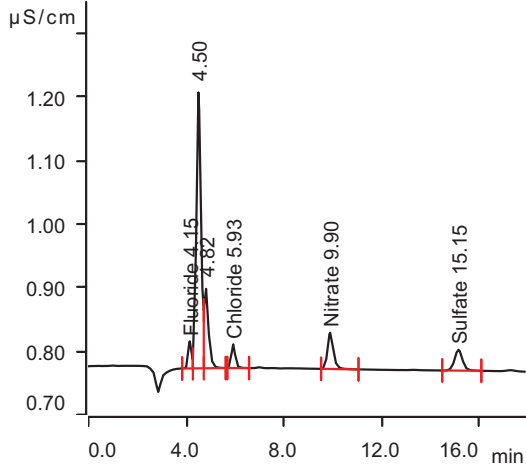


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0037	0.052	0.260
5.93	Chloride	0.0073	0.319	1.595
9.91	Nitrate	0.0040	0.178	0.891
15.15	Sulfate	0.0138	0.475	2.373

**Sample data**

Ident. . . . . FC7175-23  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-07-01 00:46:06  
 Dilution factor . . . . . 5.00

**Anions**

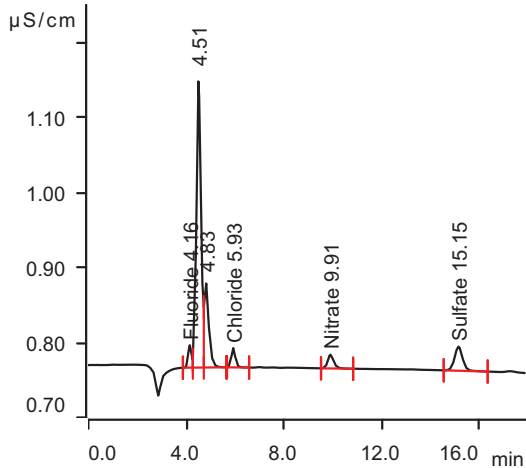


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0067	0.058	0.291
5.93	Chloride	0.0067	0.317	1.584
9.90	Nitrate	0.0161	0.194	0.969
15.15	Sulfate	0.0124	0.468	2.342

**Sample data**

Ident. . . . . FC7230-1  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-07-01 01:07:09  
 Dilution factor . . . . . 5.00

**Anions**



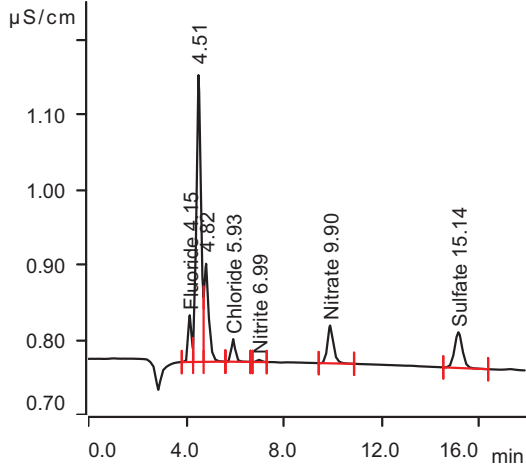
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0047	0.054	0.270
5.93	Chloride	0.0046	0.310	1.551
9.91	Nitrate	0.0053	0.180	0.900
15.15	Sulfate	0.0122	0.468	2.338

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11

**Sample data**

Ident. . . . . FC7230-2  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-07-01 01:28:11  
 Dilution factor . . . . . 5.00

**Anions**

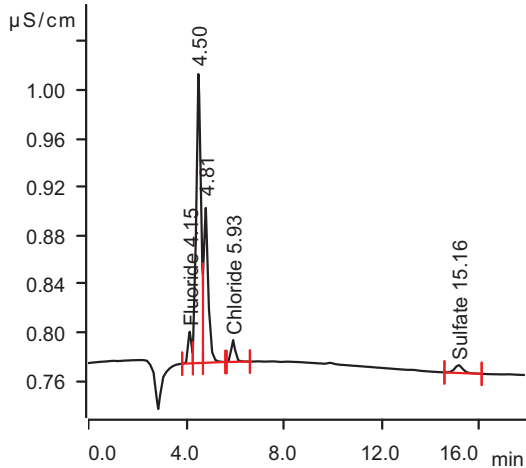


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0098	0.065	0.324
5.93	Chloride	0.0055	0.313	1.565
6.99	Nitrite	0.0006	0.045	0.224
9.90	Nitrate	0.0143	0.192	0.958
15.14	Sulfate	0.0179	0.492	2.462

**Sample data**

Ident. . . . . MB1F  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-07-01 01:49:14  
 Dilution factor . . . . . 1.00

**Anions**



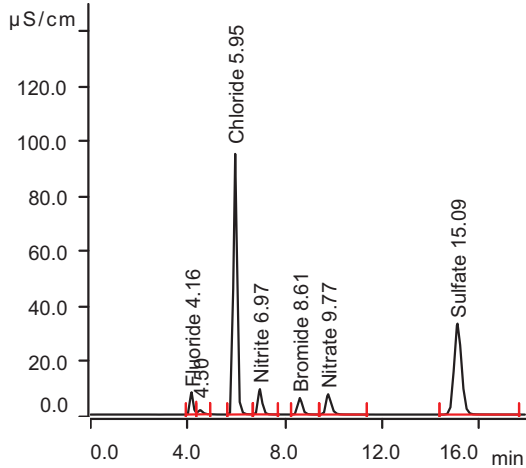
Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.15	Fluoride	0.0041	0.053	0.053
5.93	Chloride	0.0033	0.306	0.306
15.16	Sulfate	0.0026	0.425	0.425

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11

**Sample data**

Ident. . . . . CCV  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-07-01 02:10:17  
 Dilution factor . . . . . 1.00

**Anions**

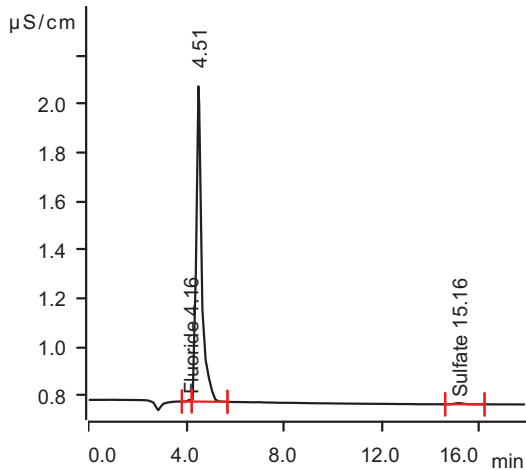


Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	1.2270	2.606	2.606
5.95	Chloride	16.1229	51.444	51.444
6.97	Nitrite	1.7941	2.656	2.656
8.61	Bromide	1.3196	10.268	10.268
9.77	Nitrate	1.8618	2.585	2.585
15.09	Sulfate	11.8496	52.460	52.460

**Sample data**

Ident. . . . . CCB  
 Sample type . . . . . Sample  
 Determination start . . . . . 2023-07-01 02:31:22  
 Dilution factor . . . . . 1.00

**Anions**



Retention Time (min)	Component Name	Area uS*min	Conc. on Column (mg/L)	Final Conc. (mg/L)
4.16	Fluoride	0.0010	0.046	0.046
15.16	Sulfate	0.0022	0.423	0.423

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TOC Analysis Logbook, Aqueous

Date: 7/3/2023  
 Analyst: F. N.  
 Instrument: TOC3  
 Instr. File name: c20230703w1.txt  
 Filter Lot#:

Methods: SM5310B SW8469060A  
 Method File: NPOC - met  
 Cal. File: 5/5/2023  
 GN Batch: GN94633

pH paper Lot#: 230320  
 Pipette ID#: UU09872  
 Pipette ID#: UU07485  
 Pipette ID#:

ICAL: List in comments  
 ICV: TOC4169  
 CCV: TOC4168  
 QC: WC2093

Autosampler Position	Sample ID	Bottle#	pH, sU	Injected Volume, ml	Manual Dilution	Instrument Dilution	GP Batch	Comments
1	BLANK	-	-	50 ul	1	1		
2	500	-	1.0'	50 ul	1	1		
3	CCV	-	1.5	50 ul	1	1		} TOC4167
4	GP38918-MB1	-	-	50 ul	1	1	GP38918	
5	GP38918-B1	-	1.5	50 ul	1	1	GP38918	
6	FC7143-1	2	1.5	50 ul	1	1	GP38918	
7	FC7143-2	1	1.5	50 ul	1	1	GP38918	
8	FC7211-1	1	1.0*	50 ul	1	1	GP38918	
9	FC7211-2	1	1.5	50 ul	1	1	GP38918	
10	FC7211-3	1	1.5	50 ul	1	1	GP38918	
11	FC7211-4	1	1.0*	50 ul	1	1	GP38918	
12	FC7211-5	1	1.0*	50 ul	1	1	GP38918	
13	FC7211-6	1	1.5	50 ul	1	1	GP38918	
14	CCV	-	1.5	50 ul	1	1		(* )=> Initial PH>= 2 , added drops
15	CCB	-	-	50 ul	1	1		conc. HCL to acidify.
16	FC7211-7	1	1.0*	50 ul	1	1	GP38918	HCL lot#: 23040119
17	GP38918-S1	2	1.0*	50 ul	1	1	GP38918	
18	GP38918-S2	7	1.0*	50 ul	1	1	GP38918	
19	FC7211-8	1	1.5	50 ul	1	1	GP38918	
20	FC7211-9	1	1.5	50 ul	1	1	GP38918	
21	FC7211-10	1	1.0*	50 ul	1	1	GP38918	
22	FC7211-11	1	1.0*	50 ul	1	1	GP38918	
23	FC7211-12	1	1.0*	50 ul	1	1	GP38918	
24	FC7211-13	1	1.0*	50 ul	1	1	GP38918	
25	FC7211-14	1	1.0*	50 ul	1	1	GP38918	
26	CCV	-	1.5	50 ul	1	1		
27	CCB	-	-	50 ul	1	1		
28	FC7211-15	1	1.0*	50 ul	1	1	GP38918	
29	GP38918-S3	2	1.0*	50 ul	1	1	GP38918	
29	GP38918-S4	2	1.0*	50 ul	1	1	GP38918	
30	FC7211-16	1	1.0*	50 ul	1	1	GP38918	
31	FC7211-17	1	1.0*	50 ul	1	1	GP38918	
32	FC7211-18	1	1.0*	50 ul	1	1	GP38918	
33	FC7211-19	1	1.5	50 ul	1	1	GP38919	

SGS - Orlando





Type	Analysis	Sample Name	Origin	Manual Dilutio	Result	Comment	Status	Date / Time	Vial
1	Unknown	NPOC	BLANK	NPOC.met	1.000	NPOC:-0.3295mg/L	Completed	7/3/2023 3:00:40 PM	1
2	Unknown	NPOC	500	NPOC.met	1.000	NPOC:506.1mg/L	Completed	7/3/2023 3:34:47 PM	2
3	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.21mg/L	Completed	7/3/2023 3:55:50 PM	3
4	Unknown	NPOC	GP38918-MB1	NPOC.met	1.000	NPOC:-0.3420mg/L	Completed	7/3/2023 4:16:09 PM	4
5	Unknown	NPOC	GP38918-B1	NPOC.met	1.000	NPOC:14.93mg/L	Completed	7/3/2023 4:39:24 PM	5
6	Unknown	NPOC	FC7143-1	NPOC.met	1.000	NPOC:0.6055mg/L	Completed	7/3/2023 4:59:43 PM	6
7	Unknown	NPOC	FC7143-2	NPOC.met	1.000	NPOC:0.7206mg/L	Completed	7/3/2023 5:20:19 PM	7
8	Unknown	NPOC	FC7211-1	NPOC.met	1.000	NPOC:12.28mg/L	Completed	7/3/2023 5:40:35 PM	8
9	Unknown	NPOC	FC7211-2	NPOC.met	1.000	NPOC:5.486mg/L	Completed	7/3/2023 6:02:49 PM	9
10	Unknown	NPOC	FC7211-3	NPOC.met	1.000	NPOC:6.779mg/L	Completed	7/3/2023 6:23:24 PM	10
11	Unknown	NPOC	FC7211-4	NPOC.met	1.000	NPOC:5.994mg/L	Completed	7/3/2023 6:46:03 PM	11
12	Unknown	NPOC	FC7211-5	NPOC.met	1.000	NPOC:6.740mg/L	Completed	7/3/2023 7:05:55 PM	12
13	Unknown	NPOC	FC7211-6	NPOC.met	1.000	NPOC:6.808mg/L	Completed	7/3/2023 7:25:15 PM	13
14	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.09mg/L	Completed	7/3/2023 7:46:01 PM	14
15	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:-0.2980mg/L	Completed	7/3/2023 8:06:22 PM	15
16	Unknown	NPOC	FC7211-7	NPOC.met	1.000	NPOC:0.8192mg/L	Completed	7/3/2023 8:26:56 PM	16
17	Unknown	NPOC	GP38918-S1	NPOC.met	1.000	NPOC:15.77mg/L	Completed	7/3/2023 8:47:47 PM	17
18	Unknown	NPOC	GP38918-S2	NPOC.met	1.000	NPOC:16.30mg/L	Completed	7/3/2023 9:08:42 PM	18
19	Unknown	NPOC	FC7211-8	NPOC.met	1.000	NPOC:1.908mg/L	Completed	7/3/2023 9:27:35 PM	19
20	Unknown	NPOC	FC7211-9	NPOC.met	1.000	NPOC:4.102mg/L	Completed	7/3/2023 9:46:58 PM	20
21	Unknown	NPOC	FC7211-10	NPOC.met	1.000	NPOC:5.143mg/L	Completed	7/3/2023 10:09:28 PM	21
22	Unknown	NPOC	FC7211-11	NPOC.met	1.000	NPOC:5.658mg/L	Completed	7/3/2023 10:31:27 PM	22
23	Unknown	NPOC	FC7211-12	NPOC.met	1.000	NPOC:4.318mg/L	Completed	7/3/2023 10:52:53 PM	23
24	Unknown	NPOC	FC7211-13	NPOC.met	1.000	NPOC:5.653mg/L	Completed	7/3/2023 11:12:07 PM	24
25	Unknown	NPOC	FC7211-14	NPOC.met	1.000	NPOC:12.58mg/L	Completed	7/3/2023 11:32:31 PM	25
26	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.26mg/L	Completed	7/3/2023 11:53:27 PM	26
27	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:-0.1966mg/L	Completed	7/4/2023 12:11:50 AM	27
28	Unknown	NPOC	FC7211-15	NPOC.met	1.000	NPOC:7.059mg/L	Completed	7/4/2023 12:32:01 AM	28
29	Unknown	NPOC	GP38918-S3	NPOC.met	1.000	NPOC:22.30mg/L	Completed	7/4/2023 12:53:18 AM	29
30	Unknown	NPOC	GP38918-S4	NPOC.met	1.000	NPOC:22.18mg/L	Completed	7/4/2023 1:13:22 AM	29
31	Unknown	NPOC	FC7211-16	NPOC.met	1.000	NPOC:7.183mg/L	Completed	7/4/2023 1:33:15 AM	30
32	Unknown	NPOC	FC7211-17	NPOC.met	1.000	NPOC:5.285mg/L	Completed	7/4/2023 1:53:00 AM	31
33	Unknown	NPOC	FC7211-18	NPOC.met	1.000	NPOC:5.526mg/L	Completed	7/4/2023 2:12:30 AM	32
34	Unknown	NPOC	FC7211-19	NPOC.met	1.000	NPOC:4.110mg/L	Completed	7/4/2023 2:31:50 AM	33
35	Unknown	NPOC	FC7211-20	NPOC.met	1.000	NPOC:6.149mg/L	Completed	7/4/2023 2:51:38 AM	34
36	Unknown	NPOC	FC7211-21	NPOC.met	1.000	NPOC:0.7114mg/L	Completed	7/4/2023 3:12:11 AM	35
37	Unknown	NPOC	FC7211-22	NPOC.met	1.000	NPOC:0.9661mg/L	Completed	7/4/2023 3:32:26 AM	36
38	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.12mg/L	Completed	7/4/2023 3:52:58 AM	37
39	Unknown	NPOC	GP38919-MB1	NPOC.met	1.000	NPOC:-0.2337mg/L	Completed	7/4/2023 4:13:13 AM	38
40	Unknown	NPOC	GP38919-B1	NPOC.met	1.000	NPOC:14.93mg/L	Completed	7/4/2023 4:34:15 AM	39

	Type	Analysis	Sample Name	Origin	Manual Dilutio	Result	Comment	Status	Date / Time	Vial
41	Unknown	NPOC	FC7211-23	NPOC.met	1.000	NPOC:4.665mg/L	SM5310B SW846 9060A	Completed	7/4/2023 4:53:55 AM	40
42	Unknown	NPOC	FC7211-24	NPOC.met	1.000	NPOC:4.406mg/L	SM5310B SW846 9060A	Completed	7/4/2023 5:15:52 AM	41
43	Unknown	NPOC	FC7322-1	NPOC.met	1.000	NPOC:2.678mg/L	SM5310B SW846 9060A	Completed	7/4/2023 5:37:11 AM	42
44	Unknown	NPOC	GP38919-S1	NPOC.met	1.000	NPOC:18.15mg/L	SM5310B SW846 9060A	Completed	7/4/2023 6:00:57 AM	43
45	Unknown	NPOC	GP38919-S2	NPOC.met	1.000	NPOC:18.45mg/L	SM5310B SW846 9060A	Completed	7/4/2023 6:22:04 AM	44
46	Unknown	NPOC	FC7322-6	NPOC.met	1.000	NPOC:1.869mg/L	SM5310B SW846 9060A	Completed	7/4/2023 6:43:16 AM	45
47	Unknown	NPOC	FC7322-7	NPOC.met	1.000	NPOC:1.936mg/L	SM5310B SW846 9060A	Completed	7/4/2023 7:04:19 AM	46
48	Unknown	NPOC	FC7413-1	NPOC.met	1.000	NPOC:21.52mg/L	SM5310B SW846 9060A	Completed	7/4/2023 7:25:31 AM	47
49	Unknown	NPOC	CCV	NPOC.met	1.000	NPOC:15.11mg/L	SM5310B SW846 9060A	Completed	7/4/2023 7:49:05 AM	48
50	Unknown	NPOC	CCB	NPOC.met	1.000	NPOC:-0.2277mg/L	SM5310B SW846 9060A	Completed	7/4/2023 8:09:19 AM	49

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Instr. Information**

Instrument Options  
Catalyst

TOC/AS/IC Unit/  
Regular Sensitivity

**Sample**

Sample Name: BLANK  
Sample ID: Unfiled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

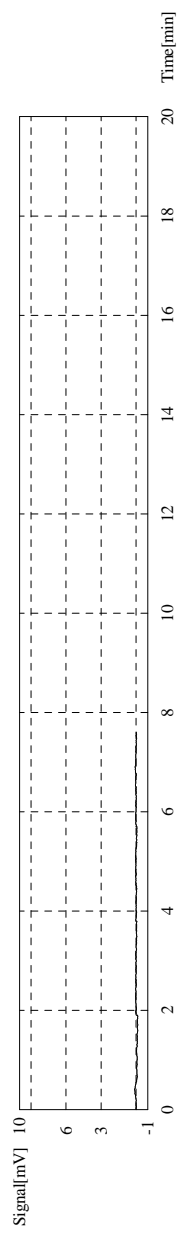
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.001	NPOC-0.3295mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.1752	-0.2920mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 2:54:15 PM
2	0.000	-0.3420mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 2:56:24 PM
3	0.000	-0.3420mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 2:58:33 PM
4	0.000	-0.3420mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 3:00:40 PM

Mean Area 0.04380  
Mean Conc. -0.3295mg/L



**Sample**

7/5/2023 9:23:24 AM

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# TOC-Control L Report

toc3\_aq\_07-03-2023.tlx

Sample Name: 500  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

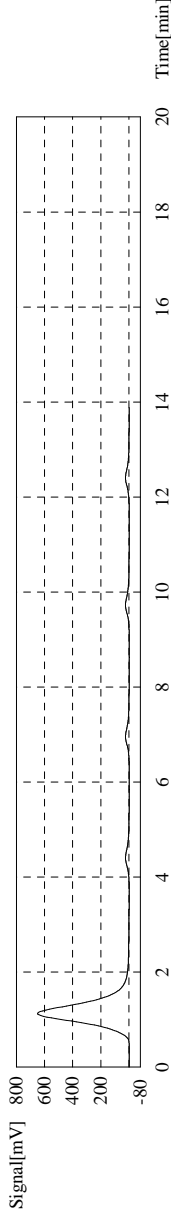
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:506.1mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1921	547.9mg/L	50ul	1.000	R	loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:13:52 PM
2	76.63	512.9mg/L	40ul	19.000		loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:26:06 PM
3	74.49	498.4mg/L	40ul	19.000		loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:29:05 PM
4	75.63	506.1mg/L	40ul	19.000		loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:31:58 PM
5	75.73	506.8mg/L	40ul	19.000		loc: 3 aq cal-curve 05-05-2023,2023, 05, 05, 20, 28, 18, cal	7/3/2023 3:34:47 PM

Mean Area 75.62  
 Mean Conc. 506.1mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.21mg/L

1. Det

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7/5/2023 9:23:24 AM

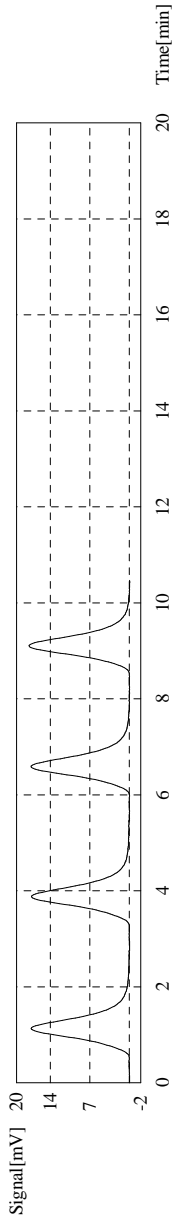
# TOC-Control L Report

toc\_3\_aq\_07-05-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.74	15.28mg/L	50ul	1.000		roc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 3:47:25 PM
2	54.68	15.26mg/L	50ul	1.000		roc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 3:50:23 PM
3	54.35	15.17mg/L	50ul	1.000		roc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 3:53:08 PM
4	54.27	15.15mg/L	50ul	1.000		roc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 3:55:50 PM

Mean Area 54.51  
Mean Conc. 15.21mg/L



**Sample**

Sample Name: GP38918-MBI  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC-0.3420mg/L

1. Det

Anal.: NPOC

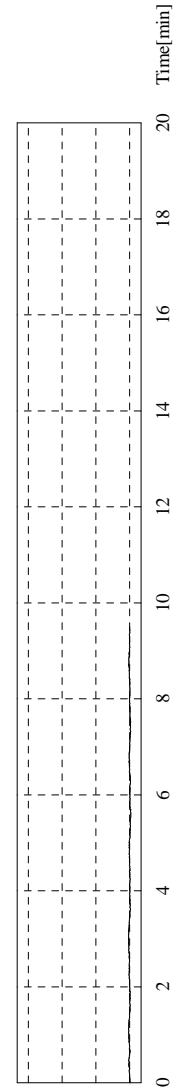
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6245	-0.1638mg/L	50ul	1.000	E	roc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 4:07:37 PM
2	0.000	-0.3420mg/L	50ul	1.000		roc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 4:09:44 PM
3	0.000	-0.3420mg/L	50ul	1.000		roc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 4:11:51 PM
4	0.000	-0.3420mg/L	50ul	1.000		roc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 4:14:00 PM
5	0.000	-0.3420mg/L	50ul	1.000		roc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 4:16:09 PM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

0.000  
-0.3420mg/L



**Sample**

Sample Name: GP389 18-B1  
 Sample ID: Untitled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.93mg/L

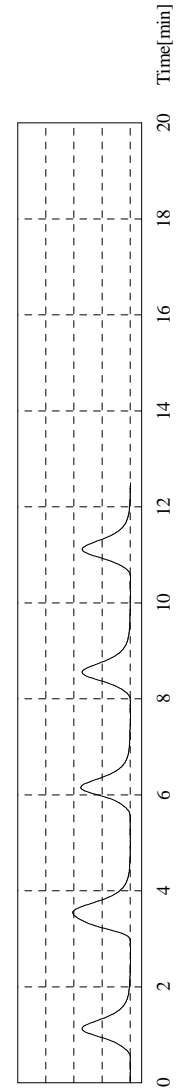
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.64	14.97mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:28:25 PM
2	74.59	20.95mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:31:11 PM
3	53.33	14.88mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:33:50 PM
4	53.93	15.05mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:36:40 PM
5	53.18	14.84mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 4:39:24 PM

Mean Area  
Mean Conc.

53.52  
14.93mg/L



# TOC-Control L Report

toc 3 aq 07-03-2023.tlx

**Sample**

Sample Name: FC7143-1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

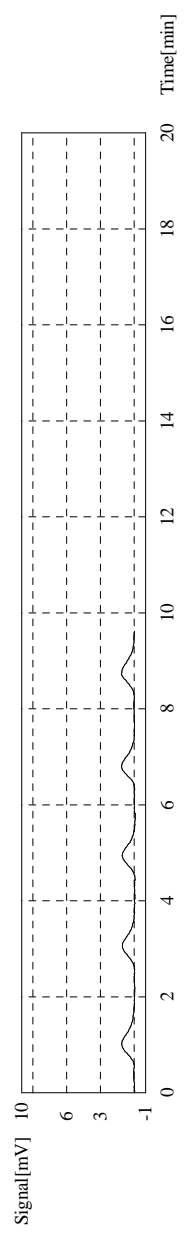
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6055mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.502	0.6574mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:51:13 PM
2	3.229	0.5795mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:53:20 PM
3	3.295	0.5983mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:55:27 PM
4	3.259	0.5881mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:57:36 PM
5	3.497	0.6560mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 4:59:43 PM

Mean Area 3.320  
 Mean Conc. 0.6055mg/L



**Sample**

Sample Name: FC7143-2  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:



# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

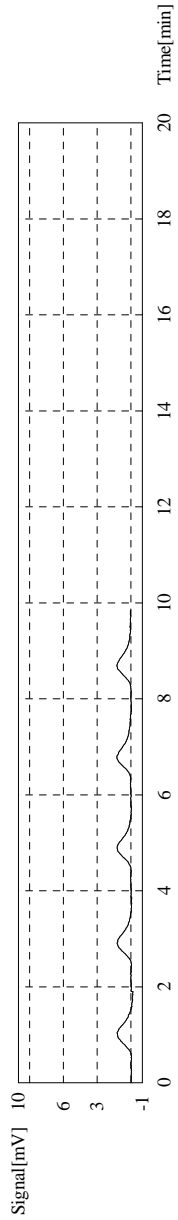
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7206mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.817	0.7473mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:11:25 PM
2	3.675	0.7068mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:13:40 PM
3	3.611	0.6885mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:15:47 PM
4	3.555	0.6726mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:17:55 PM
5	3.791	0.7399mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:20:19 PM

Mean Area 3.724  
Mean Conc. 0.7206mg/L



**Sample**

Sample Name: FC7211-1  
Sample ID: Uninitd  
Origin: NPOC.met  
Status: Completed  
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.28mg/L

1. Det

Anal.: NPOC

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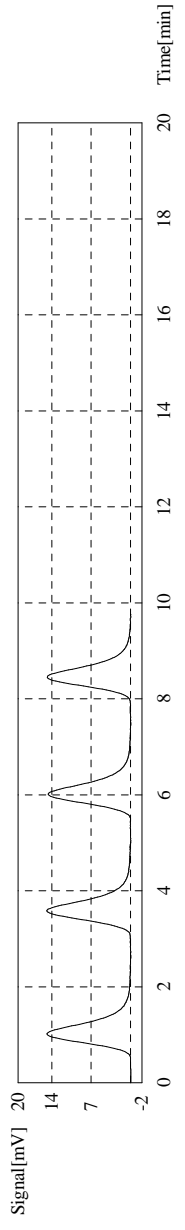
7/5/2023 9:23:24 AM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.71	12.42mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:32:39 PM
2	44.07	12.24mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:35:18 PM
3	43.90	12.19mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:37:59 PM
4	44.27	12.29mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:40:35 PM

Mean Area 44.24  
Mean Conc. 12.28mg/L



**Sample**

Sample Name: FC7211-2  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.486mg/L

1. Det

Anal.: NPOC

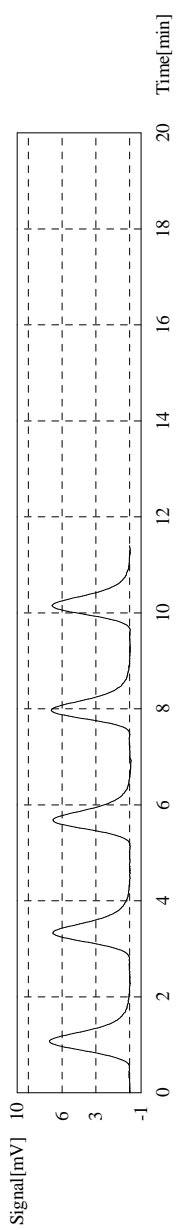
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.64	5.834mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:52:45 PM
2	20.38	5.474mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:55:20 PM
3	20.56	5.526mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 5:57:53 PM
4	20.29	5.449mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:00:18 PM
5	20.45	5.494mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:02:49 PM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

20.42  
5.486mg/L



**Sample**

Sample Name: FC7211-3  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.779mg/L

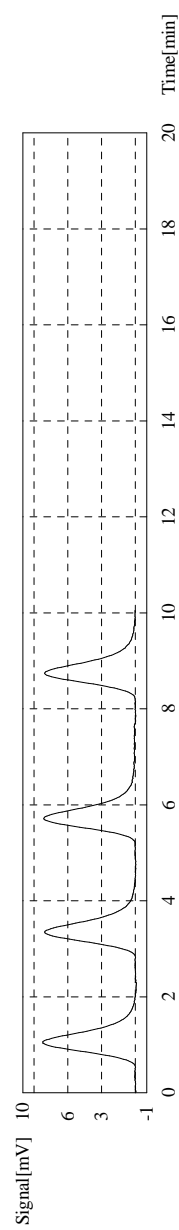
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.73	6.716mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:14:55 PM
2	24.73	6.716mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:17:33 PM
3	25.39	6.904mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:20:47 PM
4	24.96	6.781mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:23:24 PM

Mean Area  
Mean Conc.

24.95  
6.779mg/L



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7/5/2023 9:23:24 AM

# TOC-Control L Report

toc 3 aq 07-03-2023.tlx

**Sample**

Sample Name: FC7211-4  
 Sample ID: Untrited  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

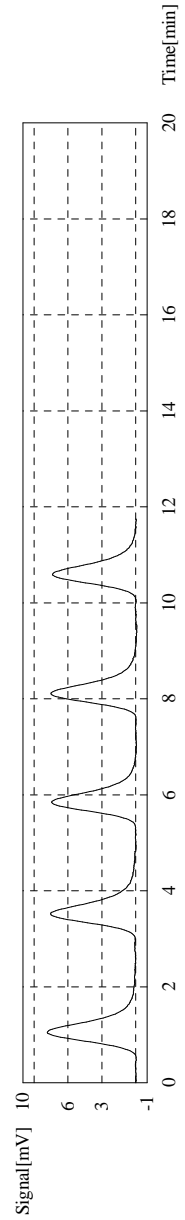
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.994mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.48	6.359mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:35:46 PM
2	21.58	6.102mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:38:20 PM
3	21.92	5.914mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:40:52 PM
4	22.29	6.019mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:43:34 PM
5	22.02	5.942mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/3/2023 6:46:03 PM

Mean Area 22.20  
 Mean Conc. 5.994mg/L



**Sample**

Sample Name: FC7211-5  
 Sample ID: Untrited  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.740mg/L

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7/5/2023 9:23:24 AM

# TOC-Control L Report

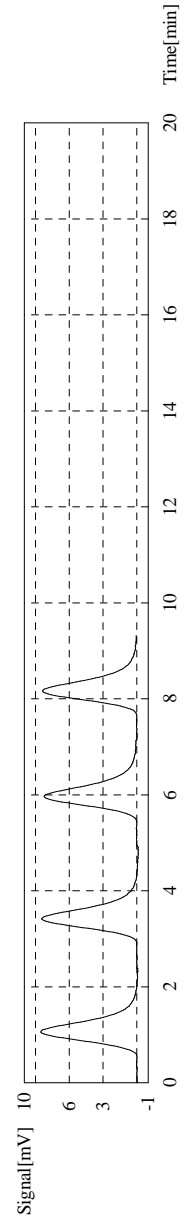
toc 3 aq 07-05-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.31	6.881mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 6:58:14 PM
2	24.79	6.753mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:01:00 PM
3	24.47	6.642mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:03:28 PM
4	24.69	6.704mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:05:55 PM

Mean Area 24.82  
Mean Conc. 6.740mg/L



Sample

Sample Name: FC7211-6  
Sample ID: Unfiled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.808mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.80	7.021mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:18:01 PM
2	24.74	6.719mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:20:23 PM
3	24.86	6.753mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:22:52 PM
4	24.81	6.739mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:25:15 PM

7/5/2023 9:23:24 AM

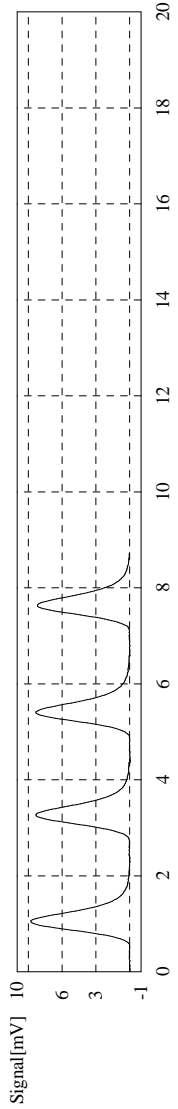
1039

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

25.05  
6.808mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.09mg/L

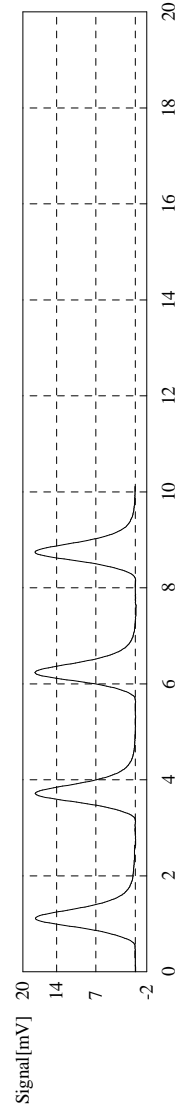
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.90	15.33mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:37:46 PM
2	54.15	15.11mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:40:31 PM
3	53.84	15.02mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:43:16 PM
4	53.40	14.90mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:46:01 PM

Mean Area  
Mean Conc.

54.07  
15.09mg/L



# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: CCB  
 Sample ID: Unlited  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

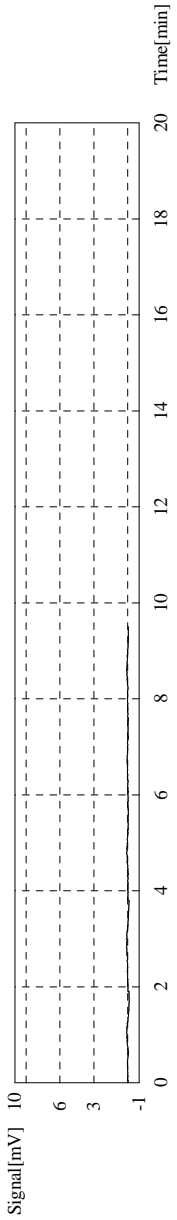
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2980mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.4454	-0.2149mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:57:48 PM
2	0.4119	-0.2245mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 7:59:57 PM
3	0.000	-0.3420mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:02:06 PM
4	0.000	-0.3420mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:04:14 PM
5	0.2055	-0.2834mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:06:22 PM

Mean Area 0.1544  
 Mean Conc. -0.2980mg/L



**Sample**

Sample Name: RC7211-7  
 Sample ID: Unlited  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8192mg/L

1239

7/5/2023 9:23:24 AM

# TOC-Control L Report

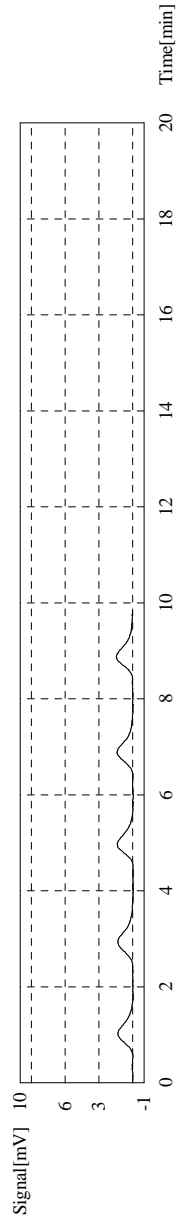
toc 3 aq 07-05-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.906	0.7727mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:18:04 PM
2	4.064	0.8178mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:20:22 PM
3	3.930	0.7796mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:22:30 PM
4	4.159	0.8449mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:24:44 PM
5	4.123	0.8347 mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:26:56 PM

Mean Area 4.069  
Mean Conc. 0.8192mg/L



**Sample**

Sample Name: GP389 18-S1  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.77mg/L

1. Det

Anal.: NPOC

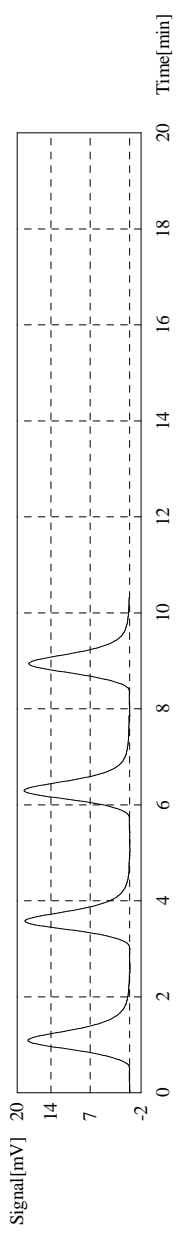
No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.72	15.85mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:39:14 PM
2	56.53	15.79mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:42:10 PM
3	56.57	15.80mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:45:03 PM
4	56.03	15.65mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 8:47:47 PM



# TOC-Control L Report

toc 3 aq 07-05-2023.tif

Mean Area  
56.46  
Mean Conc.  
15.77mg/L



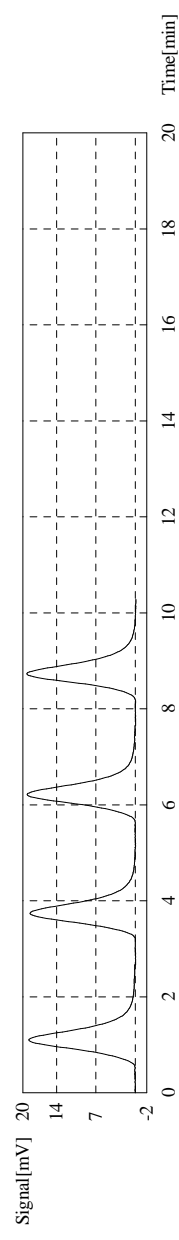
**Sample**  
 Sample Name: GP389 18-S2  
 Sample ID: Untitled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.30mg/L

1. Det  
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	58.23	16.28mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:00:20 PM
2	57.97	16.20mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:03:02 PM
3	58.66	16.40mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:05:49 PM
4	58.36	16.31mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:08:42 PM

Mean Area  
58.31  
Mean Conc.  
16.30mg/L



7/5/2023 9:23:24 AM

14/39

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: FC7211-8  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

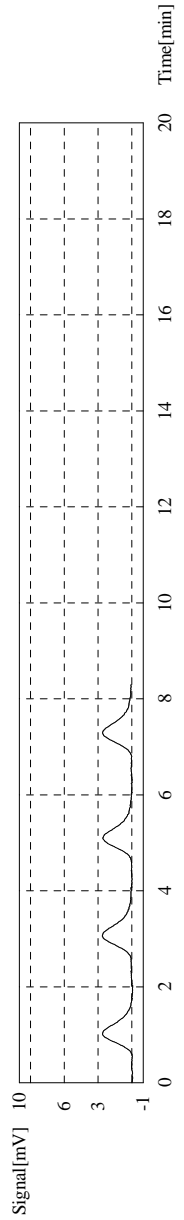
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.908mg/L

1. Det

**Anal.: NPOC**

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.929	1.921 mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/3/2023 9:20:37 PM
2	7.913	1.916mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/3/2023 9:22:53 PM
3	7.806	1.886mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/3/2023 9:25:18 PM
4	7.887	1.909mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/3/2023 9:27:35 PM

Mean Area: 7.884  
 Mean Conc.: 1.908mg/L



**Sample**

Sample Name: FC7211-9  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.102mg/L

1. Det

7/5/2023 9:23:24 AM

15:39

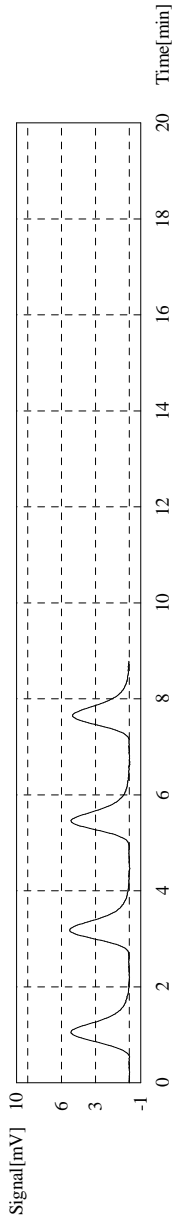
# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.89	4.193mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:39:37 PM
2	15.67	4.130mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:42:08 PM
3	15.24	4.007mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:44:33 PM
4	15.49	4.107mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:46:58 PM

Mean Area 15.57  
 Mean Conc. 4.102mg/L



**Sample**

Sample Name: FC7211-10  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.143mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.96	5.354mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 9:59:15 PM
2	19.52	5.229mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 10:01:50 PM
3	19.01	5.083mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 10:04:16 PM
4	19.24	5.149mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 10:06:52 PM
5	19.10	5.109mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 10:09:28 PM



# TOC-Control L Report

toc\_3\_aq\_07-03-2023.tlx

**Sample**

Sample Name: FC7211-12  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

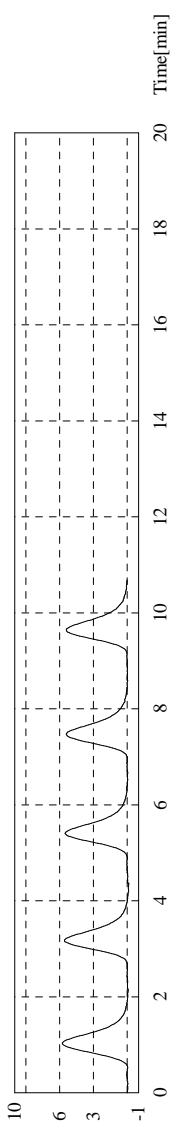
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.318mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.63	4.689mg/L	50ul	1.000	E	loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:43:25 PM
2	16.40	4.338mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:45:51 PM
3	16.32	4.316mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:48:12 PM
4	16.48	4.361mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:50:36 PM
5	16.12	4.259mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/3/2023 10:52:53 PM

Mean Area 16.33  
 Mean Conc. 4.318mg/L



**Sample**

Sample Name: FC7211-13  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

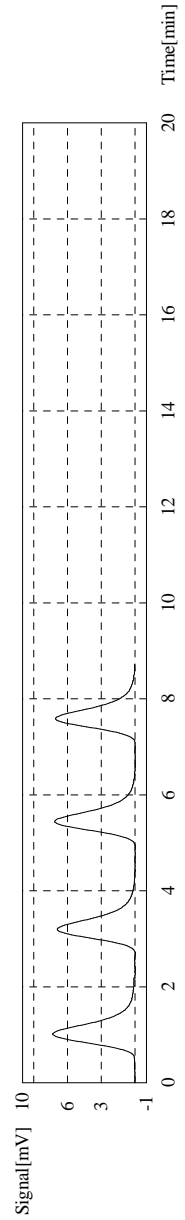
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.653mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.43	5.774mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:04:52 PM
2	20.74	5.577mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:07:21 PM
3	21.09	5.677mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:09:44 PM
4	20.76	5.583mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:12:07 PM

Mean Area 21.01  
Mean Conc. 5.653mg/L



**Sample**

Sample Name: FC7211-14  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.58mg/L

1. Det

Anal.: NPOC

19/39

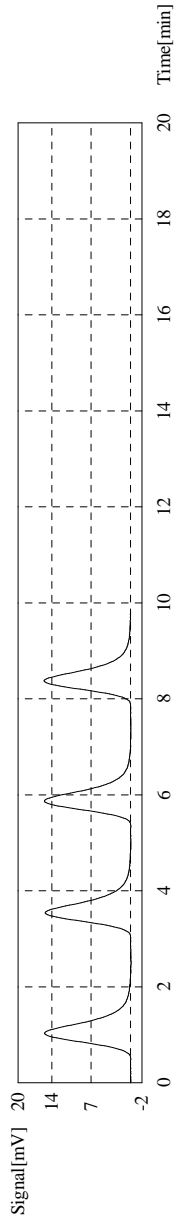
7/5/2023 9:23:24 AM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	46.26	12.86mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:24:32 PM
2	44.99	12.50mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:27:06 PM
3	44.93	12.48mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:29:50 PM
4	44.98	12.50mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:32:31 PM

Mean Area 45.29  
 Mean Conc. 12.58mg/L



**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.26mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.88	15.32mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:44:55 PM
2	54.89	15.32mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:47:47 PM
3	54.28	15.15mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:50:37 PM
4	54.68	15.26mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/3/2023 11:53:27 PM

7/5/2023 9:23:24 AM

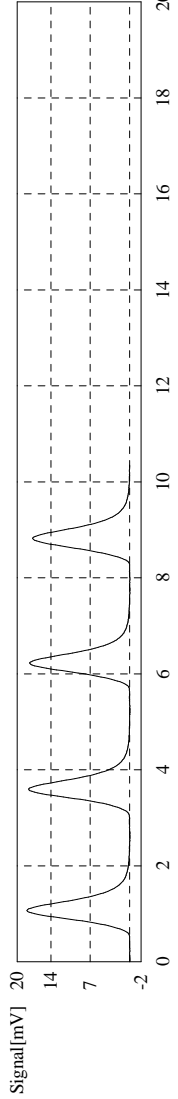
20/39

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

54.68  
15.26mg/L



**Sample**

Sample Name: CCB  
 Sample ID: Unfilled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1966mg/L

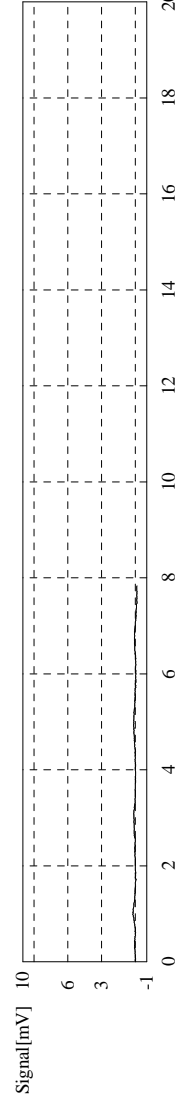
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5199	-0.1937mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 12:05:14 AM
2	0.4168	-0.2231mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 12:07:21 AM
3	0.6332	-0.1613mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 12:09:28 AM
4	0.4678	-0.2085mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 12:11:50 AM

Mean Area  
Mean Conc.

0.5094  
-0.1966mg/L





# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: FC7211-15  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

FC7211-15  
 Unfiled  
 NPOC.met  
 Completed

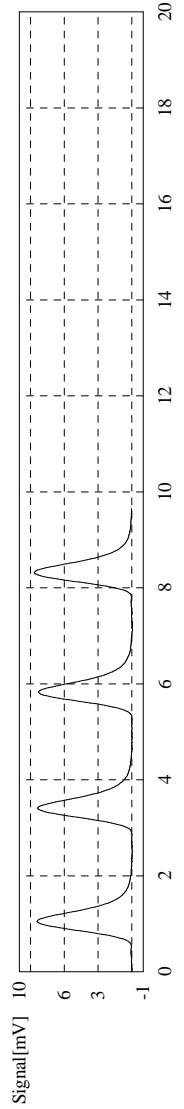
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.059mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.91	7.053mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 12:24:05 AM
2	25.72	6.998mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 12:26:43 AM
3	25.78	7.015mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 12:29:26 AM
4	26.32	7.170mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 12:32:01 AM

Mean Area 25.93  
 Mean Conc. 7.059mg/L



**Sample**

Sample Name: GP389 18-S3  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

GP389 18-S3  
 Unfiled  
 NPOC.met  
 Completed

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.30mg/L

1. Det

7/5/2023 9:23:24 AM

2239

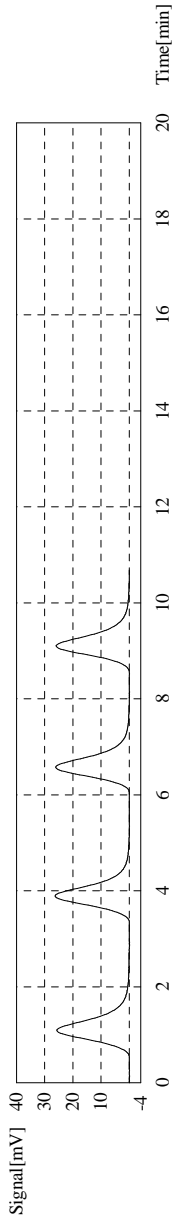
# TOC-Control L Report

toc\_3\_aq\_07-05-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	80.66	22.68mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 12:44:42 AM
2	79.23	22.27mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 12:47:40 AM
3	78.46	22.05mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 12:50:23 AM
4	78.97	22.20mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 12:53:18 AM

Mean Area 79.33  
 Mean Conc. 22.30mg/L



**Sample**

Sample Name: GP38918-S4  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.18mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	79.35	22.30mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 1:04:48 AM
2	78.93	22.18mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 1:07:40 AM
3	78.56	22.08mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 1:10:27 AM
4	78.79	22.14mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023_2023_05_05_20_28_18.cal	7/4/2023 1:13:22 AM

7/5/2023 9:23:24 AM

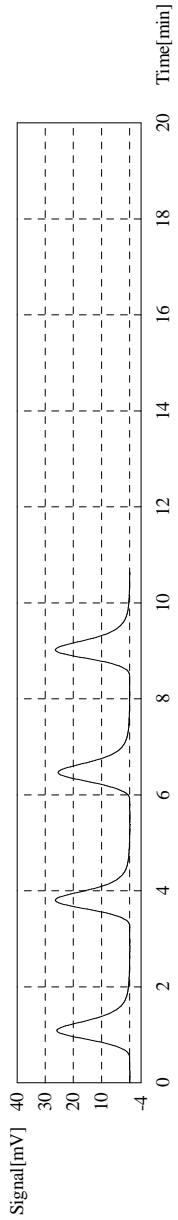
23.39

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

78.91  
22.18mg/L



**Sample**

Sample Name: FC7211-16  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.183mg/L

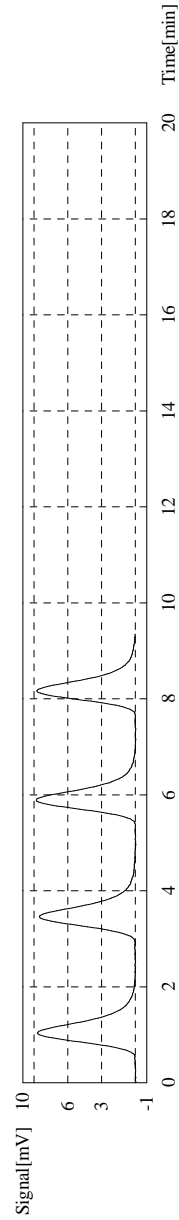
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.88	7.329mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 1:25:40 AM
2	26.29	7.161mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 1:28:19 AM
3	26.29	7.161mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 1:30:49 AM
4	26.01	7.081mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 1:33:15 AM

Mean Area  
Mean Conc.

26.37  
7.183mg/L



7/5/2023 9:23:24 AM

24/39

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: FC7211-17  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

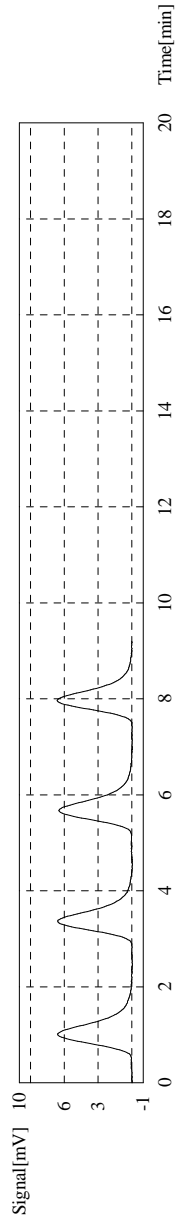
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.285mg/L

1. Det

**Anal.: NPOC**

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.01	5.369mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/4/2023 1:45:30 AM
2	19.71	5.285mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/4/2023 1:48:01 AM
3	19.62	5.257mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/4/2023 1:50:32 AM
4	19.53	5.232mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023,2023.05.05_20_28_18.cal	7/4/2023 1:53:00 AM

Mean Area 19.72  
 Mean Conc. 5.285mg/L



**Sample**

Sample Name: FC7211-18  
 Sample ID: Unfiled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.526mg/L

1. Det

7/5/2023 9:23:24 AM

25/39

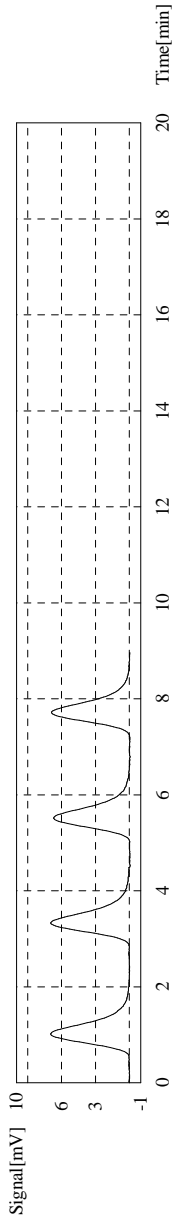
# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.01	5.654mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:05:13 AM
2	20.58	5.531mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:07:36 AM
3	20.17	5.414mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:10:01 AM
4	20.48	5.503mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:12:30 AM

Mean Area 20.56  
Mean Conc. 5.526mg/L



**Sample**

Sample Name: FC7211-19  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.110mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.40	4.053mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:24:33 AM
2	15.95	4.210mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:27:04 AM
3	15.42	4.059mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:29:27 AM
4	15.63	4.119mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:31:50 AM

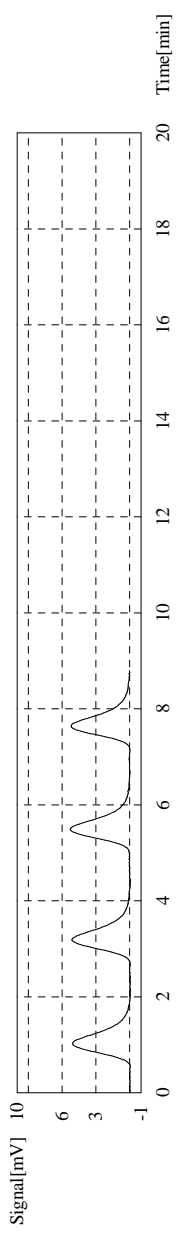
7/5/2023 9:23:24 AM

2639

# TOC-Control L Report

toc 3 aq 07-05-2023.tif

Mean Area  
15.60  
Mean Conc.  
4.110mg/L



**Sample**  
Sample Name: FC7211-20  
Sample ID: Unlited  
Origin: NPOC.net  
Status: Completed  
Chk. Result

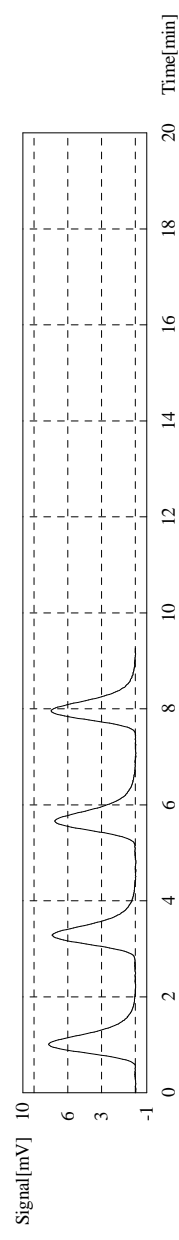
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC-6.149mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.17	6.271mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:43:59 AM
2	22.72	6.142mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:46:35 AM
3	22.73	6.145mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:49:06 AM
4	22.35	6.037mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 2:51:38 AM

Mean Area  
22.74  
Mean Conc.  
6.149mg/L



7/5/2023 9:23:24 AM

27/39

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: FC7211-21  
 Sample ID: Unlabeled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

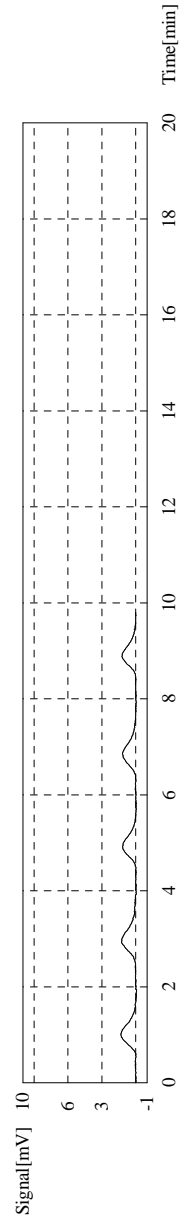
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.714mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.975	0.7924mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:03:28 AM
2	3.988	0.7961mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:05:39 AM
3	3.540	0.6683mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:07:46 AM
4	3.699	0.7136mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:10:04 AM
5	3.551	0.6714mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:12:11 AM

Mean Area 3.691  
 Mean Conc. 0.7114mg/L



**Sample**

Sample Name: FC7211-22  
 Sample ID: Unlabeled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9661mg/L

# TOC-Control L Report

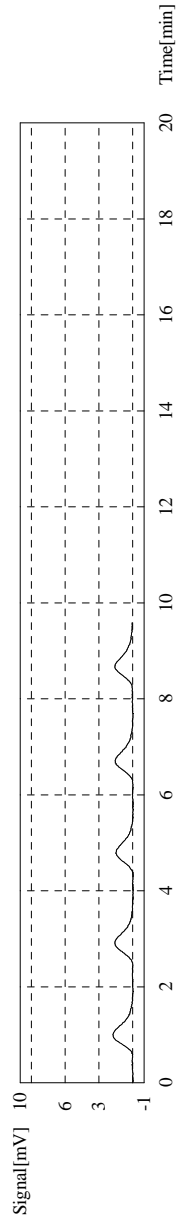
toc 3 aq 07-05-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.375	1.192mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:23:53 AM
2	4.630	0.9794mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:26:00 AM
3	4.443	0.9260mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:28:07 AM
4	4.770	1.019mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:30:19 AM
5	4.491	0.9397 mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:32:26 AM

Mean Area 4.583  
Mean Conc. 0.9661mg/L



**Sample**

Sample Name: CCV  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.12mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	55.08	15.38mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:44:47 AM
2	54.02	15.07mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:47:29 AM
3	53.57	14.95mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:50:12 AM
4	54.02	15.07mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 3:52:58 AM

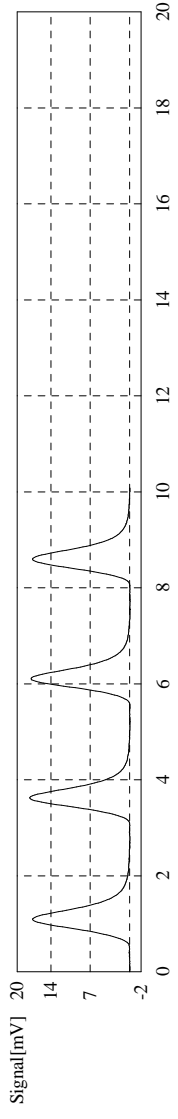


# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
Mean Conc.

54.17  
15.12mg/L



**Sample**

Sample Name: GP389 19-MB1  
 Sample ID: Unlited  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2337mg/L

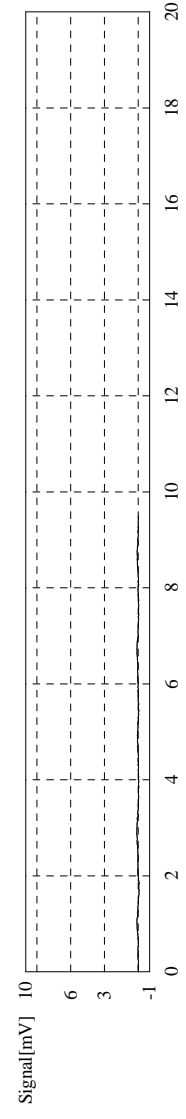
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.3398	-0.2450mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:04:45 AM
2	0.5092	-0.1967mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:06:52 AM
3	0.08200	-0.3186mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:09:00 AM
4	0.3090	-0.2458mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:11:06 AM
5	0.3609	-0.2390mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:13:13 AM

Mean Area  
Mean Conc.

0.3797  
-0.2337mg/L



# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: GP389 19-B1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

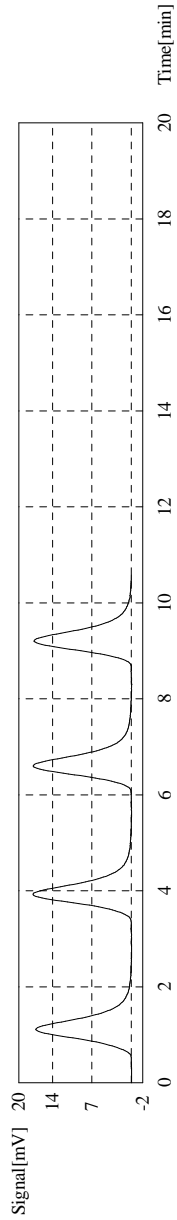
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.93mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	53.94	15.05mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:25:52 AM
2	53.62	14.96mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:28:46 AM
3	53.49	14.92mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:31:36 AM
4	53.04	14.80mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 4:34:15 AM

Mean Area 53.52  
 Mean Conc. 14.93mg/L



**Sample**

Sample Name: FC7211-23  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.665mg/L

31739

7/5/2023 9:23:24 AM

# TOC-Control L Report

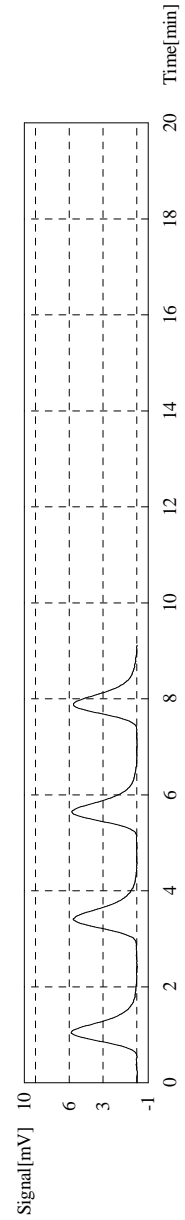
toc 3 aq 07-05-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.42	4.630mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05,05,20,28,18,cal	7/4/2023 4:46:30 AM
2	17.73	4.718mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05,05,20,28,18,cal	7/4/2023 4:48:58 AM
3	17.35	4.610mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05,05,20,28,18,cal	7/4/2023 4:51:24 AM
4	17.67	4.701mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05,05,20,28,18,cal	7/4/2023 4:53:55 AM

Mean Area 17.54  
Mean Conc. 4.665mg/L



**Sample**

Sample Name: FC7211-24  
Sample ID: Unfiled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.406mg/L

1. Det

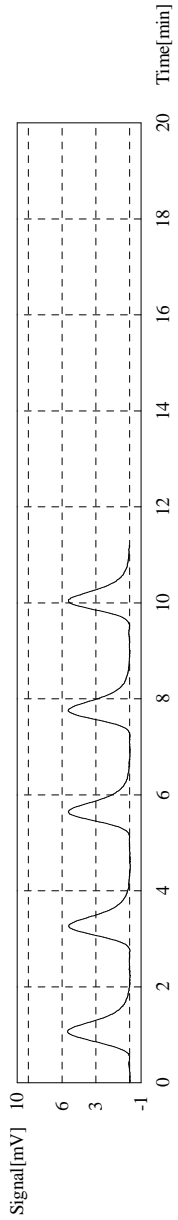
Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.82	4.744mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05,05,20,28,18,cal	7/4/2023 5:06:02 AM
2	16.82	4.458mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05,05,20,28,18,cal	7/4/2023 5:08:37 AM
3	16.58	4.390mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05,05,20,28,18,cal	7/4/2023 5:10:58 AM
4	16.69	4.421mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05,05,20,28,18,cal	7/4/2023 5:13:28 AM
5	16.46	4.356mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023,2023,05,05,20,28,18,cal	7/4/2023 5:15:52 AM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

Mean Area  
16.64  
Mean Conc.  
4.406mg/L



**Sample**  
Sample Name: FC7322-1  
Sample ID: Untitled  
Origin: NPOC.met  
Status: Completed  
Chk. Result

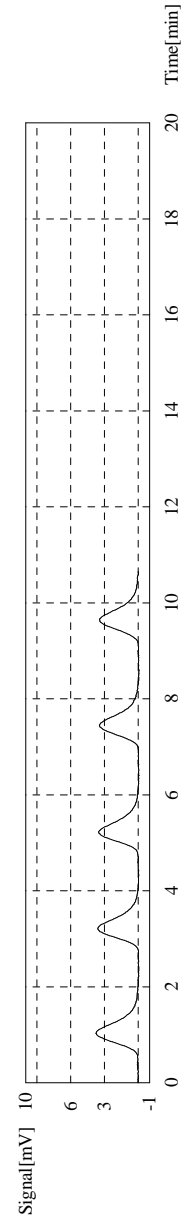
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC-2.678mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.33	2.891mg/L	50ul	1.000	E	toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:27:52 AM
2	10.60	2.683mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:30:06 AM
3	10.51	2.657mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:32:31 AM
4	10.55	2.669mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:34:55 AM
5	10.67	2.703mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:37:11 AM

Mean Area  
10.58  
Mean Conc.  
2.678mg/L



33.39

7/5/2023 9:23:24 AM

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: GP389 19-S1  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

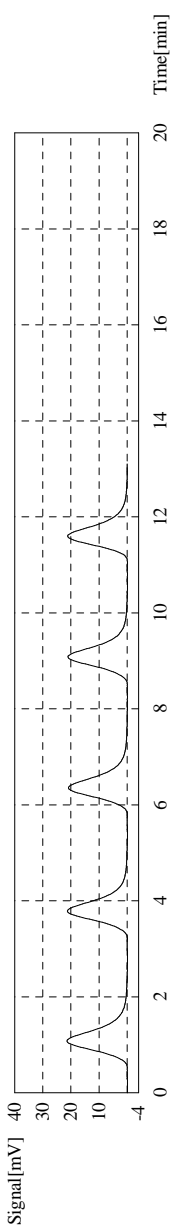
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.15mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	67.74	18.99mg/L	50ul	1.000	E	loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:49:41 AM
2	65.17	18.26mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:52:29 AM
3	65.21	18.27mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:55:24 AM
4	64.75	18.14mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 5:58:11 AM
5	63.99	17.92mg/L	50ul	1.000		loc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:00:57 AM

Mean Area 64.78  
 Mean Conc. 18.15mg/L



**Sample**

Sample Name: GP389 19-S2  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

# TOC-Control L Report

toc.3 aq 07-05-2023.tlx

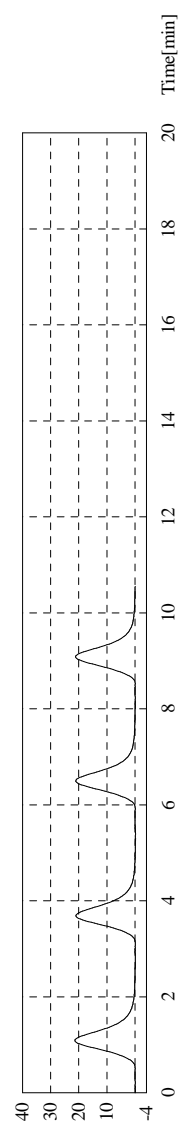
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.45mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	66.76	18.71mg/L	50ul	1.000		toc.3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:13:22 AM
2	65.93	18.47mg/L	50ul	1.000		toc.3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:16:25 AM
3	65.30	18.29mg/L	50ul	1.000		toc.3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:19:17 AM
4	65.45	18.34mg/L	50ul	1.000		toc.3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 6:22:04 AM

Mean Area 65.86  
 Mean Conc. 18.45mg/L



**Sample**

Sample Name: FC7322-6  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.69mg/L

1. Det

Anal.: NPOC

7/5/2023 9:23:24 AM

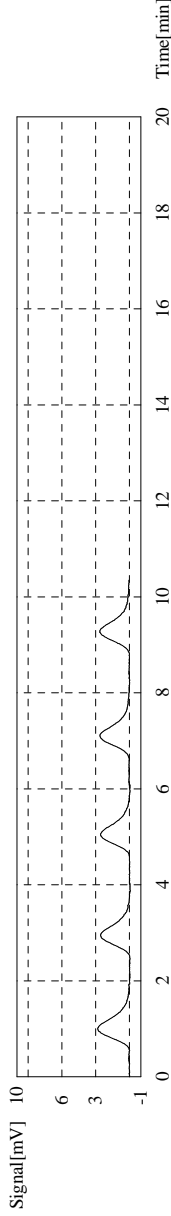
35/39

# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.229	2.006mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:33:54 AM
2	7.706	1.857mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:36:13 AM
3	7.746	1.869mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:38:30 AM
4	7.678	1.849mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:40:54 AM
5	7.857	1.900mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:43:16 AM

Mean Area 7.747  
 Mean Conc. 1.869mg/L



**Sample**

Sample Name: FC7322-7  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.936mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.686	2.422mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:55:09 AM
2	8.294	2.025mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:57:34 AM
3	7.896	1.911mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 6:59:49 AM
4	8.019	1.947mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 7:02:08 AM
5	7.713	1.859mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023.2023.05.05_20_28_18.cal	7/4/2023 7:04:19 AM

3639

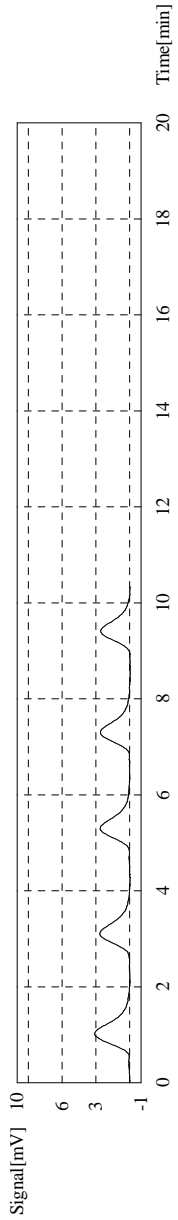
7/5/2023 9:23:24 AM

# TOC-Control L Report

toc 3 aq 07-05-2023.tif

Mean Area  
Mean Conc.

7.981  
1.936mg/L



**Sample**

Sample Name: FC7413-1  
 Sample ID: Unlited  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.52mg/L

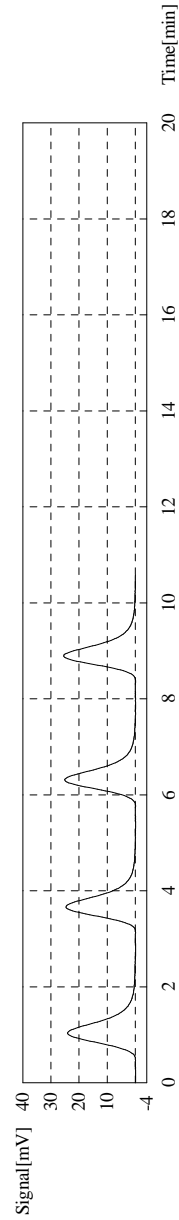
1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	77.32	21.72mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 7:16:47 AM
2	76.10	21.38mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 7:19:40 AM
3	76.32	21.44mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 7:22:30 AM
4	76.65	21.53mg/L	50ul	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 7:25:31 AM

Mean Area  
Mean Conc.

76.60  
21.52mg/L





# TOC-Control L Report

toc 3 aq 07-05-2023.tlx

**Sample**

Sample Name: CCV  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

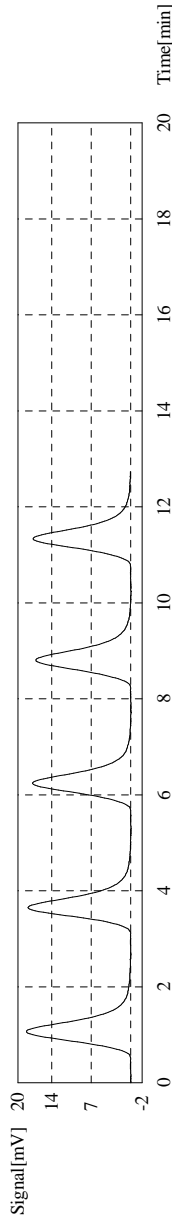
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	56.88	15.89mg/L	50ul	1.000	E	roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:38:01 AM
2	55.40	15.47mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:40:51 AM
3	54.21	15.13mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:43:37 AM
4	53.46	14.92mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:46:22 AM
5	53.53	14.94mg/L	50ul	1.000		roc 3 aq cal-curve 05-05-2023,2023_05_05_20_28_18.cal	7/4/2023 7:49:05 AM

Mean Area 54.15  
 Mean Conc. 15.11mg/L



**Sample**

Sample Name: CCB  
 Sample ID: Untitled  
 Origin: NPOC.met  
 Status: Completed  
 Chk. Result

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2277mg/L

38.39

7/5/2023 9:23:24 AM

# TOC-Control L Report

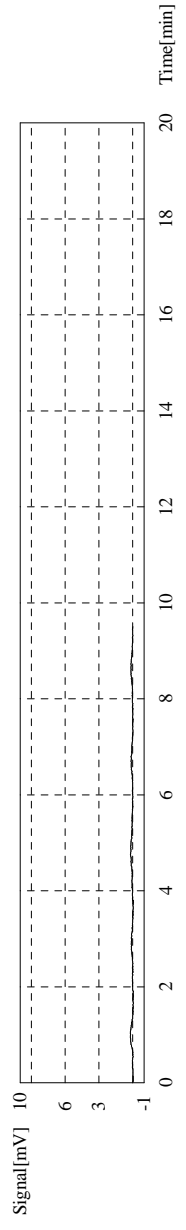
toc\_3\_aq\_07-05-2023.tlx

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.8731	-0.09285mg/L	50ul	1.000	E	loc_3_aq_cal-curve_05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:00:49 AM
2	0.2858	-0.2605mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:02:57 AM
3	0.5731	-0.1785mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:05:04 AM
4	0.2999	-0.22564mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:07:11 AM
5	0.4439	-0.2153mg/L	50ul	1.000		loc_3_aq_cal-curve_05-05-2023.2023_05_05_20_28_18.cal	7/4/2023 8:09:19 AM

Mean Area 0.4007  
 Mean Conc. -0.2277mg/L



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7/5/2023 9:23:24 AM

# TOC-Control L Report

tc\_3 - toc\_3 aq Cal-Curves 05-05-2023.tlx

**Instr. Information**

Instrument Options  
Catalyst

TOC/AS/IC Unit/  
Regular Sensitivity

**Cal. Curve**

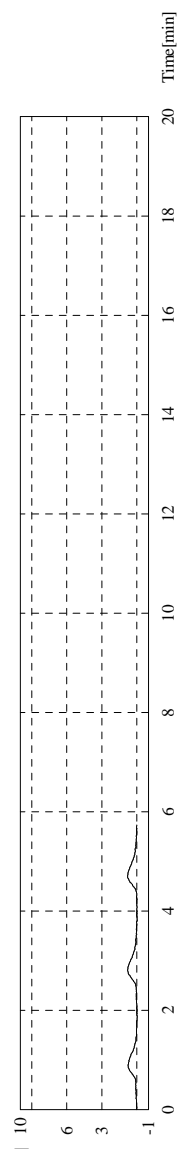
Sample Name: NPOC METHOD  
 Sample ID: Unfiled  
 Cal. Curve: toc\_3 aq cal-curve 05-05-2023.2023\_05\_05\_20\_28\_18.cal  
 Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.811	50ul	1.000	*****	E	5/5/2023 8:40:19 PM
2	2.109	50ul	1.000	*****		5/5/2023 8:42:27 PM
3	2.341	50ul	1.000	*****		5/5/2023 8:44:36 PM

Acid Add: 0.000%  
 Spurge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 2.225



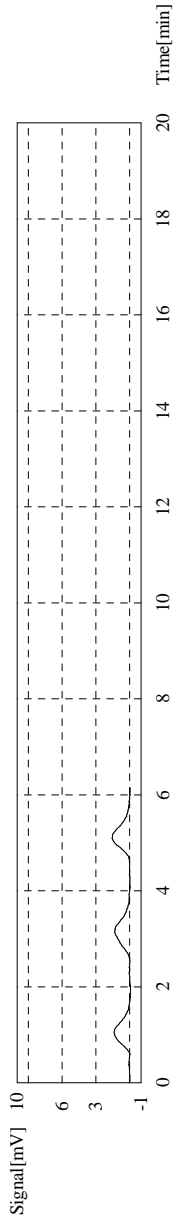
Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	4.448	50ul	1.000	*****	E	5/5/2023 8:56:28 PM
2	4.800	50ul	1.000	*****		5/5/2023 8:58:45 PM
3	5.018	50ul	1.000	*****		5/5/2023 9:01:03 PM

# TOC-Control L Report

tc 3 - toc 3 aq Cal-Curves 05-05-2023.tlx

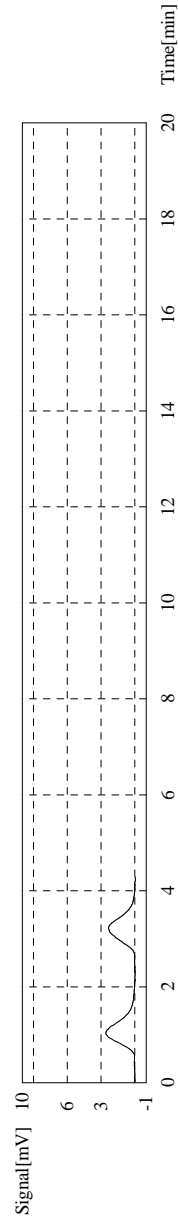
Acid Add. 0.000%  
 Spurge Gas Flow 80mL/min  
 Sp. Time 360.0sec  
 Mean Area 4.909



Conc: 2.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	7.996	50ul	1.000	*****		5/5/2023 9:13:01 PM
2	8.017	50ul	1.000	*****		5/5/2023 9:15:25 PM

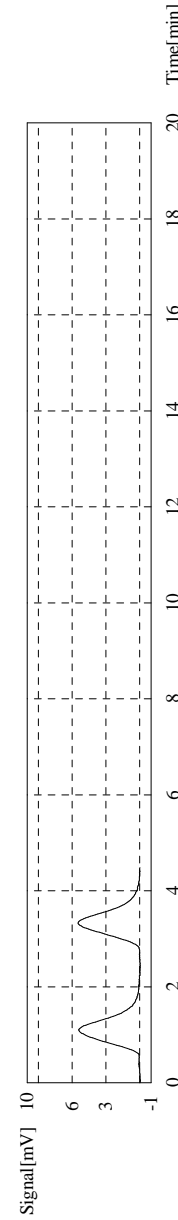
Acid Add. 0.000%  
 Spurge Gas Flow 80mL/min  
 Sp. Time 360.0sec  
 Mean Area 8.007



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	17.87	50ul	1.000	*****		5/5/2023 9:27:35 PM
2	18.34	50ul	1.000	*****		5/5/2023 9:30:04 PM

Acid Add. 0.000%  
 Spurge Gas Flow 80mL/min  
 Sp. Time 360.0sec  
 Mean Area 18.11



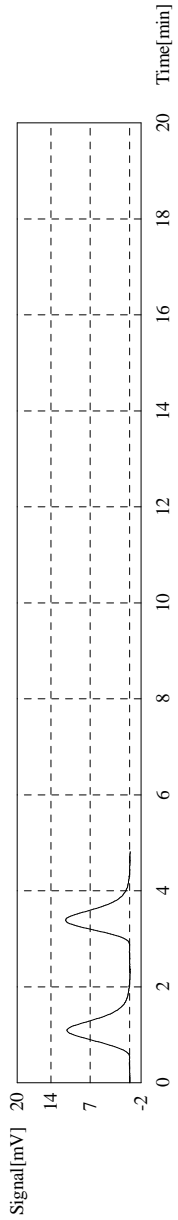
Conc: 10.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	36.36	50ul	1.000	*****		5/5/2023 9:42:21 PM
2	35.55	50ul	1.000	*****		5/5/2023 9:45:04 PM

# TOC-Control L Report

tc 3 - toc 3 aq Cal-Curves 05-05-2023.tlx

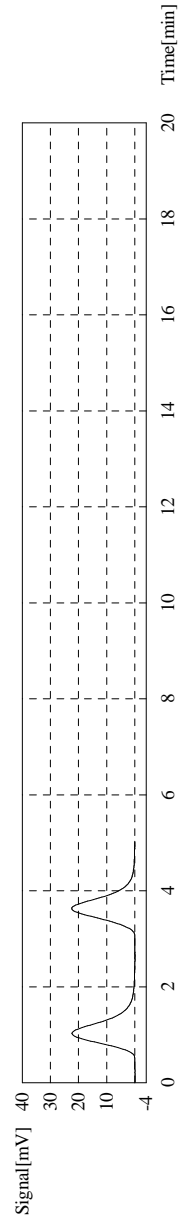
Acid Add: 0.000%  
 Sparge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 35.95



Conc: 20.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	70.39	50ul	1.000	*****		5/5/2023 9:57:32 PM
2	70.12	50ul	1.000	*****		5/5/2023 10:00:18 PM

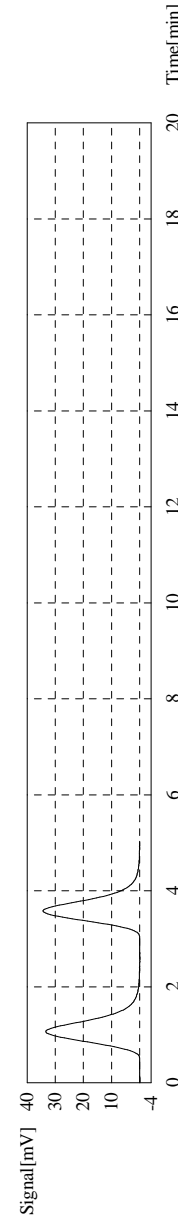
Acid Add: 0.000%  
 Sparge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 70.25



Conc: 30.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	107.6	50ul	1.000	*****		5/5/2023 10:12:45 PM
2	106.8	50ul	1.000	*****		5/5/2023 10:15:31 PM

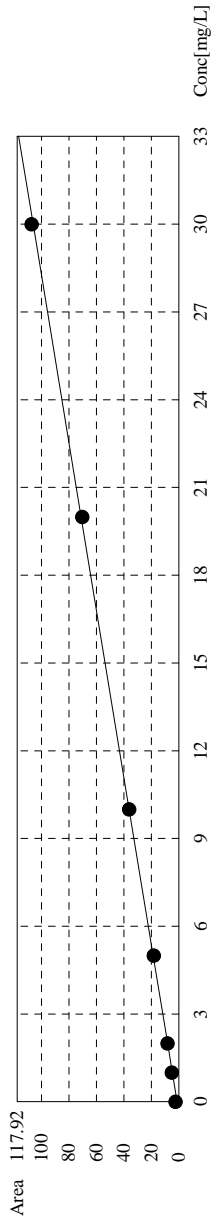
Acid Add: 0.000%  
 Sparge Gas Flow: 80mL/min  
 Sp. Time: 360.0sec  
 Mean Area: 107.2



# TOC-Control L Report

tc 3 - toc 3 aq Cal-Curves 05-05-2023.tlx

Slope: 3.504  
 Intercept: 1.198  
 r<sup>2</sup>: 0.9996  
 r: 0.9998  
 RSE (%): N/A  
 Zero Shift: No



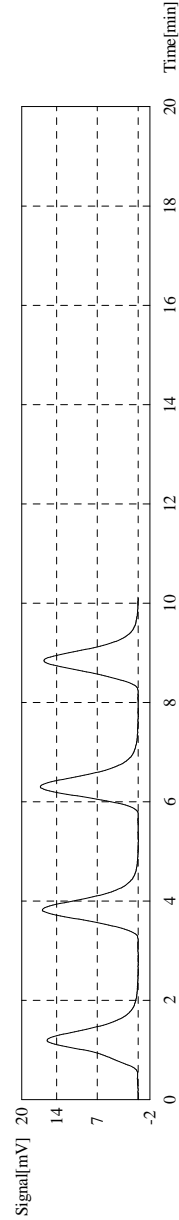
**Sample**  
 Sample Name: ICV  
 Sample ID: Unfilled  
 Origin: NPOC.net  
 Status: Completed  
 Chk. Result:

Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.74mg/L

1. Det  
 Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.96	14.77mg/L	50uL	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	5/5/2023 10:28:07 PM
2	52.43	14.62mg/L	50uL	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	5/5/2023 10:30:52 PM
3	53.11	14.82mg/L	50uL	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	5/5/2023 10:33:55 PM
4	52.83	14.74mg/L	50uL	1.000		toc 3 aq cal-curve 05-05-2023.2023_05_05_20_28_18.cal	5/5/2023 10:36:13 PM

Mean Area: 52.83  
 Mean Conc.: 14.74mg/L



4150	soils	4143	Solution	-	2023	200000	ml	26115	50	100000	230320	2023	2023	F. N.
TOC	Cal. Std #7	TOC	1' Stock	-	Sept. 16	200000	25	MU	50	100000	230320	2023	Sept. 16	F. N.
4151	soils	4143	Solution	-	2023	200000	ml	26115	100	200000	230320	2023	2023	F. N.
TOC	ICV STD	TOC	2' Stock	-	Sept. 16	200000	10	MU	100	200000	230320	2023	Sept. 16	F. N.
4152	soils	4144	Solution	-	2023	200000	ml	26115	100	200000	230320	2023	2023	F. N.
TOC	CCV STD	TOC	1' Stock	-	Sept. 16	200000	10	MU	100	200000	230320	2023	Jun. 30	F. N.
4153	soils	4143	Solution	-	2023	200000	ml	26115	250	15	230320	2023	2023	F. N.
TOC	CCV STD	WC	TOC	Aqua	Jun. 30	1000	3.75	UU	250	15	230320	2023	Jun. 30	F. N.
4154	15 ppm	2026	STD	Solut.	2023	1000	ml	07485	250	15	230320	2023	2023	F. N.
TOC	ICV STD	WC	TOC	Aqua	Jun. 30	1000	3.75	UU	250	15	230320	2023	Jun. 30	F. N.
4155	15 ppm	2026	STD	Solut.	2023	200000	ml	07485	100	1000	230320	2023	2023	F. N.
TOC	MDL - 1	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4156	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 2	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4157	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 3	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4158	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	LOD	WC	TOC	Aqua	Jun. 30	1000	1	UU	100	10	230320	2023	Jun. 30	F. N.
4159	1 ppm	2026	STD	Solut.	2023	1000	ml	09872	100	10	230320	2023	2023	F. N.
TOC	LOQ	WC	TOC	Aqua	Jun. 30	1000	0.2	UU	100	2	230320	2023	Jun. 30	F. N.
4160	2 ppm	2026	STD	Solut.	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 4	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4161	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 5	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4162	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 6	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4163	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 7	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4164	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 8	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4165	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	MDL - 9	TOC	1' Stock	-	Sept. 16	200000	0.5	UU	100	1000	230320	2023	19-Jul	F. N.
4166	1000 ppm	4143	Solution	-	2023	200000	ml	09872	100	1000	230320	2023	2023	F. N.
TOC	500 STD	WC	TOC	Aqua	Nov. 30	1000	60	Volum.	120	500	230320	2023	Aug. 2	F. N.
4167	500 ppm	2093	STD	Solut.	2023	1000	ml	cylinder	250	15	230320	2023	2023	F. N.
TOC	CCV STD	WC	TOC	Aqua	Nov. 30	1000	3.75	UU	250	15	230320	2023	Aug. 2	F. N.
4168	15 ppm	2093	STD	Solut.	2023	1000	ml	07485	250	15	230320	2023	2023	F. N.
TOC	ICV STD	WC	TOC	Aqua	Nov. 30	1000	3.75	UU	250	15	230320	2023	Aug. 2	F. N.
4169	15 ppm	2093	STD	Solut.	2023	1000	ml	07485	250	15	230320	2023	2023	F. N.

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**Appendix D**  
**Data Validation Report**

## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7322

**Laboratory:** SGS North America Inc.

**Site:** EA Seneca Army Depot

**Sampling dates:** 06/27/2023

**Number of Samples:** 3

**Test Method:** SW-846 9056A; SM 5310B

**Analysis:** Chloride, Sulfate, and Nitrate; Total Organic Carbon (TOC)

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York, June 2023, (QAPP).

**Validation Guidelines:** United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), General Data Validation Guidelines, November 2019, Department of Defense Quality Systems Manual (DoD QSM) for Environmental Laboratories Version 5.4 (DoD and DOE 2021), and Environmental Protection Agency, United States (EPA), 2020; National Functional Guidelines for Inorganic Superfund Data Review, EPA-542-R-20-00, OLEM 9240.1-66, Washington, DC: Office of Superfund Remediation and Technology Innovation, November 2020.

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-AL-MWT-23-20230627	FC7322-1	groundwater	S2BVM
SEAD-AL-PT-17-20230627	FC7322-6	groundwater	S2BVM
DUP-02-20230627	FC7322-7	groundwater	S2BVM

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 "X", 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 "X" 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. "X" 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.*

### 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 "X", rejected. Qualifications were applied to the samples and analytes as shown below.**

*All sample analyses reported were within the validation guidance.*

### 4. CALIBRATION:

**Method requirements for satisfactory instrument or procedural calibration are established to ensure that the instrument can produce acceptable quantitative data. Initial calibration verification (ICV) demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical run. Continuing calibration verification (CCV) demonstrates that the initial calibration is still valid by checking the performance of the instrument on a continuing basis.**

**Immediately after each system has been calibrated, the accuracy of the initial calibration must be verified and documented for each target analyte by the analysis of an ICV solution(s). The CCV standard shall be analyzed at a frequency of every 10 samples. The percent relative standard deviation (%RSD) should be less than 20% or the correlation coefficient greater than 0.995. Observed CCV percent recoveries must be with quality control criterion. Qualifications were applied to the samples and analytes as shown below.**

*Calibrations were performed at the appropriate frequency and resulted in %RSD or correlation coefficient values within guidance in all cases. Further, all ICV and CCV evaluations were within acceptance criteria.*

**5. BLANK CONTAMINATION:**

Quality assurance blanks, i.e., instrument, preparation, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Both initial calibration and continuing calibration blanks (ICB and CCB) are used to ensure a stable instrument baseline before and during the analysis of analytical samples. Preparation blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. Field blanks or lab blanks should not have an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), or one tenth the concentration of associated samples. However, any positive blank result is assessed against all associated field sample results per validation guidance and data are flagged accordingly.

**A) Calibration Blank**

*All associated initial and continuing calibration blanks met validation criteria.*

**B) Method Blank**

*All method blanks met validation criteria.*

**C) Equipment / Field / Rinse Blank**

*No sample was submitted as an equipment, field, or rinse blank in association with this sample delivery group (SDG).*

**6. LABORATORY CONTROL SAMPLE:**

The Laboratory Control Sample (LCS) serves to monitor the overall performance of each step during the analysis. Aqueous/water and soil/sediment LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control procedures as employed for the samples. All LCS percent recoveries must fall within the control limits. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/MATRIX DUPLICATE:**

The matrix spike/matrix spike duplicate (MS/MSD) sample analysis is designed to provide information about the effect of each sample matrix on the sample preparation procedures and the measurement methodology. The spike percent recovery and with a relative percent difference between the two must fall within the established acceptance criteria. However, spike recovery limits do not apply when the sample concentration is greater than or equal to four times the spike added. For a spike analysis that does not meet the technical criteria, the action was applied to the parent sample only.

*Sample SEAD-AL-MWT-23-20230627 was submitted for MS/MSD and/or matrix duplicate evaluations for TOC and anions in association with this SDG. Upon evaluation all precision and accuracy indicators were acceptable or did not result in a need to qualify sample results.*

**8. FIELD DUPLICATES:**

Field duplicates may be taken and analyzed as an indication of overall precision. These analyses measure both field and laboratory precision. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for water samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.

*Samples SEAD-AL-PT-17-20230627 and DUP-02-20230627 were submitted as a field duplicate pair in association with this SDG. Adequate field precision was demonstrated.*

**9. ANALYTE QUANTIFICATION AND IDENTIFICATION:**

*Analyte quantitation and identification were not verified as part of the Level 2B data validation.*

**10. OTHER PROBLEMS:**

*None.*

**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
<b>Chloride, Sulfate, and Nitrate</b>		<b>Major</b>	<b>Minor</b>
Sample Receipt/Preservative	x		
Holding Time	x		
Initial Calibration	x		
Continuing Calibration	x		
Laboratory Blank	x		
Field Blank	NA		
Matrix Duplicate	NA		
Matrix Spike/Matrix Spike Duplicate	x		
Laboratory Control Sample	x		
Field Duplicate	x		
Other	x		
	Were acceptance criteria met?		
	Yes	No	
<b>Total Organic Carbon</b>		<b>Major</b>	<b>Minor</b>
Sample Receipt/Preservative	x		
Holding Time	x		
Initial Calibration	x		
Continuing Calibration	x		
Laboratory Blank	x		
Field Blank	NA		
Matrix Duplicate	NA		
Matrix Spike/Matrix Spike Duplicate	x		
Laboratory Control Sample	x		
Field Duplicate	x		
Other	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>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.

## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7322

**Laboratory:** SGS North America Inc.

**Site:** EA Seneca Army Depot

**Sampling dates:** 06/27/2023

**Number of Samples:** 3

**Test Method:** RSK-175 (8015 M)

**Analysis:** Dissolved Gases; Methane, Ethane, and Ethene

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York, June 2023, (QAPP).

**Validation Guidelines:** Department of Defense Quality Systems Manual (DoD QSM) for Environmental Laboratories Version 5.4 (DoD and DOE 2021); Department of Defense Module 4: Data Validation Procedure for Organic Analysis by GC, March 2021; DOD Data Validation Guidelines Module 1, 2, 3, and 4 Revised Table for Sample Qualification in the Presence of Blank Contamination (2022); United States Environmental Protection Agency (USEPA) and United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), November 2019, General Data Validation Guidelines.

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-AL-MWT-23-20230627	FC7322-1	groundwater	S2BVM
SEAD-AL-PT-17-20230627	FC7322-6	groundwater	S2BVM
DUP-02-20230627	FC7322-7	groundwater	S2BVM

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 "X", 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 "X" 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. "X" 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. No qualification of sample results was necessary on this basis.*

### 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" or "UJ" as appropriate. When holding times are exceeded by more than three times the holding time specified, the non-detects will be flagged as unusable, "X". Qualifications were applied to the samples and analytes as shown below.**

*All sample analyses reported were within the validation guidance.*

### 4. 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) Initial Calibration

**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 RSD must be less than the maximum %RSD of 20% or, in cases where linear and non-linear regressions are used, correlation coefficients must be greater than or equal to 0.995. If the %RSD or correlation coefficient do not meet quality control criteria, detects may be qualified as "J" and professional judgement is used to qualify non-detects. Qualifications were applied to the samples and analytes as shown below.**

*No problems were found for this criterion.*

**B) Continuing Calibration**

Percent difference (%D) compares the response factor of the continuing calibration check to mean response factor (RF) from the initial calibration. For the opening or closing continuing calibration verification (CCV) the %D must be <20% for all target compounds. A value outside of these limits indicates potential detection and quantitation errors. 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.*

**5. BLANK CONTAMINATION:**

Quality assurance blanks, i.e., instrument, preparation, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Both initial calibration and continuing calibration blanks (ICB and CCB) are used to ensure a stable instrument baseline before and during the analysis of analytical samples. Preparation blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. When an equipment blank or lab blank has an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), or one tenth the concentration of associated samples, then all associated field samples are flagged per validation guidance.

**A) Method Blank**

*Method blanks were analyzed with appropriate frequency. No problems were found for this criterion.*

**B) Equipment / Rinse Blank**

*No sample was submitted as an equipment / rinse blank in association with this sample delivery group (SDG).*

**C) Trip Blank**

*No sample was submitted as a trip blank in association with this SDG.*

**6. LABORATORY CONTROL SAMPLE:**

The Laboratory Control Sample (LCS) serves to monitor the overall performance of each step during the analysis. Aqueous/water and soil/sediment LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control procedures as employed for the samples. All LCS percent recoveries must fall within the control limits of QSM criteria. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/LABORATORY DUPLICATE:**

The matrix spike/matrix spike duplicate (MS/MSD) sample analysis is designed to provide information about the effect of each sample matrix on the sample preparation procedures and the measurement methodology. The spike percent recovery must fall within the established QAPP acceptance limits which are equivalent to QSM, with a relative percent difference between the two of less than 30%. However, spike recovery limits do not apply when the sample concentration is greater than or equal to four times the spike added. For a spike analysis that does not meet the technical criteria, the action was applied to all samples in the preparation batch.

*Sample SEAD-AL-MWT-23-20230627 was submitted for MS and matrix duplicate (MD) pair evaluation in association with this SDG. Upon evaluation all precision and accuracy indicators were favorable or did not result in a need to qualify sample results.*

**8. FIELD DUPLICATES:**

Field duplicates may be taken and analyzed as an indication of overall precision. These analyses measure both field and laboratory precision. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for samples, shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.

*Samples SEAD-AL-PT-17-20230627 and DUP-02-20230627 were submitted as a field duplicate pair in association with this SDG. Adequate field precision was demonstrated.*

**9. OTHER:**

*None.*

**10. ANALYTE QUANTIFICATION AND REPORTED DETECTION LIMITS:**

*Analyte quantitation and identification were not verified as part of the Stage 2B data validation.*

*Manual integrations were not reviewed as part of the Stage 2B data validation.*

**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
<b>RSK-175</b>		<b>Major</b>	<b>Minor</b>
Sample Delivery Condition	x		
Holding Time	x		
Calibration	x		
Percent Relative Standard Deviation and Percent Deviation	x		
Method Blank	x		
Rinse/Equipment Blank	NA		
Trip Blank	NA		
Matrix Spike/Matrix Spike Duplicate	x		
Laboratory 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>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.

## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7322  
**Laboratory:** SGS North America Inc.  
**Site:** EA Seneca Army Depot  
**Sampling dates:** 06/27/2023  
**Number of Samples:** 9  
**Test Method:** SW846 8260D  
**Analysis:** VOCs

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York (June 2023).

**Validation Guidelines:** United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), November 2019, General Data Validation Guidelines; DOD Data Validation Guidelines Module 1: Data Validation Procedure for Organic Analysis by GC/MS (May 2020); DOD Data Validation Guidelines Module 1, 2, 3, and 4 Revised Table for Sample Qualification in the Presence of Blank Contamination (2022).

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-AL-MWT-23-20230627	FC7322-1	groundwater	S2BVM
SEAD-AL-MWT-22-20230627	FC7322-2	groundwater	S2BVM
SEAD-AL-MW-56R-20230627	FC7322-3	groundwater	S2BVM
SEAD-AL-PT-18A-20230627	FC7322-4	groundwater	S2BVM
SEAD-AL-MWT-25-20230627	FC7322-5	groundwater	S2BVM
SEAD-AL-PT-17-20230627	FC7322-6	groundwater	S2BVM
SEAD-AL-MWT-24-20230627	FC7322-8	groundwater	S2BVM
TRIP BLANK_20230627	FC7322-9	trip blank	S2BVM
DUP-01-20230627	FC7322-10	groundwater	S2BVM

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 “X”, 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 “X” 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. “X” 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.*

### 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 "X", rejected. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

### 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 "X". 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". All non-detects for that compound will be rejected "X". 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 Department of Defense Quality Systems Manual or, in cases where linear and non-linear regressions are used, correlation coefficients must be greater than those listed in the Department of Defense Quality Systems Manual. For the opening or closing continuing calibration verification (CCV) the %D must be within the inclusive opening or closing maximum %D limits as listed in the Department of Defense Quality Systems Manual 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 with the following exception. The observed %D for chloroethane in one CCV associated with all samples in this sample delivery group (SDG) was outside of the acceptable limit. The results reported for chloroethane in all samples have been qualified "UJ" on this basis.*

**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 (TB) measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. When an equipment blank, trip blank, or lab blank has an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), then all associated field samples are flagged per validation guidance.

**A) Method blank contamination:**

*No problems were found for this criterion.*

**B) Field/Equipment/Source blank contamination:**

*No samples were submitted as an equipment blank in association with samples in this SDG.*

**C) Trip blank contamination:**

*Sample TRIP BLANK\_20230627 was submitted as a trip blank in association with the samples submitted in this SDG. No problems were found for this criterion.*

**D) Storage Blank associated with volatile samples only:**

*No storage blank was submitted in association with these samples.*



## 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 established in the Department of Defense Quality Systems Manual, 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 not reviewed at the Stage 2B level.*

*Tentatively Identified Compounds (TICs) were not reported and were not required to be reported for this program per the project QAPP.*

### Compound Quantification

*Target compound result quantitation was not reviewed for samples at the Stage 2B level.*

*Manual integrations were not reviewed for samples at the Stage 2B level.*

## 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. All MS/MSD percent recoveries must fall within the Department of Defense Quality Systems Manual limits. In addition, relative percent differences observed between results reported for the pair must be  $\leq 20\%$ .

*Sample SEAD-AL-MWT-25-20230627 was submitted for MS/MSD evaluation in association with the samples submitted in 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  $\pm 10$  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 and non-detected results will be classified as unusable "X". 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. These analyses measure both field and laboratory precision. A control limit of  $\leq 50\%$  for the Relative Percent Difference (RPD) for solid samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for water samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.

*Samples SEAD-AL-PT-18A-20230627 and DUP-01-20230627 were submitted as a field duplicate pair in association with this SDG. 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 Department of Defense Quality Systems Manual limits. Qualifications were applied to the samples and analytes as shown below.

*The LCS evaluations were performed at the appropriate frequency. No problems were found for this criterion.*

#### 13. 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 problems were found for this criterion.*

#### 14. OTHER PROBLEMS

*None.*

**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
	Were acceptance criteria met?		
	Yes	No	
<b>Volatiles (Low Level)</b>		<b>Major</b>	<b>Minor</b>
Sample Receipt/Preservative	X		
Holding Time	X		
Mass Spectrometer Tuning	X		
Response Factor	X		
Percent Relative Standard Deviation and Percent Difference	X		
Internal Standards	X		
Method Blank	X		
Equipment/Source Blank	NA		
Trip Blank	X		
Storage Blank	NA		
Surrogates	X		
Compound Identification	NA		
Matrix Spike/Matrix Spike Duplicate	X		
Field Duplicate	X		
Laboratory Control Samples	X		
Other Quality Control Data out of Specification	X		
Required Reporting Limits	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>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.

## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7381

**Laboratory:** SGS North America Inc.

**Site:** EA Seneca Army Depot

**Sampling dates:** 06/28/2023

**Number of Samples:** 5

**Test Method:** SW-846 9056A; SM 5310B

**Analysis:** Chloride, Sulfate, and Nitrate; Total Organic Carbon (TOC)

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York, June 2023, (QAPP).

**Validation Guidelines:** United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), General Data Validation Guidelines, November 2019, Department of Defense Quality Systems Manual (DoD QSM) for Environmental Laboratories Version 5.4 (DoD and DOE 2021), and Environmental Protection Agency, United States (EPA), 2020; National Functional Guidelines for Inorganic Superfund Data Review, EPA-542-R-20-00, OLEM 9240.1-66, Washington, DC: Office of Superfund Remediation and Technology Innovation, November 2020.

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-AL-PT-24-20230628	FC7381-1	groundwater	S2BVM
SEAD-AL-MWT-7-20230628	FC7381-2	groundwater	S2BVM
SEAD-AL-MWT-29-20230628	FC7381-4	groundwater	S2BVM
SEAD-AL-MWT-26-20230628	FC7381-5	groundwater	S2BVM
SEAD-AL-MWT-27-20230628	FC7381-6	groundwater	S2BVM

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 "X", 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 "X" 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. "X" 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.*

### 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 "X", rejected. Qualifications were applied to the samples and analytes as shown below.**

*All sample analyses reported were within the validation guidance.*

### 4. CALIBRATION:

**Method requirements for satisfactory instrument or procedural calibration are established to ensure that the instrument can produce acceptable quantitative data. Initial calibration verification (ICV) demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical run. Continuing calibration verification (CCV) demonstrates that the initial calibration is still valid by checking the performance of the instrument on a continuing basis.**

**Immediately after each system has been calibrated, the accuracy of the initial calibration must be verified and documented for each target analyte by the analysis of an ICV solution(s). The CCV standard shall be analyzed at a frequency of every 10 samples. The percent relative standard deviation (%RSD) should be less than 20% or the correlation coefficient greater than 0.995. Observed CCV percent recoveries must be with quality control criterion. Qualifications were applied to the samples and analytes as shown below.**

*Calibrations were performed at the appropriate frequency and resulted in %RSD or correlation coefficient values within guidance in all cases. Further, all ICV and CCV evaluations were within acceptance criteria.*

**5. BLANK CONTAMINATION:**

Quality assurance blanks, i.e., instrument, preparation, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Both initial calibration and continuing calibration blanks (ICB and CCB) are used to ensure a stable instrument baseline before and during the analysis of analytical samples. Preparation blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. Field blanks or lab blanks should not have an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), or one tenth the concentration of associated samples. However, any positive blank result is assessed against all associated field sample results per validation guidance and data are flagged accordingly.

**A) Calibration Blank**

*All associated initial and continuing calibration blanks met validation criteria.*

**B) Method Blank**

*All method blanks met validation criteria.*

**C) Equipment / Field / Rinse Blank**

*No sample was submitted as an equipment, field, or rinse blank in association with this sample delivery group (SDG).*

**6. LABORATORY CONTROL SAMPLE:**

The Laboratory Control Sample (LCS) serves to monitor the overall performance of each step during the analysis. Aqueous/water and soil/sediment LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control procedures as employed for the samples. All LCS percent recoveries must fall within the control limits. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/MATRIX DUPLICATE:**

The matrix spike/matrix spike duplicate (MS/MSD) sample analysis is designed to provide information about the effect of each sample matrix on the sample preparation procedures and the measurement methodology. The spike percent recovery and with a relative percent difference between the two must fall within the established acceptance criteria. However, spike recovery limits do not apply when the sample concentration is greater than or equal to four times the spike added. For a spike analysis that does not meet the technical criteria, the action was applied to the parent sample only.

*Sample SEAD-AL-PT-24-20230628 was submitted for MS/MSD and/or matrix duplicate evaluations for TOC in association with this SDG. Upon evaluation all precision and accuracy indicators were acceptable.*

**8. FIELD DUPLICATES:**

Field duplicates may be taken and analyzed as an indication of overall precision. These analyses measure both field and laboratory precision. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for water samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.

*No samples were submitted as a field duplicate pair in association with this SDG.*

**9. ANALYTE QUANTIFICATION AND IDENTIFICATION:**

*Analyte quantitation and identification were not verified as part of the Level 2B data validation.*

**10. OTHER PROBLEMS:**

*None.*



**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
<b>Chloride, Sulfate, and Nitrate</b>		<b>Major</b>	<b>Minor</b>
Sample Receipt/Preservative	x		
Holding Time	x		
Initial Calibration	x		
Continuing Calibration	x		
Laboratory Blank	x		
Field Blank	NA		
Matrix Duplicate	NA		
Matrix Spike/Matrix Spike Duplicate	NA		
Laboratory Control Sample	x		
Field Duplicate	NA		
Other	x		
	Were acceptance criteria met?		
	Yes	No	
<b>Total Organic Carbon</b>		<b>Major</b>	<b>Minor</b>
Sample Receipt/Preservative	x		
Holding Time	x		
Initial Calibration	x		
Continuing Calibration	x		
Laboratory Blank	x		
Field Blank	NA		
Matrix Duplicate	NA		
Matrix Spike/Matrix Spike Duplicate	x		
Laboratory Control Sample	x		
Field Duplicate	NA		
Other	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>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.

## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7381

**Laboratory:** SGS North America Inc.

**Site:** EA Seneca Army Depot

**Sampling dates:** 06/28/2023

**Number of Samples:** 6

**Test Method:** RSK-175 (8015 M)

**Analysis:** Dissolved Gases; Methane, Ethane, and Ethene

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York, June 2023, (QAPP).

**Validation Guidelines:** Department of Defense Quality Systems Manual (DoD QSM) for Environmental Laboratories Version 5.4 (DoD and DOE 2021); Department of Defense Module 4: Data Validation Procedure for Organic Analysis by GC, March 2021; DOD Data Validation Guidelines Module 1, 2, 3, and 4 Revised Table for Sample Qualification in the Presence of Blank Contamination (2022); United States Environmental Protection Agency (USEPA) and United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), November 2019, General Data Validation Guidelines.

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-AL-PT-24-20230628	FC7381-1	groundwater	S2BVM
SEAD-AL-MWT-7-20230628	FC7381-2	groundwater	S2BVM
SEAD-AL-MWT-29-20230628	FC7381-4	groundwater	S2BVM
SEAD-AL-MWT-26-20230628	FC7381-5	groundwater	S2BVM
SEAD-AL-MWT-27-20230628	FC7381-6	groundwater	S2BVM
TB_20230628	FC7381-7	groundwater	S2BVM

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 "X", 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 "X" 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. "X" 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. No qualification of sample results was necessary on this basis.*

### 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" or "UJ" as appropriate. When holding times are exceeded by more than three times the holding time specified, the non-detects will be flagged as unusable, "X". Qualifications were applied to the samples and analytes as shown below.

*All sample analyses reported were within the validation guidance.*

### 4. 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) Initial Calibration

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 RSD must be less than the maximum %RSD of 20% or, in cases where linear and non-linear regressions are used, correlation coefficients must be greater than or equal to 0.995. If the %RSD or correlation coefficient do not meet quality control criteria, detects may be qualified as "J" and professional judgement is used to qualify non-detects. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**B) Continuing Calibration**

Percent difference (%D) compares the response factor of the continuing calibration check to mean response factor (RF) from the initial calibration. For the opening or closing continuing calibration verification (CCV) the %D must be <20% for all target compounds. A value outside of these limits indicates potential detection and quantitation errors. 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.*

**5. BLANK CONTAMINATION:**

Quality assurance blanks, i.e., instrument, preparation, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Both initial calibration and continuing calibration blanks (ICB and CCB) are used to ensure a stable instrument baseline before and during the analysis of analytical samples. Preparation blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. When an equipment blank or lab blank has an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), or one tenth the concentration of associated samples, then all associated field samples are flagged per validation guidance.

**A) Method Blank**

*Method blanks were analyzed with appropriate frequency. No problems were found for this criterion.*

**B) Equipment / Rinse Blank**

*No sample was submitted as an equipment / rinse blank in association with this sample delivery group (SDG).*

**C) Trip Blank**

*Sample TB\_20230628 was submitted as a trip blank in association with this SDG. No problems were found for this criterion.*

**6. LABORATORY CONTROL SAMPLE:**

The Laboratory Control Sample (LCS) serves to monitor the overall performance of each step during the analysis. Aqueous/water and soil/sediment LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control procedures as employed for the samples. All LCS percent recoveries must fall within the control limits of QSM criteria. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/LABORATORY DUPLICATE:**

The matrix spike/matrix spike duplicate (MS/MSD) sample analysis is designed to provide information about the effect of each sample matrix on the sample preparation procedures and the measurement methodology. The spike percent recovery must fall within the established QAPP acceptance limits which are equivalent to QSM, with a relative percent difference between the two of less than 30%. However, spike recovery limits do not apply when the sample concentration is greater than or equal to four times the spike added. For a spike analysis that does not meet the technical criteria, the action was applied to all samples in the preparation batch.

*Sample SEAD-AL-PT-24-20230628 was submitted for MS and matrix duplicate (MD) pair evaluation in association with this SDG. Upon evaluation all precision and accuracy indicators were favorable.*

**8. FIELD DUPLICATES:**

Field duplicates may be taken and analyzed as an indication of overall precision. These analyses measure both field and laboratory precision. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for samples, shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.

*No samples were submitted as a field duplicate pair in association with this SDG.*

**9. OTHER:**

*None.*

**10. ANALYTE QUANTIFICATION AND REPORTED DETECTION LIMITS:**

*Analyte quantitation and identification were not verified as part of the Stage 2B data validation.*

*Manual integrations were not reviewed as part of the Stage 2B data validation.*

**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
<b>RSK-175</b>		<b>Major</b>	<b>Minor</b>
Sample Delivery Condition	x		
Holding Time	x		
Calibration	x		
Percent Relative Standard Deviation and Percent Deviation	x		
Method Blank	x		
Rinse/Equipment Blank	NA		
Trip Blank	x		
Matrix Spike/Matrix Spike Duplicate	x		
Laboratory Duplicate	x		
Field Duplicate	NA		
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>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.



## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7381  
**Laboratory:** SGS North America Inc.  
**Site:** EA Seneca Army Depot  
**Sampling dates:** 06/28/2023  
**Number of Samples:** 7  
**Test Method:** SW846 8260D  
**Analysis:** VOCs

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York (June 2023).

**Validation Guidelines:** United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), November 2019, General Data Validation Guidelines; DOD Data Validation Guidelines Module 1: Data Validation Procedure for Organic Analysis by GC/MS (May 2020); DOD Data Validation Guidelines Module 1, 2, 3, and 4 Revised Table for Sample Qualification in the Presence of Blank Contamination (2022).

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-AL-PT-24-20230628	FC7381-1	groundwater	S2BVM
SEAD-AL-MWT-7-20230628	FC7381-2	groundwater	S2BVM
SEAD-AL-PT-22-20230628	FC7381-3	groundwater	S2BVM
SEAD-AL-MWT-29-20230628	FC7381-4	groundwater	S2BVM
SEAD-AL-MWT-26-20230628	FC7381-5	groundwater	S2BVM
SEAD-AL-MWT-27-20230628	FC7381-6	groundwater	S2BVM
TB_20230628	FC7381-7	trip blank	S2BVM

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 "X", 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 "X" 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. "X" 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 with the following exception.*

*The VOA vial received for sample TB\_20230628 was noted as having significant headspace. The non-detected sample results for all targets have been qualified estimated "UJ" on this basis.*

*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 "X", rejected. Qualifications were applied to the samples and analytes as shown below.**

*No problems were found for this criterion.*

### 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 "X". 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". All non-detects for that compound will be rejected "X". 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 Department of Defense Quality Systems Manual or, in cases where linear and non-linear regressions are used, correlation coefficients must be greater than those listed in the Department of Defense Quality Systems Manual. For the opening or closing continuing calibration verification (CCV) the %D must be within the inclusive opening or closing maximum %D limits as listed in the Department of Defense Quality Systems Manual 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 with the following exceptions.*

*The observed %D for dichlorodifluoromethane in the ICV associated with all samples in this sample delivery group (SDG) was outside of the acceptable limit. The non-detected sample results reported for the impacted analyte in all samples have been qualified "UJ" on this basis.*

*The observed %D for trichlorofluoromethane in one CCV associated with all samples in this SDG was outside of the acceptable limit. The non-detected sample results reported for the impacted analyte in all samples have been qualified "UJ" on this basis.*

**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 (TB) measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. When an equipment blank, trip blank, or lab blank has an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), then all associated field samples are flagged per validation guidance.

**A) Method blank contamination:**

*No problems were found for this criterion with the following exception.*

*The method blank associated with all samples in this SDG exhibited positive results for acetone. Positive sample results for the impacted analyte have been evaluated and qualified per validation guidance as appropriate.*

**B) Field/Equipment/Source blank contamination:**

*No samples were submitted as an equipment blank in association with samples in this SDG.*

**C) Trip blank contamination:**

*Sample TB\_20230628 was submitted as a trip blank in association with the samples submitted in this SDG. No problems were found for this criterion.*

**D) Storage Blank associated with volatile samples only:**

*No storage blank was submitted in association with these samples.*

**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 established in the Department of Defense Quality Systems Manual, 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 not reviewed at the Stage 2B level.*

*Tentatively Identified Compounds (TICs) were not reported and were not required to be reported for this program per the project QAPP.*

**Compound Quantification**

*Target compound result quantitation was not reviewed for samples at the Stage 2B level.*

*Manual integrations were not reviewed for samples at the Stage 2B level.*

**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. All MS/MSD percent recoveries must fall within the Department of Defense Quality Systems Manual limits. In addition, relative percent differences observed between results reported for the pair must be  $\leq 20\%$ .

*No sample was submitted for MS/MSD pair evaluation in association with the samples in this SDG.*

**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  $\pm 10$  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 and non-detected results will be classified as unusable "X". 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. These analyses measure both field and laboratory precision. A control limit of  $\leq 50\%$  for the Relative Percent Difference (RPD) for solid samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for water samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.

*No samples were submitted as a field duplicate pair in association with this SDG.*

**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 Department of Defense Quality Systems Manual limits. Qualifications were applied to the samples and analytes as shown below.

*The LCS evaluations were performed at the appropriate frequency. No problems were found for this criterion.*

**13. 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 problems were found for this criterion.*

**14. OTHER PROBLEMS**

*None.*

**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
<b>Volatiles</b>		<b>Major</b>	<b>Minor</b>
Sample Receipt/Preservative			x
Holding Time	x		
Mass Spectrometer Tuning	x		
Response Factor	x		
Percent Relative Standard Deviation and Percent Difference			x
Internal Standards	x		
Method Blank			x
Equipment/Source Blank	x		
Trip Blank	x		
Storage Blank	NA		
Surrogates	x		
Compound Identification	NA		
Matrix Spike/Matrix Spike Duplicate	NA		
Field Duplicate	NA		
Laboratory Control Samples	x		
Other Quality Control Data out of Specification	x		
Required Reporting Limits	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>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.



## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7413

**Laboratory:** SGS North America Inc.

**Site:** EA Seneca Army Depot

**Sampling dates:** 06/29/2023

**Number of Samples:** 1

**Test Method:** SW-846 9056A; SM 5310B

**Analysis:** Chloride, Sulfate, and Nitrate; Total Organic Carbon (TOC)

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York, June 2023, (QAPP).

**Validation Guidelines:** United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), General Data Validation Guidelines, November 2019, Department of Defense Quality Systems Manual (DoD QSM) for Environmental Laboratories Version 5.4 (DoD and DOE 2021), and Environmental Protection Agency, United States (EPA), 2020; National Functional Guidelines for Inorganic Superfund Data Review, EPA-542-R-20-00, OLEM 9240.1-66, Washington, DC: Office of Superfund Remediation and Technology Innovation, November 2020.

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-MWT-28-20230629	FC7413-1	groundwater	S2BVM

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 "X", 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 "X" 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. "X" 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 with the following exception. The laboratory had noted sample SEAD-MWT-28-20230629 was not properly preserved for TOC analysis. The detected sample result for TOC has been qualified estimated low "J-" on this basis.*

*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 "X", rejected. Qualifications were applied to the samples and analytes as shown below.**

*All sample analyses reported were within the validation guidance.*

### 4. CALIBRATION:

**Method requirements for satisfactory instrument or procedural calibration are established to ensure that the instrument can produce acceptable quantitative data. Initial calibration verification (ICV) demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical run. Continuing calibration verification (CCV) demonstrates that the initial calibration is still valid by checking the performance of the instrument on a continuing basis.**

**Immediately after each system has been calibrated, the accuracy of the initial calibration must be verified and documented for each target analyte by the analysis of an ICV solution(s). The CCV standard shall be analyzed at a frequency of every 10 samples. The percent relative standard deviation (%RSD) should be less than 20% or the correlation coefficient greater than 0.995. Observed CCV percent recoveries must be with quality control criterion. Qualifications were applied to the samples and analytes as shown below.**

*Calibrations were performed at the appropriate frequency and resulted in %RSD or correlation coefficient values within guidance in all cases. Further, all ICV and CCV evaluations were within acceptance criteria.*

**5. BLANK CONTAMINATION:**

Quality assurance blanks, i.e., instrument, preparation, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Both initial calibration and continuing calibration blanks (ICB and CCB) are used to ensure a stable instrument baseline before and during the analysis of analytical samples. Preparation blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. Field blanks or lab blanks should not have an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), or one tenth the concentration of associated samples. However, any positive blank result is assessed against all associated field sample results per validation guidance and data are flagged accordingly.

**A) Calibration Blank**

*All associated initial and continuing calibration blanks met validation criteria.*

**B) Method Blank**

*All method blanks met validation criteria.*

**C) Equipment / Field / Rinse Blank**

*No sample was submitted as an equipment, field, or rinse blank in association with this sample delivery group (SDG).*

**6. LABORATORY CONTROL SAMPLE:**

The Laboratory Control Sample (LCS) serves to monitor the overall performance of each step during the analysis. Aqueous/water and soil/sediment LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control procedures as employed for the samples. All LCS percent recoveries must fall within the control limits. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/MATRIX DUPLICATE:**

The matrix spike/matrix spike duplicate (MS/MSD) sample analysis is designed to provide information about the effect of each sample matrix on the sample preparation procedures and the measurement methodology. The spike percent recovery and with a relative percent difference between the two must fall within the established acceptance criteria. However, spike recovery limits do not apply when the sample concentration is greater than or equal to four times the spike added. For a spike analysis that does not meet the technical criteria, the action was applied to the parent sample only.

*No sample was submitted for MS/MSD and/or matrix duplicate evaluations in association with this SDG.*

**8. FIELD DUPLICATES:**

Field duplicates may be taken and analyzed as an indication of overall precision. These analyses measure both field and laboratory precision. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for water samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.

*No samples were submitted as a field duplicate pair in association with this SDG.*

**9. ANALYTE QUANTIFICATION AND IDENTIFICATION:**

*Analyte quantitation and identification were not verified as part of the Level 2B data validation.*

**10. OTHER PROBLEMS:**

*None.*

**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
<b>Chloride, Sulfate, and Nitrate</b>		Major	Minor
Sample Receipt/Preservative	x		
Holding Time	x		
Initial Calibration	x		
Continuing Calibration	x		
Laboratory Blank	x		
Field Blank	NA		
Matrix Duplicate	NA		
Matrix Spike/Matrix Spike Duplicate	NA		
Laboratory Control Sample	x		
Field Duplicate	NA		
Other	x		
	Were acceptance criteria met?		
	Yes	No	
<b>Total Organic Carbon</b>		Major	Minor
Sample Receipt/Preservative			x
Holding Time	x		
Initial Calibration	x		
Continuing Calibration	x		
Laboratory Blank	x		
Field Blank	NA		
Matrix Duplicate	NA		
Matrix Spike/Matrix Spike Duplicate	NA		
Laboratory Control Sample	x		
Field Duplicate	NA		
Other	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>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.

## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7413

**Laboratory:** SGS North America Inc.

**Site:** EA Seneca Army Depot

**Sampling dates:** 06/29/2023

**Number of Samples:** 2

**Test Method:** RSK-175 (8015 M)

**Analysis:** Dissolved Gases; Methane, Ethane, and Ethene

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York, June 2023, (QAPP).

**Validation Guidelines:** Department of Defense Quality Systems Manual (DoD QSM) for Environmental Laboratories Version 5.4 (DoD and DOE 2021); Department of Defense Module 4: Data Validation Procedure for Organic Analysis by GC, March 2021; DOD Data Validation Guidelines Module 1, 2, 3, and 4 Revised Table for Sample Qualification in the Presence of Blank Contamination (2022); United States Environmental Protection Agency (USEPA) and United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), November 2019, General Data Validation Guidelines.

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-MWT-28-20230629	FC7413-1	groundwater	S2BVM
TB_20230629	FC7413-2	groundwater	S2BVM

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 "X", 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 "X" 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. "X" 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. No qualification of sample results was necessary on this basis.*

### 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" or "UJ" as appropriate. When holding times are exceeded by more than three times the holding time specified, the non-detects will be flagged as unusable, "X". Qualifications were applied to the samples and analytes as shown below.**

*All sample analyses reported were within the validation guidance.*

### 4. 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) Initial Calibration

**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 RSD must be less than the maximum %RSD of 20% or, in cases where linear and non-linear regressions are used, correlation coefficients must be greater than or equal to 0.995. If the %RSD or correlation coefficient do not meet quality control criteria, detects may be qualified as "J" and professional judgement is used to qualify non-detects. Qualifications were applied to the samples and analytes as shown below.**

*No problems were found for this criterion.*



**B) Continuing Calibration**

Percent difference (%D) compares the response factor of the continuing calibration check to mean response factor (RF) from the initial calibration. For the opening or closing continuing calibration verification (CCV) the %D must be <20% for all target compounds. A value outside of these limits indicates potential detection and quantitation errors. 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.*

**5. BLANK CONTAMINATION:**

Quality assurance blanks, i.e., instrument, preparation, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Both initial calibration and continuing calibration blanks (ICB and CCB) are used to ensure a stable instrument baseline before and during the analysis of analytical samples. Preparation blanks measure laboratory contamination. Field and rinse blanks measure cross-contamination of samples during field operations. When an equipment blank or lab blank has an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), or one tenth the concentration of associated samples, then all associated field samples are flagged per validation guidance.

**A) Method Blank**

*Method blanks were analyzed with appropriate frequency. No problems were found for this criterion.*

**B) Equipment / Rinse Blank**

*No sample was submitted as an equipment / rinse blank in association with this sample delivery group (SDG).*

**C) Trip Blank**

*Sample TB\_20230629 was submitted as a trip blank in association with this SDG. No problems were found for this criterion.*

**6. LABORATORY CONTROL SAMPLE:**

The Laboratory Control Sample (LCS) serves to monitor the overall performance of each step during the analysis. Aqueous/water and soil/sediment LCSs shall be analyzed for each analyte utilizing the same sample preparations, analytical methods, and quality assurance/quality control procedures as employed for the samples. All LCS percent recoveries must fall within the control limits of QSM criteria. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

**7. MATRIX SPIKE/MATRIX SPIKE DUPLICATE/LABORATORY DUPLICATE:**

The matrix spike/matrix spike duplicate (MS/MSD) sample analysis is designed to provide information about the effect of each sample matrix on the sample preparation procedures and the measurement methodology. The spike percent recovery must fall within the established QAPP acceptance limits which are equivalent to QSM, with a relative percent difference between the two of less than 30%. However, spike recovery limits do not apply when the sample concentration is greater than or equal to four times the spike added. For a spike analysis that does not meet the technical criteria, the action was applied to all samples in the preparation batch.

*No sample was submitted for MS/MSD and/or matrix duplicate pair evaluation in association with this SDG.*

**8. FIELD DUPLICATES:**

Field duplicates may be taken and analyzed as an indication of overall precision. These analyses measure both field and laboratory precision. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for samples, shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.

*No samples were submitted as a field duplicate pair in association with this SDG.*

**9. OTHER:**

*None.*

**10. ANALYTE QUANTIFICATION AND REPORTED DETECTION LIMITS:**

*Analyte quantitation and identification were not verified as part of the Stage 2B data validation.*

*Manual integrations were not reviewed as part of the Stage 2B data validation.*

**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
<b>RSK-175</b>		<b>Major</b>	<b>Minor</b>
Sample Delivery Condition	x		
Holding Time	x		
Calibration	x		
Percent Relative Standard Deviation and Percent Deviation	x		
Method Blank	x		
Rinse/Equipment Blank	NA		
Trip Blank	x		
Matrix Spike/Matrix Spike Duplicate	NA		
Laboratory Duplicate	NA		
Field Duplicate	NA		
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>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.

## EXECUTIVE NARRATIVE

**Sample Delivery Group:** FC7413  
**Laboratory:** SGS North America Inc.  
**Site:** EA Seneca Army Depot  
**Sampling dates:** 06/29/2023  
**Number of Samples:** 2  
**Test Method:** SW846 8260D  
**Analysis:** VOCs

**Quality Assurance Project Plan:** Uniform Federal Policy Quality Assurance Project Plan for Long-Term Monitoring/Land Use Control Management. Former Seneca Army Depot, Romulus, New York (June 2023).

**Validation Guidelines:** United States Department of Defense (DOD) Environmental Data Quality Workgroup (EDQW), November 2019, General Data Validation Guidelines; DOD Data Validation Guidelines Module 1: Data Validation Procedure for Organic Analysis by GC/MS (May 2020); DOD Data Validation Guidelines Module 1, 2, 3, and 4 Revised Table for Sample Qualification in the Presence of Blank Contamination (2022).

Client Sample Identification	Laboratory Sample Identification	Matrix	Validation Stage
SEAD-MWT-28-20230629	FC7413-1	groundwater	S2BVM
TB_20230629	FC7413-2	trip blank	S2BVM

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 "X", 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 "X" 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. "X" 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 with the following exception. 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 "X", rejected. Qualifications were applied to the samples and analytes as shown below.

*No problems were found for this criterion.*

### 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 "X". 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". All non-detects for that compound will be rejected "X". 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 Department of Defense Quality Systems Manual or, in cases where linear and non-linear regressions are used, correlation coefficients must be greater than those listed in the Department of Defense Quality Systems Manual. For the opening or closing continuing calibration verification (CCV) the %D must be within the inclusive opening or closing maximum %D limits as listed in the Department of Defense Quality Systems Manual 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 with the following exceptions.*

*The observed %D for dichlorodifluoromethane in the ICV associated with all samples in this sample delivery group (SDG) was outside of the acceptable limit. The non-detected sample results reported for the impacted analyte in all samples have been qualified "UJ" on this basis.*

*The observed %D for trichlorofluoromethane in one CCV associated with all samples in this SDG was outside of the acceptable limit. The non-detected sample results reported for the impacted analyte in all samples have been qualified "UJ" on this basis.*

**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 (TB) measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. When an equipment blank, trip blank, or lab blank has an analyte detection greater than  $\frac{1}{2}$  the analyte Limit of Quantitation (LOQ), then all associated field samples are flagged per validation guidance.

**A) Method blank contamination:**

*No problems were found for this criterion with the following exception.*

*The method blank associated with all samples in this SDG exhibited positive results for acetone. Positive sample results for the impacted analyte have been evaluated and qualified per validation guidance as appropriate.*

**B) Field/Equipment/Source blank contamination:**

*No samples were submitted as an equipment blank in association with samples in this SDG.*

**C) Trip blank contamination:**

*Sample TB\_20230629 was submitted as a trip blank in association with the samples submitted in this SDG. No problems requiring result qualification were found for this criterion.*

**D) Storage Blank associated with volatile samples only:**

*No storage blank was submitted in association with these samples.*

**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 established in the Department of Defense Quality Systems Manual, 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 not reviewed at the Stage 2B level.*

*Tentatively Identified Compounds (TICs) were not reported and were not required to be reported for this program per the project QAPP.*

**Compound Quantification**

*Target compound result quantitation was not reviewed for samples at the Stage 2B level.*



*Manual integrations were not reviewed for samples at the Stage 2B level.*

**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. All MS/MSD percent recoveries must fall within the Department of Defense Quality Systems Manual limits. In addition, relative percent differences observed between results reported for the pair must be  $\leq 20\%$ .**

*No sample was submitted for MS/MSD pair evaluation in association with the samples in this SDG.*

**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  $\pm 10$  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 and non-detected results will be classified as unusable "X". 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. These analyses measure both field and laboratory precision. A control limit of  $\leq 50\%$  for the Relative Percent Difference (RPD) for solid samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. A control limit of  $\leq 30\%$  for the Relative Percent Difference (RPD) for water samples shall be used for original and duplicate sample values greater than or equal to the sample specific LOQ. For field duplicate analyses that do not meet the technical criteria, the action was applied to only the parent sample and its duplicate.**

*No samples were submitted as a field duplicate pair in association with this SDG.*

**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 Department of Defense Quality Systems Manual limits. Qualifications were applied to the samples and analytes as shown below.

*The LCS evaluations were performed at the appropriate frequency. No problems were found for this criterion.*

**13. 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 problems were found for this criterion.*

**14. OTHER PROBLEMS**

*None.*

**Table 1 Major and Minor Findings**

	Were acceptance criteria met?		
	Yes	No	
<b>Volatiles</b>		<b>Major</b>	<b>Minor</b>
Sample Receipt/Preservative	x		
Holding Time	x		
Mass Spectrometer Tuning	x		
Response Factor	x		
Percent Relative Standard Deviation and Percent Difference			x
Internal Standards	x		
Method Blank			x
Equipment/Source Blank	NA		
Trip Blank	x		
Storage Blank	NA		
Surrogates	x		
Compound Identification	NA		
Matrix Spike/Matrix Spike Duplicate	NA		
Field Duplicate	NA		
Laboratory Control Samples	x		
Other Quality Control Data out of Specification	x		
Required Reporting Limits	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>X</b>	The sample results (including non-detects) were affected by serious deficiencies in the ability to analyze the sample and to meet published method and project quality control criteria. The presence or absence of the analyte cannot be substantiated by the data provided.
<b>N</b>	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
<b>NJ</b>	The analyte was tentatively identified, and the associated numerical value represents its approximate concentration.

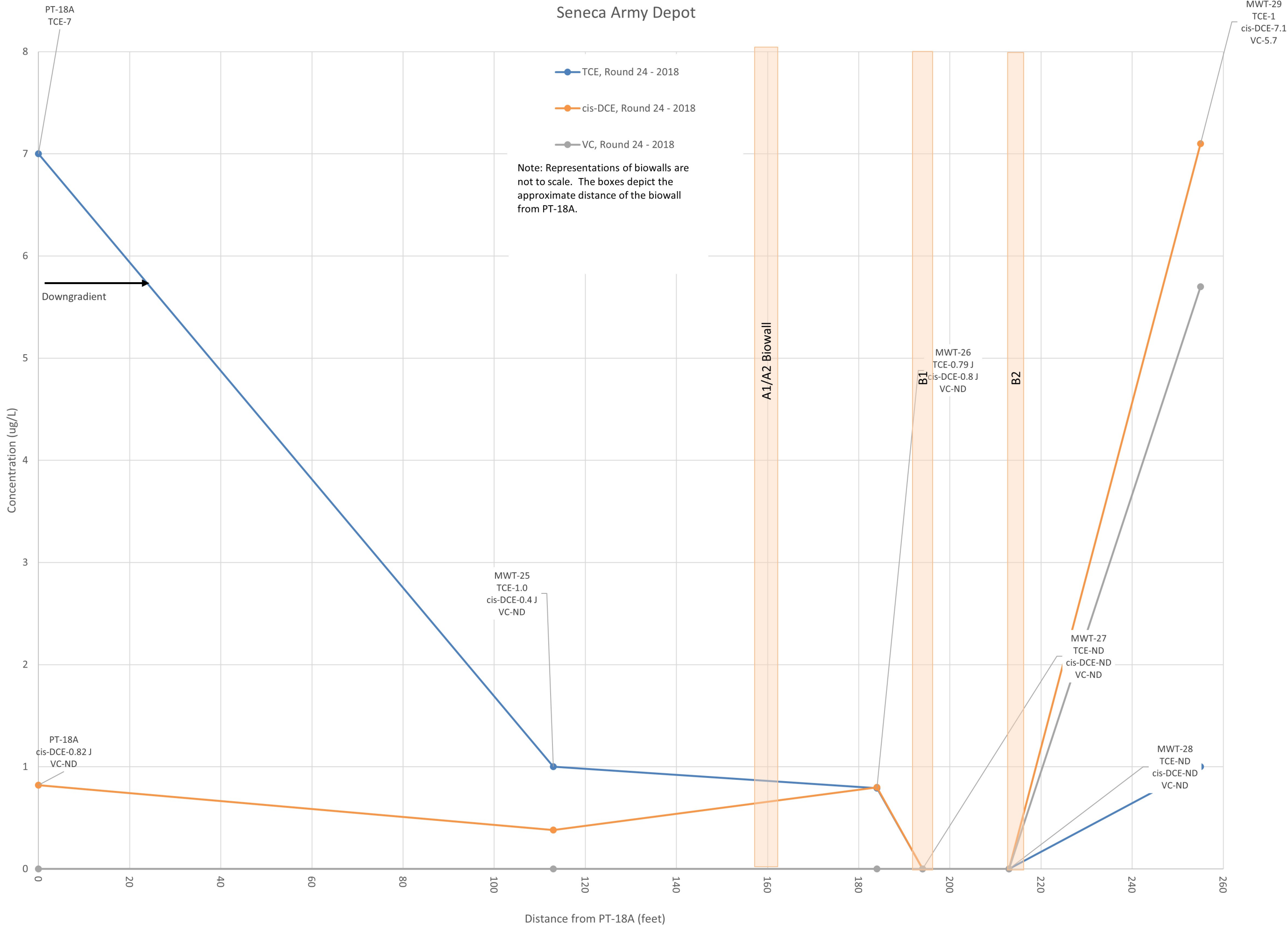
Result_Comment		Result_Comment	
(Data Validation Reason Codes)		(Data Validation Reason Codes)	
Value	Description	Value	Description
%SOL	High Moisture content	ISL	Internal Standard – Low Recovery
2C	Second Column – Poor Dual Column Reproducibility	LD	Lab Duplicate Reproducibility
2S	Second Source – Bad reproducibility between tandem detectors	LR	Concentration Exceeds Linear Range
BD	Blank Spike/Blank Spike Duplicate(LCS/LCSD) Precision	MBL	Method Blank Contamination
BRL	Below Reporting Limit	MDP	Matrix Spike/Matrix Spike Duplicate Precision
BSH	Blank Spike/LCS – High Recovery	MI	Matrix interference obscuring the raw data
BSL	Blank Spike/LCS – Low Recovery	MSH	Matrix Spike and/or Matrix Spike Duplicate – High Recovery
CC	Continuing Calibration	MSL	Matrix Spike and/or Matrix Spike Duplicate – Low Recovery
CCBL	Continuing Calibration Blank Contamination	OT	Other
CCH	Continuing Calibration Verification – High Recovery	PD	Pesticide Degradation
CCL	Continuing Calibration Verification – Low Recovery	RE	Redundant Result - due to Reanalysis or Re-extraction
DL	Redundant Result – due to Dilution	SD	Serial Dilution Reproducibility
EBL	Equipment Blank Contamination	SSH	Spiked Surrogate – High Recovery
EMPC	Estimated Possible Maximum Concentration	SSL	Spiked Surrogate – Low Recovery
ESH	Extraction Standard - High Recovery	TBL	Trip Blank Contamination
ESL	Extraction Standard - Low Recovery	TN	Tune
FBL	Field Blank Contamination		
FD	Field Duplicate		
GBL	Grinding Blank Contamination		
GBSH	Ground Blank Spike/LCS – High Recovery		
GBSL	Ground Blank Spike/LCS – Low Recovery		
HT	Holding Time		
ICB	Initial Calibration – Bad Linearity or Curve Function		
ICH	Initial Calibration – High Relative Response Factors		
ICL	Initial Calibration – Low Relative Response Factors		
IR15	Ion ratio exceeds +/- 15% difference		
ISH	Internal Standard – High Recovery		

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## **Appendix E**

### **Biowall Concentrations**

Figure E-1  
 Round 24 Biowall Concentrations  
 Seneca Army Depot





FigureE-2  
Round 25 Biowall Concentrations  
Seneca Army Depot

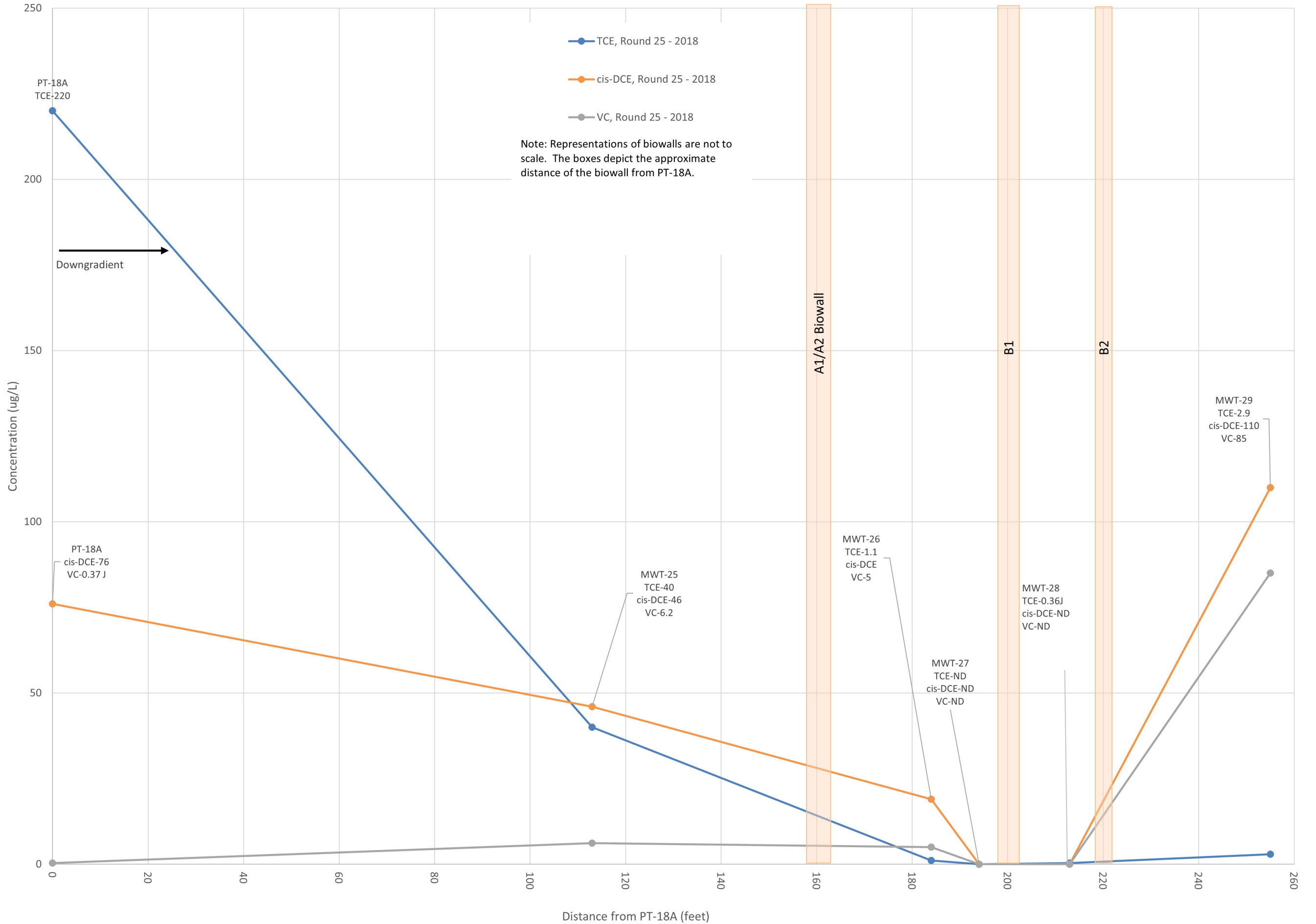


Figure E-3  
 Round 26 Biowall Concentrations  
 Seneca Army Depot

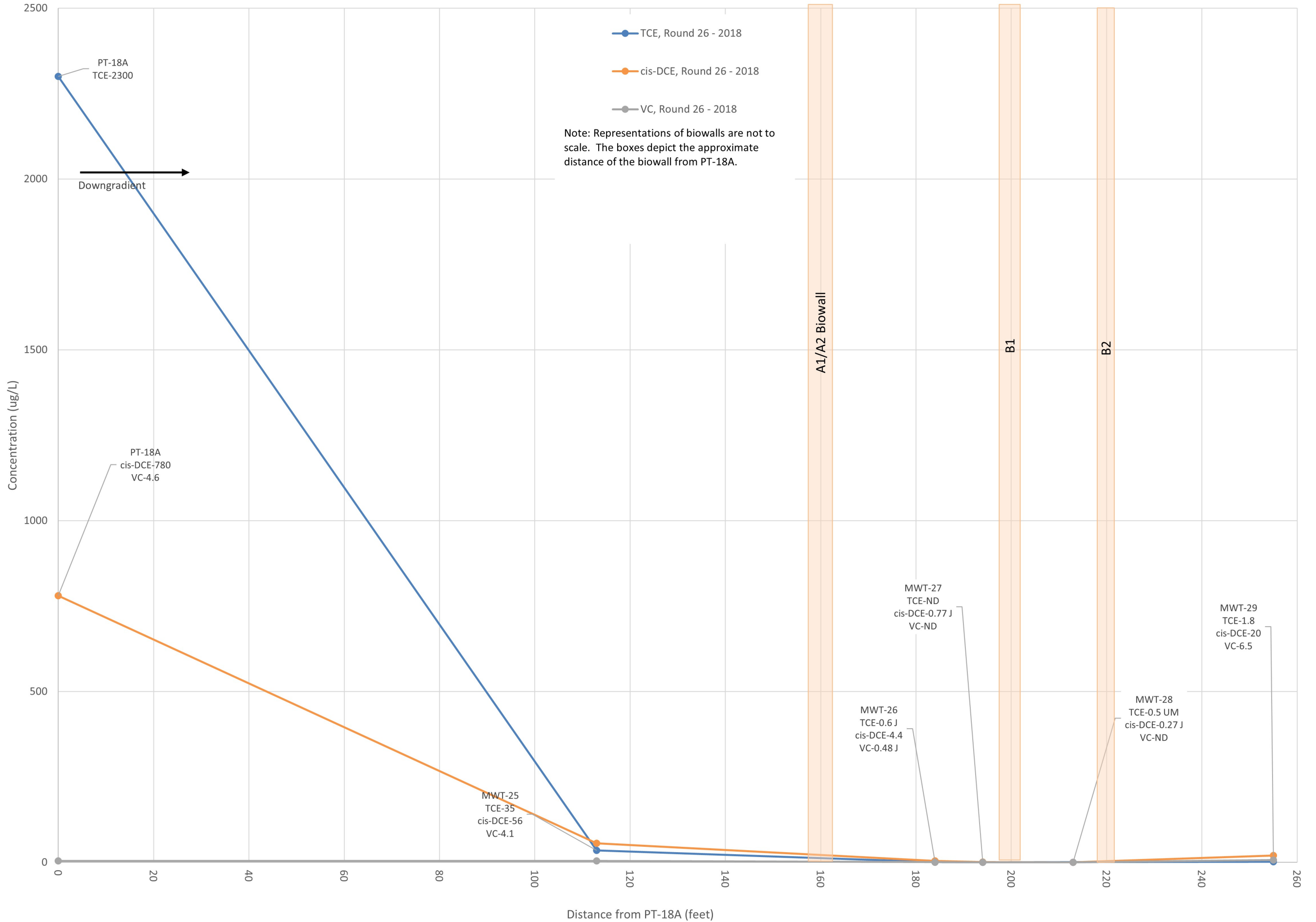


Figure E-4  
 Round 27 Biowall Concentrations  
 Seneca Army Depot

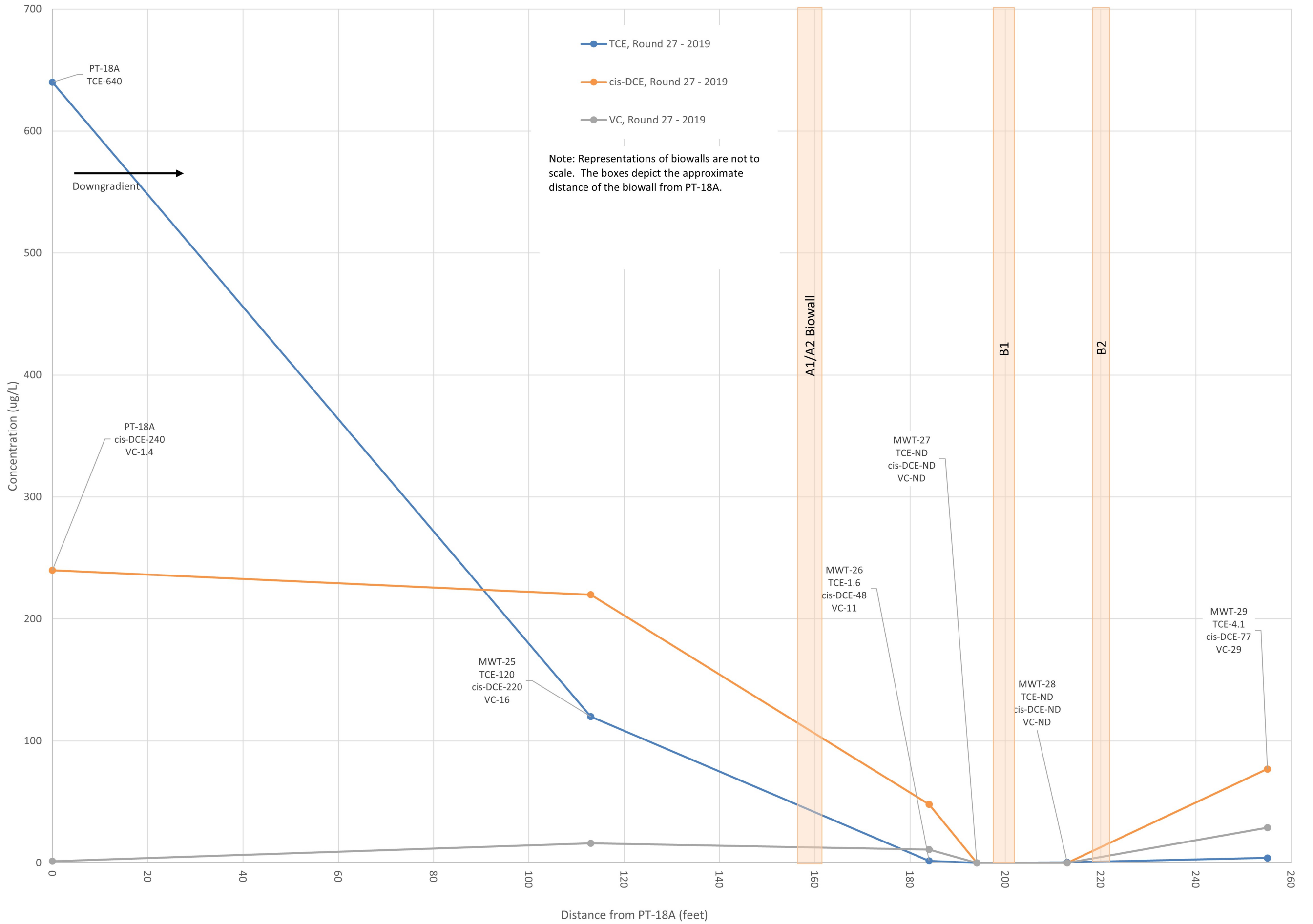


Figure E-5  
 Round 28 Biowall Concentrations  
 Seneca Army Depot

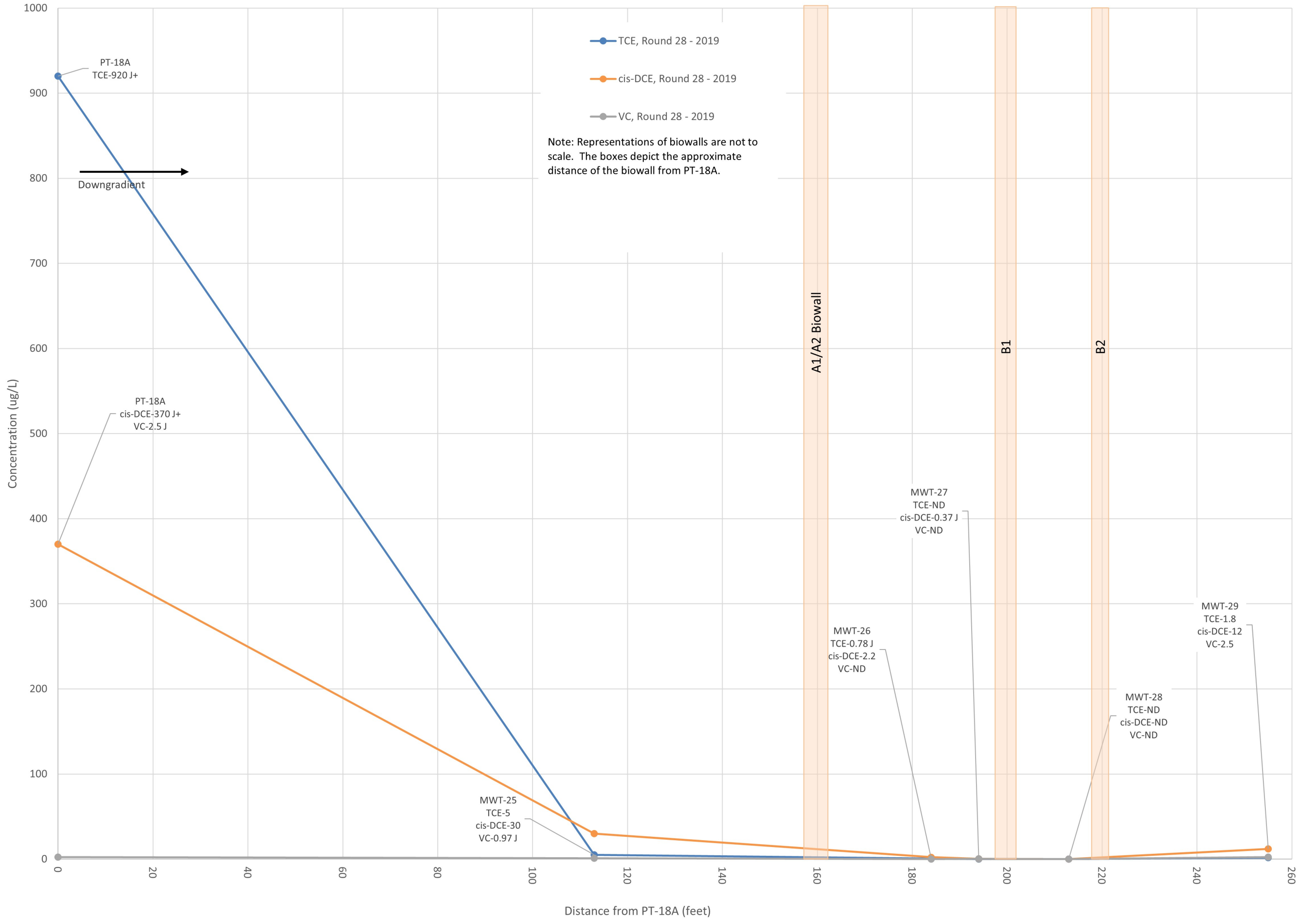


Figure E-6  
 Round 29 Biowall Concentrations  
 Seneca Army Depot

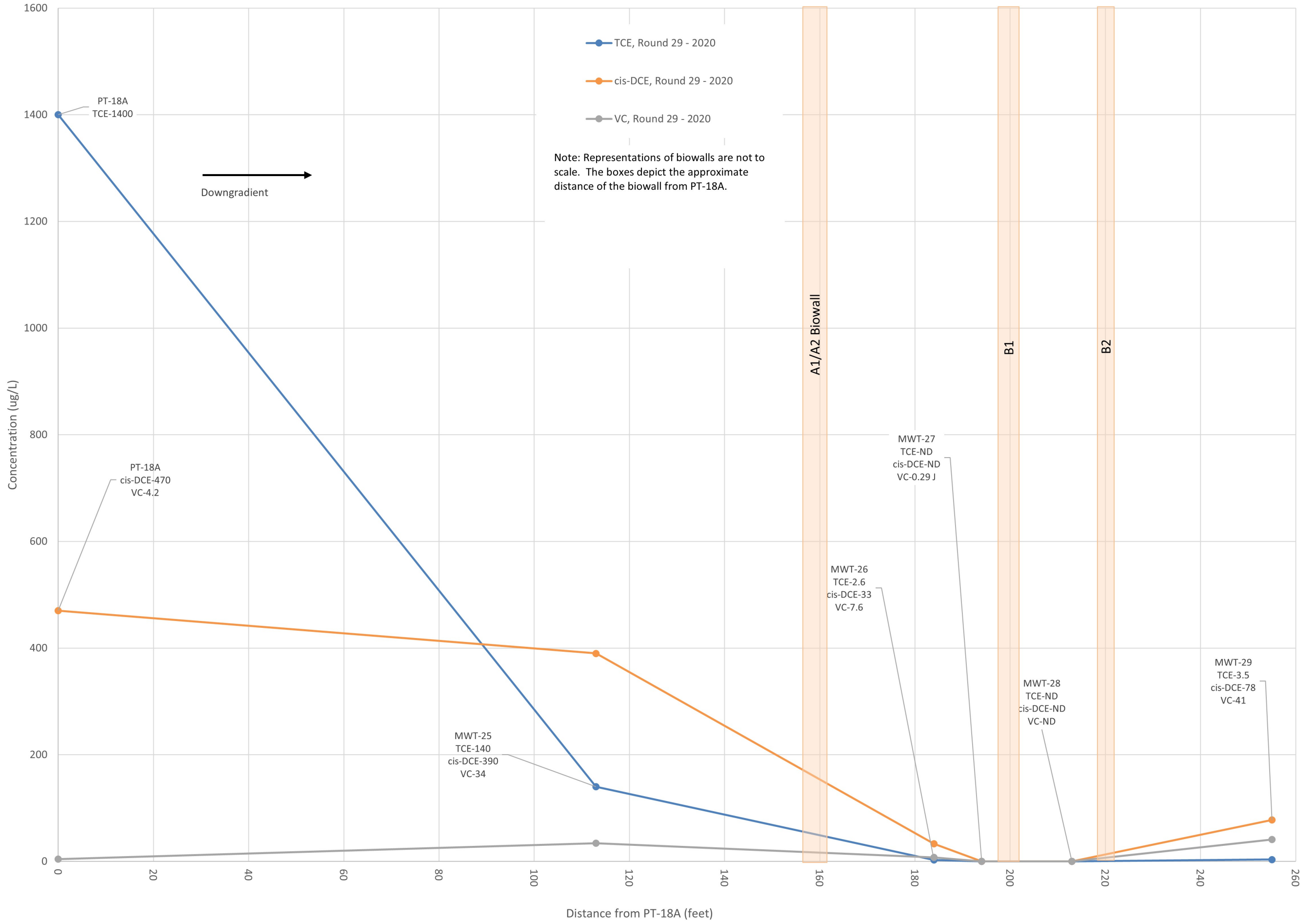


Figure E-7  
 Round 30 Biowall Concentrations  
 Seneca Army Depot

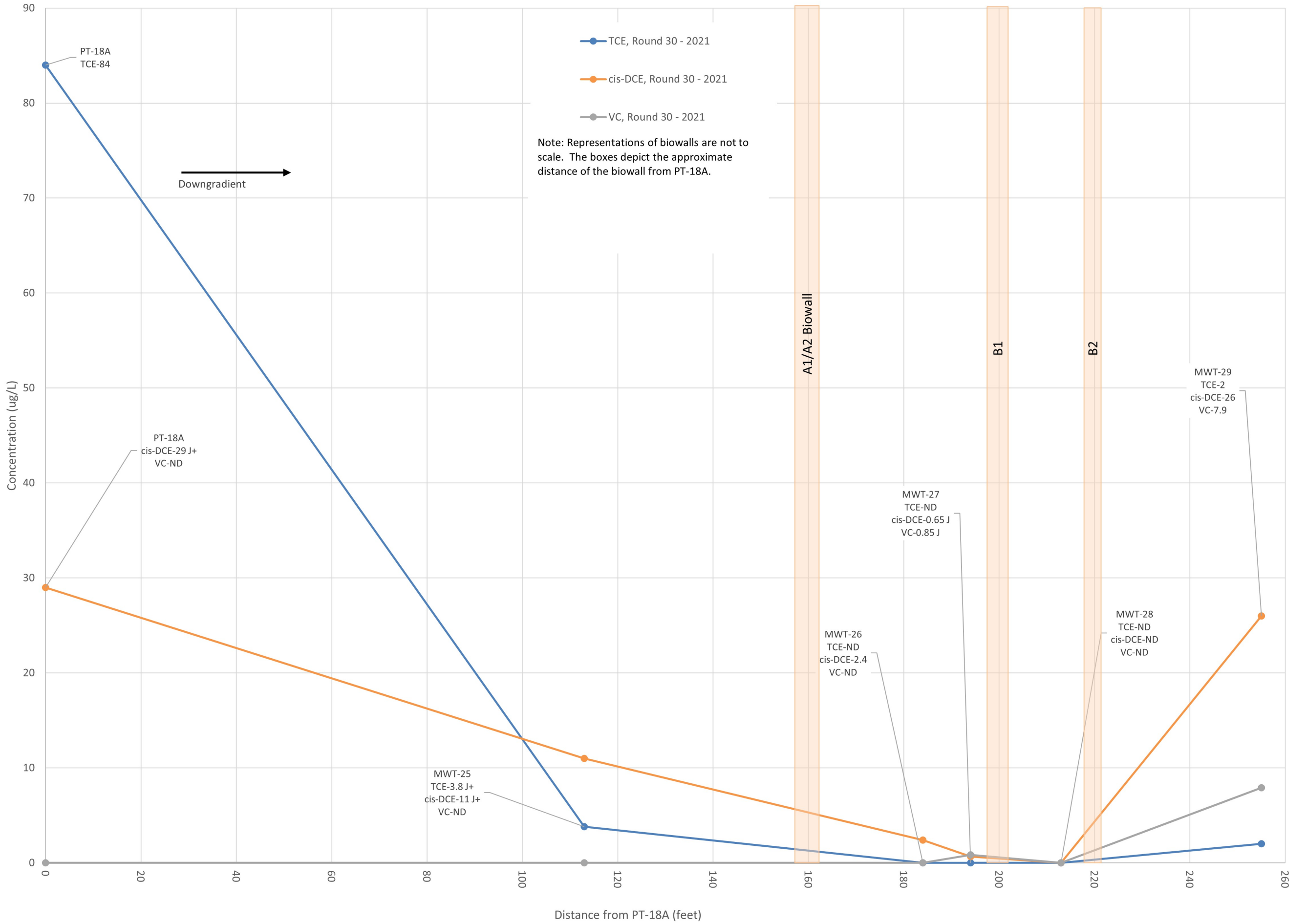


Figure E-8  
 Round 31 Biowall Concentrations  
 Seneca Army Depot

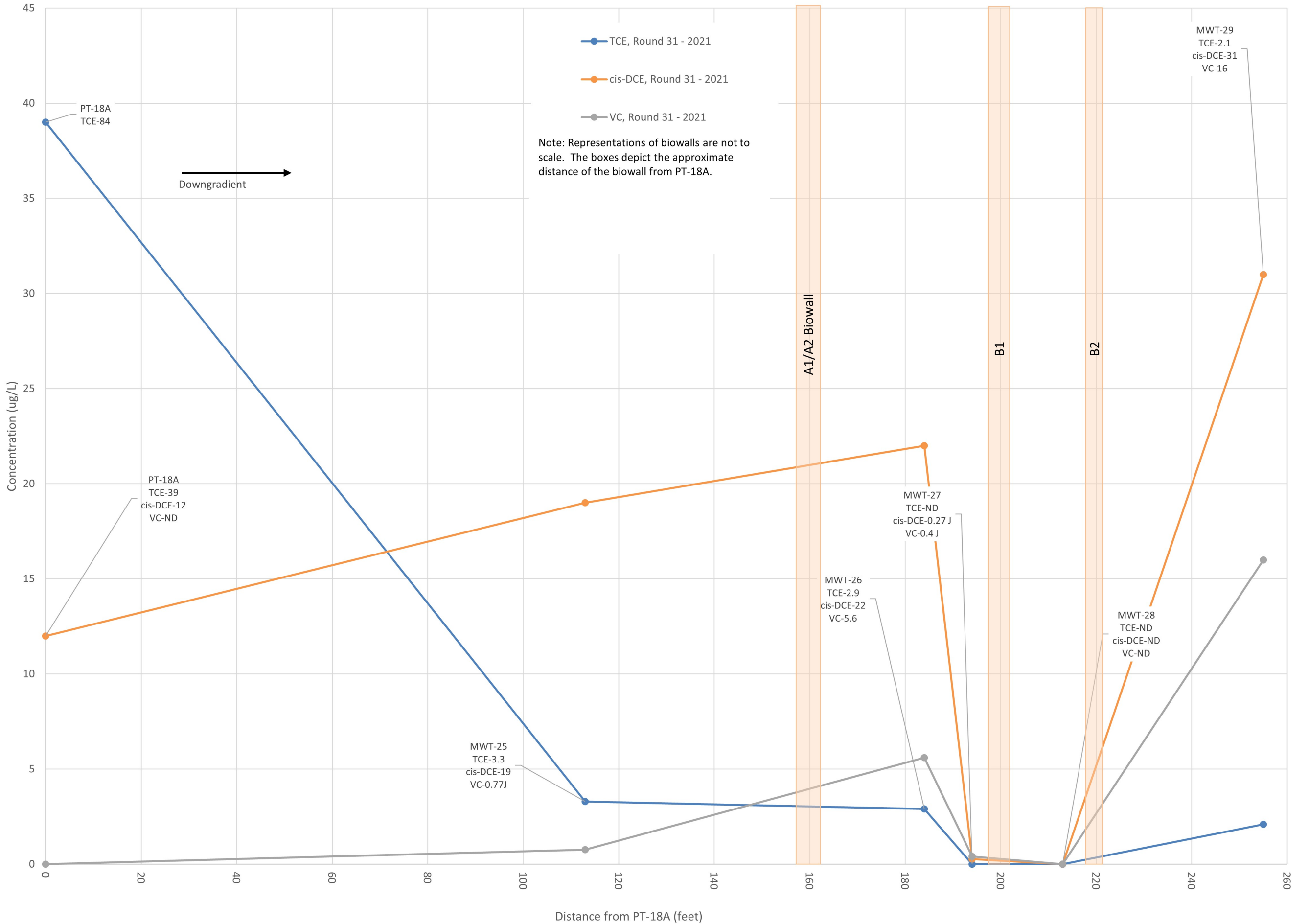


Figure E-9  
 Round 32 Biowall Concentrations  
 Seneca Army Depot

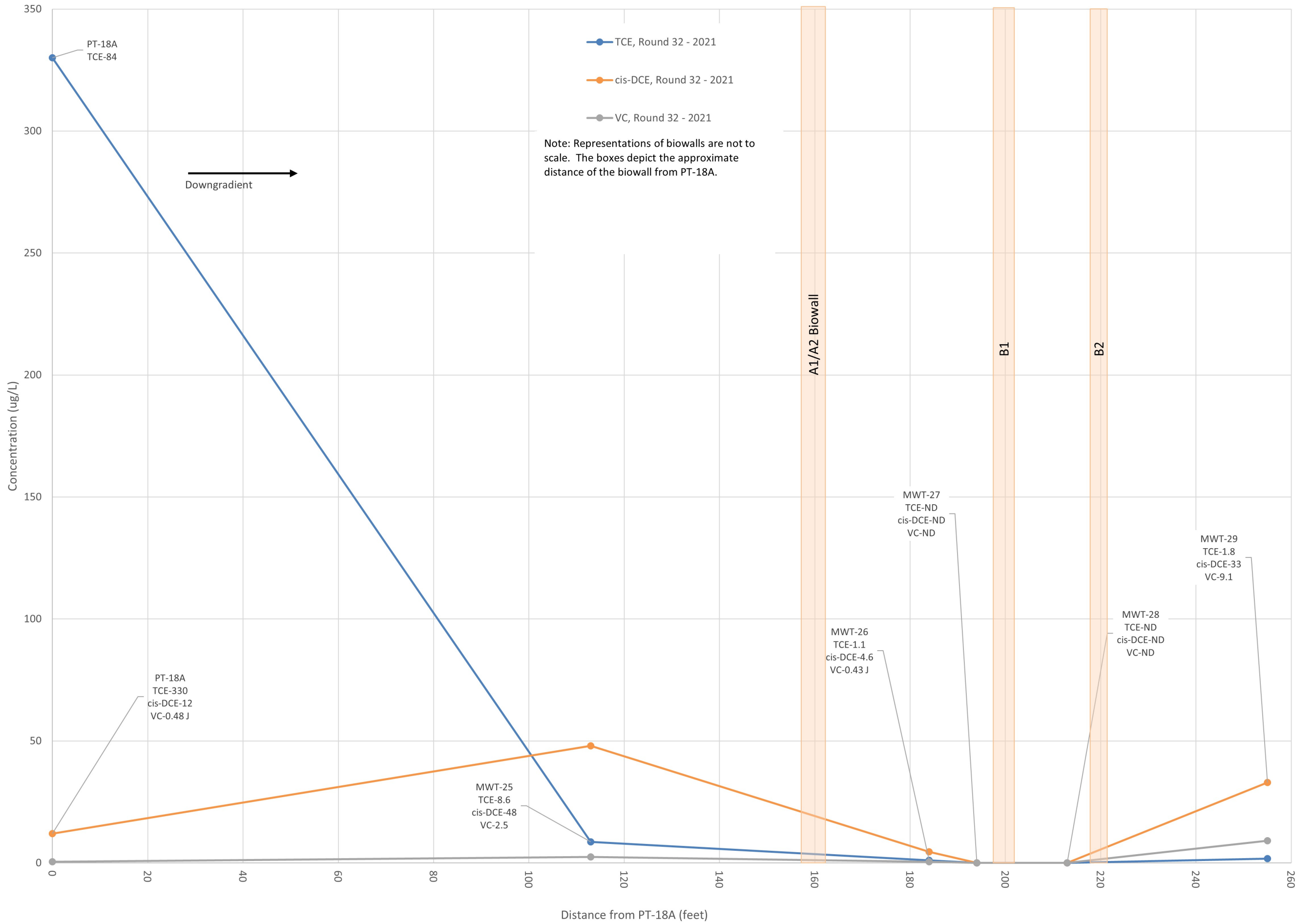
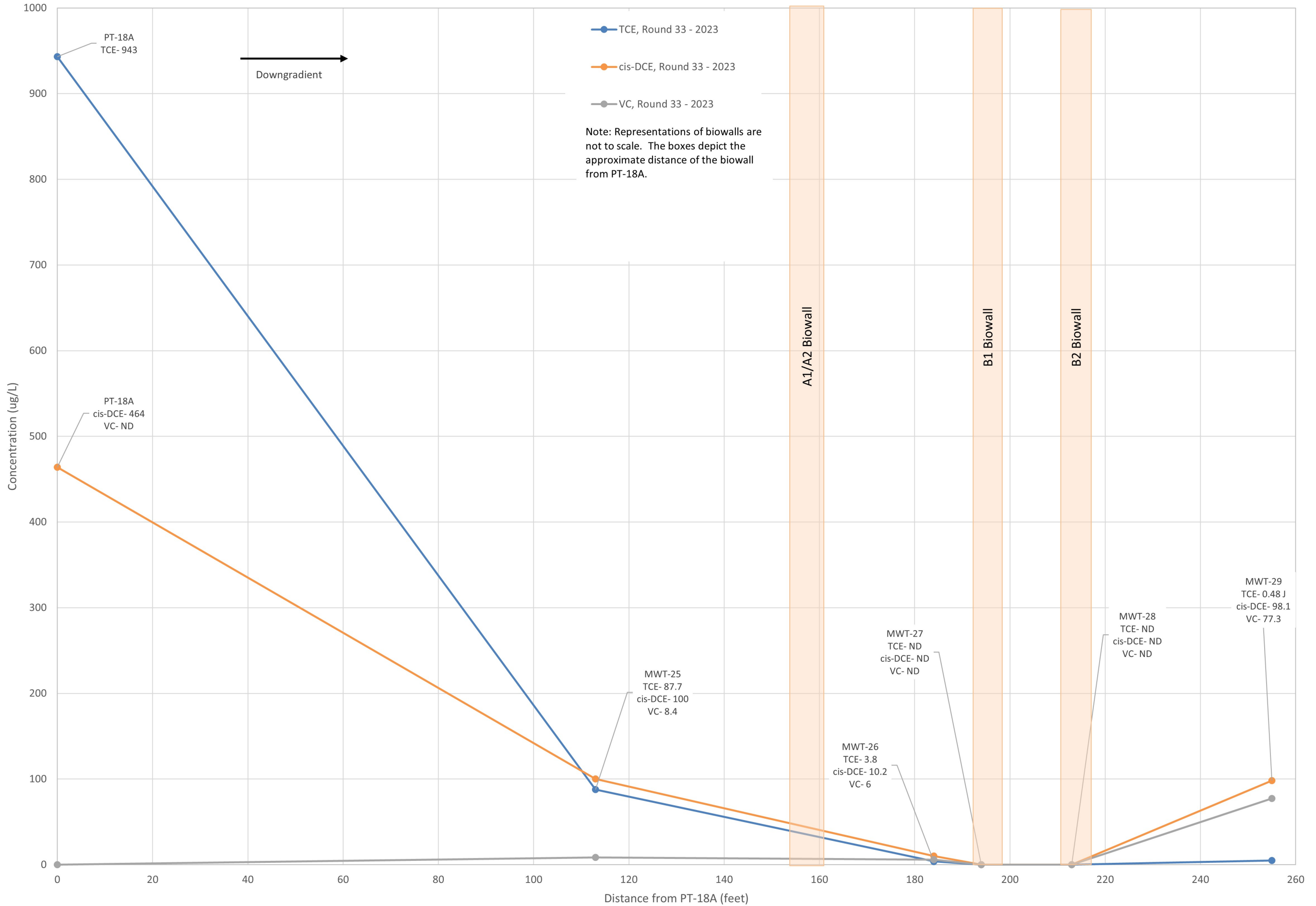




Figure E-10  
 Round 33 Biowall Concentrations  
 Seneca Army Depot



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